

**Practical wisdom: The vital core  
of professionalism in medical practices**



**Marij Bontemps-Hommen**



**Practical wisdom**  
**The vital core of professionalism**  
**in medical practices**

**Praktische wijsheid**  
**De essentie van professionaliteit**  
**in medische praktijken**

Met een samenvatting in het Nederlands

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**Praktische wijsheid  
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“Watch with glittering eyes the whole world around you  
Because the greatest secrets are always hidden in the most unlikely places.”  
Roald Dahl, *The Minpins*





# Chapter 1

General introduction



### **Marieke: a pediatric case**

Marieke is born on June 9 1996 as the third child in the family, after a brother (1987) and a sister (1989). Her father is a computer science engineer and is normally abroad on workdays. Her mother takes care of the children and the household. Marieke is born in a University Hospital (UH1) because her mother was suffering from ulcerative colitis (a chronic inflammatory disease of the intestines) and for this reason was treated with prednisolone (a medicine that can cause a functional disorder of the adrenal cortex), during the entire pregnancy. Fortunately, this problem does not materialize. The pediatrician who examines Marieke (2.890 grams) after birth observes a healthy baby. Mother and child go home together a few days later.

However, on June 15, the sixth day of her life, the general practitioner refers the baby to the pediatrician in the peripheral hospital (PH), because she is drinking less and less. She sleeps too much and cannot keep her temperature up. On admission to hospital, the pediatrician sees that she is a little cyanotic, has a rapid breathing rate (50/min), a cardiac murmur and an enlarged liver. The oxygen saturation of the blood is far too low (16%) and does not increase when extra oxygen is administered. This combination of symptoms is indicative of serious congenital heart disease and there is an urgent need to act. The pediatrician informs the concerned parents of the facts and after consultation with a pediatric cardiologist the little girl is taken at speed to UH1 per ambulance. An ultrasound of the heart soon shows what is wrong: a *transposition of the great arteries*. This means that the body's main artery comes from the right half of the heart and the pulmonary artery from the left half; however, the large circulatory system also flows back into the right half of the heart, and the lung circulation into the left half. There are therefore two parallel circulations, so that oxygen-rich blood will circulate within the lungs without finding its way into the body. Survival is only possible if there are connections between the circulation of the body and that of the lungs, so that high-oxygen and low-oxygen blood can mix. There are connections in the form of an opening in the septum between the two heart atria (Atrial Septal Defect: ASD) and a channel that is always in place before birth between the aorta and the main pulmonary artery (Open Ductus Arteriosus: ODA). It is only due to these small connections that the systemic circulation can drain away carbonic acid and supply oxygen. If the connections had closed, as is normally the case after birth, the baby would have died. Marieke is given medication and is immediately transferred to a second University Hospital (UH2), where she can be operated. The major surgery takes place on June 18: an 'arterial switch operation' in which both arteries are each connected to the right part of the heart and the connections that are no longer needed are closed. After the operation Marieke stays in the Pediatric Intensive Care Unit (PICU) for some days and subsequently on UH2's general pediatric ward. Post-operative arrhythmias are treated with medication. Because her weight gain is insufficient, she is given food enriched with energy.

On July 12, a month later, Marieke is discharged. On July 26, the cardiologist changes the medication. The same evening, the parents consult the pediatrician at the PH by telephone, because the little girl is restless, refuses to drink and is therefore unable to take her medication. She is again admitted to the PH. The pediatrician's diagnosis is that she has

gained weight too fast (up to 3.515 grams), partly because she is retaining fluid. It soon becomes clear, that the complaints are caused by an *adeno virus infection*. In addition, the arrhythmia has aggravated, despite the fact that medication can be administered in hospital through a feeding tube. Marieke has also developed cardiac failure. The pediatrician consults the pediatric cardiologist at UH2 by telephone; the cardiologist recommends giving diuretics, which causes the little girl to urinate a lot. But she does not recover satisfactorily and after a second consultation with the pediatric cardiologist, she is again transferred to UH2. The physicians there perform an ultrasound and diagnose '*post cardiotomy syndrome*': there is fluid in the pericardial sac, which is a late effect of the heart surgery. The physicians extract the fluid with a puncture, Marieke receives the right medication and on August 20 she is finally discharged and returns home fully cured.

She is doing well until October 2, (almost four months old). Admission to the PH is necessary again, due to tachypnea and failure to drink. On this occasion, Marieke recovers spontaneously within a day; the pediatrician decides, now that she is in hospital, to give her the first vaccinations while it is possible to observe her on a monitor. This does not pose any problems and on October 4 the little girl is ready to go home again. Naturally, she is seen by several doctors during the following months: she attends the parent-child center, and also on various occasions the general practitioner (GP), the pediatrician at the PH, and the pediatric cardiologist at UH2. The cardiologist diagnoses *a minor pulmonary stenosis* as the only residual symptom of the major heart surgery. Marieke does not appear to suffer from this symptom; she is growing well and is developing nicely.

From January 13 to 15, 1997, she is then seven months old, she is again admitted to the PH with a *viral respiratory tract infection* and shortness of breath, which does not turn out to be serious. At the following hospitalization in August 1997, she is 14 months old and she is able to walk. This time, the reason for admission is high fever, vomiting and diarrhea causing considerable weight loss. It seems to be *gastroenteritis* caused by a virus, and she shows *minor dehydration symptoms*. Fluid is administered through tube feeding and she recovers quickly.

This first year of her life, which from a medical point of view, has been very exciting, is followed by a relatively quiet period until the spring of 2001. In the interim period, she is admitted only once for a day with a stomach virus. She remains under regular supervision of several physicians. In November 1998, the pediatric cardiologist decides that an annual checkup will do from then on. In 2000, an ENT specialist at UH1 *removes her tonsils and adenoids*, and in 2001, a dental surgeon at the PH extracts a number of carious baby teeth and baby molars. Both operations take place using *prophylaxis of bacterial endocarditis* advised by the pediatric cardiologist. In surgeries in which there is a possibility that bacteria may end up in the bloodstream and spread through the body, specific antibiotics must be given in advance in order to prevent the inflammation of the endocardium which might damage the heart valves.

In March 2001, when Marieke is 4.5 years old, she is again admitted to the PH with *vomiting, diarrhea and minor dehydration symptoms*, which necessitate the administering of fluid (Oral Rehydration Salts – ORS) through a feeding tube. A few weeks later, the pediatric

cardiologist sees her due to *fatigue symptoms* at slight physical effort. He does not find a cause and puts the parents' minds at rest about their daughter's cardiac condition.

When she is six years old, in 2002, her general practitioner refers Marieke to the pediatrician at the PH with a new problem: *anemia*. Upon further investigation, the pediatrician discovers that she has increased red blood cell degradation, partly compensated by increased production. He refers her to a pediatric hematologist at UH1 for further analysis of the compensated hemolytic anemia. Later and indirectly (there is no written report), it appears that the hematologist cannot find a cause and thinks there is a mechanical reason for the increased degradation, created by the disturbed anatomy of the cardiovascular system. In June 2002, Marieke is again admitted for a day with heavy abdominal pain, with the urge to move during attacks (*colic pain*). As there is also jaundice, the pediatrician thinks it is caused by gallstones – a well-known complication of red blood cell degradation. However, no gallstones are found in the abdominal ultrasound and the pediatrician decides to wait.

In October 2002, the pediatric cardiologist at UH2 evaluates her once again, because the girl remains chronically tired and is less able to exercise than her peers. The inhalations prescribed by her family doctor because of his suspicion of an *asthmatic cause* of the exercise intolerance produce insufficient effect. The cardiologist finds the cardiac condition is good and decides to involve his colleague-hematologist at the UH2. After comprehensive tests – including a bone-marrow aspiration – the latter concludes that the degradation of the red blood cells is the result of a *congenital genetic disorder of the cell skeleton* (the cell membrane) of these cells. He also sees an increase of iron in the bone marrow. Over the previous years, Marieke had regularly been prescribed ferro medication by her GP. Administering iron is deemed 'undesirable' in case of hemolytic anemia, because this involves the danger of *iron overload* in organs.

In September 2003, when she is nearly eight years old, the pediatrician at the PH refers Marieke to the *asthma treatment center* associated with the hospital, because she wants to obtain sufficient evidence on whether the presumed diagnosis of 'asthma' can be confirmed, but also to improve her physical condition. She appears unable to sustain her swimming lessons and physical education classes, she is often absent from school because she is too tired and she sleeps a lot; sometimes, she even falls asleep at school. In this treatment center, caregivers work in multidisciplinary teams: a child psychologist, a dietician, movement therapists and physiotherapists, under the direction of a pediatrician. In the treatment center, Marieke and her parents focus on the medical events of the past few years and come to terms with them under professional supervision. They can also discuss how to cope with being ill and with their fear of more misery to come. It transpires that Marieke and her mother in particular tend to see the negative side of their experiences. The psychologist tries to show them how to think more positively.

But this attempt is thwarted by the fact that Marieke's mother is not well during the period of coaching at the treatment center (from November 2003 to March 2005). Her colitis ulcerosa is aggressive during this period, and she suffers from the formation of abscesses and fistulae, which have to be treated again and again, even surgically. She is repeatedly admitted

to hospital. In late 2004 treatment with a new medicine, infliximab, is started, and this turns out to be a miracle drug for her. As soon as treatment starts, her condition improves. In February 2004, when she is nearly eight years old, Marieke is again admitted to UH2 for the *removal of her gall-bladder* through keyhole surgery. The operation is necessary due to *gall-stones*, which are now apparent and which are causing her a lot of trouble. The operation is carried out without complications. At UH2 she also appears to suffer from constipation, which is treated with a laxative. Over the course of 2004, Marieke's condition improves considerably through the support of the asthma treatment center. She manages to pass her swimming tests. Although the pediatrician cannot objectify the asthmatic complaints, Marieke appears to have fewer respiratory complaints than before (perhaps thanks to an anti-inflammatory inhalation steroid), so that the frequent use of antibiotics connected with these can be stopped.

*The team observes that the family, especially Marieke and her mother, are showing characteristics of 'medicalization': they perceive their lives through a medical lens. Moreover, due to their extensive experiences of the medical world, they have become so intimately acquainted with the medical caregivers' habits, way of thinking, peculiarities and characteristics that they have learned to control them. The medical caregivers in their turn observe this and this is liable to cloud their assessment of whether complaints are really important and what is or is not realistic. It also gives rise to feelings of irritation, because they feel that their skills are not being recognized or they feel they are being attacked. Moreover, Marieke's mother has experience of things going wrong in her own medical history; she also witnesses the emergence of, not one, but several rare and unexpected diseases that are unrelated in her own child. As a consequence, she tends to keep pressing caregivers with questions until she has received an answer that satisfies her. Physicians experience this persistence as irritating, especially when they are unable to answer the questions.*

From a medical point of view, 2005 is a quiet year. In January 2006, when Marieke is 9.5 years old, her GP refers her to the PH with pneumonia, which he has already treated with antibiotics but without the desired result. During her admission (from January 24 to 31) for antibiotic treatment through intravenous infusion, it is discovered that she has ceased to inhale an anti-inflammatory drug. This treatment is started again. Her Hb level has fallen to 5.8 (6.5-10 is normal for her age) and she is suffering from palpitations. A year later (2007) the pediatrician at the PH asks the pediatric cardiologist at UH2 to reflect on the possible causes of the anemia and the palpitations. The cardiologist calls in the hematologist, and after long consideration and consultation with Marieke and her parents, the hematologist decides to have the spleen removed. The spleen is the organ that removes aged and damaged red blood cells from circulation. If there is a shape abnormality of the red blood cells, such as an anomalous skeleton, the spleen removes too many cells, including young cells, resulting in chronically low red blood cell rates. But the spleen cannot just simply be removed, because it plays an important role in the body's defense against infectious diseases, especially bacterial infections. That is why a splenectomy must be preceded by a preparatory treatment in the form of vaccination against certain types of bacteria, and must be followed up for years by the daily prophylactic use of antibiotics, complemented with prompt therapeutic courses of antibiotics on suspicion of bacterial infections. The preventive use of antibiotics is mostly

stopped after a few years, but the necessity to treat bacterial infections promptly remains for the rest of the patient's life. The *splenectomy* takes place on December 31, 2007 at UH2, without complications. Marieke is 11.5 years old at the time of this intervention.

Unfortunately, Marieke's fatigue persists, despite the normalization of her Hb level after the splenectomy. In July 2008, the cardiologist at UH2 decides to perform a cardiac catheterization because he wants to know what role the heart is playing in causing the fatigue. Again, no defects are found in the heart or coronary arteries. The advice given is therefore once again that Marieke should improve her physical condition. Marieke has already started a second 'rehabilitation period' at the asthma treatment center. She continues with this until July 2009. As before, she says that she benefits a lot from the support she is given there, partly because she finds it difficult to judge how much she is or is not able to handle when it comes to physical exertion. She also has the tendency to withdraw herself and not to show others what is on her mind. The supervisors help her to express herself. The health care providers notice that the mother (understandably) tends to be overly protective of her daughter. For instance she will only allow Marieke to go to school on a half-time basis, whereas Marieke tells her peers that she can easily manage whole days. Her Cito test (final examination at elementary school level) indicates that she is able to attend HAVO (higher general secondary education), but the parents instead enroll her in a MAVO (lower general secondary education) course 'to prevent disappointments due to her illness'. The supervisors see Marieke's and her parents' fear and uncertainty, but suspect that the girl regularly uses her complaints to avoid having to do things she does not like to do. Joining in 'normally' with her peers is very difficult for her. During counselling, it becomes clear that she no longer has any asthmatic complaints; repeated pulmonary function tests come up normal, also without medication. The asthma medication is therefore stopped.

In the summer of 2008, Marieke attends the first year of secondary education (MAVO); she is able to handle the new school very well. Everything goes as it should up to the summer of 2010, but then the fatigue complaints reappear and in October the pediatric cardiologist at UH2 consequently carries out a cardio-pulmonary test. She is able to achieve a normal activity level for her age, but her heartrate remains too high after the test for too long, without any apparent explanation. The cardiologist therefore for the third time recommends that she must try to improve her physical condition. At the same time, the pediatrician at the PH who has supervised Marieke since her birth retires. At their final consultation, he concludes that she is still suffering from unexplained fatigue and still has periods of jaundice (a sign of hemolysis). One of the other pediatricians who has also occasionally seen Marieke and her parents from the time of her birth onwards takes over her case. The new pediatrician suggests another period of rehabilitation at the asthma treatment center. There is no longer any question of asthma, but the center has the authority to accept children with other chronic diseases who may benefit from a multi-disciplinary treatment.

At this time, a new psychologist has taken up appointment in the treatment center and she concentrates on the chronic fatigue complaints, aiming to find a way for Marieke to learn to live with these complaints. Marieke is strongly stimulated by the fact that a boy in her group who also has fatigue problems (due to asthma) completes the same program with the

psychologist with enthusiasm and with good results. This motivates Marieke to work for the same positive results. However, she is *admitted to hospital on three occasions* in the autumn of 2011, when she is 15 years old. First, from the end of September to the beginning of October because of increasing jaundice, abdominal pain, fatigue, reduced appetite and a headache. The complaints are partly ascribed to constipation, for which she is once again treated. The second time, she is admitted for a single day (November 21) after an emergency consultation at the general practitioners' surgery, because of heavy pain in the abdomen and back. The GP thinks that this may be due to kidney stones, but an ultrasound of the urinary tract does not show any abnormalities. A week later, the pediatrician sees her urgently, because she complains about a backache radiating to the left leg, and because this leg is heavily swollen. Examination for deep vein thrombosis is positive: the veins from halfway down the lower leg to the pelvis are largely thrombosed. An MRI scan shows that blood has difficulty travelling through the inferior vena cava and that many bypasses have been formed to return blood back to the heart along other routes. The physicians prescribe anti-coagulants and a compression stocking.

In the course of 2012 – Marieke is 16 years old at the time – UH2 carries out further examinations, and a congenital defect is detected: the *inferior vena cava* is not obstructed, but *is lacking: vena cava inferior agenesis*. Therefore, since her birth, backflow to the heart must have occurred through smaller blood vessels. This means that the explanation for Marieke's longstanding fatigue complaints has finally been found. Due to the deviant venous system, in particular during physical effort, the backflow of the blood is impaired to such an extent that there is relative shortage of blood supply (in medical terms: insufficient preload). The heart compensates this by working faster, which will cause the hitherto unexplained rapid heartrate that persists long after physical exercise. Despite the high heartrate, in this situation the heart temporarily pumps too little oxygen and glucose and cannot transport sufficient carbon dioxide to the lungs. The consequence of the major abnormality of the venous system combined with extensive thrombosis is that Marieke will have to *take anticoagulants for the rest of her life*. The hematologist explains that the use of certain painkillers – NSAIDs – is inadvisable combination with the anticoagulants, because it can result in a tendency to bleed excessively. This issue becomes pressing when Marieke after some time develops a *post-thrombotic-syndrome* (PTS) in her left leg. As the valves in her veins have been damaged locally as a result of the massive thrombosis, the backflow of the blood is now impaired even more, particularly when she is standing up. This causes complaints whenever the backflow has to be expedited, such as during physical effort (*venous claudication*). The veins cannot cope with the blood flow that is delivered extra rapidly, and pain symptoms develop that are comparable to complaints arising from malfunctioning arteries. As the valves will not heal, the hematologist strongly advises against taking schedule-two-narcotics, because of the real danger of dependency (in the worst case addiction). But how can Marieke control her pain except by taking paracetamol, which helps only to a certain degree? The answer is that she needs to keep moving the affected leg, but in a 'dosed' manner. She will have to find a balance between moving and resting and prevent her left leg from becoming overloaded. The hematologist advises her to determine her INR value (an indication of the coagulation tendency of the blood) herself and then send the readings to the thrombosis service. This will make her less dependent. He also proposes that she should use a long-acting instead of a short-acting coagulant. He further suggests that *small pulmonary embolisms* (clots that have

entered and obstructed lung capillaries) are a possible reason for the complaints she had mentioned in recent years (chest pains and shortness of breath) and which had been diagnosed as hyperventilation. He also definitively diagnoses the disorder affecting the membrane of the red blood cells: this is *congenital stomatocytosis*. Marieke has probably inherited it from her mother. Family research is started.

*Before all this becomes clear (in late 2011) there is a lot of confusion concerning the interpretation of Marieke's complaints, involving the GP and the pediatrician at the PH as well as others. As a result the family changes GP's. At stake were the following questions: is Marieke unable or unwilling to move? Are the complaints somatic or psychological nature? Is the local thrombosis service capable of adequately regulating her blood values? ( Marieke has difficulty trusting this service after receiving several poor recommendations). Marieke is afraid to prick herself. There are many questions about how to keep her physical condition at an adequate level and about the fatigue complaints that her physiotherapist sometimes cannot answer. Since Marieke's birth, the circumstances in and around the pediatricians' practice have changed: there are now ten rather than three pediatricians. An ED department is set up in 2001, which increasingly functions autonomously, with ED specialists. The GP practices organize their shifts (daily from 5 pm to 8 am the following morning, and in the weekends) through a central out-of-hours GP service for the whole region. Most physicians she meets are not familiar with Marieke's case; moreover, they tend to trust protocols in treatments. It is almost impossible for a doctor who does not know the girl to obtain a good picture of what is going on.*

Marieke attends the asthma treatment center for rehabilitation from 2011 up to the beginning of 2014. This is regarded as the right setting for her to learn what she can and cannot do and what the best ways are of putting strain on and training her left leg, while keeping her physical condition at a certain level as best as she can. The center has a pool with relatively warm water and swimming there suits her well. Marieke learns to recognize the first signs of overburdening and to respond to these by resting. She discovers herself that pain symptoms subside if she spends an hour a week in a sauna. She trusts the therapist who knows her and her possibilities well and who advises her about possible follow-up treatment. Marieke and her parents continue to receive counselling from the psychologist. In 2012/2013, group discussions take place involving Marieke, both parents, the psychologist and the pediatrician. The target of these discussions is, to determine the goal of the treatment in the center and to decide when it can be terminated. Together they set the following goals: Marieke must be able to function independently from support in the center, to take part in sports independently, she must exercise as much as possible to keep her physical condition, she must have chosen a suitable MBO (intermediate vocational education) degree course, and with the help of a psychologist, she must have learned to think positively and have dealt with the traumas experienced.

In the summer of 2012, after the thrombosis and PTS, and after the discovery of the congenital blood vessel system disorder, Marieke and her parents decide to postpone her final exam for a year and to apply for individual guidance for her homework in the following school year. In 2013, Marieke, who is then 17 years old, passes the exam with flying colors.



However, before the exam, a traumatic event occurs. One of her young fellow-patients in the treatment center dies while she is on a waiting list for lung transplantation. Marieke is able to turn this shocking experience into something positive, by raising awareness among her fellow students and teachers for organ donation. She studies this subject, writes a paper on it, gives presentations at school and succeeds in recruiting many donors. It is equally positive that she does this together with a classmate who does not know the deceased girl but is inspired by Marieke's enthusiasm. The two appear in a local paper and receive a lot of positive feedback. Marieke subsequently contacts fellow-sufferers of PTS through social media and obtains a lot of support from these contacts. Independently, she takes the decision to have her coagulation regulated online by a thrombosis service that operates nationwide instead of the local service. All this gives her a new self-confidence.

After the summer holidays, she starts the advanced degree course she chose and the traineeship connected with it. She travels independently by public transport to a nearby town. She discovers that it is easier to do sports on her own, and decides to end her treatment at the center. She stays in touch with the center's physiotherapist for individual counselling, and on her advice she contacts a first-line psychologist. In 2014, when Marieke is 18, the pediatricians at the PH and the UH make appointments with Marieke and her parents to discuss transition to adult medical care. Contacts are established, transition discussions held and a survey of her case history is written. Ultimately, the pediatrician at the PH has an evaluative final meeting with Marieke and her parents. The parents state that Marieke is ready for the transition thanks to the independence she acquired, because she has learned to stand up for herself. They also identify the quality that they value most in contacts with physicians: a willingness to listen, to understand concerns, and to take complaints seriously, and also to make an earnest effort to investigate them.

### Everyday medical work

Marieke's story can certainly be called *extraordinary* in many aspects. Physicians will comment that every case is extraordinary when the specific patient and the specific context of time and place are taken into account. However, the story also shows us a range of *common characteristics of current everyday medical work*.

1. As people turn to a physician with (sometimes vague) complaints and obscure problems for which a comprehensive diagnosis very often cannot be given, medical work partly consists of a *continuous search* for the accurate diagnosis, the proper treatment, the appropriate support, the correct guidance. It is often not clear where the necessary expertise to solve a problem can be found, as the lengthy search for the cause of Marieke's anemia shows. Contrary to what is generally thought, physicians must often look for knowledge to apply to the case rather than simply apply knowledge they already have.
2. This means that physicians must be able to deal with *incessant, often serious uncertainties*, which they have to handle prudently for the patient's sake, as the questions concerning Marieke's long-lasting fatigue problems demonstrate. The

physician's profession and expert knowledge rooted in an age-long tradition of research do much to create the impression of someone who 'has certain knowledge'. However, this case also shows that much frequently remains uncertain, from diagnostics to the appropriate treatment, from the goal to be pursued to the expertise and means required to realize it, from results to the sustainability of the solution, from the type of caregiver to the addressee (Marieke? Her parents? Individual family members?). Being able to deal with these kinds of permanent uncertainties is part of practicing.

3. Yet the profession requires that the practitioner must *act anyway, take decisions anyway* despite these uncertainties. Doing nothing is not an option. Physicians are under great *pressure to act* even from patients, from the institutions within which their practices take place, from healthcare funding systems, from professional organizations. Cardiac catheterization? A bone marrow puncture? Ferro medication for anemia? An inhaler for shortness of breath? Or would it be better to wait? Or to continue investigating? The need to act and to choose under great pressure while surrounded by uncertainties, that is the day-to-day-task of many physicians. This case shows a non-idealized image of their practices.
4. Physicians, supported by their training, use all kinds of aphorisms, or opposite aphorism pairs, to be able to deal with the uncertainties. One of these is Occam's razor, "Look for a single diagnosis that can explain all the findings", together with Hickham's dictum, "It's parsimonious, but it may not be right" (Montgomery, 2006, p. 113). Yet at the same time they do not learn how to develop the ability to discern which aphorism applies to the individual case at hand. Thus, the cause of Marieke's fatigue after physical effort, was sought in the congenital heart disease and/or the effects of the early heart surgery (Occam's razor). However, after years of searching, it turned out to be the result of two other rare congenital causes. This despite the aphorism, "When you hear hoofbeats, don't think zebras" (Montgomery, 2006, p. 122). So aphorisms sometimes help, but sometimes reality contradicts them. In other words: despite the appearance of solid ground, when all is said and done, this does not always offer the certainty required. And when something that is supposed to give support yields, the uncertainty increases.
5. In order to reach the right insights and determine what is best, physicians use *various reference frameworks and different sources of knowledge*. They make use of medical-scientific and medical-technical frameworks, medical tradition (see 4), psychological and social frameworks, intuitions, routines and habits, experience and knowledge that the patients and their relatives have. These different frameworks and sources each have their own logic, their own language, their own path of inquiry, and they can lead to several, sometimes contrasting interpretations. Choices must then be made on the basis of the information gathered, so as to be able to take the following step in the diagnostic or treatment process. Alternatively, considerations and interpretations must be harmonized or combined. The interpretation of 'medicalization' in the case of Marieke is one instance. Without the different frameworks and sources, no one will get far; medical thinking alone is insufficient. Given the multiplicity of these sources, practicing is a great challenge.

6. It is very clear that physicians no longer work as soloists with patients, instead they work in networks and treatment chains. Marieke attends the mother-child center, the GP, the out-of-hours GP service, the pediatrician at the PH (nine doctors in addition to her own doctor), the ED, pediatric cardiologists, hematologists, heart surgeons, pediatric surgeons, a dental surgeon, an ENT-specialist, a multi-disciplinary team in the asthma treatment center, the thrombosis service, and many specialized and non-specialized nurses. Not only individual professionals must function well, i.e. have up-to-date expertise and communication skills, the networks and treatment chains, too, must function smoothly. In particular, *mutual communication* and *cooperation within networks* must be effective. Physicians are no longer lonely heroes. It is necessary to *coordinate, to orchestrate, to repair short-circuits*. In Marieke's case, the 'regular' pediatrician at the PH was the supervisor.
7. The case shows that patients, relatives and physicians are required over and over again to move into unknown medical territory, into fields for which there are no protocols, no routines, and where similar past experiences cannot be completely trusted. There are protocols and routines for parts of the long(-term) process (e.g. on how to treat gallstones, when a splenectomy is indicated and safe, or what precautions need to be taken when a splenectomy is performed) but there are *no protocols* for the case as a whole, for integral, good care for this complex patient.
8. The case shows that medical, legal, ethical, social, psychological and organizational problems are *intertwined* and can *sometimes only be unraveled with difficulty*. Are the fatigue problems a cry for attention, are they due to poor physical condition, to psychologically unhealthy family relationships, are they the symptoms of a well-known or still unknown physical condition, or are they due to a combination of causes? Is it right to use the valuable capacity of the asthma treatment center for a patient who has no asthma? How can the patient's confidence in the GPs of the out-of-hours GP service be maintained when these are unable to access the patient's medical file? Can a physician resist the demanding behavior of a patient? Or is the patient's behavior not demanding at all on closer inspection and does the demanding behavior exist in the physician's perception?
9. The case shows that *insufficient stability of treatment* (and thus of life) was realized for this patient (as well as for many others). Again and again, unexpected, new problems arose when it seemed that an episode had ended, or unforeseen events occurred just when the patient was doing well. This also means, that physicians are *confronted with their own failures* in the form of (partially) wrong assessments, that can, moreover, cause the patient's confidence to wane. Physicians must be able to deal with this; they must *persevere and persist for the patient's sake*. Caring for a patient in the context of this kind of instability is extremely challenging for physicians.

This non-exhaustive list of characteristics of current medical work, which are manifested in Marieke's story as well as in many other patient histories, provide a perspective on medical professional work *on the basis of everyday reality*. The list shows that metaphors such as 'muddling through' (Brennan, Greenhalgh, & Pawson, 2018), meandering, 'tinkering' (Mol, Moser, & Pols, 2010), improvising, searching through trial and error, are appropriate

for this kind of everyday work. Moreover, it demonstrates that reductionist, schematic and idealized images of the profession, which are then used to formulate quality systems, proposals for improvement or ethical recommendations, are of little use in doing daily work well.

### **Good work: the multiple good**

As a dedicated pediatrician, I regularly wondered, in this case as well as in the cases of hundreds of other patients: are we really doing what is good (beneficent) for these patients and their families? And what does professional work essentially consist of? Providing good medical care certainly includes being able to deal with the characteristics of the work depicted above. But I discovered that the ‘good’ in ‘good medical care’ can, and very often must, mean many other things, such as the following:

1. Good as in: in accordance with standards drawn up by scientific associations, i.e. in accordance to the latest scientific knowledge and insights, evidence-based. It can also mean: to act skillfully or competently (Koninklijke Nederlandsche Maatschappij ter bevordering der Geneeskunst – KNMG – [Royal Dutch Medical Association], 2005). Good in this sense also means: in accordance with insights and attitudes that are learned during medical training – this involves a process of socialization (Witman, 2014).
2. Good as in: in accordance with agreed quality and safety standards and various kinds of indicators, sometimes in line with quality or safety systems, not only those drawn up by professional organizations (KNMG, 2012), but also by other bodies (health insurance companies, inspectorate, patients’ organizations, quality and safety institutions), and operating at all levels, from national guidelines to the ideals of a local hospital.
3. Good as in: in accordance with social-psychological insights on communication, conversation, being service-oriented, and on how to involve the patient.
4. Good as in: in accordance with management theories that emphasize efficiency, streamlined logistics, and the explicating and realizing of measurable goals (targets).
5. Good as in: experienced as such by the recipients of care, the patients. Thus, Marieke and her parents articulate what they need: caregivers must listen to the patient, must try to understand individual concerns and complaints (patient’s concern according to Sayer, 2011), and must earnestly investigate complaints.
6. Good as in: in accordance with moral norms as expressed in the medical oath: *“I will care for the sick, promote health and alleviate suffering. I will make the patient’s interest my first priority and will respect his opinion. I will not harm the patient”*. (KNMG, 2004). Or in accordance with radical service to the patient, as the psychiatrist/neurologist Van den Berg formulated it in 1969, p. 49: *“the physician has to take care of the patient and not of anybody or anything else”*.

Thus, in my own practice as a pediatrician I discovered that ‘good’ has several meanings, that it is ‘multiple’ as Mol and co-authors have frequently described (2004, 2006, 2013). But it must in all cases also be *morally good*, and for the greater part, this morality overlaps with what the unique patient-in-context needs, i.e. the multiple good has to be attuned to the patient. I discovered that the moral good is intertwined with the characteristics of medical actions listed above – such as uncertainty, different types of knowledge, instable results, continuous searching and much more. I also discovered, that within the medical community, in particular among medical specialists, there is a certain embarrassment when it comes to the morality of everyday care, while there is plenty of discussion about difficult dilemmas, such as the debate about abortion, euthanasia, privacy issues, genetic manipulation, patient selection for scarce treatments etc. Moreover, in general discussions, the morality of everyday medical practice is often reduced to applying ethical principles in the form of a simplified yes/no decision (according to Beauchamp and Childress’s Principles of biomedical ethics, 1985). The principles in question are: beneficence (do well), non-maleficence (do no harm), respect for the autonomy of the patient, and justice. The Dutch edition of the CanMEDS model refers to these in its definition of the competence of professionalism: the physician must practice medicine “according to the ethical norms of the profession”.

Precisely in the years when I participated in Marieke’s treatment and struggled with the issues above, insights into and views on medical professionalism were changing rapidly. It is a measure of this change that KNMG felt the need in 2007 to publish a manifesto on “Medical Professionalism”, to communicate its vision on these changes. By then, it had become clear to me that if the outcome was going to be a form of professionalism that did not offer any help in dealing with the problems of daily medical work, this would be a professionalism that lacked something essential. What was needed, I believed, was a navigator that can help in cases of uncertainty and complexity to find, a compass that shows the right direction and provides a footing when everything is instable and one’s view is obscured. It is worthwhile to take a look at the recent history – the past 50 years – of the medical professionalization movement and to investigate whether this movement can provide such a compass. Again, what we need is not a compass that shows the way in the abstract, but one that actually works in the complex practices described, with their inherently multiple good.

## **Professionalism**

The professionalism movement started in parallel with the democratization movement that emerged in high-income countries, or ‘societies of levels 3 and 4’ according to Rosling (2018), after the reconstruction following the destructions of the Second World War. The democratization movement strongly criticized medical professionals (Illich, 1976) in post-war societies. According to the protagonists of this movement, medical professionals lived in well-protected ivory towers, behaved paternalistically, put their own interests – including their financial interests – above those of the patients and abused their right to self-regulation

and autonomy by exercising power and maintaining a ‘conspiracy of silence’ about malfunctioning colleagues (Lens & Van der Wal, 1997).

The profession responded to this criticism as did certain other social groups and authorities. Thus the medical profession started a process of ‘technical professionalization’ (mentioned and criticized by Kinghorn, 2010), aimed at defining professional skills, making them verifiable and making lifelong development of those skills compulsory. This tendency toward technical professionalization took the form of the Evidence-Based Medicine (EBM) movement (Sackett, Rosenberg, Gray, Haynes & Richardson, 1996; Greenhalgh, Howick, & Maskrey, 2014), and of Competency-Based Education (CBE) (CanMEDS 2005 Framework, The Royal College of Physicians and Surgeons of Canada, 2008). It subsequently led to the drawing up of guidelines, standards, mandatory periodical reviews of skills and experience, with continuation of registration made dependent upon these (the legal basis for this in the Netherlands was the *Wet Beroepen Individuele Gezondheidszorg – de Wet BIG*, 1993 [the Individual Healthcare Professions Act]), and the introduction of supporting quality and safety systems. Social groups started the patients’ movement, which lobbied for patients’ rights; these rights were then enshrined in law by the government (*Wet op de Geneeskundige Behandelingen Overeenkomst: WGBO*, 1994 [the Medical Treatment Agreement Act]; the *Wet Klachtrecht Cliënten Zorgsector: WKCZ*, 1995 [Complaint Rights of Healthcare Sector Clients Act]; the *Kwaliteitswet Zorginstellingen: WKZ*, 1996 [Care Institutions Quality Act]). Care organizations were asked to give detailed performance accounts, resulting in the emergence of a bureaucracy of inspections and reporting (Van Dartel & Jeurissen, 2008). In the context of the dominance of neo-liberal discourse in the entire Western world after the collapse of the communist-socialist systems in Russia and Eastern Europe (Biebricher, 2017), market thinking and market-oriented control mechanisms were introduced into care (Evetts, 2009, 2011; Freidson, 2001; Minzberg, 2012; Timmerman 2018). In addition, the explosion of technical innovations in the medical domain during the last decades of the twentieth century (Le Fanu, 2000) resulted in an unparalleled digitization process that made exchange of knowledge possible globally and in real time. As a result of these developments, the medical profession has withdrawn, as it were, into technical professionalism, into evidence-based and supply-oriented practicing and into ever further sub-specialization, while patients have been relabeled care consumers, and healthcare organizations are taking over control in daily health care. Berwick (2006) has argued that, after the era of protectionism of the profession and the era of technologization, reductionism, accountability and market-based thinking, a third, moral era, should now be ushered in for medical professionals so that they can maintain the honor of the profession, the quality of health care and sincere service to the patient.

It is striking that Dutch colleges of physicians – KNMG, the *Federatie van Medisch Specialisten (FMS)* [Dutch Association of Medical Specialists] and Colleges of General Practitioners – are currently working enthusiastically and innovatively on finding a method to prepare their colleagues for this third era. This is apparent, for instance in the *Visiedocument Medisch Specialist 2025* [Vision Paper on Medical Specialists in 2025] and from the reformulation of core values and core tasks by GPs in 2019. These envisage not only the

fighting of disease, but also the promotion of health, the prevention of illness and supporting patients to realize a good life and self-reliance. Patients, physicians and health care organizations are asked to cooperate in networks in order to realize these goals.

However, it is also striking that these medical associations only partially address the *morality* of medicine, despite the fact that this was emphasized by Berwick, whereas it ought to be their central priority in the new era. It is true that much attention is given to patients' rights, and this is reflected in the setting up of procedures about informed consent, shared decision making and advanced care planning. The *Wet kwaliteit, klachten en geschillen in de Zorg (Wkkgz)*, 2015 [Quality, Complaints and Disputes in Healthcare Act] was adopted on the recommendation of the various colleges of physicians. The Wkkgz describes good care as good-quality care at the right level (i.e. safe, efficient, effective, client-oriented, punctual, attuned to the real needs of the client), care consistent with professional standards, in which the patient is treated with respect and patients' rights are respected. However, discussions about moral issues in healthcare still are (partly) entrusted to ethicists and are also limited to the classical dilemmas such as those concerning the beginning and the end of life, privacy, genetic manipulations and to the application of the four ethical principles.

Thus, the interpretation of medical professionalism has clearly developed over the last 50 years. But answers to the question: "*What is good, especially in daily work?*" have failed to keep pace. 'Good care' is still primarily seen as competent care, the quality of which is determined by whether it meets a range of demands and whether it respects the patient and her rights. Of course it is true that skill and quality also contribute to the moral quality of professional care, but the core of that moral quality remains unidentified. Van Dartel & Jeurissen wrote in 2008, p. 254: The most important proof of professionalism is the capacity to *react adequately to the unique* of a situation, beyond the application of off-the-shelf solutions to standard problems. The description of the case Marieke and the nine issues that this raises demonstrate how the unique can emerge in practice and how this challenges professionals. It is hard to say whether the new medical professionalism as described above will adequately fulfil the needs that emerge in day-to-day practices. In any case, it lacks attention to one essential element: the ability to discern and react adequately to uniqueness with the help of a compass, a navigator.

### **Practical wisdom and care ethics**

At the beginning of the new millennium, the work of Marian Verkerk (2003) and Annelies van Heijst (2005) introduced me to care ethics as a moral perspective that focuses on the extent to which people interrelate in a caring way (paraphrase of Verkerk, p. 179). Care ethics has proven to approximate to the daily practice of professional, morally good care for sick people more closely than principles-based ethics and its four well-known principles, and it is therefore more appropriate to professionalism in daily work. Thus Verkerk (2003) has argued, professionalism does not only exist in technical competence, but also in the competence of attentive, responsible and responsive giving and receiving care (p. 189). I read then the joint inaugural lecture by Professors Vosman and Baart: *Aannemelijke zorg: over het uitzieden en*

*verdringen van praktische wijsheid in de gezondheidszorg [Plausible care: About the vaporization and suppression of practical wisdom in health care]* (2008). This acquainted me with the concept of practical wisdom. Vosman defines this concept as follows: practical wisdom is the virtuous capacity to . . . discover what is morally relevant, knowing how to decide, knowing how to act, as well as knowing how to learn from what was not done well. Professionals with practical wisdom are always able to discern what is general and what is specific in nature (and act accordingly) (p. 35). When I read this, I wondered whether practical wisdom could be the indispensable, but as yet missing compass for medical professionalism, that I was looking for. I decided to start investigating this issue, not only theoretically, but also empirically in the daily practices of medical specialists in general hospitals. It proved to be an informative and long investigation, in which I regularly encountered dead ends, and that led to interesting, partially unexpected results. This book contains the report of my research.

The specific questions that guided my investigations will be explained later in this book, but they all generally revolve around the following questions: what is practical wisdom, how does it emerge in daily practices, what inhibits and what promotes practical wisdom, why is it desirable and what happens when it is missing, can it be learned and how does it contribute to good care? To answer these questions I conducted a number of empirical studies – field research – closely observing practices of medical specialists in general hospitals. Given the results of the research, the interaction between theory and practice occupies a central place in this book, as does the meaning of practical wisdom for the medical profession, to the further development of which I am happy to contribute.

The research is described in detail in the following chapters. I now will outline the structure of the book.

### **Structure of the book**

Chapter 2 discusses theoretical studies on the most important concepts used in the empirical studies: complexity and complexity science; care ethics; practice theory; phronesis and practical wisdom.

Chapter 3 comprises an account of the methodology of the four empirical studies carried out and described in the chapters 4, 5, 6 and 7.

Chapter 4 describes several faces of practical wisdom that emerge from a heuristic analysis of the thick description of ten patient cases.

Chapter 5 explores whether practical wisdom can be learned by medical specialists in the workplace, i.e. after finishing their formal education, through multi-disciplinary case discussions with a general learning aim.



Chapter 6 contains an analysis of the long-term hospitalization of a patient with the aim of determining the ratio between a technical-medical approach and a phronetic approach and the influence on this ratio of the dominant discourse and the hospital infrastructure.

Chapter 7 describes the observational study of an outpatient clinic for adolescents with type 1 diabetes mellitus and the role of practical wisdom in diabetes care.

Chapter 8 reflects on and evaluates the four empirical studies and the theoretical premises of the study as a whole. It also presents the conclusions of the research. On the basis of the empirical findings, we ‘talk back’ to the literature and present a well-founded description of practical wisdom. We subsequently reflect on the meaning of this research for other medical and non-medical professional practices and make suggestions for further research.

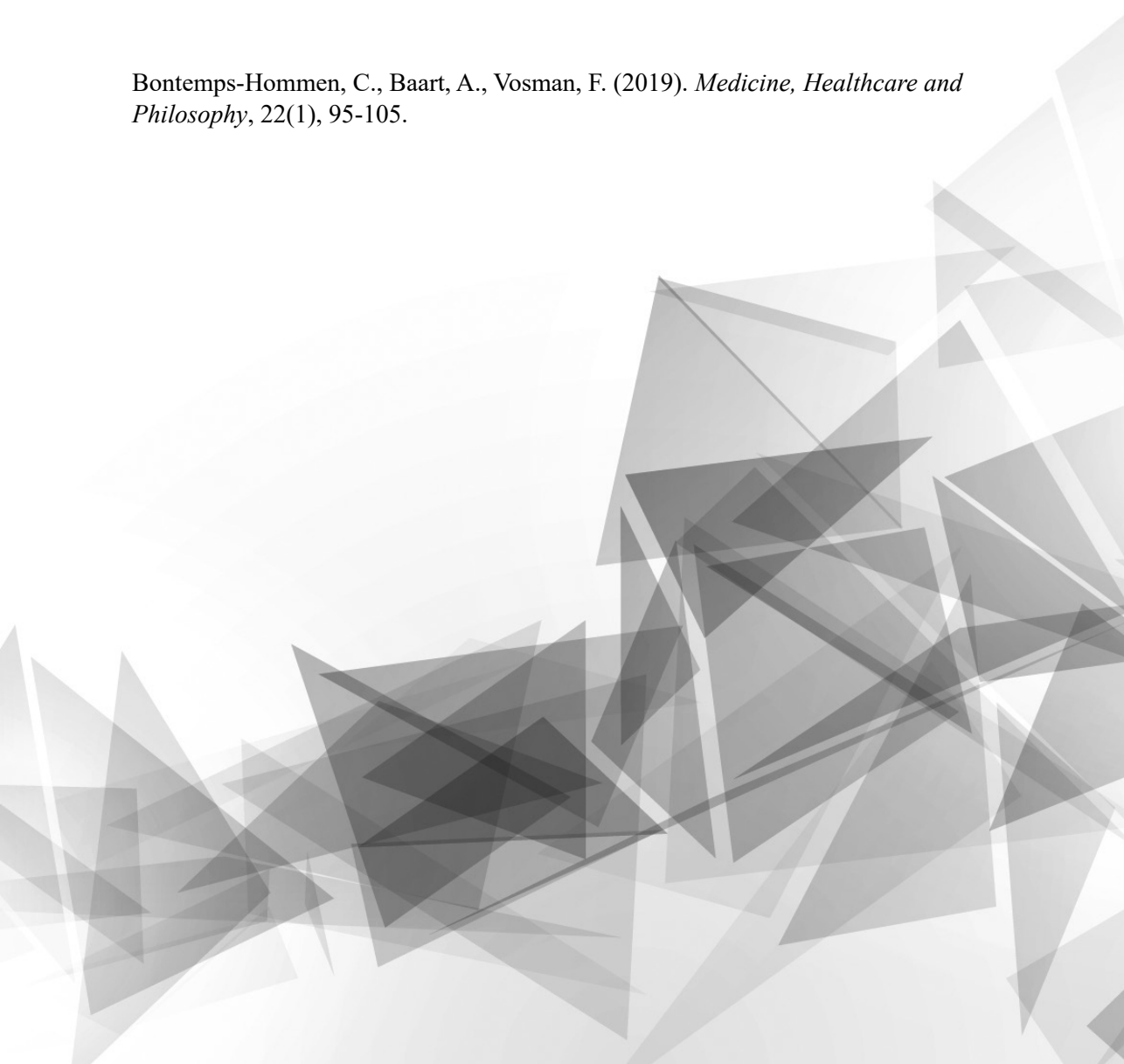
Thomas loved words,  
particularly if he didn't understand them.  
Guus Kuijer, *The Book of Everything*.



# Chapter 2

## Practical wisdom in complex medical practices: a critical proposal

Bontemps-Hommen, C., Baart, A., Vosman, F. (2019). *Medicine, Healthcare and Philosophy*, 22(1), 95-105.



## Abstract

In recent times, daily, ordinary medical practices have incontrovertibly been developing under the condition of complexity. Complexity jeopardizes the moral core of practicing medicine: helping people, with their illnesses and suffering, in a medically competent way. Practical wisdom (a modification of the Aristotelian *phronèsis*) has been proposed as part of the solution to navigate complexity, aiming at the provision of morally good care. Practical wisdom should help practitioners to maneuver in complexity, where the presupposed linear ways of operating prove to be insufficient. However, this solution is unsatisfactory, because the proposed versions of practical wisdom are too individualistic of nature, while physicians are continuously operating in varying teams, and dealing with complicated technologies and pressing structures. A second point of critique is, that these versions are theory based, and thus insufficiently attuned to the actual context of everyday medical practices. Now, our proposal is to use an approach of practical wisdom that enables medical practices to counter the complexity issue and to re-invent the moral core of medical practicing as well. This implies a practice oriented approach, as thematized by practice theory, qualitative empirical research from the inside, and abduction from actual performed practical wisdom towards an apt understanding of *phronèsis*.

## Complexity is penetrating medical practices

Daily, twenty-first century, medical practices, compared to those some 40 years ago, have changed significantly. The most striking change has been the steadily increasing complexity of these practices to which, also in medical publications, more and more attention has been drawn. “Across all disciplines, at all levels, and throughout the world, health care is becoming more complex” (Plsek & Greenhalgh, 2001, p. 625). “It is a truism that the world we live in has become more complex and interdependent and that this development continues to accelerate. . . . Similar changes have taken place in health care in the past 40 years” (Hollnagel, Wears & Braithwaite, 2015, p. 4).

In this article, we will focus on medical practices in general hospitals; in doing so, our pressing question is: whether the actual complexity still allows for the moral scope of these practices: to provide good medical care, taken as a relational affair, for sick and suffering patients, with regard to the physician’s position, just as sworn to do when taking the medical oath (Vosman, Den Bakker & Weenink, 2016). In order to be able to answer this question, at least partly, we will first outline how this complexity appears in modern hospitals. While 40 years ago, physicians’ day-to-day activities in their practices, compared to nowadays work, were still fairly orderly and predictable (Plsek & Greenhalgh, 2001), today a range of factors bringing about complexity can be seen. Firstly, Vosman et al. (2016) mention the ongoing specialization and sub-specialization of medical specialists. They quote Cooke (2013, p. 202): “Across medicine specialties are becoming subspecialized, and subspecialties are developing sub-subspecialties.” Braithwaite and Plumb (2015, p. 34) point to the risk that the sub-specialization will lead to “bounded clusters – such as organizational silos and professional

‘tribes’” which cause “gaps between groups of agents, . . . between professions, departments, specialties or local sites.” Communication and cooperation amongst these groups are becoming problematic while, at the same time, there is a need for professional teams to cooperate in patient care. Secondly, Vosman et al. (2016) indicate the expanding technology, both ITC, which supports administration and registration, and high tech, often invasive, medicine used for diagnostics and therapy. This technology increases complexity, especially because it absorbs the professional’s time and attention. Moreover, it penetrates the patient’s body (Tilney, 2011) and the relationship between healthcare professionals and patients (Vosman & Niemeijer, 2017). Besides, it has consequences for patients. Cooke (2013), for instance, indicates that critical moments in patients’ lives, like birth and death, are often mediated by technology. Those technologies, mediating communication, diagnostics and therapy, impose their own demands and these technique-linked demands regularly supersede caring for the patient (Braithwaite & Plumb, 2015; Hollnagel, Wears & Braithwaite, 2015; Verbeek, 2011). Besides, they tend to suppress the patient’s voice (Vosman & Niemeijer, 2017). Thirdly, Vosman and co-authors (2016) refer to the social pressure which obliges hospitals to install safety, quality and financial accountability systems and to report on a wide range of indicators. This again, demands time from professionals which cannot be spent on patients. A study of Führtbauer, Norgaard and Backer Mogensen (2013) revealed that physicians spend an average of 30% of their time on documentation and registration, computerized most of the time. Besides, the systems mentioned, unintentionally increase complexity for healthcare workers, because the standards they represent are different from the professional norms and those of the individual patient. Fourthly, Atul Gawande (2010, p. 19) indicates the rising number of identified diseases as a factor that increases complexity: “The ninth edition of the World Health Organization’s international classification of diseases has grown to distinguish more than thirteen thousand different diseases, syndromes and types of injury. . . . And for nearly all of them, science has given us things we can do to help.” Finally, we refer to the ‘tools’ medical professional organizations have developed to support evidence-based practicing: the guidelines. The number of guidelines has grown to such an extent, that consulting them all adequately has become an illusion. Upshur (2014) documented the increase in the number of clinical guidelines over 25 years: from 73 clinical guidelines published in PubMed in 1990, to more than 7500 in 2012. Boyd et al. (2005) showed, describing the case of a 79-year old patient, that an accumulation of guidelines can lead to damaging care, and that regulations in an individual case, can be incompatible. Olde Rikkert (2017) demonstrates that following guidelines practically rules out realizing integral care for patients with multi-morbidity. Therefore, Gawande (2010, p. 19) notes: “Medicine has become the art of managing extreme complexity – and a test of whether such complexity can, in fact, be humanly mastered.”

Medical professionals, practicing in institutions, need an answer to the question how to deal with this complex reality. Indeed, as Anderson and McDaniel (2000) have stated, we need a new mental model of healthcare organizations, of healthcare policy, and of hospital management. Various authors (Anderson & McDaniel, 2000; Dekker, 2011; Hollnagel, Wears & Braithwaite, 2015; Plsek & Greenhalgh, 2001) criticize the still prevailing mode of causal-linear, bimodal and reductionist thinking that dominates healthcare and medicine. As this

linear thinking mode is regarded to be inadequate in a complex reality, they propose to embrace complexity theory and to approach health care (organizations) as Complex-Adaptive Systems (CAS). According to Plsek and Greenhalgh (2001, p. 625) a CAS is “a collection of individual agents with freedom to act in ways that are not always totally predictable, and whose actions are interconnected so that one agent’s actions changes the context for other agents.” Anderson and McDaniel (2000) sum up the distinctive characteristics of a CAS: it is defined in terms of connections and patterns of relationships among agents, it shows an emergent development over time, and the system trajectory over time is fundamentally unknowable (unpredictable). The authors mentioned, make useful propositions for adequately dealing with complexity in care practices, and with this, they partly answer Gawande’s question, about humanly mastering complexity. For instance, they indicate “intuition and muddling through” (Plsek & Greenhalgh, 2001); flexibility, creativity an improvisation, summed up as ‘resilience’ (Hollnagel, Wears & Braithwaite, 2015). However, neither these propositions, nor complexity theory, will help healthcare professionals, managers and policy-makers sufficiently with the moral question, we have raised, because they ignore the moral purpose of medical practices. This telos was mentioned by Viafora (1999, p. 288) “the clinical paradigm: the ends which constitute and define practice itself.” Neither do they help in critically examining the ethical implications of work structures and interactions, as pointed out by Chambliss (1996) and by Vriens, Achterbergh and Gulpers (2018). Cilliers (2013, p. 20) reflecting on the ethics of complexity theory, poses it like this: “complexity tells us that ethics will be involved” (he bases this on the fact that in a complex reality interpretations, evaluations and making not fully-objectifiable choices are unavoidable), “but does not tell us what that ethics actually entails”.

Therefore, we repeat the question, complexity theory does not have a good answer to: how medical practices, embedded in complexity, can stay focused on the moral dimension of healthcare: the good that has to be processed for every patient in an appropriate way and that emerges in the professional relationship with the patient (Kunneman, 2010; Van Heijst, 2005; Vosman & Baart, 2011). The question is even more pressing, because today, the one-to-one professional relationship between caregiver and patient is rather exception than rule. Herewith, the traditional care relationship, which prevailed as the constituting element for good care, cannot be taken for granted any longer. Today’s practices present constantly changing teams of professionals providing care for pluralistic groups of patients, who, in their turn, more often have multiple than simple questions or problems (Baart & Vosman, 2015a, 2015b; Mesman, 2002; Reeve et al. 2013).

### **An apt ethical stance**

Raising the question on the morality of practices requires that we define our place in the ethical discourse of healthcare. By linking ethics to the telos of a practice and also to the excellent way in which this goal needs to be realized, we endorse the insights of the Greek philosopher Aristotle (Aristotle, 2009). Aristotle recognized that ethics starts from everyday issues, that ethics is linked to virtues, and that ethics can guide actions by “identifying and respecting the scope of actions on a goal” (Vosman & Baart, 2008, p. 29). With this, Vosman

emphasizes that in late modernity, it is no longer self-evident, that goals of professional actions are predetermined. They should be derived from caring as an intrinsically moral activity, using the insights of experienced healthcare workers (Mol, 2006; Van Heijst, 2005). With Vosman and Baart (2008, p. 29) we define virtues as: “long-term attitudes people establish in themselves by steadily . . . continuing to act well and striving for excellence.” This always involves searching for the balance between two extremes: for example, courage is halfway between cowardice and recklessness. With this point of view, we move away from the premise that ethics in healthcare can be confined to extreme situations, in which solutions need to be found in ‘dilemmas’. This common view abstracts from the everyday medical acting, where constantly decisions are made, but not all the time the ‘either-or choices’ of a binary logic. We also take distance from deontological ethics, which judges practices on the basis of principles, rights, duties and rules; moreover, from Beauchamp and Childress’s principles-based bioethics and its four principles: non-maleficence, beneficence, autonomy and justice (1985). Deontological ethics as well as principles-based ethics abstract from, and hence reduce reality, so that morally relevant, concrete details, essential for patients and healthcare professionals, disappear from view. Therefore, these approaches do offer moral orientation, but at a too high aggregation level; more oriented to accounting for actions externally, than to the moral question *par excellence*: what is the good for this sick, wounded or dying person?

Rather, we choose a care ethical perspective on care and care practices. From this perspective, we regard care to be a relationship between two or more people, one of whom is the patient – together with her relatives and friends – and the others are the professional healthcare workers. In this relationship, the patient’s distinctive characteristic is to be ill or suffering; that is precisely why vulnerability and dependence are at least as important as autonomy (Tronto, 1993; Van Heijst, 2005; Vosman & Baart, 2008). In addition, care ethics will look for a moral solution-path in the ability of caregivers to switch between the patient’s and the professional’s perspective in a constant iterative movement. Practicing like this, enables professionals to determine what is the good to be reached in a specific situation and context (Mol, 2006; Van Heijst, 2005; Vosman & Baart, 2008). Herewith, care ethics appears to be a contextual ethics, specifically focusing on each new situation: its third characteristic (Klaver, Van Elst & Baart, 2014; Nortvedt & Vosman, 2014). Furthermore, care ethics is a political ethics (Baart & Vosman, 2015; Held, 2006; Laugier, 2015; Tronto, 1993, 2013; Vosman & Baart, 2008). Its guiding principle is, that by caring, human relations are actually structured; this does not apply to human relations in medical practices, but also in the institutional practice of the hospital and in the world beyond. In 1993, Tronto already formulated the political character of care ethics with her definition of care: “a species of activity that includes everything we do to maintain, continue and repair our ‘world’ so that we can live in it as well as possible. That world includes our bodies, ourselves and our environment” (Tronto, 1993, p. 103). With this definition, Tronto positioned care as a practice indeed. Finally, care ethics is empirically grounded; for if care always takes place within a specific context, in which it becomes meaningful, then it is necessary to study in detail these specific situations, these practices in their contexts.

## **Re-inventing morality in complexity; a proposal**

We return to our statement, that the complexity of modern healthcare, has turned practicing well into a problem. We realize, that ‘tools’ have been recommended by professional organizations and healthcare institutions, to facilitate acting morally well, such as principles-based bioethics (Beauchamp & Childress, 1985), codes of conduct (Kinghorn, 2010), general values after the idea of ‘Value Based Health Care’ (Porter & Teisberg, 2006), and many guidelines and procedures (Kotzee, Paton & Conroy, 2016). However, these tools are apparently inadequate to support professionals with practicing morally well in everyday complexity. On the contrary, the means, offered to be helpful, indeed regularly cloud the clear view on the good to be achieved in a specific situation, because they have been formulated in too general a way or have only been directed at a specific target (Dunne, 1993; Kinghorn, 2010; Pitman, 2012; Sellman, 2012; Vosman & Baart, 2008). Also, clinicians report that these principles and rules are not helpful to them in defining what good care is about in specific situations for individual patients. “The abstract principles of autonomy, beneficence and justice that order the practices of standard bioethics are only tangentially relevant to the more concrete goods that order the practice of surgery” (Hall, 2011, p. 124). Judkins (2015, p. 236) describes that, at the Emergency Department (ED), he suspects a patient who presented with broken ribs after a fall, that he must have an alcohol addiction. Then, he decides in seconds, that he has to do “what I swore that I would do: look after those in need.” However, doing this also means, he has to break the agreed rules for the ED (short waiting times, short throughput times) and spend hours on deliberating and making appointments. Here, doing what is morally well, is frustrated by rules, habits, achievement directions and management decisions. Brothers (2011) describes that in medical practices, because of necessary and meaningful relationships with patients, it is inevitable that conflicts occur daily from moral, but also from professional commitments. For instance, a patients demands antibiotics, while the physician has diagnosed a viral common cold, for which antibiotics as a therapy is senseless. The rules and protocols do not provide for dealing well with such common conflicts. Obviously, medical professionals regularly make these choices: whether or not, or partly, to apply existing rules and directives. Why are they making these choices and what helps them to make good choices?

We propose to look for an appropriate capability which enables professionals, managers and policymakers, working together in medical care in a complex reality, to choose the right direction; and accordingly making choices and giving care which can, time and again, be directed toward what proves to be good for the individual patient: right in the professional sense and also experienced as good and fitting for the patient’s life. We regard this tool as a capacity and we will use the compass as a metaphor for this ability. We are looking for a built-in compass that can guide practices in everyday clinical work. Our proposition is to work out, not only the flexibility, adaptability, improvisation and intuition, recommended by complexity theory – elements related to the nature of practicing, but also practical wisdom, which refers to the purpose of the practice. For that reason, however, Aristotelian *phronesis* (practical wisdom) has to be reconsidered critically.



## Practical wisdom indispensable when navigating complexity

The moral compass, mentioned above, should equip practices with the capacity to maneuver and navigate efficiently in the daily, complex reality; in other words: to remain focused on assisting each individual patient in her context, in a medical competent way. One could imagine that the medical profession, besides the above mentioned principles and rules, has intended Competence Based Education (CBE) to this end. CBE has internationally been embraced by the medical profession from the end of the twentieth century on and has been implemented for instance, in the United States, Canada, the United Kingdom and the Netherlands. The question is whether CBE, precisely because reality has changed drastically, indeed can be useful for moral orientation in a complex reality. Following Dunne (1993), Kinghorn (2010, p. 94) describes CBE as the “technical project of modern medicine.” CBE discerns seven competencies, which all appear to represent specific kinds of knowledge, skills and behaviors. For instance, the capacity to deal critically with academic knowledge, to be able to build up an effective treatment relationship with a patient and to organize work efficiently. Morality is regarded to belong to one of the competences, namely ‘professionalism’, but it is described in vague, general terms. Kinghorn (2010) and Lombarts (2015) doubt whether Competence Based Education of physicians can indeed lead to the right professionalism in a moral sense. Lombarts argues that “competence schemes . . . are not sufficient to educate or train excellent performing physicians” (p. 327). With Kinghorn, we expect that, on the other hand “the mode of practical reason known as phronesis or ‘practical wisdom’ ” will make it possible to guarantee the morality of a complex practice.

It is no surprise that in medical-ethical publications of the last decades – together with the observable increase of complexity in healthcare – phronesis or practical wisdom is frequently mentioned as the intended moral compass. Kristjánsson (2015, p. 300) even speaks of a “buzzword in contemporary medical ethics”, at least insofar as the academic world is concerned. He describes phronesis as “the intellectual capacity to adapt moral virtues wisely to particular . . . situations” (2015, p. 300). However, Kristjánsson also indicates, that traditional rules-governed duty ethics still dominates the medical-professional workplace. Kinghorn (2010) observes that, in professional training, attention for practical wisdom is still failing. So, these authors suggest that modern physicians have not adequately been equipped to safeguard the intrinsic moral goals of their complex practices. Moreover, according to several publications, the institutional contexts of these practices should rather limit than promote the desired moral excellency (Hafferty & Levinson, 2008; Kinghorn, 2010; Kinsella & Pitman, 2012; MacIntyre, 1985; Vosman & Baart, 2008).

Even though we want to point out that practical wisdom is indispensable in modern practices, we do not plead for an uncritical adoption of phronesis after Aristotle, i.e. not for a neo-Aristotelian version of phronesis. Phronesis has to be modified, precisely because of the changing context we live in, which we, following Giddens (1990), Rosa (2013) and Vosman and Niemeijer (2017), indicate as late modern. Herewith, our more specific question becomes: which concept of phronesis is adequate in relation to the complexity characterized by late modernity? Then specific questions arise, for instance, can phronesis direct late modern conduct in complex medical professional practices? How would that be feasible? What does

practical wisdom look like, which, in complex circumstances, enables practices to define meaningful and also feasible goals for every patient, (in agreement with the good life for this patient)? Furthermore, does practical wisdom enable practices to distinguish, estimate, weigh and judge which means are most suitable to reach that goal, in an appropriate time-path, in each case adapting to intervening changes? To illustrate the impact of these questions, we will first reflect on the Aristotelian view of practical wisdom. In that way, the Aristotelian phronesis will function as a contrast foil for phronesis in late modern complex practices and not as its final definition.

In his *Ethica Nicomachea*, Aristotle describes phronesis as knowledge of the proper ends of life. He classifies it as one of the intellectual, practical virtues: these are virtues, on the one hand, based on knowledge, but on the other hand on praxis, on acting morally in a specific situation. Aristotle saw this phronesis related to and depending on two other intellectual virtues, namely episteme (theoretical knowledge) and techne (product oriented knowledge). Kinsella and Pitman (2012, p. 2) explain episteme as scientific, universal, context-independent knowledge. In addition, there are the abilities and professional skills, being able to manufacture a product – techne. Vosman and Baart (2008) emphasize, following Aristotle, that phronesis (practical wisdom) emerges from praxis: it arises in acting together in practices. Kemmis (2012), interpreting Aristotle as well, pays attention to the reciprocal relationship between praxis and phronesis: on the one hand, phronesis leads to a praxis, which is morally desirable and can be endorsed; on the other hand, the insight connected with the moral good, emerges from the praxis, so that good actions on their turn inform knowledge. Practitioners learn to assess a situation better and better, through this intermittent movement between praxis and knowledge (Montgomery, 2006). In this way, they also build up experiential knowledge in their practices. However, with Kinghorn, Vosman and Baart, in this regard still following Aristotle fully, we emphasize that practical wisdom does not emerge automatically from experience. Indeed, experience is indispensable for the development of phronesis – practical wisdom is only learned by acting practically wise – but practitioners have to store their experiences and to reflect and deliberate on them, preferably from a practice with colleagues who face the same problems. Only reflection and deliberation on the praxis will bring about practical wisdom.

In recent publications: (Kaldjian, 2010, 2014; Kinghorn, 2010; Kinsella & Pitman, 2012; Kotzee, Paton & Conroy, 2016; Kristjánsson, 2015; Montgomery, 2006; Pellegrino & Thomasma, 1993) practical wisdom, as with Aristotle, has been described as an individual virtue of excellent professionals, gained by long-term experience, reflected and deliberated on with colleagues, leading to virtuousness and sound judgement. Yet, like we do, others have already argued (Hafferty & Levinson, 2008; Moore, 2005; Vosman & Baart 2008, 2011, 2015; Vosman et al., 2016; Vriens et al., 2018) that in late modernity, the emphasis on the individual role of professionals has to be put into perspective by the radically changed work situation and work context these professionals practice in. The concept of phronesis – practical wisdom – needs to be adapted to these changes.

## Practical wisdom: from individual actors to practices

We mentioned complexity as an overarching feature of late modernity and of late modern, professional work. What does this complexity mean in relationship to practical wisdom?

Complexity in healthcare institutions in the late modern period, according to Vosman, drawing on Ricoeur, is characterized by a trio of unavoidable tensions: firstly, a tension between finding the appropriate means for a goal, and identifying whatever that goal is. Secondly, between establishing issues and situations and creating moral excellency in connections and conduct within a community. Finally, between the urgency to act and the non-transparency (opaqueness) of the professionals acting, the situation and the patients (Vosman & Baart, 2008). Such tensions, linked to late modernity, which Aristotle did not know as such, may lead to confusions in practices, but they may also make practical wisdom emerge, according to Vosman. In order to make this happen, these tensions have to be exploited, however, for generating the right actions. The ability to create, in this way, the desired praxis from the tensions linked to complexity, verges on art, on astute craftsmanship. Vosman, considering this subject, arrives at a new definition of practical wisdom: “practical wisdom is the virtuosic capacity to discover what is morally relevant, to know how to decide and how to act, as well as learning to learn from what has not been done well, in the tension raised in and persisting within an institution, between obscured targets for actions and the refining of means” (Vosman & Baart, 2008, p. 32).

The late modern, complex healthcare practice we are talking about has, as a second distinctive feature, that it is fully interrelated with the institutional surroundings of, for instance, a hospital and also with a wider social context. Care institutions and social contexts highly influence medical care practices, while they are not in the first place oriented toward the moral goals inherent to these professional practices. They concentrate on goals, which are of a managerial nature, aimed at efficiency or making profit. MacIntyre contrasts the “internal goods” or the “goods of excellence” of a practice with the “external goods” or the “goods of effectiveness” of an institution, “such as fame, power, profit or success” (MacIntyre, 1985, p. 187). The pursuit of external goods does not necessarily make institutions amoral, but it is definitively not supportive for the morality, intrinsic to the medical practice. The objectives of the market, (gaining a better competitiveness and protecting ‘business secrets’), the one of free choice (giving information on options to consumers/patients), the one of management or bureaucracy (efficiency, accountability, control) are leading for these institutions (Freidson, 2001; Mol, 2006; Moore, 2005; Moore & Beadle, 2006; Tonkens, 2008; Vriens et al., 2018). Therefore, Pitman (in Kinsella & Pitman, 2012, p. 131) speaks about “hostile ground for growing phronesis”. In his definition, Vosman calls the specific, but disregarded, internal objectives for medical practices “obscured goals” without, herewith, explicitly disqualifying the goals imported from outside, morally.

A third characteristic of complex, late modern practices which makes it necessary to put the concept of phronesis in a really different perspective from personal virtue, is, that not any longer, the individual professional as an actor exclusively determines actions within a practice. Aristotle and neo-Aristotelianism concentrate on practical wisdom as the virtue of a citizen living in a polis, so on a politically framed virtue. Later, this political-ethical frame

was replaced by the ‘me-you approach’ of an individual physician toward an individual patient. Nowadays, the role of the individual professional as a director and decision maker on the one side, is put into perspective by the large number of colleagues co-acting in relation to the patient and each other, and on the other side, by material and immaterial influences of technique, built environment, management, regulations and culture within an institution. We will give an example of the first: in a publication of a five-year empirical investigation in a general hospital, Baart and Vosman described a case which was anything but exceptional (2015, pp. 181-206). The network of professionals actively concerned with one single patient during a 75-day hospitalization appeared to consist of 150 different people: physicians, nurses, dieticians, physiotherapists etc. following each other up in shifts. Complexity science emphasizes, that, apart from people, also material, influential agents should be distinguished: such as a variety of technologies, arrangements and rules, work structures, management and the interactions among all those actors (Anderson & McDaniel, 2000; Hollnagel, Wears & Braithwaite, 2015; Plsek & Greenhalgh, 2001). In addition, Moore mentions the mode of an institution and the management style (Moore, 2005). Finally, Vosman and Niemeijer (2017) demand attention for the specific role the patient plays in the network, as being the one who has to endure, not only the illness and suffering, but also all these influencing agents of care and its surroundings, which are partly self-referential.

When we assume that professionals and patients form part of such complex configurations of interdependent factors, this whole context, including processes and interactions taking place within it, should not only enable practical wisdom to emerge, but it should also manifest practical wisdom. For its emergence and manifestation, it is insufficient, but necessary indeed, that individual actors have embraced the virtue of practical wisdom. However, virtue foremost needs to be translated into the structures, the material and economical elements, the power relations, the culture and the habits of the individual actor’s surroundings (Nicolini & Monteiro, 2017; Vriens et al., 2018). Moore emphasizes the importance of a virtuous “corporate character” (Moore, 2005). Vriens et al. (2018) use the terms “virtuous structures” and “virtuous organizations”, and they mention “supportive infrastructures, (comprising for instance supportive structures, culture, leadership, technology or incentive systems)” (2018, p. 688). Virtuousness needs to be regarded spread over various ‘actors’. That is the implication for ethical theories of the findings in practice theory – we will discuss this below – that not individuals, but participants in a practice, like players on a rough field, are central, while, in addition, material matters like building, systems and technology are co-acting. Thus, in our opinion, the concept of practical wisdom needs to be redefined from a sheer individual capacity, to a capacity of individuals, practices and institutions. That was partly introduced in Vosman’s definition of practical wisdom above. However, formulating the definition, preceded empirical research of concrete medical practices.

## Practical wisdom: from theoretical to empirically grounded reflection

It is important to think about the fact that virtue ethics and the neo-Aristotelean interpretation of *phronesis* have been developed as moral and philosophical theories from outside, without empirical research. (Baart & Vosman, 2015; Kotzee et al., 2016). Conversely, Kotzee et al. argue: “Indeed, because virtue ethics insists that virtuous action can only be understood properly in the context of real decisions (and not in the abstract), there are good grounds for thinking that understanding *phronesis* must involve attention to real-world particulars.” In this, they subscribe Kristjánsson’s definition of *phronesis*: “the wisdom to judge the right action to be performed in a particular situation when different goals would call for different actions” (Kristjánsson, 2015, p. 344). With Vosman and Baart (2015, p. 43-54) we advocate, with arguments borrowed from care ethics, the “thinking of care out of care” and also “thinking from inside to outside” when studying practices. Eikeland and Nicolini (2011) bring to the fore, the importance of developing theory or acquiring insights from inside a practice, through a research position embedded in the practice to be examined.

We see the first epistemological reason for empirical research in the need to visualize and bring forward the perspective of the first people in care, namely that of the vulnerable being who needs care, and that of the caregiving professional (Nortvedt & Vosman, 2014). Here, with Eikeland and Nicolini (2011), Fricker (2007) and Heuts and Mol (2013) we refer to the perspective of the “knowers” in healthcare practices.

The second epistemological reason for empirical research follows from the fact that practical wisdom is an emergent phenomenon, it emerges from practices, and thus can be ‘caught’ in those practices only. That is also true for ‘the good’ that manifests itself in a practice, embedded in a specific context. Klaver et al. (2014, p. 759) argue: “good is what turns out to be good. This implies a revolution of the epistemological process. It is not just about rational approaches and decontextualized abstract knowledge; rather emotions and tacit knowing are also valued as important epistemological sources, which therefore have to be critically cultivated.” Heuts and Mol (2013) write about the ‘plurality’ of the good, and Vosman et al. (2016) mention its ‘fluidity’. Moore (2015) sees practical wisdom in the ability of institutions and managers to reach the right balance between focusing on the internal goods of their core practices and the pursuit of external goods, necessary for the sustainment of the organization.

Finally, the non-transparency, the pluralism and the dynamics, characteristic of our complex, late modern society, make it necessary to develop and clarify the concept of practical wisdom by empirical research in practices and not from theoretical thinking created apart from those practices. Therefore, in our view, it is essential to achieve a better understanding of practical wisdom through qualitative-empirical research from inside practices. This implies developing theory, seen as ‘*theoria*’ after Aristotle “as a kind of grammar” (Eikeland & Nicolini, 2011. P. 11). Nicolini and Monteiro (2017, p. 15) point out that rich representations (in the form of detailed descriptions) of practices may help practitioners “to see through conventional ways of doing and saying”, and because of these insights, they may question their own activities and may explore new ways of “doing and saying and being” (2017, p. 16). Abductive analysis and abductive learning (Timmermans &

Tavory, 2012) in a continued iterative movement between moral-theoretical insights and empiricism, suit this empirical approach best according to Nicolini & Monteiro.

We have argued why we propose a decisively different approach to practical wisdom. We will now sketch out what such an approach looks like.

### **A practice, its embedded morality and the empirical inquiry into it**

Our proposal is: to approach professional medical care as a practice, and thus, to approach it as “orderly materially mediated doings and sayings (‘practices’) and their aggregations.” (Nicolini & Monteiro, 2017, p. 2) and not as mere individual actions. In this, we follow the broad and fluid concept of practice in specific practice theories (Nicolini, 2012; Schatzki, 1996; Schmidt, 2012), that contrasts with MacIntyre’s oft-quoted, solidified definition: “any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realized . . .” etc. (MacIntyre, 1985, p. 187). We choose practice theory, not complexity theory; both theories recognize the interdependency and actorship of various factors in situations, not of only human actors; both theories recognize the complexity which characterizes late modern societies. However, practice theory offers, different from complexity theory, possibilities for the moral scope and focus of professional care in real hospital practices. Where complexity theory is primarily descriptive (also see Cilliers, 2013), practice theory is action oriented: its object of research being “meaning-making, order-producing and reality-shaping activities” (Nicolini & Monteiro, 2017, p. 6). Nicolini and Monteiro also see the purpose and the normative as intrinsically linked to practices, in contrast to complexity theory. “Practices only acquire sense when organized around an end” (2017, p. 3). Vosman et al. (2016, p. 118) argue that practice theory “could help to dig up matters of concern to those working and being ill in the hospital organization and which is also capable of capturing issues of complexity and normativity.”

The unity of research of the practice theory is practice, described by Schatzki as “temporary unfolding and spatially dispersed sets (or nexuses) of doings and sayings” (1996, p. 29). Nicolini and Monteiro mention: “orderly sets of materially mediated doings and sayings aimed at identifiable ends. We call such regimes of activity practices when they have a history, a constituency, and a normative dimension” (2017, p. 6). To explain the concept of practice, Schmidt (2012) uses the comparison with a game on a pitch as for instance a football game. The comparison is not with the competition involved, but merely with its operation. Moving, competent actors and their antagonists influence each other constantly, but the material factors such as the condition of the pitch and the ball also have influence. Rules, routines and habits are important as well. The game has a goal and a meaning and new players enter a history already developed. Baart and Vosman approach (medical but also adjacent) care as a practice: “the most complex interplay of people, actions, artefacts, but also of the physical surroundings of (natural) modes of knowledge and of habits . . . of professionalism and appropriate organizations” (2015, p. 12).

Practice theory, which, as Nicolini worked out thoroughly, contains a school of theories, and offers an excellent framework for the empirical study of medical practices in complex circumstances and for the interpretation of what has been observed. For instance, it

offers leads for our vision on the moral actorship of the individual physician, surrounded by other acting factors. It criticizes the Kantian idea that morality can only be found in the individual who acts on the base of a free will and general principles. On the contrary, Nicolini (2012), Schatzki (1996), Schmidt (2012), and Vosman et al. (2016) emphasize that individual actions and actors are part of practices, where customs, goals, habits, a certain culture and structure already have a history. Thus, individual actors are far from sovereign in their actions. Nicolini (2012, p. 5) poses: “becoming part of an existing practice thus involves learning how to act, how to speak (and what to say), but also how to feel, what to expect and what things mean.” He adds: “absorbing, or being absorbed in a practice also implies accepting certain norms of correctness (what is right and wrong)”. Also, Vosman et al. (2016, p. 122), quoting Schmidt (2012), illustrate: “nobody acts in isolation, we always ground our doings on what others did before us”. Hall (2011) for instance, describes in what way surgeons in training are initiated into the traditions of the profession and how the profession, in collaboration, maintains and also modifies its own traditions.

Practice theory is based on the assumption: there is morality in a practice, which is specified in the history of that practice and in its rich tacit and explicitly agreed goals. Human actors determine their moral playground within it, in teamwork with and influenced by other social and material agents.

### **Practical wisdom in complex medical practices**

Practice theory offers us many starting points for empirical research of practical wisdom in practices. However, practical wisdom as such, is not directly observable, but has to be inferred from, for instance, observed behavior, from situations and events. This makes the choice of a research method crucial. Nicolini (2012) describes that practice theories make use of a ‘toolkit’ of different methods, which have in common that they are qualitative-empirical by nature and that, by the direct research of the praxis, they also involve implicit or ‘tacit’ knowledge (Polanyi, 1969). Nicolini defines these methods as ‘slow’ and ‘in-depth’ and underlines that it is inherent to those methods to concentrate on relevant details of a situation, instead of abstracting from them. For instance, this refers to participatory observation, to types of ethnographic research, but also to discourse analysis, and not in the first place to interview techniques, which will only be able to bring up explicit knowledge. By choosing this toolkit, we think we will enable an essential extension of empirical research into practical wisdom against the methods proposed by Kotzee et al. (2016): interviews and narrative research, which tend to investigate only explicit knowledge. By contrast, network analyses, recommended by complexity science (Braithwaite & Plumb, 2015), do fit the said toolkit.

Vosman et al. (2016) and Schmidt (2012) point out the importance of using an open concept of practical wisdom in such empirical research, a ‘heuristic’ concept (Schmidt uses the term ‘Sehhilfe’) enabling researchers to observe differently and because of that, to disclose other perspectives. Nicolini and Monteiro also emphasize the importance of the heuristic use of theoretical concepts. Heuts and Mol (2013, p. 127) advocate a heuristic approach too: “crafting a rich theoretical repertoire . . . does not work by laying out solid

abstracting generalizations but rather by adding together ever shifting cases and learning from their specificities”. In addition, we choose an abductive analysis method to obtain theoretical insights, based on such careful observations of practical wisdom in practices. Timmermans and Tavory (2012, p. 180) specify this method of analysis as: “a qualitative data analysis approach aimed at generating creative and novel theoretical insights through a dialectic of cultivated theoretical sensitivity and methodological heuristics”. Abduction from actually performed practical wisdom in medical practices can help to restore practical wisdom in such a way that it is resistant to complexity. This may seem a circular argument. It is not. Firstly, because we use a heuristic, open concept of practical wisdom while empirically looking into medical practices. We do not use a definitive concept at that stage of the inquiry. Secondly, we identify if and how complexity is navigated in a satisfactory way, satisfactory in the sense that the wellbeing of the individual patient remains to be the beacon of the practice.

## Conclusions

We argued that late modern medical practices, characterized by complexity, need practical wisdom to make morality, “the practice-known good” (Kinghorn, 2010, p. 95) emerge in that complexity. The “practice-known good” is the good that is accomplished in changing situations, for every patient individually, agreed with the patient and her next-of-kin, and also appropriate to the professional telos of the practice. The participants in that practice, professionals and patients can usually only report afterwards if they have experienced the good as such (Vosman & Baart, 2011; Vosman & Niemeijer, 2017). The good appears to be fluid, it is rarely quantifiable, and it cannot easily be generalized. In addition, what a specific patient experiences as good, may change, for it is linked to the patient’s situation at a certain time. The same applies to the appearance of practical wisdom: it is strongly linked to specific relations, situation and context. Therefore, it can only be clarified through detailed case observations and case descriptions.

Further, we have argued that practical wisdom should not any longer be seen as a purely individual characteristic, a virtue of people, but also as a characteristic, a virtue of practices and institutions (MacIntyre, 1985; Moore, 2005; Moore & Beadle, 2006; Vriens et al., 2018). Following Moore, Beadle, and Vriens et al., we advocate the necessity of virtuous practices within virtuous organizations, characterized by both a balanced corporate character, given their internal and external goods and a virtuous management.

Now, at the end of our argument, it is possible to give a new – heuristic – definition of practical wisdom in medical practices, that accounts for the complexity of those practices: *practical wisdom is the capability which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for every individual patient, in ever-changing situations, within the context of the practice and its telos, and of how to accomplish this by the most appropriate means, while dealing with complexity and institutional and systemic pressure.*



In this article, we have also argued that the research of practical wisdom should be approached empirically, in a back-and-forth movement with theoretical insights, and with the methods and the conceptual framework of practice theory. We propose to use practical wisdom as a heuristic concept, that is a concept which enables to make new and different observations in which it is also possible to adapt the heuristic concept. The method of abductive analysis (Timmermans & Tavory, 2012) should enable researchers and practitioners to obtain practice-related insights from empirical observations. In this way, qualitative-empirical research may be conducive to develop the practical wisdom of medical practices and to enable the good to emerge in those practices.

You can't stay in your corner of the Forest  
waiting for others to come to you.  
You have to go to them sometimes.  
A.A. Milne. *Winnie-the-Pooh*.



# Chapter 3

## Methodology



## An Introduction to the Empirical Research

This chapter is on the one hand based on the theoretical discussion in the previous two chapters, on the other it offers an introduction to the following four empirical studies. Its aim is to clarify, substantiate, and organize the research methodology that is used in the empirical studies. We do not mean ‘theoretical’ and ‘empirical’ as denoting two separate approaches. Instead, we assume that there is a continuous movement back and forth between reflection on conceptual approaches on the one hand and the performance of empirical research – based on theoretical reflection – on the other. Following Vosman, Timmerman and Baart (2018, p. 406) we call this “an oscillating movement between empirical work and theory development, committing both to each other.” In other words: “a qualitative empirical research process that is accompanied by ethical reflection, at the same time being oriented to theory development” (p. 409).

### Background

We will first outline the *background of the empirical studies*. The period around the turn of the millennium, which Giddens (1990) has called late modern, is characterized, in the medical domain as elsewhere, by constantly increasing complexity (Cilliers, 2013; Hollnagel, Wairs & Braithwaite, 2015; Braithwaite, 2018), increasing acceleration of developments (Rosa 2013), pluralism (Jenkins, Kinsella & DeLuca, 2018), social inequality, with connected health care disparities (Nelson, 2002; Wasserman et al., 2019), and numerous uncertainties (Kinsella & Pitman, 2012; Kemmis, 2012; Vosman & Niemeijer, 2017). In the run-up to late modernity, from the 1970s onwards, medical specialists faced charges of paternalism, the elitist and closed nature of their profession, the pursuit of status and profit at the expense of the moral task of serving patients, and the renouncement of the ‘do no harm’ principle (e.g. Van den Berg, 1969; Illich, 1976; Schön, 1983; Reed & Evans, 1987; Berwick, 2016).

Partly in reaction to late modern developments, the 1990s saw the rise of the new professionalism movement, which turned out to be ‘contaminated’ with the ideas of the neo-liberal New Public Management approach (Evetts, 2009, 2011; Minzberg, 2012; Noordegraaf, 2015; Reid, 2018; Gerard, 2019; Viens, 2019). At first, new professionalism was reflected in guidelines development and peer auditing; later it gave rise to Evidence-Based Medicine (EBM) (Greenhalgh, Howick, & Maskrey, 2014; Bolt, 2015) and Competence-Based Medical Education (CBE) (Whitcomb, 2016; Ross, Hauer & Van Melle, 2018). Moreover, the professional-medical domain became increasingly dominated by relentless (sub)specialization, technologization, standardization, assessment against all kinds of measurable performance indicators; administrative commitments aimed at control and accountability, and efficiency requirements (Tonkens, 2008; Visser & Den Bakker, 2018). In addition, medical specialists became unavoidably embedded in care institutions, mostly hospitals, which are mainly focused on ‘external goods’, such as status, reputation and financial results, not primarily on the ‘internal goods’ of the profession (MacIntyre, 1985; Moore & Beadle, 2006; Vriens, Achterbergh & Gulpers, 2016; Jenkins et al., 2018).

Several authors, like Schön (1983,1991); Dunne (1993); Evetts (2011); Van Heijst (2011); Kinsella & Pitman (2012); Minzberg (2012); and Gerard (2019), have wondered what the profession, public health care and care organizations stand to lose on account of the increasing technologization and systemization of the medical professional domain. Professionals themselves have also addressed this question on the basis of their everyday practices (Hall, 2011; Gawande, 2014; Mukherjee, 2016).

Vosman and Baart (2008) as well as Eikeland (2006); Kinghorn (2010); Kinsella and Pitman (2012), and Kotzee, Paton and Conroy (2016) have emphasized the danger that moral capabilities will be eliminated from professional practices – Baart (2018, p.128) has even referred to ‘moralicide’: “the destruction of moral thinking (by incorporating it into technique and rules)”. They expect that it will be possible to counteract this by promoting *phronesis or practical wisdom* in practices. This implies, for the practices of medical specialists and for the hospitals in which these practices are embedded, that more attention should be paid structurally to the strains involved in realizing morally good care in professional, daily work. Also, greater emphasis should be placed on the role that practical wisdom can play in neutralizing these strains, and finally, on how practical wisdom can be facilitated, acquired and developed in daily practices.

Now, what is practical wisdom? In chapter two we have proposed the following working definition of practical wisdom: *practical wisdom is the capability, which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for every individual patient, in ever-changing situations, within the context of the practice and its telos, and of how to accomplish this by the most appropriate means, while dealing with complexity and institutional and systemic pressure.*

We regard this definition as a tentative one, which can be used heuristically to observe and study the emergence of practical wisdom in everyday practices. Our empirical research of practical wisdom therefore always has a second objective: to evaluate and possibly adjust the definition and, linked with this, theories of practical wisdom, in order to ensure that this definition and these theories more adequately represent the observed practices.

Against this background of controversial medical professionalism, the threat of the elimination of (professional) morality and the potential of practical wisdom to sustain and develop the internal morality of professional practices, we have observed a pressing problem that calls for further investigation.

## **The problem**

In summary: several authors have argued that practical wisdom (which they consider to be indispensable to realizing morally good care), is under threat of being neglected in or extruded from late-modern health care practices. This danger, they believe, results from the systemic environment of modern health care institutions such as hospitals, with their orientation on efficiency, control, and business reputation (MacIntyre, 1985; Moore & Beadle, 2006; Vosman & Baart, 2008; Evetts, 2011). In addition, from the preoccupation of

professional organizations with “the technical project of modern medicine” (Dunne, 1993; Kinghorn, 2010) or “instrumentalizing of professional work” (Kinsella & Pitman, 2012; Saraga, Boudreau & Fuks, 2019).

However, various authors who see practical wisdom as a solution to the imminent elimination of morality from professional practices think from a segregated position *outside*, not *from within* actual practices of medical specialists in hospitals, as Eikeland, 2006; Eikeland and Nicolini, 2011; Baart and Vosman, 2015, and Stenersen Hovdenak and Wiese, 2018 have observed. This means a reflexive deficit has arisen. Yet, in accordance with Eikeland (2006), Vosman and Baart (2008), Eikeland and Nicolini (2011) and Vosman et al. (2018), we want to emphasize the importance of thinking *from within* practices. Specific empirical research and close cooperation between ‘knowers’ of practices and researchers are needed to dig out ‘the internal logic’ (Mol, 2008) of those practices. This specific research is aimed at generating a different kind of theory, which Eikeland and Nicolini (2011, p. 8) have compared to *grammar*. Grammar, “understood *not* as a collection of explicit rules (...) but as the contextually sensitive articulation of (...) language-in-use.” This is the “new mode of knowledge production” or the “different social organization of knowledge management and knowledge generation” Eikeland has mentioned in an earlier publication (Eikeland, 2006, p. 48). Thus, we propose to conduct empirical research from within clinical practices, taking advantage of theoretical concepts and insights of practical wisdom and at the same time developing a new, grammatical type of theory. The externalization (Nonaka & Takeuchi, 1995; Nonaka & Toyama, 2007) or articulation (Eikeland & Nicolini, 2011, p. 9) of knowledge that had been implicit or tacit before, is, moreover, a “tool for seeing i.e. for insight” for practitioners that will enable them “to see beyond the current horizon of their own practice”.

Regrettably, recent publications on practical wisdom have concentrated exclusively on individual physicians supposedly acting autonomously (Kinghorn, 2010; Kaldjian, 2014; Kotzee et al., 2015; Conroy et al., 2018; Tyson, 2018). By contrast, the empirical research envisaged here, will have to take into account the current reality of physicians, who no longer act as autonomous and independent individuals. In fact, professionals nowadays (inter)act in complex networks of mutually interdependent colleagues and of many material and immaterial agents in practices. (Anderson & McDaniel, 2000; Plsek & Greenhalgh, 2001; Hafferty & Levinson, 2008; Mantel, 2013; Sturmberg, 2018; Widmer, Swanson, Zink & Pines, 2018). Giving care in complex practices also means changes in the nature of professional relationships, the importance of which has been emphasized by care ethicists. In current practices professional relationships are distributed across various people, mediators, and structures. For this reason, an approach to relationality has to be adopted that is broader than a merely empathic relationship of trust between an individual professional and an individual patient (Baart, 2018; Den Bakker, 2018).

Thus, practical wisdom and the associated relationality, which must be regarded as essential to enacting morally good patient care in medical practices, should be practiced and developed in the face of opposition, and notwithstanding the existing theoretical and reflexive deficit. This deficit is due to an exclusively theoretical approach to practical wisdom, an

approach that is insulated from concrete practices, and that is, moreover, focused merely on individuals rather than complex practices. In contrast, the concept of practical wisdom will have to be completed and made manageable on the basis of everyday practices. More specifically, the actual ways in which practical wisdom is performed will constantly have to influence the theoretical development of practical wisdom, and vice versa. This outline of the problem at hand leads to the following research questions broken down into sub-questions.

## Research questions

Our **main question** comprises two elements, which are logically the result from the above: a) How is practical wisdom actually enacted in everyday medical practices? This question implies some associated interests, which we will elaborate on in this study – see the sub-questions. b) Does the research into concrete performances of practical wisdom show that our tentative definition of practical wisdom can be maintained, or does it have to be adapted? And what does this mean for the existing theories on practical wisdom?

We have divided the main question into several sub-questions, each of them constituting the basis of a separate empirical study. Every sub-question has the double structure described under the main question, because we wanted to pay attention to the said ‘oscillating movement’ in every empirical study.

The **first sub-question** is: a) if practical wisdom emerges, *which manifestations* of practical wisdom do we discern during the observation of concrete medical practices? b) Is the working definition adequate on the basis of these observations or does it have to be adapted?

**Second sub-question:** a) *can practical wisdom be learnt* in everyday work in hospital practices by means of structural, multi-disciplinary case discussions? b) Do the results of this study have an impact on the working definition of practical wisdom?

**Third sub-question:** a) *is practical wisdom verifiably repressed* in daily practice by the dominant professional discourse and/or by the actual organization of care? b) Can the working definition be maintained, based on the results, or does it have to be adapted?

**Fourth sub-question:** a) *how does practical wisdom emerge in using guidelines* for the benefit of the individual patient and her context? b) What do the results of this study mean for the working definition?

Here, we have not literally presented the research questions, which have been concretely developed in each sub-study, but paraphrased them, aimed at highlighting clearly the essence of the question. Furthermore, we want to show here clearly, that the studies always have this dual purpose: on the one hand, they are the empirical research from within existing practices and on the other hand, we use the results for a critical approach to our own definition and then to question the existing theories of practical wisdom. In chapter eight we will summarize the research outcomes of the sub-questions, mentioned under a), as well as the ones of the b) questions: the critical comments on concept, and theories of practical wisdom, and we will reflect on them.

## Qualitative-empirical, explorative research

So, to answer the questions above, it is necessary to *observe* practices directly or indirectly, by means of a mediating database. This immediately gives rise to a difficulty, because practical wisdom is not directly observable and certainly not quantifiable. It has probably been insufficiently themed and operationalized through a primarily theoretical approach. But, it can be *inferred* from the observations in empirical studies. Besides, assessing the meaning of practical wisdom for enacting morality within a practice demands an interpretive step. As the empirical study we want to perform, cannot be about counting and measuring/quantifying but about estimating and interpreting, it must be of a *qualitative-empirical nature* (Patton, 2002; Kristjánsson, 2016).

Moreover, owing to the research questions, the study needs to have an explorative character (Patton, 2002); after all, practical wisdom has hardly been investigated empirically *from the viewpoint of* medical practices up till now, neither the complex nature of these practices has been taken into account, nor their institutional embedding. The studies of, for instance, Iedema, Mesman and Carroll (2013), Vosman and Baart (2015), Timmerman and Baart (2016) and Saraga et al. (2019) are exceptions. In this respect, we are dealing with relatively new research interests, which we have investigated further by means of our research questions. That is why we use the concepts of relationality and practical wisdom, as already indicated, as *heuristic concepts*, i.e. concepts which function as ‘*conceptual lenses*’ (Nicolini, 2012) or as ‘*Sehhilfe*’ (Schmidt, 2012). By using *conceptual lenses*, practical wisdom can be observed more sharply in this study, but therefore, we will inevitably see other aspects of the situation – in which we are also less interested – less sharp or not at all. Consequently, due to the observations, the concept will change in an unpredictable way, and that interplay of theoretical notion and practical modification will proceed in an ongoing oscillating movement.

## The generic methodological characteristics of the four studies

In each of the four studies we used a research method, that was tailored to the specific research question and to the data to examine. This method has been described accurately in each particular study; therefore, we do not elaborate on it here. In this chapter, we will describe what the methods have in common, so that the unity of the integral study becomes clear. At the end of this chapter, we will summarize these common aspects in a table, which we will ‘build up’ in components from here on. The columns of the table represent the four empirical studies, numbered from 1 to 4, corresponding respectively with the chapters 4 to 7 of this dissertation. Each of the lines represents a generic aspect which has been interpreted in a specific way in the four separate studies. Per cluster of several related aspects, we will now explain its relevance and content.



## Title, theme, interest and research question

The specific research question of each of the four empirical studies has been based on the theme -the issue- we intended to investigate further, and on our research interest in a certain aspect of practical wisdom. The themes have partly been generated from problematizing the said aspects in literature (learning practical wisdom in the second study; the possible suppression of practical wisdom in the third study). Partly, from our own supposition of a specific deficit in theories on practical wisdom, because, up till now practices have insufficiently been studied from within practices (faces of practical wisdom in the first study; individualizing patient care as ‘compromising-to-keep-on-course’ when adhering to guidelines in the fourth study). We have already indicated that the exact question will be paraphrased here; the paraphrase serves the clarity, the cohesion and the comparability of the sub-studies.

<b>Titel</b>	1 The multiple faces of practical wisdom in complex clinical practices. An empirical exploration	2 Professional workplace learning. Can practical wisdom be learned?	3 Professional medical discourse and the emergence of practical wisdom in everyday practices. Analysis of a keyhole case	4 Making the best of it; practical wisdom in professional care for adolescents with type 1 diabetes mellitus
<b>Theme</b>	<i>Manifestations of practical wisdom in concrete medical practices in a general hospital</i>	<i>The learnability of practical wisdom in everyday practices within a general hospital</i>	<i>The suppression of practical wisdom in everyday practice within a training hospital</i>	<i>Practical wisdom as carefully navigating to keep course in guiding adolescents with diabetes in an ambulatory care practice</i>
<b>Interest</b>	The actual faces of practical wisdom in medical practices	Problematizing the learning of practical wisdom in everyday work through case discussions	The influence of the dominant discourse and of the care organization on the emergence of practical wisdom	The role of practical wisdom in attuning guidelines to the individual patient
<b>Research question a)</b>	In what <i>manifestations</i> does practical wisdom emerge in actual practices and can <i>patterns</i> be distinguished in these manifestation?	<i>Do practitioners learn practical wisdom through case discussions and if so how does that happen?</i>	<i>What influence do the dominant professional discourse and the care organization have on the possible emergence of practical wisdom in the practice?</i>	How do <i>professionals</i> in a diabetes practice <i>attune guidelines to individual patients</i> and to what extent does it happen through the enactment of practical wisdom?
<b>Research question b)</b>	What does it mean for the work definition?	What does it mean for the work definition?	What does it mean for the work definition?	What does it mean for the work definition?

## Frames: care ethics, research of practices, from inside

In chapter two, we have substantiated our choice for a *care ethical perspective* on care and care practices. In chapter two, we have also summarized its characteristics. In empirical studies into clinical practices, especially the characteristics of *relationality* and *situatedness* or *contextuality* emerge, to a lesser degree the political-ethical aspect of care ethics, although, this always constitutes the overarching framework. This is the case, insofar the ordering of and the relationships between cooperating professionals have been raised and insofar the relationships of professionals with their patients-and-relatives have been studied. (e.g. to what extent were these relationships hierarchically predefined? Who is in a position to determine what is relevant or not in the practices studied?) We will clarify these aspects below. Which aspects will recur in the separate studies has been indicated in the table.

In care ethics care is regarded as “*relational interaction (.....) both a locus of knowing (.....) and a locus of recognition and attention*” (Timmerman, Baart & Vosman, 2019). However, we do not consider relationality as “medium of good communication, treatment and reciprocity” (Baart, 2018, p. 74) in the first place. We take relationality in a broader sense: the patient, in her network of relatives and friends, the care providing professionals in their own networks of peers and other caregivers, managers, institutional infrastructural factors, are all interconnected and interdependent. It is manifested in the way care is structured and in what is judged as relevant; in a learning culture of care; in dealing respectfully with those involved and more (Baart, 2018; Den Bakker, 2018).

The second characteristic of care ethics which will recur in the studies, is the *contextual and situational specificity*. That implies for our research, that we are always looking for those things which proved to be good in that specific situation and context and which are validated locally by the persons who received care (Klaver, Van Elst & Baart, 2014; Nortvedt & Vosman, 2014; Baart & Vosman 2015).

The third characteristic is, that care ethics is *political ethics*; this means that it regards care and caring as a daily practice, that enables living together and also has an impact on the way and organization of living and working together. Tronto and Fisher (1991) have formulated this as follows: “*Care is a species of activity that includes everything we do to maintain, continue and repair our ‘world’ so that we can live in it as well as possible. That world includes our bodies, ourselves and our environment*” (p. 40). In the ‘world’ referred to, we explicitly include the institutional surroundings, in which care practices are embedded (Vosman et al., 2018; Timmerman et al., 2019). Particularly, in the studies three and four, we have paid attention to the influence of the observed structure of care on living and working together within the hospital: as an association of equal partners or in some hierarchy in which dominance and power may be exercised, similarly on patients and their relatives.

In the previous chapter, we have worked out that, by studying practices and not individuals or individual actions, we follow specific practice theories, as described by among others Nicolini (2012) and Schmidt (2012). Nicolini and Monteiro (2017, p. 2) have described practices as “... orderly materially mediated doings and sayings (‘practices’) and their aggregations.” For the empirical research, this practice approach means that we study what is

going on within the setting examined as completely as possible: being its social (the interactions and interaction patterns) and physical elements (being ill and vulnerable for patients; the legitimized invasion of a patient's physical integrity by practitioners); besides, material elements (the patient's file in the third study; the electronic information and exchange of information in the fourth study), institutional, structural elements (whether or not there is regular multi-disciplinary consultation in the second and third study; recording the lessons learned in the second study; structural preparation and subsequent discussion after a consultation in the fourth study) and the culture of work and cooperation (hierarchical, top-down, supportive, sharing and exchanging, respectful etc.). Besides that, we have tried to elucidate the influence of the practice, which has been studied as completely as possible, on the emergence of practical wisdom.

In the same chapter, we have also indicated that we studied practices from *within or bottom-up*. We have done this through observation in the fourth study, but direct observation was not possible in all studies. In three out of four studies, we have chosen for observation through a 'window' (in the form of detailed mediating data), which in retrospective, enabled a very detailed and specific insight in the practices studied. The specificity has enabled us to look in the same direction as the professionals we studied, and thus, we could take up their perspectives. Furthermore, our expectation, that this view from inside would illuminate other aspects of practical wisdom than the features highlighted through theoretical viewpoints from outside, proved to be right (Baart & Vosman, 2015; Timmerman et al., 2019).

Substudy	1	2	3	4
<b>Care ethics</b>	<i>Relationality</i> patient-professional; <i>situatedness</i> of patient and professional	<i>Relationality</i> , also interdisciplinary; <i>situatedness</i> of patient and professional	<i>Relationality</i> , including peer-relations; <i>situatedness</i> of patient and professional; <i>political-ethical</i> aspects	<i>Relationality</i> , including peer-relations; <i>situatedness</i> of patient and professional; <i>political-ethical</i> aspects
<b>Practices, not individual care-activities</b>	The 'doings and sayings' during the integral and situated multidisciplinary, clinical treatment of patients	Multidisciplinary discussions of actual patients, treated multidisciplinary, with the aim to learn from it together	The 'doings and sayings' during the integral, long-lasting clinical treatment of a patient and in the contacts with the relatives	The 'doings and sayings', the organization, the team and the infrastructure of a diabetes practice for adolescents
<b>From inside</b>	'Thick descriptions' of the course of the treatment act as a window on the practice	The lessons from the discussions and the participant researcher act as a window on the practice	The complete medical and nursing files and the diary of the patient's daughter act as a window on the practice	Direct observation of consultation hours, team consultations and group meetings; interviews; consulting documents from the practice

## **Case studies; the first researcher's position**

Nicolini (2012), Eikeland and Nicolini (2011), and Nicolini and Monteiro (2017), as well as Flyvbjerg (2006) and Anderson, Crabtree, Steele and McDaniel Jr. (2005) emphasize that research from within practices (with the help of a toolkit of research methods according to Nicolini, 2012) implies that the researcher concentrates on (the description of) relevant details of situations and not at all abstracts from these details. Herewith, they rehabilitate the *case study* in a specific sense. Also Timmerman et al. (2019), who speak out for the study of practices, argue for the same reason: “*our empirical material typically consists of extensive and comprehensive case descriptions ( ... ) case studies.*” Case research is related to narrative research, that has been promoted by Kotzee et al. (2016) and Tyson (2018).

A case may refer to a single patient; when it refers to several patients, we speak of a multiple-case study; this applies to the first study. However, a case may also refer to a rolling program, e.g. the structural, multidisciplinary patient discussions, aimed at learning from them, in which the lessons learned were recorded and shared, as in the second study. In the third study, we call the case (one single patient) *critical* because the meaning of practical wisdom might precisely become clear by the problems arisen in combination with their presumed regular occurrence. Finally, in the fourth study, the case is a diabetes practice for adolescents. We call this case *exemplary*, because we expect, that in the case concerned, practical wisdom might emerge in a pronounced and consistent form (Bronk, 2012; Timmerman et al., 2019).

## **The first researcher's position; extent of participation**

Initially, all observations were performed by the first researcher, who worked as a pediatrician and part of the time, as a member or chair of the board in the hospital studied. As a colleague-medical specialist, she took part in the case discussions which constitute the basis of the data collection in the first and second study. As a pediatrician, she was affiliated with the same pediatric practice as the pediatricians who were members of the diabetes team in the fourth study. So, there was a different degree of participation in these three studies, with their own, but related advantages. Due, to having a lot of information from inside, to knowing the specific medical language, the habits and culture of both the professional group and the hospital concerned, she has been able to discern meanings rooted in practices. During the whole research process she was supervised by two other researchers, both care ethicists and also experienced in carrying out qualitative-heuristic research in hospital settings. They brought in a critical view, because they observed from a non-medical frame of references. Due to the triangulated deliberations on the descriptions, the analyses and the conclusions of the studies, it appears that a balance has been struck between knowledge and judgement ‘from the inside’ and ‘from the outside’ of practices. The third study is different from the other investigations regarding the first researcher's position; she was not involved with this case nor with the practice and so in this study there was no participation. The exact ins and outs of the researcher's position and the tests of validity and reliability will be presented in the chapters four to seven, in which the studies concerned are presented.

Patton (2002, p. 262) described participatory observation as: *“Being in or around an on-going social setting for the purpose of making a qualitative analysis of that setting.”* He indicated that the degree of participation constitutes a continuum, varying from total submersion in a setting to being completely separated from it and only looking-on from the outside. Patton mentioned as advantages of participatory observation: researchers are better able to act in an open and inductive way, directed to exploration. They are also able to observe matters, which those involved are not aware of or which they have not paid attention to before. Researchers can observe matters, which those involved are not willing to talk about in interviews, e.g. because they are sensitive issues; in interpreting the observations, researchers can make use of the knowledge about the situation, which they personally acquired.

However, there is a risk of ‘going native’ in such research (Timmerman et al., 2019): failing to keep sufficient distance to the practice studied, and, subsequently, adopting without question, the perspective of the parties in the practice studied, including their blind spots. Nicolini and Monteiro (2017, p. 11) indicate e.g. that *“practitioners tend to take for granted artificial aspects of their activity.”* We chose, in order to keep this risk under control, for a continuous change of perspective, guarded by the co-researchers, in which we tried to understand and evaluate from inside the scope of what happened, as well as, to bear the purpose of the study in mind and to clarify the ‘doings and sayings’ of the practice to outsiders.

Eikeland and Nicolini (2011) have advocated a specific form of participatory research. Firstly, they distinguish the areas of interest and the starting point for the research. The first can be mainly practical or mainly theoretical, the second from outside and top-down or from inside and bottom-up. They conclude that research with a theoretical interest (so, aimed at developing concepts or theories) and which is carried out from within practices, is exceptionally scarce. It is, however, really necessary, precisely, to give concepts and theories an adequate foundation. They call it ‘practice based theorizing’. In addition, they discuss the potential of such research *“to support development through reflecting back practices to the practitioners”* (p. 1). In this way, research can become more relevant for practitioners, because ‘actionable knowledge’ (Argyris, 1996) is produced, according to Eikeland and Nicolini, with the aim to develop a new type of theory, that is founded in the practices of ‘knowers’. In the practices we studied, ‘knowers’ are the professionals on the one side and the patients on the other side. As an analogue of such a new type of theory, they refer to grammar in languages *“as the contextually sensitive articulation of language games and language-in-use”* (Wittgenstein, 1953). So, similar to grammar in linguistics, we are looking for practical wisdom in the form of more or less stable patterns which are in more or less the same forms repeated in performances within the observed practices. In the first study, these patterns were seen in specific manifestations or faces of practical wisdom, which the people involved regarded as ‘normal’ or natural, but had never been mentioned in theoretical studies (for instance, ‘getting the time right for the patient’s sake). In the second study, patterns could be distinguished in the complicated learning of practical wisdom from discussing collective experiences and practical examples. In the third study, patterns of good and also of insufficient multidisciplinary cooperation emerged as examples of practical wisdom (for

example, losing crucial patient-information with patient-transfers), and in the fourth study characteristic patterns emerged in the patient centered way of varying on a guideline (e.g. by determining the individual bandwidth – and its boundaries – within which deviation of a guideline is judged to be acceptable).

Sub-study	1	2	3	4
<b>Case study</b>	Multiple case research of 10 'maximum variation cases' accumulated over a period of 12 years	Unique case: lessons learned from 100, multidisciplinary case discussions during 12 years	Critical case: one single case of a difficult, but not unusual, prolonged hospitalization (3 months)	Exemplary case: the practice of 42 adolescents with diabetes mellitus type 1, followed during 3 years
<b>First researcher 's positon</b>	Participatory, retrospective; colleague- specialist, later researcher	Participatory, retrospective; medical professional, board member and moderator case discussions, later researcher	Retrospective research from a distance by a medical specialist; no participation	Participatory observation from a distance, by colleague-specialist working in the same practice, also researcher

### **Data, analysis technique, validation technique**

The criterion for the selection of the research data, as far as they did not consist of descriptions of direct observations, was, whether the data represented (as complete and as true to reality as possible) the practice to be studied. In the first study, "thick descriptions" (Geertz, 1973) of the ten cases studied had been produced for that reason, by means of all available files, other documents such as protocols and guidelines, and conversations with doctors and nurses concerned. Thick descriptions are descriptions in which many details and the context of the case have been worked up, in order to enable the reader to form a vivid image of what is described. In the fourth study, too, we have worked with thick descriptions of the observation data, in which, besides the recordings, the field notes were used. In the second study, especially the first researcher's participation, (her role was to prepare, moderate and evaluate the discussions), was a guarantee for a detailed representation of the discussions. Moreover, the first researcher's interpretation was tested in a 'peer-debriefing' (Janesick, 2015) with six physicians who had participated in the deliberations and had been on the staff of the hospital from the outset of the project. In the third study, the complete medical file was made available, with all its documents, as well as the daughter's complete diary concerning the patient's hospitalization. Furthermore, in this case, the two co-researchers were informed in detail about the procedures during the admission through interviews with doctors and nurses concerned and a long-term interview with the patient's relatives. The results of this study were tested during a feedback-meeting with the involved learning community, in which the co-researchers were able to observe the professionals' reactions.

The applied analysis methods are qualitative heuristics (Kleining & Witt, 2000, 2001) in chapter four; thematic analysis of the practice and dominant discourse (Braun & Clarke, 2006, 2012) in chapter five; content analysis (Hsieh & Shannon, 2005) and direct observation (with ‘Sehhilfe’ of sensitizing concepts) (Nicolini, 2012) followed by abductive analysis (Timmermans & Tavory, 2016) in chapter seven. These methods of analysis have been worked out more precisely in the chapters concerned.

### Concept development

The focus of all studies was also – it has been indicated as the b) questions – on critically judging the heuristic concept of practical wisdom, that had been based on theoretical-philosophical publications. In order to be able to evaluate these concepts and theories, we have derived analysis techniques from grounded theory. Historically, grounded theory was defined by Glaser & Strauss (1967) and pursued the development of theoretical understanding based on gathering, organizing and analyzing empirical data. Such research always has more cycles of gathering data, data analysis and reflection. We applied elements from the constructivist approach, developed by Charmaz (Charmaz, 2006; De Boer, 2011). According to Charmaz, researchers have to discover and reconstruct processes from actions for which an interpretation framework is constructed. In Charmaz’ approach, as in almost all forms of grounded theory, *sensitizing concepts*, which draw the researcher’s interest to aspects that are relevant for the research, and which direct the collection of data are important. She considers the *coding* of material follow various stages: from *initial coding* (open coding), through *focused coding* (coding directly or selectively) to *theoretical coding* (coding theoretically to indicate relationships between categories). The coding is supported by *memoing* (writing memos which capture and account for the researcher’s line of thought), and *constant comparison* (to examine the consistency of concepts and interpretations and to test whether *saturation* has been reached). Saturation is the stage in which the process of loading new data seems to be finished, because no new findings are made. Charmaz also advocates to evaluate the *resonance* of a research by asking: “*does your analysis offer (your participants or people who share their circumstances) deeper insights about their lives and worlds?*” (Charmaz 2006, p. 183).

Initially, the founders of the grounded theory Glaser and Strauss, defined their method of analysis as inductive, that means that researchers were supposed to interpret and analyze freely from their observations, independent from theoretical notions. Since then, adherents of the theory, like Timmerman and Tavory (2016), following the pragmatist Peirce, have stated that the analysis method should be called abductive (also see Timmerman et al., 2019). In their eyes, researchers should not enter the field of research as if they were a theoretical *tabula rasa*. On the contrary, they should do so with a cultivated theoretical sensitiveness, in which, due to the explorative character of a study, theoretical notions can be fine-tuned, modified or completed. They also advocate the use of heuristic methods; in that way, researchers would be able to develop their theoretical repertoire in an inventive and creative way during the research process. They mention three additional methodical steps to complete the abduction process in such an inventive way, namely: *revisiting* (repeatedly reviewing the same

material), *de-familiarizing* of the known ‘world’ (seeing as new or unfamiliar what is familiar) and *alternative casing* (regard the observations from alternative frameworks). They call the *plausibility* of theoretical conceptualizations to be an important quality criterion for research. We used this abductive analysis in the four studies, but especially in the fourth.

In the four empirical studies, *validity* has been safeguarded by repeated discussions between the first researcher and the co-researchers, who separately studied (part of) the material and analyses: researcher triangulation. Besides, using concepts consistently, and to contemplate them critically, was safeguarded by the process of constant comparison.

In addition, an audit procedure has been conducted in the second study, in which the research was assessed by an external auditor according to a structure that had been pre-designed on the basis of literature. In it, three quality criteria were used: *visibility* (a research decision must be made explicit and communicated), *comprehensibility* (a decision must be substantiated) and *acceptability* (substantiation has to be according to the standards, norms and values in the particular field of study) (Akkerman, Admiraal, Brekelmans & Oost, 2006 p. 259). The auditor checked with the help of these criteria and structures, whether the researcher’s interpretations were based on and were consistent with demonstrable data (*confirmability or visibility*) on the one side, and on the other side, whether the analysis and interpretation processes complied with generally accepted criteria (*reliability or acceptability*). The outcome of the audit was positive.

Finally, the validity has been safeguarded by testing the results against participating professionals: peer-debriefing in the second (see above) and a focus group in the fourth study.

Sub-study	1	2	3	4
<b>Data.</b>	Thick descriptions of ten complex patient cases and related documentation	The self-reported lessons learned from 100 multidisciplinary case discussions	The patient’s complete medical file and her daughter’s diary about this hospitalization	Observation data, field notes and documents of the ambulant diabetes practice (consultation hours, team discussions, educational meetings)
<b>Analysis technique</b>	Qualitative Heuristics and elements based on the Grounded Theory	Content Analysis; via the Directed Approach i.e. using predetermined codes	Thematic analysis of the dominant professional discourse and the diary	Abductive analysis of direct observations
<b>Validation technique</b>	Researcher triangulation	Audit procedure; peer debriefing	Researcher triangulation; source triangulation	Testing against focus group of professionals involved



### **Generalizability or transferability**

Anderson et al. (2005, p. 681) stated that “*a case study approach moves us one step closer to being able to study a phenomenon as an integrated whole.*” To give a description of the observed reality as integral as possible, not a reductionist depiction, actually enables the practitioners’ resonance. An integral description can spell out insights which are valuable for practitioners. However, generalizing from such case studies is difficult. That is why, in all these studies, we only pursue *communicative generalizability* (Smaling, 2009a) or *transferability* (Timmerman et al., 2019). This implies that the reader herself must judge to what extent the results are relevant for the own practice.

### **Relevance**

So far, we do not know any research in which practical wisdom has been studied through observations of daily medical practices and from inside and where various aspects of practical wisdom have been highlighted, such as the different manifestations in which practical wisdom emerges in practices and the learning of practical wisdom in daily practice by joint reflection on experiences in the workplace.

The relevance of this research is, on the one hand, a relevance for practitioners, because a, to this date, rather abstract concept, has been described more concrete as a specified, and manageable capability. So now, practitioners can try to acquire and develop this capability intentionally and jointly. The relevance of the study is also reflected in the researchers’ acquired ability to question the merely theoretical approach of practical wisdom critically, with the help of the new knowledge obtained from inside practices. This is the “new mode of knowledge production” that Eikeland has mentioned in his 2006 publication.

We will elaborate on this relevance in the concluding section 8, reaching integrating and concluding remarks and putting forward propositions for further investigations into practical wisdom from inside practices.

In summary, we conclude this chapter with the complete table which has been built in the previous paragraphs.

<b>Titel</b>	1 The multiple faces of practical wisdom in complex clinical practices. An empirical exploration	2 Professional workplace learning. Can practical wisdom be learned?	3 Professional medical discourse and the emergence of practical wisdom in everyday practices. Analysis of a keyhole case	4 Making the best of it; practical wisdom in professional care for adolescents with type 1 diabetes mellitus
<b>Theme</b>	<i>Manifestations of practical wisdom in concrete medical practices in a general hospital</i>	The <i>learnability</i> of practical wisdom in everyday practices within a general hospital	The <i>suppression</i> of practical wisdom in everyday practice within a training hospital	Practical wisdom as <i>carefully navigating to keep course</i> in guiding adolescents with diabetes in an ambulatory care practice
<b>Interest</b>	The actual faces of practical wisdom in medical practices	Problematizing the learning of practical wisdom through case discussions in everyday work	The influence of the dominant discourse and of the care organization on the emergence of practical wisdom	The role of practical wisdom in attuning guidelines to the individual patient
<b>Research question</b>	a) In what <i>manifestations</i> does practical wisdom emerge in actual practices and can <i>patterns</i> be distinguished in these manifestation?  b) What does it mean for the work definition?	<i>Do practitioners learn practical wisdom</i> through case discussions and <i>if so how</i> does that happen?  What does it mean for the work definition?	What <i>influence</i> do the <i>dominant professional discourse</i> and the <i>care organization</i> have on the possible emergence of practical wisdom in the practice?  What does it mean for the work definition?	How do <i>professionals</i> in a diabetes practice <i>attune guidelines to individual patients</i> and to what extent does it happen through the enactment of practical wisdom?  What does it mean for the work definition?
<b>Care ethics</b>	<i>Relationality</i> patient-professional; <i>situatedness</i> of patient and professional	<i>Relationality</i> , also interdisciplinary; <i>situatedness</i> of patient and professional	<i>Relationality</i> including peer-relations; <i>situatedness</i> of patient and professional; <i>political-ethical</i> aspects	<i>Relationality</i> including peer-relations; <i>situatedness</i> of patient and professional; <i>political-ethical</i> aspects
<b>Practices, not individual care-activities</b>	The 'doings and sayings' during the integral and situated multidisciplinary, clinical treatment of patients	Multidisciplinary discussions of actual patients, who had multidisciplinary treatment, as a means to learn from it together	The 'doings and sayings' during the integral, long-lasting clinical treatment of a patient and in the contacts with the relatives	The 'doings and sayings', the organization, the team and the infrastructure of a diabetes practice for adolescents

Titel	1 The multiple faces of practical wisdom in complex clinical practices. An empirical exploration	2 Professional workplace learning. Can practical wisdom be learned?	3 Professional medical discourse and the emergence of practical wisdom in everyday practices. Analysis of a keyhole case	4 Making the best of it; practical wisdom in professional care for adolescents with type 1 diabetes mellitus
<b>From inside</b>	'Thick descriptions' of the course of the treatment act as a window on the practice	The lessons from the discussions and the participant researcher act as a window on the practice	The complete medical and nursing files and the diary of the patient's daughter act as a window on the practice	Direct observation of consultation hours, team consultations and group meetings; interviews; consulting documents from the practice
<b>Case study</b>	Multiple case research of 10 'maximum variation cases' accumulated over a period of 12 years	Unique case: lessons learned from 100, multi-disciplinary case discussions during 12 years	Critical case: one single case of a difficult, but not unusual, prolonged hospitalization (3 months)	Exemplary case: the practice of 42 adolescents with diabetes mellitus type 1, followed during 3 years
<b>First researcher's position</b>	Participatory, retrospective; colleague-specialist, later researcher	Participatory, retrospective; medical professional, director and moderator case discussions, later researcher	Retrospective research from a distance by a medical specialist; no participation	Participatory observation from a distance, by colleague-specialist working in the same practice, also researcher
<b>Data</b>	Thick descriptions of ten complex patient cases and related documentation	The self-reported lessons learned from 100 multi-disciplinary case discussions	The patient's complete medical file and her daughter's diary about this hospitalization	Observation data, field notes and documents from the ambulant diabetes practice (consultation-hours, team discussions, educational meetings)
<b>Analysis technique</b>	Qualitative Heuristics and elements based on the Grounded Theory	Content Analysis, via Directed Approach i.e. with predetermined codes	Thematic analysis of the dominant professional discourse and the diary	Direct observations and abductive analysis
<b>Validation technique</b>	Researcher triangulation	Audit procedure; peer debriefing	Researcher triangulation; source triangulation	Testing against focus group of professionals involved

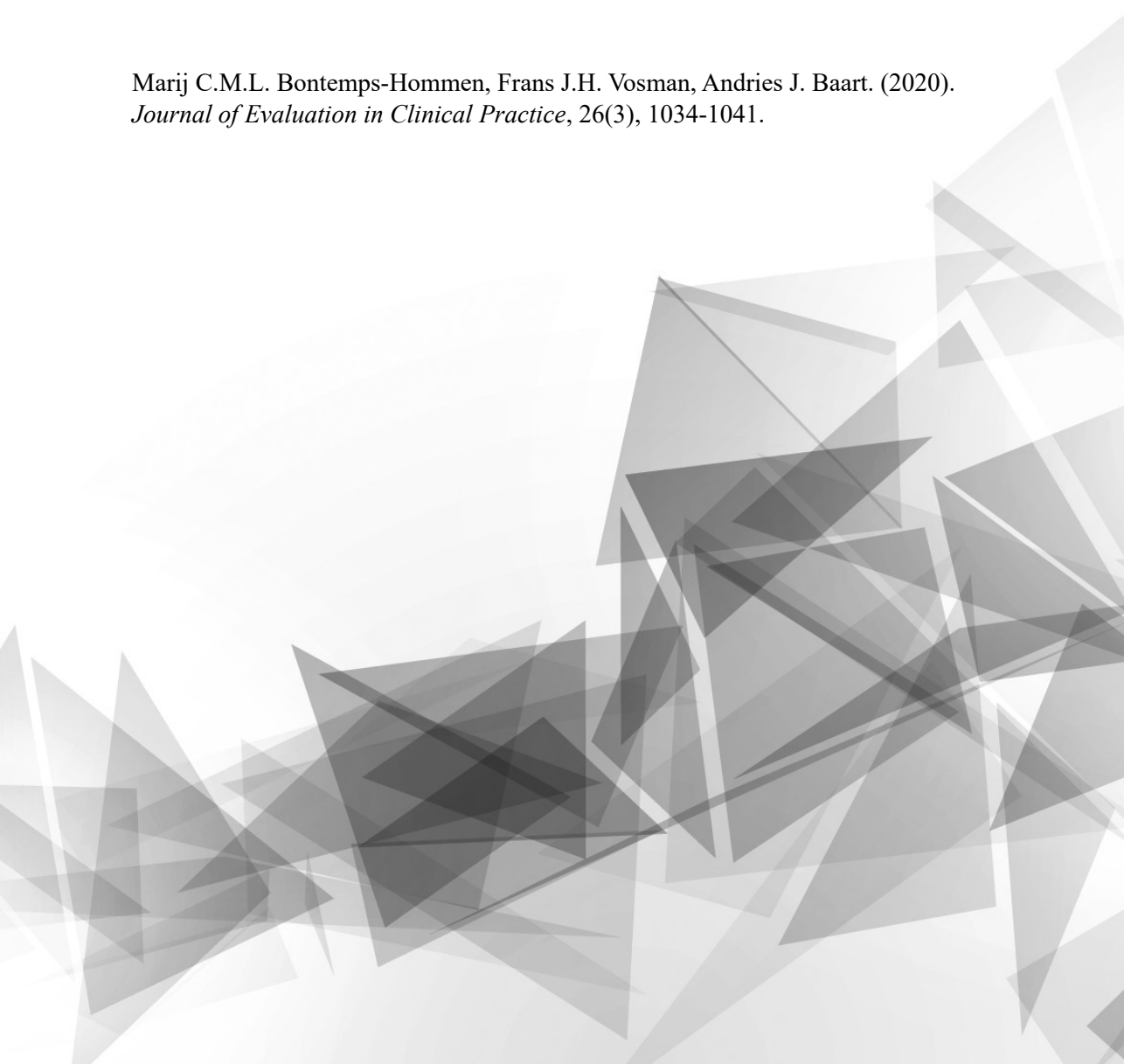
“There was a sign: ROAD TO THE EDGE.  
That’s where I want to go! thought the squirrel.  
But sadly, he soon encountered another side road that he couldn’t ignore,  
no matter how badly he wanted to.”  
Toon Tellegen, *Misschien wisten zij alles [Maybe they knew everything]*



# Chapter 4

## The multiple faces of practical wisdom in complex clinical practices: An empirical exploration

Marij C.M.L. Bontemps-Hommen, Frans J.H. Vosman, Andries J. Baart. (2020).  
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## Abstract

**Rationale, aims, and objectives:** In recent publications attention has been drawn to the importance of practical wisdom in order to ensure good, individually attuned care in complex clinical practices. However, what remains insufficiently elucidated, is how practical wisdom emerges in the workplace. This study aims to describe manifestations of practical wisdom in medical practices within a general hospital. It also seeks to clarify the interruptions that can be considered as triggers for the emergence of practical wisdom. Furthermore, we searched for figurations, which possibly elicit or constrain the emergence of practical wisdom.

**Methods:** We used 10 thick descriptions of very distinct patient cases to carry out an explorative qualitative heuristic in-depth analysis.

**Results:** These varied cases enabled us to describe diverse manifestations of practical wisdom; in addition, we were able to discern 10 different ‘interruptions’ that triggered practical wisdom, and finally, we hypothesize that certain infrastructural figurations might facilitate the manifestation of practical wisdom.

**Conclusions:** We found that practical wisdom frequently emerged in unexpected and diverse guises in these clinical practices, although the ‘interruptions’ that we discovered, did not automatically trigger practical wisdom. We have investigated the figurations mentioned only to a limited degree. More empirical research is needed to make the philosophical concept of practical wisdom better manageable for clinical practices and to gain better understanding of the figurations that elicit or obstruct its manifestation.

## Introduction

**The moral purpose of medicine under pressure.** In everyday medical practices, physicians have a duty to give care that is good in the moral sense. This means: to help each individual patient in an appropriate way, to alleviate her suffering, and to promote her health in a manner that is attuned to her individual situation and context (Frank, 2012). This has also been enshrined in the medical oath. It is the intrinsic goal of every medical practice, which is always situated in a particular healthcare institution and in a particular society. However, both healthcare institutions and society are currently oriented to external objectives that strongly diverge from the intrinsic medical goal, such as reputation, financial results, and power (MacIntyre, 1985; Moore, 2008; Moore & Beadle, 2006). At the same time, medical practices depend on these institutions for appraisal, assessment, and maintenance (MacIntyre, 1985; Moore, 2008; Moore & Beadle, 2006). Thus, inevitably, medical practices are forced into an impossible divergence of objectives.

Another field of tension is that between the clinical need to individualize care, and the view of professional medical organizations, shared by external supervisory authorities, who emphasize the application of comprehensible standards and guidelines in practices, and carry

on audits on this (Frank, 2012; Kristjánsson, 2015; Wyer & Alves da Silva, 2015). These standards and guidelines adhere to a “Newtonian/mechanistic paradigm of ‘predictable cause and effect’ relationships” (Sturmberg, 2018), even though daily reality is characterized by complexity (De Bock, Willems & Weinstein, 2018; Dekker, 2011; Van Wietmarschen, Wortelboer & Van der Greef, 2018) and, is therefore consistent with a very different paradigm. Consequently, the guidelines seem to refer to a reality that is different from the one in which practitioners must attempt to act.

**Practical wisdom: the way out?** Various authors have shown that medical practitioners are successful in giving their patients individualized and morally good care despite these tensions. Practitioners are seemingly doing so by making use of resolution strategies or frameworks which offer guidance. Thus Brennan, Greenhalgh and Pawson (2018) have mentioned ‘muddling through’ as a strategy; Miles (2018) has discussed Person-centered care (PCC) as a useful framework. However, like Frank (2012) and Kinghorn (2010), our expectation is that *practical wisdom* is able to support medical practitioners when dealing with complexity in a professional and goal-oriented way, because it safeguards the orientation to a moral purpose. At the same time, it must be emphasized, that the professional use of expert knowledge and skills, competences and available evidence are just as important for giving good medical care.

First we must ask what practical wisdom is. Various authors (Kaldjian, 2014; Kinghorn, 2010; Pellegrino & Thomasma, 1993) have drawn on Aristotelian phronesis to provide a definition, but, this does not sufficiently take into account the context of late modern, complex practice. For instance, medical professionals currently no longer act individually as the neo-Aristotelians assume. Rather, they function in complex networks consisting of co-acting professionals, as well as various material and immaterial agents (De Bock, 2018; Dekker, 2011; Van Wietmarschen et al., 2018). Furthermore, current medical practices are pervaded by institutional and societal influences and directives (Hafferty & Levinson, 2008; Moore, 2008; Moore & Beadle, 2006). Late modern contexts should therefore be included in any definition of practical wisdom.

Accordingly, we are proposing the following definition: practical wisdom is: *the capability, which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for each individual patient, within the context of the practice and its telos, in ever changing situations, and of how to accomplish this by the most appropriate means, while dealing with complexity and institutional and systemic pressure.* This definition refers to the complex nature of medical practices, i.e. to “a paradigm of interconnectedness and adaptive dynamics” (Sturmberg, 2018). Moreover, it describes practical wisdom as an emergent phenomenon that becomes visible in the actions within practices. We regard practices as they are defined in specific practice theories. Nicolini and Monteiro (2017, p. 1) have defined them as “orderly mediated doings and sayings (‘practices’) and their aggregations.” This is a broader definition than MacIntyre’s, to which Tyson’s 2018 publication refers. ‘The good’ is intended to mean: in accordance with the good life as experienced by the (contextualized) patient in the short and long term. Furthermore, the good

has to be accomplished in a way that is compliant with professional standards, is appropriate to the telos of the practice, and tailored to the particular patient (Bontemps, Baart & Vosman, 2018; Eikeland & Nicolini, 2011; Klaver, Van Elst & Baart, 2014). With regard to the moral goodness of an action, we follow practice theory in not prioritizing the intent of the actor, but locating it in what is revealed to be good for the patient in the professional relationship.

This article will not elaborate further on Aristotelian virtue-ethics. With regard to the relationship between practical wisdom, - one of the intellectual virtues, alongside ‘episteme’ (theoretical knowledge) and ‘techne’ (technical knowledge) – and the moral virtues, we endorse the position taken by Kemmis, 2012. That stance implies that praxis and phronesis are intertwined and reciprocally influence each other: practical wisdom generates a morally desirable practice, while morally good practices bring about practical wisdom.

**Interruptions and figurations.** Kinsella (2012) drawing on Schön (1983, 1991) has stated that practical wisdom is generated and fostered by reflection. “Whatever else phronesis might be, we can safely say that it involves reflection.” Frank (2012) has mentioned: “Reflective practice begins with interruption.” Kinsella has spoken of disruptions, Baecker (2011) of ‘Verstörungen’ [disturbances] in current professionalized work. According to Frank, what is interrupted is “the temporal flow in which what is supposed to happen next dominates the present”, as well as “what sociologists call *typifications*.” Kinsella has mentioned disturbances of habits and routines. In this article we will look for interruptions that occur in daily medical practice.

We will, lastly, also define the concept ‘figurations’ in line with the aforementioned practice theories. Figurations are networks of human and material, interrelated and interdependent factors, which constantly adapt in dynamic processes (Elias, 1971; Schmidt, 2012; Wilterdink, 2011). With regard to social practices, Schmidt (2012) has related figurations to the heuristic metaphor of the game. It must be emphasized, that connections within figurations are very unlike cause-effect relationships or correlations.

**Our research questions.** Our first research question is whether practical wisdom can be observed in concrete, everyday medical practices in a general hospital. The second is: what manifestations of practical wisdom can be discerned? And the third: how do the interruptions mentioned above occur in these medical practices and do they in fact lead to practical wisdom? The fourth is, whether it is possible to distinguish specific figurations which constrain or facilitate the manifestation of practical wisdom in medical practices.

Our research questions have arisen from the observation that, although publications on practical wisdom have become more numerous (Kristjánsson, 2015), until now, they have so far remained mainly philosophical-theoretical in nature (Kaldjian, 2014; Kinghorn, 2010; Kristjánsson, 2015). Conversely, our intention is to investigate these questions *empirically*, so as to approximate the actual practices as closely as possible, and to take into account the ‘muddiness’ and complexity of practices, things which are often overlooked elsewhere. We therefore needed a form of explorative qualitative-empirical research, since practical wisdom is not quantifiable or measurable. What can be observed, however, is “what people actually



do” (Nicolini, 2012). Schmidt (2012) has spoken of “Die Öffentlichkeit der Praktiken” [practices in full view]. For that reason, we have chosen a qualitative-heuristic in-depth analysis of thick descriptions of ten patient cases, in which many details, including characteristics of the patients’ contexts, are reflected (Geertz, 1973).

## Methods

**Qualitative heuristics.** As the set-up of this study is explorative, we have chosen qualitative heuristics (QH), a method, geared to exploration and discovery, developed by Kleining (Kleining & Witt, 2000, 2001). Kleining has recommended using of four basic rules: that 1) *the researcher is open to new concepts and to change of perception*; 2) *the research object is transparent*: to be initially preliminary defined and to be adapted during the research process; 3) *there should be maximum variation in data collection*, by introducing a structural and systemic variety of perspectives; 4) *data analysis is oriented to integration* by focusing on similarities, and ultimately by identifying patterns. We will indicate how we complied with these rules, below. In qualitative heuristics, ‘inner’ validity will be achieved during the research process through continually changing observation data until saturation is reached, i.e. no new data appear. Therefore, maximum variation of data is demanded. Reliability is safeguarded in the same way: by demonstrating that new perspectives or examples show the same similarities and can thus be integrated in the same way. Generalizability should be tested by the readers of the research by investigating whether the results are also valid outside the study: communicative generalizability (Eikeland & Nicolini, 2011; Smaling, 2009a).

**A multi-case study of complex patients.** The research consists of a multi-case study of 10 patients, selected by theoretical sampling (a method derived from grounded theory (GT) (Glaser & Strauss, 1967). From 100 patient cases which were subsequently discussed in the monthly medical staff meeting at a general hospital, over the course of twelve years (2005-2016). According to theoretical considerations the cases had to be complex in nature and the moral purpose of the treatment should be a problem. In selecting the cases, we looked for maximum variation (QH) and for saturation (QH and GT). The case studies show a wide variety in patients’ ages (7 to 89 years) and gender (5 female and 5 male); the medical specialties involved (surgery of all kinds, pediatrics, internal medicine, anesthesiology, cardiology, pulmonary medicine, geriatrics, emergency and intensive care medicine); the nature and severity of the problems presented (somatic, psychological, social, psychiatric, trauma, minor or lethal); the manner and urgency of the presentation (from minimization to exaggeration of complaints, from relatively healthy to critically ill); the patient’s living situation before presentation (from independent living, to living in an institution); the duration of the treatment (27 hours to 4 years); the treatment setting (Emergency Department, Outpatient Ward, a Clinical Ward, Intensive Care Unit). This ensured that there was a wide variety of cases. (this is the third basic rule of QH)

The patient cases selected are all characterized by complexity i.e. the patients suffer from multiple, intertwined physical diseases; they may have psychological and social problems as well; moreover, the treatment situations, in which different disciplines have to

work together intensively, are complex. Furthermore, it was possible only in very few of these cases to make a *prima vista* diagnosis, nor was a straightforward treatment strategy according to a protocol or guideline generally possible. Physicians were often confronted with unexpected findings, or cooperation or communication difficulties, especially when they had to collaborate with partners in a treatment chain.

**Procedure.** The first researcher started with a ‘thick description’ of four selected cases, i.e. a thorough description which includes many details that illustrate the patient’s problem, the situation and the context. The description was based on the available documents (medical, nursing and para-medical files, including correspondence and meeting reports). The issues, discussed in the medical staff’s deliberative meetings, have also been included. In a sense, the study involves participatory research, because the first researcher herself practiced in the hospital involved and took part in the case discussions (Eikeland, 2001; Smaling, 2009b). Our aim was not to carry out a text analysis of the various documents, but to study the medical actions as they are presented in the files: to study the practice. The research was also focused on the institutional context of the actions (i.e. the hospital organization; peculiarities of the ward; of place and time). In this manner, the cases were clearly contextualized (Judkins, 2015; Upshur, 2014).

First reflections, which occurred during the description, were immediately recorded. The leading question was: where can practical wisdom be observed: discernment of what is ‘the good’ for the patient and the right way to accomplish this. Our aim here was to *identify, not to code* practical wisdom. The manifestations of practical wisdom that were observed appeared to be very diverse and situated (first basic rule QH). Additionally, we searched for the ‘interruptions’ mentioned above, which could have brought about practical wisdom. The findings were revised and developed by critically discussing the descriptions of the first four cases with both co-researchers, who are both ethicists, not medically trained, but experienced in research in hospital practices. After that, in order to achieve a greater degree of variation (third basic rule QH) and saturation, two new cases were selected, described, reflected upon and discussed in the same way. Subsequently, the first researcher selected four other cases, one at a time, until theoretical saturation was reached, and a heuristic research process again took place. In that process, the manifestations of practical wisdom, that had been gathered thus far, were reviewed and it was possible to supplement them (second basic rule QH). Finally, we were able to distinguish several characteristic similarities and patterns in these manifestations of practical wisdom (fourth rule QH). Similarly, the first search yielded four different ‘interruptions’; in the second and third search we found six additional ones.

## Results

First, we will depict the interruptions which we observed that can possibly permit practical wisdom to emerge (third research question), and after that, we will give examples of practical wisdom that we found in relation to the interruptions (first and second question). Subsequently, we will indicate what similarities and patterns we have distinguished in the examples, and finally, (fourth question) we will discuss the figurations mentioned.

Appearance → ↓ Origin	Types of interruption	Examples
Work context	Disturbance of work flow/schedule	Patient is unexpectedly referred urgently (pt 7)
	Imperfections in the work situation that pose risks for patients	Bad moment for referral: night; weekend; holidays (pt 2)
	There are no appropriate guidelines; need to improvise	Multi-morbidity (pt 1) Vague complaints (pt 4)
	Patient in the wrong place; professional in the wrong position	Patient with chronic psychiatric complaints at the E.D. (pt 8)
Doctor-patient relationship	Relationship is or becomes disturbed	Language barrier (pt 9); functional illiteracy (pt 6); physician's language incomprehensible (pt 6)
	Perspective-distorting emotions lead to incorrect judgement	Disgust (pt 8); irritation (pt 5); anger (pt 2); despair (pt 2)
Patient's characteristics	Patient's behavior creates problems	Patient runs away (pt 10); patient refuses treatment (pt 5)
Physician's (work) characteristics	Uncertain knowledge, yet pressure to act	Unknown history patient (pt 2)
	Intuition does not match objectifiable facts	Intuitive assumption of lung cancer does not match X-ray (pt 3)
	Awareness: interference has started, but it seems medically futile	Continued check-ups without medical need (pt 5)

**Table 1: Outline of the different types of interruptions.**

**Interruptions.** We found 10 interruptions which varied in nature, and which illustrated the complexity of everyday work: see table 1. We do not claim that this list is exhaustive. The classification has been chosen because of its usefulness in medical practices. The interruptions appear as specific hiccups in the work situation, and, moreover, as disturbances in the practitioners' perceptions (of patient's concerns, of the treatment relationship and of uncertain knowledge).

**Manifestations of practical wisdom.** We will now give examples of practical wisdom as observed in the context of each interruption that we found. We discovered that the interruptions sometimes, but not always, initiated practical wisdom. We will address this question under 'reflection.'

For the sake of clarity, in describing examples of practical wisdom, we have highlighted the extremities of a bandwidth, but there are certainly patches of wisdom elsewhere within that bandwidth.

1. **Interruption of the workflow:** patient 7, a seven-year-old boy who has been limping for some weeks, is urgently referred to an overbooked pediatric surgery by his General Practitioner (GP). The pediatrician interrupts her consultations to examine the boy, and to have a conversation with him and his parents. She orders the necessary additional tests and asks her assistants to inform the waiting patients and to adjust the schedule of the consultation hours. *We see this as a manifestation of practical wisdom, because the physician does what proves to be good: breaking a binding schedule because of the urgency of the reference and of the concern raised. She thus also builds a strong professional relationship.*

By contrast, no practical wisdom can be discerned in the following example: patient 2, an 80-year-old male who has fallen off the basement stairs at home, is admitted via the Emergency Department (ED) with light traumatic cranial-brain damage as a preliminary diagnosis. The following morning, during the doctor's round, for which only limited time is available, it appears from the nurses' observations that the patient's symptoms do not fit the diagnosis made on admission, and, moreover, that the patient has a long, insufficiently documented medical history. The physician nevertheless maintains the preliminary diagnosis. *The absence of practical wisdom appears from the failure to recognize that the diagnosis is wrong and also to not bridge the unacceptable knowledge hiatus; this means that the good of the patient is neglected.*

2. **Imperfections in the working environment:** after more than two weeks, on a Friday evening, patient 2 is referred from the neurological ward to the surgery department. There are fewer nurses available during evenings, nights and weekends; doctors on duty only do necessary and urgent work. *Referring the patient on a Friday evening without accompanying arrangements, i.e. denying systemic obstacles to a patient-oriented cooperation among professionals, evidences the absence of practical wisdom.*

3. ***Inappropriate rules, appointments, and guidelines:*** patient 10, a single, 50-year-old woman, a nonconformist artist, turns out to have lung cancer with brain metastases resulting in epileptic seizures. During her recovery, while the seizures are still occasionally occurring, the nurses find out that she secretly drinks whiskey. She has been advised against consuming alcoholic drinks, because of the seizures and her anti-epileptic medication; moreover it is hospital policy that hospitalized patients may not take alcoholic drinks. Nevertheless the neurologist decides to allow her to consume alcohol in moderation and even instructs the nurses to facilitate this, against professional and hospital rules. *Particularizing the rules for this patient in the terminal stage can be called acting wisely.*

By contrast, the GP who treated patient 3, a 60-year-old man, according to the standard for ‘shoulder complaints’ did not show practical wisdom. *The standard did not fit the patient’s symptoms well, and applying it caused unnecessary delay in diagnosis and treatment. It did not, therefore, serve the good of the patient.*

4. ***The patient has been referred to the wrong place; the professional is in the wrong role:*** patient 8 is a 65-year-old male with a chronic psychiatric condition, who is being treated as an outpatient in a mental health institution. Over a short period of time, he checks in at the ED several times, on his own initiative, with physical complaints, for which no physical cause can be found. The ED physicians are unable to prevent the ED consultations or to set the patient’s mind at ease. Finally, an ED nurse decides to contact the patient’s GP directly, and she recommends referring this patient to a geriatrician in order to find a solution for him. In doing so, the nurse goes beyond her role. *She acts wisely, because she recommends a more appropriate way to achieve the good of the patient.*
5. ***Disturbance of the doctor-patient relationship:*** patient 5, a 14-year-old boy is referred to a pediatrician by his GP. The boy has walking problems and experiences pain alternately, in his right or left hip. After many examinations and consultations, it is evident that there is no somatic base for the complaints. The patient appears to react with a postural adjustment to situations that are stressful to him, and which occur frequently because of his specific coping behavior. However, at first, the boy and his parents reject psychological treatment. The pediatrician realizes that it is her task to guide the boy to healthy adulthood. Therefore, she offers to be available for consultation, whenever new problems occur. Despite the difference of interpretation she succeeds in maintaining the relationship and communication, and in preventing medical shopping. Eventually, the boy accepts the real cause of his pain and decides to accept treatment aimed at changing his coping behavior. *The perseverance, and the physician’s long-term guidance, carried out in order to maintain a professional relationship, must be called wise, because in doing so she makes a healthy future for her patient possible.*

Practical wisdom is lacking in the care for patient 4: a mentally disabled woman, 39 years old, resident of a home for mentally disabled people, is referred to the ED because she is seriously ill. The junior-physician writes “no communication

possible” in the patient’s file. What she means is: no *verbal* communication possible. As she neglects the patient’s numerous nonverbal signals, she is indeed unable to communicate with her disabled patient. Moreover, the caregiver, whom the referring doctor purposely asked to accompany the patient, is not sufficiently included for the physician to obtain a clear image of the patient. This leads to an incomplete diagnosis. Furthermore, the young doctor’s actions are not corrected by the supervising specialists. *Practical wisdom is missing, because the doctors responsible were not sufficiently aware of their incomplete knowledge and skills and did nothing to overcome these issues.*

6. ***Emotions, that obscure professional judgement:*** in the case of patient 5, the pediatrician observes that she is becoming irritated, because the patient and his parents obstinately cling to the idea of a somatic etiology of the symptoms, despite lengthy explanation to the contrary. She discusses the irritation with her colleagues and thus succeeds in controlling this emotion, which in turn enables her to continue her professional relationship with the patient. *We define controlling one’s own emotions in order to save a proper professional judgement, as practical wisdom.*

In the case of patient 8, doctors develop feelings of disgust for him as an unkempt, demanding man. But these feelings remain below the surface and as a result they distort professional judgement and the professional relationship. *Not investigating negative emotions and not controlling them illustrate a lack of practical wisdom.*

7. ***A patient’s problematic behavior:*** patient 6 is a 59-year-old woman with chronic multiple sclerosis and a mild mental disability, strange behavior, and poor communication skills. Her complaints are an aching knee and thigh. The orthopedic surgeon (one of the many specialists who see her) describes the patient’s odd presentation. Afterwards, various other physicians equally indicate that they think the patient’s behavior is unusual. In the meantime, the treatment that was begun does not appear to be successful and the patient’s condition deteriorates. Finally, a rheumatologist is consulted. After a thorough study of the medical file, the rheumatologist decides to sit down quietly with the patient and just talk with her to go over the progress of the illness from the beginning. This approach finally leads to the correct diagnosis. *The rheumatologist shows practical wisdom by taking time for reflection, making effective contact with the patient and going back to the beginning of the complaints, in order to obtain a correct judgement.*

Patient 10 ran away from the hospital on the last day of treatment and could not be located for some time. Before this, she had already done things that are unusual for patients: she made coffee in the ward kitchen at 4.30 a.m. and secretly drank whiskey. *To judge this kind of behavior as merely problematic, troublesome or recalcitrant, i.e. not being able to take on the patient’s perspective, illustrates a lack of practical wisdom.*

8. ***Uncertainty of knowledge:*** patient 9 is a refugee from the Middle East who has been granted permanent residency in the Netherlands. Not long before fleeing, she had an

operation in her home country because of a mamma carcinoma, but documentation is missing. Chemotherapeutic treatment has taken place elsewhere in the Netherlands. She has received regular check-ups by the oncologists in this hospital. There appears to be a language barrier, although her children act as interpreters. The internist-oncologist perceives the communication difficulties, and decides to make a number of arrangements to compensate for them, including frequent check-ups and regular consultations with the GP. *The fact that the physician recognizes communication difficulties, articulates this, and involves others in remedying them, reflects practical wisdom.*

Patient 1 is an 89-year-old widow who, after having been relatively healthy for years, is admitted to hospital for the fourth time in four months. This time “because it’s not going well at home” and the GP is asking for “analysis”. Both the GP and the patient herself, who is described on several occasions as “remarkably lucid of mind”, want to discuss the possibilities for her last stage of life. However, in hospital, the attending doctor fails to have a good conversation with the patient, which would have been necessary to get an impression of her capabilities, her suffering and her wishes. *Not recognizing shortage of knowledge (about the precise reason for the referral) and therefore doing nothing to remedy, illustrate a lack of practical wisdom, because it makes goal-oriented actions impossible.*

9. ***Intuitive signals:*** in the case of patient 3, we saw that the GP’s intuition (her patient had been a heavy smoker for years) caused her to rule out a lung tumor, investigating complaints of a painful shoulder via an X-ray of the lungs. *The GP’s actions, trying to underpin her medical intuition, based on knowledge of context, and aimed at a proper medical judgement, can be called practical wisdom.*
10. ***Medically meaningful/meaningless for the patient:*** patient 9 is, at a terminal stage of her illness, and is released from hospital at her own request to die at home. There is no medical benefit to administering tube feeding. On the contrary, this would induce a great deal of discomfort. Yet, the attending oncologist decides to prescribe tube feeding, because he knows, that this woman is waiting for a son she has not seen for years. This son is currently on his way to his mother to take his leave of her. *In doing so, the attending physician is showing practical wisdom, because tube feeding, by prolonging the woman’s life, serves a purpose, which is very dear to this patient, even though it also causes physical discomfort (suffering).*

Table 2 is a summary of the examples of practical wisdom we observed: it illustrates the application of basic rule 4 (QH): we have listed the analogies we found in the examples of practical wisdom in the first column. The second column shows the overarching patterns we discerned in these similarities.

Faces of practical wisdom:	
Similarities	Patterns
Deciding to diverge from schedule (sometimes in a split second) (pt 7)	Meandering work routine
Going back to the beginning of complaints (pt 6)	
Improvising, varying on existing themes (pt 5)	Attuning to the patient and the situation, by modifying available means (improvising)
Repairing or compensating actions in case of observed imperfections in the work situation (pt 2)	
Putting aside (non)fitting rules/guidelines or adapting them, on the basis of arguments (pt 10)	
Properly using the factor of time: take time, accelerate; delay; time accurately, sometimes going against binding schedules (pt 9; pt7)	Getting the timing right for the patient's sake
Inventively calling on additional, sometimes alternative sources of information: intuition/knowledge of relatives and people involved (pt 1; pt 3; pt 4)	Taking advantage of different sources of information as well as objectifiable knowledge/evidence
Controlling emotions and investigating them for their epistemic possibilities (pt 8; pt 5)	
Discerning disturbances of the professional relationship and actively looking for solutions (pt 9; pt 6; pt 4)	Maintaining or consolidating professional relationships
Actively inquiring the "logic" behind deviant behavior of patients or co-professionals (pt 10; pt 8)	

**Table 2: Similarities and patterns in the manifestations of practical wisdom**

As the reader may have noticed, we have used words to describe the examples of practical wisdom that are different from those we used in our definition. That is because of the plurality and the fluidity of "the good", we were able to detect in these concrete situations. These particularizations of the definition illustrate the first two basic rules of QH.

## Reflection

**Practical wisdom has many faces.** We will now reflect on our findings, on the basis of our four research questions. We were indeed able to discern practical wisdom in everyday medical practices, and we have distinguished many aspects of it.

In addition, as outlined in table 2, we have found five patterns of practical wisdom: a meandering work routine; attuning to the patient and the situation by modifying available means (improvising); getting the timing right for the patient's sake; taking advantage of different sources of information; and looking for ways to maintain or consolidate professional



relationships. This multi-case study has thus enabled us to particularize and complement the theoretical definition of practical wisdom. It appears to be the capability, even the art, to secure what is good for the patient, both in the short and the long term, in agile and inventive ways, using very diverse, sometimes unconventional means and opportunities, for every patient separately and time and again, in varying situations. This art has to be practiced in surroundings, which contain “contextual constraints” (Sturmberg, 2018) on the emergence of practical wisdom, such as the imposition of general and binding rules, appointments and routines (Chambliss, 1996; Judkins, 2015; Upshur, 2014). We have observed these constraints for instance with patients 2 (limited time for the doctor’s round), 7 (mandatory schedule) and 10 (‘no alcoholic drinks for hospitalized patients’). Time and again, the reference point of practical wisdom appeared to be the ‘telos’: the good that has to be achieved for the patient *and* that is also in accordance with the goal of the professional practice (Bontemps et al., 2019). This was illustrated by patients 1 (how to honor her last wishes) and 9 (to prescribe tube feeding to enable a farewell). In these ways, practical wisdom appears to be ‘wisdom-in-action’ in daily practice, i.e. ‘doing’ practical wisdom (Schmidt, 2012). It appears to take seemingly trivial and commonplace forms, which is different from what is suggested in theoretical publications. The examples we saw included consciously disrupting an orderly consultation schedule with patient 7; improvising with role boundaries with patient 8; and going over the full history of complaints with patient 6. The practical interpretations as we have described them, have not led to a change in our definition of practical wisdom. However, the particular instances did induce a deeper understanding of how practical wisdom unfolds in everyday practices.

**Interruptions and figurations.** Our study has mentioned multiple interruptions (see table 1) in daily medical practices: from missing appropriate guidelines, to emotions, to pressure to act in uncertain situations. We found that these interruptions can certainly be the prelude to reflection that leads to practical wisdom, but, that reflection and practical wisdom do not automatically result from interruptions. Probably, the presence of facilitating or restraining factors is important here: these are the figurations we mentioned before. Moreover, the interruptions appear to be very different from the serious dilemmas which are traditionally seen as the main occasion to manifest practical wisdom (Kaldjian, 2014; Pellegrino & Thomasma, 1993).

This research has allowed us to formulate the hypothesis that explicitly focusing on practical wisdom in practices and institutions could facilitate its emergence. For instance, by constructively engaging intuition and by talking about controlling one’s emotions. Moreover, we assume that incorporating certain figurations in the work infrastructure, such as introducing structural moments of reflection, could promote the emergence of practical wisdom. For instance, in the case of patient 10 “care provider huddles (informal meetings) at the beginning of every shift” (Widmer, Swanson, Zink & Pines, 2018) could have brought about a better relationship with the patient, as a result of which she would not have felt the urge to run away. We did not, however, have the opportunity to investigate these hypotheses any further in the present study.

## Conclusions

The current explorative, qualitative-heuristic research of 10 patient cases has demonstrated that practical wisdom occurs in various ways in real-life medical practices. We have also found 10 ‘interruptions’ of varying nature, which can provoke the emergence of practical wisdom, but which do not seem to do so automatically. Regrettably, we were only able to investigate the assumed facilitating or constraining influence of concrete figurations on this emergence of practical wisdom, to a limited degree.

The numerous manifestations of practical wisdom that we described, and in which we have recognized five patterns, are represented in table 2. Wisdom-in-action appears to consist of apparently small, meaningless actions, which, nevertheless manifest the true capacity to give good, appropriate care and to maintain the professional relationship (Fricker, 2007; Mol, 2006; Stolper et al., 2011; Van Heijst, 2005; Vosman & Baart, 2011).

More empirical research is needed to correct and complete the conceptualization of practical wisdom so that it becomes more useful for medical practitioners in their practices to achieve the moral goal of their work: to assist patients professionally, in order to ensure the good of the patients. Moreover, more empirical research should be devoted to exploring the figurations which facilitate the emergence of practical wisdom. We were only able to indicate a number of these in the current inquiry.



“Would you tell me, please, which way I ought to go from here?”

“That depends a good deal on where you want to get to”, said the Cat.

“I don’t much care where . . .” said Alice.

“Then it doesn’t matter which way you go”, said the Cat.

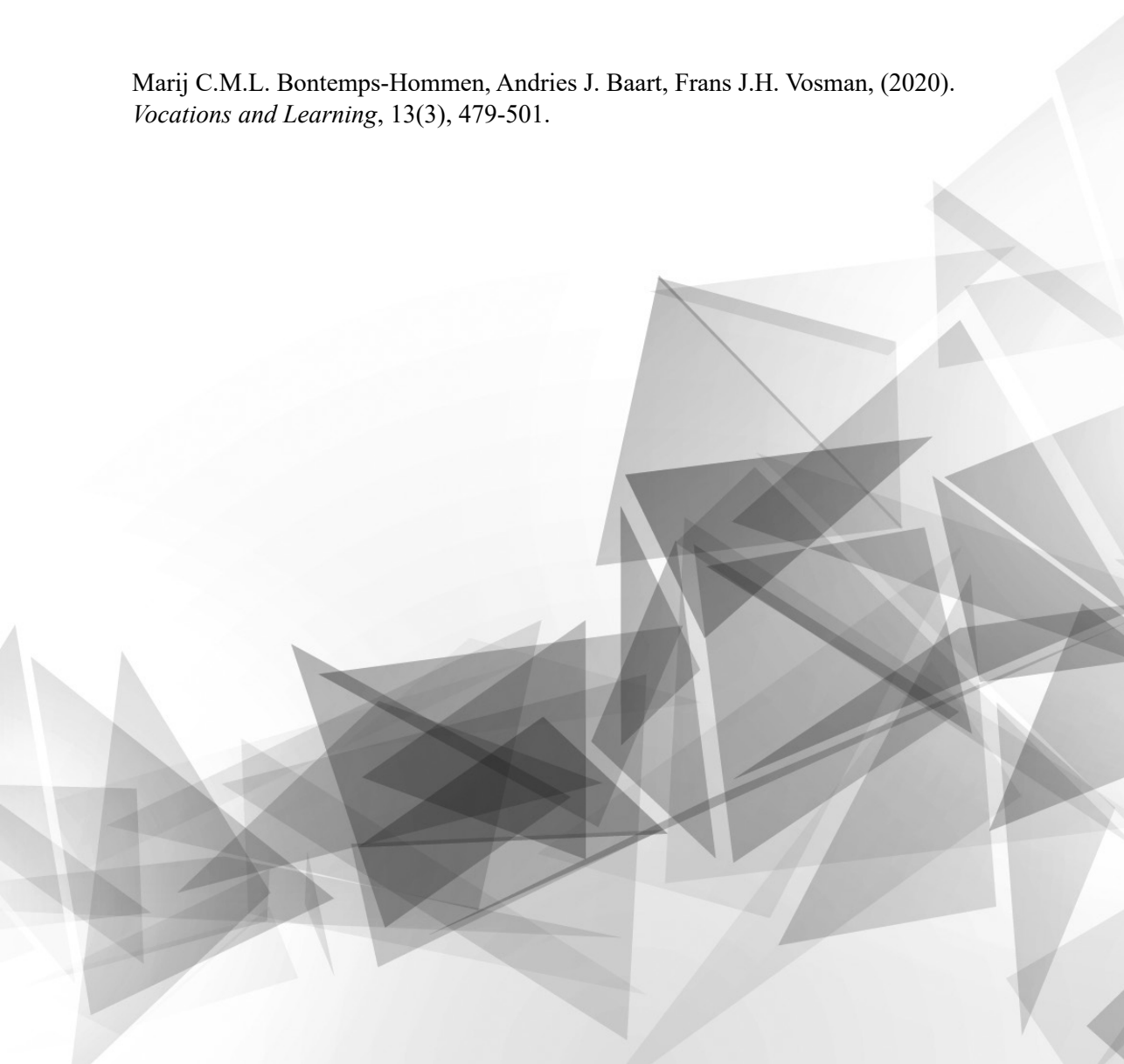
Lewis Carrol, *Alice in Wonderland*



# Chapter 5

Professional workplace-learning.  
Can professional wisdom be learned?

Marij C.M.L. Bontemps-Hommen, Andries J. Baart, Frans J.H. Vosman, (2020).  
*Vocations and Learning*, 13(3), 479-501.

The background of the lower half of the page features a complex, abstract geometric pattern. It consists of numerous overlapping, semi-transparent polygons in various shades of gray, creating a layered, crystalline effect. The shapes are irregular and angular, with some pointing towards the center and others extending towards the edges. The overall composition is dynamic and modern, contrasting with the clean, sans-serif typography of the text above.

## Abstract

This article aims at investigating whether physicians can acquire and develop practical wisdom in their practices through structural case discussions focused on learning. Our starting point is that practical wisdom is essential to realize the moral purpose of professional care: to help each individual patient to alleviate her suffering and to promote her health in a way that is attuned to her individual personality and situation.

In recent publications on learning practical wisdom after the formal curriculum, we have found two different opinions. Some authors claimed that practical wisdom can only be learned implicitly from experiences in the workplace; others that learning practical wisdom can also be accomplished intentionally in peer groups reflecting on their work.

We have analyzed the lessons learned from 100 case reviews, recorded by the participating physicians themselves. The discussions had been organized in a Dutch general hospital during a twelve-year period. We have found that the joint practitioners really did acquire practical wisdom through reflection and deliberation, partly implicitly, partly explicitly. We have also discovered that they managed to translate practical wisdom into the infrastructure and the culture of collaborating groups, practices and the institutional work context.

The results of this investigation have led us to formulate proposals to stimulate the learning of practical wisdom through reflection on everyday work in hospitals. Practical wisdom will foster the realization of the moral purpose of professional medical practices.

## Introduction

Recent publications have underlined the indispensability of practical wisdom to realize the moral purpose of professional care, especially in late modern medical practices which are dominated by complexity, uncertainty and changeability (Bontemps, Vosman & Baart, 2019; Kaldjian, 2014; Kinghorn, 2010; Kinsella & Pitman, 2012; Montgomery, 2006; Vosman & Baart, 2008). At the same time, however, the acquisition and development of practical wisdom have been called problematic. Some authors doubt whether it can be taught at all, either within the framework of a training curriculum, or through formal learning in the workplace. Thus, Kemmis has argued “I believe that *phronesis* is not something that can be taught; it can only be learned, and then only by *experience*” (Kemmis, 2012, pp. 148/149). Kinghorn has emphasized that this ‘learning by experience’ is a challenging, long-term and vulnerable process. By contrast, Iedema, Mesman and Carroll (2013) have contended that, in the complex reality of daily practice, professionals will be able to learn practical wisdom as “knowing how to act” through conscious processes: by transferring practical wisdom from the domain of the tacit and the implicit to the domain of the conscious and the controllable through collective reflection on visualized practical cases. Kinsella (2012, p. 167) has also stated that “a means of cultivating *phronesis* in professional education and practice may well be to encourage professionals to talk about, share, and document the aporias (unsolvable

problems and contradictions) of practice with one another”. In addition, authors of theoretical and empirical, psychological studies of wisdom, that have been conducted during the last two decades, aimed at defining and measuring wisdom, also have promoted the teaching of wisdom in schools and universities (Ardelt, 2003; Ardel, 2020; Bangen, Meeks & Jeste, 2012; Grossmann, 2017; Jeste et al., 2010; Sternberg, 2001).

**Learning practical wisdom in the workplace?** The fact that the learning of practical wisdom has been problematized in scholarly literature has deepened our interest in the problem how experienced physicians acquire practical wisdom in the hectic everyday context of institutionalized patient care. Does this happen, as Kemmis (2012) and Kinghorn (2010) have argued, *exclusively* by practicing itself? So, is it limited to implicit, *individual learning* resulting in *tacit knowledge* (Eraut, 2004; Vosman & Baart, 2008)? Or, does it *also* happen through intentional learning processes *in groups*, resulting in *explicit, distributed knowledge*, as Kinsella (2012) and Iedema et al. (2013) have stated, mainly in deliberative meetings focused on learning? Do these learning meetings need to have the acquisition of practical wisdom as a specific goal? Or, is it possible to acquire practical wisdom through case discussions with a general learning-aim?

Studies into the learning of practical wisdom have so far mainly been conducted within the official medical curriculum (Iedema et al.’s 2013, and Timmerman and Baart’s 2016 studies are an exception). Mostly, students have been asked to report and reflect on cases or stories from their internships in tutor groups, led by a supervisor or mentor (Kaldjian, 2010; Kotzee, Patton & Conroy, 2016; Myopoulos, Kulasegaram & Woods, 2017; Reynolds, Sarriot, Chad Swanson & Rusoja, 2016; Tyson, 2018). However, our interest is in learning after the official curriculum has been completed. We therefore decided to empirically investigate the problem depicted above in an ordinary clinical setting.

Before we describe the research data and research methods we will at first define the key concepts that we have used in this study.

**Key concepts: practical wisdom.** Our definition of practical wisdom is based on the Aristotelian *phronesis*, and also on the recognition of the complex, rapidly changing, and plural, late-modern context of medical work (Giddens, 1990; Rosa, 2013; Vosman & Niemeijer, 2017). Aristotle sees *phronesis* as an intellectual virtue alongside other intellectual virtues, especially *episteme* (theoretical, scientific knowledge) and *techne* (skill in making things – instrumental knowledge), and the moral virtues. He has named it ‘the meta-virtue’, because it integrates, guides and overarches the other virtues and it determines their context-related value. (Kinsella & Pitman, 2012; Kotzee et al., 2016; Kristjánsson, 2015). Eikeland (2006, p. 23) has emphasized that Aristotle’s philosophy is a practical philosophy i.e. that “*phronesis* is assigned to praxis or “doing”, i.e. to activities having their ends and objectives within themselves”. Kemmis (2012, p. 150) has described praxis as a particular kind of action that is morally committed, morally oriented and informed by traditions in a field. Moreover, he has pointed to the complex interconnectedness of praxis and *phronesis*: *phronesis* is the disposition guiding and informing praxis, while at the same time, praxis brings about *phronesis*. Throughout this article we will use the term ‘practical wisdom’ to differentiate

from the Aristotelian *phronesis*. We also see practical wisdom as practical reasoning, regarding knowing of the good – moral knowing – that is enacted in the ‘doing’ action. However, we have adjusted several aspects of the Aristotelian concept to the late-modern conditions of current professional practices: firstly, we consider it a feature of *practices*, not only of individuals; secondly, we see the necessity to *radically individualize the good* that has to be achieved for a patient in the here and now, and that differs from the Aristotelian universal good; thirdly, we have learnt that the *institutional embeddedness* of practices has to be taken into account. Moreover, we want to emphasize the difference between ‘practice’ and the Aristotelian ‘*praxis*’. We are going to use both concepts, but we define practice, according to certain practice theories as “orderly materially mediated doings and sayings . . . and their aggregations” (Nicolini & Monteiro 2017, p. 2).

Our heuristic definition of practical wisdom is: “the capability, which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for each individual patient, within the context of the practice and its telos, in ever changing situations, and of how to accomplish this by the most appropriate means, while dealing with complexity and situational and systemic pressure” (Bontemps et al., 2019).

We have studied a number of publications in order to identify the distinctive characteristics – indicators – of practical wisdom. (Aristotle, 2009; Eikeland, 2006; Iedema, 2011; Iedema et al., 2013; Jeste et al., 2010; Kaldjian, 2010, 2014; Kinghorn, 2010; Kinsella & Pitman, 2012; Kotzee et al., 2016; Kristjánsson, 2015; Pellegrino & Thomasma, 1993; Schön, 1987; Schwarz, 2011; Sternberg, 2001; Tyson, 2018; Vosman & Baart, 2008). We chose the following four characteristics:

1. *To determine the near and remote purpose of the medical involvement appropriate for the situated patient (the good for the patient), a purpose that also corresponds with the telos of the medical practice: professionally supporting that patient. Furthermore, to focus professional actions on that purpose: goal-orientation/telos.* Aristotle (2009); Iedema et al. (2013); Kaldjian (2010, 2014); Pellegrino and Thomasma (1993); and Vosman and Baart (2008) have emphasized that goal-orientation is essential for the enactment of practical wisdom. Our indicator for this characteristic is an explicit or implicit reference to *purpose or goal* in the texts.
2. *To find and realize the appropriate equilibrium, the balance, in the medical process: balance* (Aristotle, 2009; Eikeland, 2006; Schwarz, 2011). Kinsella (2012, p. 47) has described “the balancing act in which professionals continually engage.” Eikeland has mentioned that the capability “to hit the mean” is essential for *praxis*. The indicator is any explicit or implicit indication of *balance, equilibrium, proportionality*.
3. *To achieve an adequate judgment, a correct interpretation or assessment of a patient, her context, situation, diagnosis, the appropriate treatment with the most promising prognosis: judgment* (Kaldjian, 2010, 2014; Kinsella & Pitman, 2012; Montgomery, 2006; Pellegrino & Thomasma, 1993; Schön, 1987; Tyson, 2018; Vosman & Baart, 2011). Kaldjian (2014, p. 72) has even stated “clinical judgment simply is practical wisdom applied to the practice of medicine. For clinical judgment is a matter of looking at the reality of the patient . . . and then deciding how best to respond, based



- on the ends in view, the means best suited to achieve those ends, and an appreciation for the moral principles and virtues necessary to guide and motivate diagnostic and therapeutic decisions.” The indicator is any implicit or explicit indication of *judgment*.
4. *To reflect on the practice; trying to see backgrounds and connections, to understand participants’ perspectives, underlying values and intentions, to unravel dependencies and coherencies* (Bart & Vosman, 2015; Eikeland, 2006; Iedema et al., 2019; Kinsella & Pitman, 2012; Schön, 1987). Here, we have to distinguish reflectivity from reflexivity. Joint *reflection* or deliberation is characterized by an open exchange of opinions, during which the attendants listen carefully, try to understand each other’s perspectives, balancing options, and critically reconsidering morality while thinking about a case. Following Iedema (2011) and Kinsella (2012), we see *reflexivity* as the capability to critically review the taken-for-granted, habits, routines and hidden beliefs of practices; that is why reflexivity provides a strong basis for transformation. The indicator is any implicit or explicit reference to *reflection* or *reflexivity* in the recorded lessons.

The four characteristics have this in common, that they have to be fully focused both on the individual patient in her context and at the same time on the telos of the medical practice: to alleviate the suffering and to promote the health of each individual patient.

**Key concepts: Learning from case discussions.** In this section we will firstly delineate those learning modes – within the huge range of learning types that are distinguished in literature – that concern learning from case discussions, and that seem relevant to learning practical wisdom in the workplace. We define *learning* here as acquiring knowledge, capabilities and understanding from experiences, through interaction with others: as *social learning* (Lave & Wenger, 1991). Also as *situated learning* (Lave & Wenger, 1991): learning linked to a specific context of place and time. Social learning may result in ‘*distributed intelligence*’ (Iedema et al., 2013, p. 183) within groups of actors: “It is an intelligence that manifests in how practitioners perform in their moment-to-moment interactions”, for instance in “how clinicians enact relationships with patients” (p. 183). Nonaka and Takeuchi (1995) have mentioned *organizational learning* as acquiring, sharing and transforming knowledge (for instance, from implicit or tacit to explicit) throughout organizations. The learning of medical specialists in a hospital, as learning from and by practicing professionally, occurs after completing formal education; we call this *workplace learning* (Eraut, 2000, 2004). Eraut, who has studied workplace learning extensively, has stated that the majority of the learning in the workplace is *informal learning*, within which he has distinguished three levels of intention: 1) *Implicit learning*: “the acquisition of knowledge independently of conscious attempts to learn and in the absence of explicit knowledge about what was learned” (Eraut, 2004, p. 250). 2) *Reactive learning*: intentional learning, “that occurs in the middle of the action, where there is little time to think” (Eraut, 2004, p. 250). 3) *Deliberative learning* is a form of intentional learning for which time is allocated in which participants reflect more or less systematically on actions and occurrences, usually together with colleagues. (see also Ericsson, 2004; Van de Wiel & Van den Bossche, 2013). It seems to be plausible that learning from case discussions will largely emerge as implicit learning and deliberative learning.

Argyris and Schön (1978) have distinguished different depths in learning, i.e. *first-loop learning*, this is learning new conduct from observing the results of action; *second-loop learning*, in which the observation of results leads to greater understanding of and changes in the material and cognitive schemes which determine the actions; *third-loop learning* enables clarifying and changing the logic of discourses which determine actions.

In the results and discussion sections (see below) we will conclude that learning has occurred, when the recorded lessons learned show a plausible increase in ‘knowing what’, ‘knowing how to’ or ‘understanding’ regarding an indicator of practical wisdom. Furthermore, we will use the distinctions between explicit and implicit learning; first-, second-, and third-loop learning; social learning and organizational learning while analyzing the research data.

**Research questions.** We have translated the research problem, outlined above, into the following research questions:

- Can we demonstrate that physicians learn practical wisdom through these case discussions which are focused on a general learning objective? And how can we recognize the development of practical wisdom? This is a *descriptive-explorative investigation*.
- Can we demonstrate the impact of the practical wisdom learned on the individual physician’s actions, on practices and on the organization? This is an *evaluative, impact investigation*.

## Method

**Research data.** We had access to an extensive, complete and original data collection, gathered over a 12-year period, through the first researcher. It consisted of lessons learned from 100 multidisciplinary case reviews, recorded by participating physicians, who represented multiple specialisms. The discussions were organized with the aim of learning from what went well and what did not, and also of retaining the lessons learned. This unique collection of existing data offered an excellent opportunity to explore the problem described above through a *secondary analysis* (Heaton, 2008; Irwin, 2013; Doolan, Winters & Nouredini, 2017). This means, that we have used the unchanged data for a new research aim, which was different from the initial purpose of the collection. As the data set was complete, it offered an insight into the longitudinal learning processes of the participating medical practitioners; as a result, it should also be capable of demonstrating whether practical wisdom had been acquired or not. We received permission to research the data from the Institutional Ethical Committee on behalf of the medical staff and the hospital board.

The discussions were evaluated four times, at irregular intervals; we have chosen the evaluation moments to mark a period closure, thus distinguishing four periods. One or more cases were discussed each time; collective data about groups of patients were presented on five occasions. One example was the mortality analysis of deceased patients in a certain year.

As one of the initiators of the case discussions – she was chair of the committee that coordinated the meetings and was also the moderator – the first researcher had been directly involved. Moreover, she was involved both as a medical specialist and as a member of the hospital board. She can therefore be regarded as a ‘knower’ of the practices (Eikeland & Nicolini, 2011) and could hence be expected to be able to achieve rich interpretation of the data. A possible disadvantage of the involvement is that bias, blind spots and the researcher’s different roles might influence the interpretation process (Patton, 2002; Iedema, et al., 2013). This potential risk was reduced from the outset by applying an audit procedure and also through critical co-assessment by the co-authors, who are ethicists and who had no connection to the hospital.

**Content analysis.** In this study, the challenge was to make the invisible visible, i.e. it is not possible to observe or measure practical wisdom as such. We assume however, that it must be possible to derive qualitative, yet adequate interpretations from the recorded lessons, using them as a window for indirect observations of underlying practices. Therefore, we needed a qualitative analysis method, for which we have selected *content analysis* (Hsieh & Shannon, 2005), more precisely, the *directed approach*. We worked with a system of pre-determined codes (the four indicators of practical wisdom, and the above mentioned learning types) to analyze both *manifest and latent content*. Hsieh and Shannon (2005) have defined content analysis as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (p. 1278). The distinguishing feature of the directed approach is that it is based on the use of key concepts derived from existing theories. In manifest content, a code is literally mentioned in the text, and thus, references can be quantified. When addressing latent content, an interpretative step is necessary. According to Hsieh and Shannon, the challenges of the directed approach are that researchers can be biased by a system of pre-determined codes, or can be single-mindedly focused on finding the supporting data. Furthermore, researchers could be blind to contextual aspects of research objects. For these reasons, they have proposed to perform an audit procedure in order to assure the trustworthiness of the results.

**Audit procedure.** We have relied on Akkerman, Admiraal, Brekelmans and Oost’s publication (2006) in designing the audit. These authors argued that the quality of a study is characterized by the criteria of *visibility* (a research decision must be made explicit and communicated), *comprehensibility* (a decision must be substantiated) and *acceptability* (the substantiation must be according to the standards, norms and values in the particular field of study) (p. 259). As visibility and acceptability in particular cannot be obtained through standardized procedures in research processes like the present, the researcher has to be resourceful in coding and interpreting correctly. This implies a risk, according to Akkerman et al., because it is difficult to be engaged in reflection and quality assurance at the same time. Therefore, for such research processes, they have recommended a complex quality check, in the form of an external audit procedure. The external auditor will check, whether the researcher’s interpretations are based on and are consistent with demonstrable data (*confirmability*) on the one hand, and whether analysis and interpretation processes meet generally accepted criteria (*reliability*) on the other. It is the researcher’s task to prepare an

audit trail in advance, in which the whole procedure of collecting data and categorizing, interpreting, coding and analyzing is documented. After that, the auditor and auditee negotiate a contract in which arrangements for the procedure are formally laid down. Then the auditor assesses the research process using the three quality criteria, after which the auditor and the auditee discuss the outcome, followed by a re-design and a re-audit, if necessary. Finally, the auditor writes a report in which the trustworthiness of the research is assessed. To carry out this audit procedure, we approached an external researcher-ethicist, who had not been involved in the set-up of the research project. The first researcher and the auditor then completed the seven steps Akkerman et al. (2006) described in their article.

**Procedure.** The first researcher *coded* the recorded lessons learned of all separate case discussions per period by using the four indicators in order to answer the first research question. After that, she repeated this process in which she *substantiated the codes* with explanations. She then drew up a first research grid which she completed per discussion. The four indicators formed four rows; the first column consisted of a description of the indicator, if possible a quotation; the second column contained the elucidation. At the end of this sub-process, 100 primary analyses were completed. This in effect formed the foundation of the analysis. She subsequently drew up and completed a second matrix per period and per indicator for the report to the auditor. Per indicator, the rows of this grid included the numbers of the meetings; the columns contained the following: 1) what did physicians learn? 2) a quotation from the recorded lessons learned and 3) interpretation and analysis. Furthermore, she indicated when no learning point about (the indicator of) practical wisdom had been found and also specified whether the indicator was latent (implicit) or manifest (explicit). At the end of the second sub-process 4 analyses (one per period) were completed. After the data had been revised in this way, the auditor indicated which sample of the data she wanted to inspect meticulously (a random selection of five from every period, of which she examined the underlying data and codings). The auditor assessed the quality of the interpretations and analysis of this sample using the criteria of visibility, comprehensibility and acceptability. After the first two meetings, auditor and auditee decided that, based on the remarks made with regard to reliability, the interpretation and analysis had to be adapted. This implied that the auditee had to repeat the interpretation process of 100 cases and complete it with a more extensive substantiation, in which she also more precisely outlined the relationship with publications on practical wisdom. The auditor gave a positive assessment of the second result. She also considered the sample to be sufficiently representative of the whole material. She then wrote a final report in which she rated the quality of the interpretations and analysis as good. In this way validation of the research outcomes was achieved.

For the second research question, on the impact analysis, the first researcher again drew up a grid, with the numbers of the meetings as rows and with the following columns: 'proposal for change of structure', 'proposal for modification of culture', and 'realization of structural adjustment', and 'realization of cultural change'. She then analyzed the data again and marked the lessons, where an initiative for structural change or cultural modification had been mentioned explicitly. Wherever she found this kind of initiative in three or more different reports, she added these to a list. She subsequently verified whether, and if so, when the initiatives of this list had been realized, using available documents and annual reports, and by

checking this with physicians and management. She also made an evaluation of the relative influence that patient discussions had on the realization in addition to other influences. To judge the content and the quality of this impact analysis, which is an individual interpretation again, she used the tool of ‘*peer debriefing*’ (Janesick, 2015): six medical specialists, who had all been members of the medical staff for years and had taken part in the discussions, critically discussed the preliminary analysis results with the researcher in a *focus group* and proposed changes. The outcomes were then adjusted according to these recommendations. We will now describe the results of the two analyses in the section below; we will reflect on these outcomes in the next section.

## Results

**First research question; lessons about practical wisdom.** Some quantitative results of the question: ‘can we demonstrate that practical wisdom has been acquired through case discussions in medical practices?’ are given in table 1. It shows the time frame per period, the number of discussions in the four periods, and the lessons learned about an indicator of practical wisdom per period. We distinguished the following possible results: no learning point; implicit (latent content) or explicit (manifest content) learning point. Although lessons were learned from every meeting, this did not always involve the learning of practical wisdom. For example: in case 1 the only outcome that was recorded were arrangements to improve requests for and communication about X-rays. We assigned the code ‘implicit learning’ if ‘awareness’ of any of the indicators of practical wisdom was perceived (the accuracy of the interpretation was assessed by the auditor), but the indicator as such had not been mentioned. For example: the record of case 25 indicates: “*All medical specialists need to be alert to the nutritional condition of their patients.*” This means that the practitioners have become aware that the nutritional condition of the patient has to be part of their professional judgment. We assigned the code ‘explicit learning’ whenever the indicator (for instance finding a balance) had literally been mentioned in the recorded lessons learned. For example: the records for case 22 contained the following comment: “*We also have to be aware that, mainly for a vulnerable elderly person, balances can be very easily upset. Therefore, they have to be monitored well.*”

Period	No.	Telos			Balance			Judgement			Reflection		
		yes	exp	imp	yes	exp	imp	yes	exp	imp	yes	exp	imp
1: 01/2005 to 10/2006	17	7	4	3	11	2	9	10	4	6	14	9	5
2: 11/2006 to 06/2010	33	25	19	6	13	13	0	24	10	14	25	18	7
3: 09/2010 to 10/2013	25	16	10	6	13	4	9	16	8	8	24	14	10
4: 11/2013 to 06/2016	25	13	12	1	13	4	9	16	6	10	20	15	5
01/2005 to 06/2016	100	61	45	16	50	23	27	66	28	38	83	56	27

**Table 1: Learning practical wisdom; numbers.**

**What did the physicians learn about telos?** From the content analysis of the lessons specified it appears that the physicians learned about three aspects of telos.

1. They pointed out *distinctive characteristics* of the patient telos in their daily practices:
  - In period 1: that goals are *not static*, but change; furthermore, that there are always a number of *different perspectives* on the goal that was to be achieved; besides, that good patient care requires determining *an integrated purpose* (to treat the patient, not the disease), so that sub goals have to be adjusted to that integrated goal when a number of disciplines are involved.
  - In period 2: that in addition to the treatment goal, the telos also involves determining what *kind of care* the patient needs *after leaving hospital*.
  - In period 3: that the telos also concerns *care for the patient's next of kin*. Furthermore, that 'doing no harm' means that physicians are co-responsible for the *prevention of risk*, e.g. of delirium, falling, malnutrition. Finally, that meaningful treatment will sometimes imply that the aim has to be *restricted*, or that a *palliative* instead of a curative goal has to be agreed.
  - In period 4: that the purpose must always be determined for *the patient as a person* and not only with regard to the disease.
2. The physicians also learned about the *conditions* which enable them to act purposively.
  - In period 1: that it is a condition *to consult* with *colleagues* and with *patients* and their *relatives*.
  - In period 2: that it is a condition to determine the scope of the purpose *in time*: curative (aimed at healing) or palliative (when healing is not possible, to live as best as possible with the illness, in hospital or elsewhere). Furthermore, that instrumental sub goals have to be related to the overall aim of the interventions.
  - In period 3: that caregivers must always *agree with patients* and their next of kin on treatment constraints, as well as on the decision to start palliative care.

In period 4: that caregivers were able to *prevent a breach of trust* by allowing their patient to experience that she is not left alone when healing is no longer believed to be possible. Finally, that *building a professional relationship* with the patient is a condition to ensure that aims are well attuned to the patient.

3. The physicians have gave each other *tips* and *advice* about acting purposively:

In period 1: none.

In period 2: on how the goal of an examination, treatment or admission to hospital can be coordinated for patients who suffer from dementia.

In period 3: on how to discuss the transition from curative to palliative care.

In period 4: again tips determining the objective for specific difficulties, for instance patients who are not approachable, or patients with complaints for which no somatic cause can be found.

### **Lessons about balance.** What did the physicians learn about balance?

1. The content analysis shows that *awareness about the need for balance*, equilibrium, proportionality in giving medical care arose in the discussions as well as awareness of *characteristics of the art of balancing* linked to many examples. It is often a matter of specific issues, which also involve good craftsmanship.

In period 1, the concept of proportionality was discussed in a case in which the diagnosis required for treatment could not initially be made. Other examples that were discussed included: the balance between *optimal treatment* (to remove a kidney) and its *harmful consequences* (dialysis for a vulnerable patient); the balance between heart decompensation by *fluid overload* (in an elderly patient with symptoms of dehydration and heart failure) and *dehydration* due to shortage of fluid; the balance between the application of *legal rules* (discuss all possible complications of an intervention beforehand) and *what is feasible* (available time and the patient's understanding).

In period 2: balance was discussed using further examples: *anti-coagulation medication* for immobilized patients who have to undergo surgery where there is a *risk of great loss of blood*; the *patient's autonomy* (what does the patient want?) versus the *physician's expert advice* (what is feasible and beneficial); the balance between *professional* (what is good care here and now?) and *institutional responsibility* (prevention of hospital infections); between *specialist* and *general care*.

In period 3: the right balance between *too quick* and *too slow* came up (timing); between *confidentiality* (on account of the patient's privacy) and a *public interest* (security); between a feasible *curative treatment* and its *side effects*; between a *palliative goal* and diagnostics or treatment *still meaningful*. A quote from the lessons of case 59 can illustrate this: "*When patients are at a palliative stage of their illness. . . it must be ensured that care does not result in over-diagnosis and over- treatment.*"

In period 4: the following examples were addressed: finding a balance between using (perhaps *superfluous*) *diagnostics* for a persistent patient and the time-consuming work of *reassuring the patient* (and time is always short); looking for balance between *increasing patient-complexity* and further *specialization of medical care*, i.e. between an integral goal and specialist sub goals; the balance between measures that *constrain*

*freedom* of movement, which limit the risk of falling, and omitting them out, allowing the patient to move freely, accepting an *increased risk of falling* with possibly serious consequences.

2. The physicians also gave each other *tips* on how to practice the art of balancing, for instance:

In period 3: how to find the middle ground between too much and too little diagnostics for patients with physical-complaints-that-supposedly-have-no-physical-basis; or how to prevent over-diagnosis in the palliative stage.

In period 4: how to involve patients and relatives when taking measures to limit freedom or not (see above).

### **Learning to judge well.** What did the physicians learn about judging well?

1. The physicians learned *what good medical judgement involves*.

In period 1: that judging is often *plural*: for instance, the evaluation of the need and feasibility of an operation (surgery on medical grounds) alongside assessment of the patient's operability (determining the risks of surgery).

In period 2: they learned that judging medically also means to *evaluate the risks* that a patient runs and how to prevent them; that judgement should be *comprehensive* (multiple): it is not only diagnosis and suitable treatment, but also the patient's nutritional condition; her legal capacity; the quality of the communication; subtle signs of improvement or deterioration; the organizational situation (are there enough intensive care beds? Is an operation theatre available? Are there sufficient qualified nurses?)

In period 3, the physicians discussed that they need to evaluate what is (still) *meaningful* to do.

2. The physicians learned what the *conditions* are for *reaching good judgement*.

In period 1: that co-operation with other disciplines is essential to arrive at a balanced judgement. To give an example from case 8: "*An acute abdomen in children often presents minor symptoms. To prevent diagnostic failures, it is advisable to have a child with acute abdomen examined by a pediatrician and surgeon jointly.*"

In period 2: that it is necessary for a good diagnosis to involve *a multitude of epistemic sources*: i.e. scientific knowledge, the knowledge of other professionals, the patient's knowledge and that of her relatives or caregivers, knowledge from observations with all senses, medical intuition.

In period 3: that *multidisciplinary work* is necessary for good judgement, e.g. when judging the operability of complex patients; furthermore, that it is necessary to call for an expert when physicians notice a certain lack of expertise. In case 59, the importance of observation of the patient by the consultant in person was emphasized (after admission by an emergency physician): "*The medical specialist who is ultimately responsible has to make her own judgement about the patient by seeing the patient herself, preferably within twelve hours, but no later than sixteen hours after admission.*"



In period 4: the following conditions were identified: adequate knowledge of facts (evidence); interpreting *guidelines situationally*; involving experts and/or organizing *training for new or unknown techniques* so as to be able to estimate risks; to engage intuition; to *discern prejudices*; to know the *patient's competence* in emergency situations.

3. Finally, the physicians gave each other *tips and advice* about ways to reach a good judgement.

In period 1: they discussed how to *avoid various pitfalls* in forming medical judgement (for instance deciding too soon that there is an obvious pattern).

In period 2: about what to do when judging is difficult; how to *manage emotions*, because fierce emotions can obscure correct judgement; that, when patients are difficult to 'read', more experienced colleagues can be *called for assistance*, e.g. a geriatrician or a specialist for mentally disabled patients. They warned each other against the pitfall of incorrect assumptions or interpretation of the facts.

In period 3: the doctors discussed the advice to unfold the concept of *medical meaninglessness* into three sub concepts: *without medical prospects* (no or little chance of success), *disproportional* (the advantages of the treatment are outweighed by the cost, the risks or the investments) and *undesirable* (the result that can be achieved, is desired neither by the patient nor by the physician).

In period 4: the following advices were given: to engage in *dialog* with the patient *repeatedly and peacefully*; to *examine* the patient *several times* at intervals; to *communicate structurally* (through an acknowledged method) with other caregivers; to *step out of existing routines*; to engage the patient's relatives. To give a quotation from case 96: "*For a realistic medical judgement of the physical condition of a confused patient who is suffering from dementia or of a disabled patient with loss of consciousness and to be able to compare it with the patient's condition before she became ill, engage with the relatives!*"

**Learning to reflect.** The largest number of learning points concerned the issue of learning to reflect. Although the discussions were aimed at learning by joint reflection, reflection did not always occur. We noted 'implicit learning' when the physicians had learned to reflect by practicing reflection according to the features 'careful listening, balancing options, sharing perspectives, critically reconsidering the morality of actions' were met, but without naming it explicitly in the recorded lessons. Again, the accuracy of the interpretation was assessed in the audit. Below, we will use three questions to address reflection that was explicitly mentioned. We discuss 'reflexivity' under 3 below.

1. The physicians gave the following answers to the question as to what *the characteristics of good reflection are*.

In period 1: good reflection leads to *new and broader understanding*, it helps to distinguish *pitfalls in thinking*.

Period 2: good reflection is characterized by an *open exchange of opinions*, during which the attendants *listen carefully* and *try to understand* other approaches; the

participants in the discussion *complement* each other and find the tranquility to *deliberate* on the best treatment options.

Period 3: the physicians learned that reflection does *not always produce solutions*, but instead that it can bring *problems into focus*; reflection is helpful to judge one's own actions and those of colleagues in a *positively critical* way, because this can reveal weak points; reflection has to be *goal-oriented*, i.e. aimed at what needs to be achieved for and with the patient. To give a quotation from case 74: "*The valuable thing about the consultations is the exchange of approaches between a number of disciplines. . . . Its value consists, among other things, in 'taking time to think about the patient together.'*"

Period 4: A new lesson was that good reflection consists of 'thinking beyond the surface.'

2. When is reflection especially required during work?

Period 1: for *complex patients*, i.e. patients with multi-morbidity.

Period 2: When the *work situation is disrupted*, for instance by unexpected findings; when unusual situations occur, e.g. when treating a colleague; when the professional relationship of trust is harmed; when *something out of the ordinary* is observed, for instance a strangely high dose of medicine; when serious or constantly increasing concerns are expressed by relatives or nurses.

Period 3: the physicians realized that reflection is required *during transitions of care*, for instance the transfer of a complex patient to another department, to the responsibility of another medical specialist or to another institution, as well as the transition from a curative to a palliative plan.

Period 4: the physicians indicated that reflection is necessary when *patients in the final stage of life are referred to hospital*.

3. We have looked for *examples of reflexivity* according to Kinsella (2012) and Iedema (2011, p. i83): "a more broad-ranging attention to everyday behaviours that are taken as given" so that these behaviors (and underlying assumptions), as well as ingrained habits and routines can be criticized and changed.

In period 1: things that are *taken for granted, ingrained habits, discursive assumptions* were named eight times and on one occasion a proposition for change was presented: for patients with light cranial damage *and* using anti-coagulant medication.

In period 2: reflexivity was observed on 20 occasions. Thus, the insight arose that the established practice of making rounds was unable to assure continuity of care. Case 36: "*Continuity in making rounds is of great importance. Continuity can be reached in various ways*". In addition, on several occasions attention was asked for the importance of discussing and registering treatment-restrictions.

In period 3: the practitioners themselves achieved reflexivity on eleven occasions, for instance by giving the concept of 'the specialist who bears ultimate responsibility' a broader meaning, by discussing the *risks of extreme specialization* (and how to compensate for these), and finally, by critically inspecting the standard practice for patients in their final stage. For example case 72: "*a peaceful conversation with the patient is necessary to take a well-considered decision at the palliative, terminal stage.*"

In period 4: the physicians achieved reflexivity on nine occasions, which led to the insight that almost all patients are surrounded by a *large group of caregivers*, and that this requires *regular multidisciplinary consultations* as well as the creation of *structures* for this process.

Most of the time, reflexivity means *triple-loop learning* and it has had a significant impact on the practices and on hospital organization. We will discuss this in the answers to the second research question.

### **The second research question**

The question, ‘can we demonstrate the impact of the practical wisdom acquired on physicians, on medical practices, and on hospital organization’, implies an evaluation study, or more precisely, an impact study. This kind of evaluation study aims to assess the effects resulting from the case discussions in the long term (Patton 2002). The effects in question are both objectifiable, structural changes and qualitative, cultural changes. As there are many other influencing factors at play in this complex work environment, it is difficult to determine the isolated influence of this special factor (the practical wisdom acquired through the case discussions). It was nevertheless possible to identify occasions, where case discussions exerted an important or decisive influence.

As we did not observe individual practitioners, we were not able to verify the impact of the discussions on individual professionals. By contrast, we were able to identify the impact on practices and on hospital organization.

**Impact on the structure of practices and organization.** Table 2 illustrates the work-up of one of the results of the impact analysis. In the same way, nine initiatives for structural changes were recognized which have had some impact, either greater or lesser. (see below)

Discussion no.	Initiative structure	Realizing structure
1.03	Organize pre-operative multi-disciplinary consultations (MDCs) about complex operation patients	
1.06	Communicate the outcome of the MDC with patients and their families	Pre-operative MDC begun in 2007
2.37	For complex surgery patients discuss a) indication for operation and b) operability of the patient in the MDC	
2.41	Fine-tuning of the registration criteria for MDC is necessary	Evaluation and adjustment of MDC structure in 2013
2.46	Sign up the right patients for the pre-operative MDC: defining criteria	
3.55	What information is required when a case is submitted for discussion in the MDC?	Evaluation and adjustment of MDC procedure in 2016
3.62	All patients for whom the physician expects pre-operative problems, can be discussed	

**Table 2: The impact of the case discussions on practical wisdom, translated into the structure of practices. Example: the pre-operative multi-disciplinary consultation (MDC) about complex patients.**

We have distinguished nine initiatives for structural changes and have validated them in the focus group:

1. Establish a *pre-operative multi-disciplinary consultation* to make it possible to balance the risks of an operation for complex surgery patients compared with the surgery indication and to look together for opportunities to reduce the risks, or to find a feasible alternative for the operation (1.03; 1.06; 2.37; 2.41; 2.46; 3.55; 3.62).
2. Define who is a vulnerable elderly person, and make more adequate provisions for *care for vulnerable elderly people* (1.05; 3.74; 4.94).
3. Organize *regular consultations between clinicians and radiologists* and develop structural agreements about mutual communication (2.21; 2.23; 2.28; 4.82).
4. Organize *routine deliberations about treatment limitations* for certain categories of patients (2.22; 2.46; 2.48; 3.70; 3.74).
5. *Improve internal and external transfers*: preferably, both oral and written; warm (oral and including subjective factors) and cold (written, concentrated on objectifiable data); including information from all disciplines involved; punctual and complete (1.06; 2.26; 3.52; 3.53; 3.67; 4.92; 4.94; 4.98).
6. Discuss, at least with the patient and her relatives, the *transition from curative to palliative care*, providing reasons, and record this in the patient's file. (2.32; 3.59; 3.60; 3.71).

7. Record what is *regarded as medically meaningless*, and provide reasons for this in the patient's file (2.40; 2.44; 3.70).
8. Appoint a so-called *doctor-case manager* for complex patients and describe her tasks (2.32; 2.38; 3.72; 3.75; 4.81); moreover, define a broader *job description for the medical specialist who bears final responsibility* (1.07; 1.17; 2.25; 2.38; 3.54).
9. Always establish a *differential diagnosis for every patient* and make a *problem list* (3.52; 3.59; 3.68; 3.69; 4.9).

**Realization of propositions for structural change.** The following propositions for structural changes were realized; this has been validated in the focus group.

1. In 2007, *the multidisciplinary pre-operative consultations* started. They were evaluated by the medical staff in 2013 and 2016, after several interim adaptations. The conclusion of these evaluations was that the consultations had led to decisions which had improved the patients' safety and wellbeing. (Operations were sometimes postponed to limit risks, on other occasions additional pre-operative measures were taken, and occasionally the operation was replaced by a less stressful non-operative treatment). It has been acknowledged that the motivation and culture which enabled these effective consultations arose as a result of the case discussions. However, there were also several local and national initiatives which led to bilateral pre-operative consultations.
2. *Care for vulnerable elderly persons* has improved in this hospital, especially because the group-specific risks that apply to elderly people are now structurally evaluated and reduced, a major focus for all physicians involved. This was also due to the presence of clinical geriatricians, the formation of a regional work group on 'vulnerable elderly people', and national developments. The case discussions made a clear contribution.
3. In 2008, nearly all professional groups of clinicians organized *periodical consultations with the radiology group* and this has since been continued. There have since also been daily consultations between radiologists, emergency physicians, and trauma specialists. In addition, many complementary agreements were effectuated to assure better contact between clinicians and radiologists about imaging investigations. Case discussions as well as other factors played a role in this development.
4. In 2010, a procedure for *structural discussion about treatment limits* was introduced which has since been evaluated and adapted on several occasions. The influence of the case discussions was substantial.
5. *The improvement of the structure and content of transfers* was successful in several parts of the hospital (for example in the Emergency Department), because of the constant attention given to this subject during the case discussions, although its influence was limited here.
6. *Discussion and marking of the transition from curative to palliative care* is improving, but it does not always take place when it is needed. The discussions are certainly having some influence, but other influences are also at play here.
7. The same is true for *defining, on the basis of arguments what is regarded as medically pointless*, especially in medical files.

8. The emphasis on the *need for a single doctor to have overall control in complex cases* who need to be approached from both a specialist and generalist perspective has resulted in establishing a training program for ‘hospital specialists’ in this hospital.
9. *The inclusion of the problem list in the design of a new electronic patient record* (introduction October 2016) was partly due to the case discussions.

**Seven initiatives for cultural modifications** were distinguished.

1. Regard the use of medical intuition or *gut feeling as acceptable and meaningful* (2.37; 2.38; 2.49; 4.77).
2. Doctors of different specialisms should *help and support each other* to overcome difficulties they experience when practicing (1.12; 2.24; 2.28; 2.42; 3.63; 3.65).
3. Take steps to better *identify and prevent the pitfalls of medical work*, such as the inclination to develop ‘tunnel vision’, or to start from assumptions that are taken for granted (3.51; 3.53; 3.68; 4.90; 4.91; 4.99).
4. Medical specialists must *ensure proper care*, especially with complex patients, *not only in a specialist sense, but also in a general sense* (2.43; 3.56; 3.69). They should not only *treat the illness of an organ, but the person as a whole* (1.15; 2.18; 2.43; 3.56).
5. Physicians’ responsibility does not only include *informing and supporting the patient, but also her next-of-kin* (1.06; 2.32; 2.35; 2.49; 4.88; 4.96). It also includes *care after leaving hospital* (1.7; 2.41; 2.43).
6. Determine the *goal, sense, and limits of the treatment* for every patient (2.22; 2.35; 2.46).
7. Promote *good cooperation in teams*, especially in complex cases (2.27; 2.38; 3.59; 3.75; 4.81; 4.97). *Transparency and safety*, which are essential for good co-operation, have to be created *actively and mutually* (1.11; 2.21; 2.50; 4.83).

Table 3 reflects the second initiative for cultural modification.

Discussion no.	Initiative culture	Result for the culture
1.12	Clinicians have to help each other to find the right diagnosis	
2.24	ED-specialists need feedback, supervision and support from other professionals	
2.28	Give each other tips and cooperate with each other, also with the GP, in particular for patients with unexplained complaints	
2.42	In case of unexpected and large problems: take a time out and ask colleagues for help	A culture of assistance in working together gradually developed, replacing an indifferent or competitive culture

3.63	A physician used this meeting to ask his colleagues for advice
3.65	Help each other when someone has to engage in a difficult conversation; if appropriate, prepare or have the conversation together
4.88	When a case has been traumatic, take care of the patient/family <b>and</b> of your colleagues and listen ...

**Table 3: The impact of case discussions on a culture of co-operation**

**Realization of cultural modifications.** Cultural shifts are difficult to measure. Nevertheless, the focus group stated that precisely cultural modifications facilitated structural changes. As a result of the case discussions, physicians were able to achieve a culture which makes it safe for them to openly deliberate about mistakes and uncertainties. Due to the discussions, greater awareness has arisen of medical pitfalls and of the “uncertainty of aporia . . . the unresolvable problematics of practice” (Pitman, 2012, p. 141), in which physicians have to ensure that they support each other, including exchanging advice and tips. They have practiced and learned how to reflect together during the deliberations. It has become accepted to mention medical intuition. Physicians have realized that they have to involve the patient’s next of kin in diagnostics, treatment and care. Fueled by the case discussions, the awareness that specialized health care cannot offer general care has led to the decision to train hospital specialists in this hospital (realized in 2015). In addition, the physicians have become more aware of sensitive issues, which they have learned to discuss tactfully on a regular basis. These conclusions have been confirmed by the focus group.

## Discussion

We will now return to the problem outlined in the introduction: do practicing medical professionals *only* learn practical wisdom *individually* through practicing, which results in *tacit knowledge* as Kemmis (2012) and Kinghorn (2010) have argued? Or, conversely, do they *also* learn practical wisdom through case discussions in *groups* that pursue joint reflection on patient cases, resulting in *explicit, distributed* knowledge? Hence, is social learning as well as individual learning involved? (Iedema et al., 2013; Kinsella & Pitman, 2012; Lave & Wenger, 1991; Nonaka & Takeuchi, 1995; Nonaka & Toyama, 2007).

We have translated this problem in our research questions, of which the first is: can we demonstrate that physicians learn practical wisdom through case discussions which are focused on a general learning objective? We may ask as two separate questions: does the

development of practical wisdom occur, and how can we demonstrate the development of practical wisdom?

We have already indicated that *no individual learning effects* can be deduced from the research data. We will therefore discuss the results regarding *the social learning* of practical wisdom, i.e. the accumulation of knowledge, understanding and capabilities as distributed intelligence, shared by the group of physicians.

Even though the discussions were never explicitly focused on learning practical wisdom, yet it is clear from the results that social learning of practical wisdom, as examined using the four indicators, occurred, partly implicitly, partly explicitly. Below, we will demonstrate that practical wisdom has developed.

Firstly, the research data show *an increased and shared awareness of purposes linked to individual patients-in-their-situation, as well as to the moral aim (the telos) of medical practice*. We recognized the increase by the more frequent, more critical, more thorough approximation of patient purposes related to the telos of the practice in the recorded lessons learned. The validity of our interpretations was assessed in the audit procedure. The awareness also concerns the fact that patient *goals are pluralistic and time dependent*. Examples are: “the goal ‘doing no harm’ also means that physicians are co-responsible for the prevention of numerous risks, e.g. of delirium, falling and malnutrition”; also, that “there is a time for curative and a time for palliative goals”. The ‘social’ of knowledge and capabilities was evidenced by the physicians giving each other tips and advice; in this way they facilitated that colleagues learned ‘doing the telos’ (praxis). Examples are: tips on *how to* discuss the transition from curative to palliative care, or *how to* determine goals for patients suffering from dementia.

Secondly, and in the same way, we recognized that awareness has increased of *the art of balancing* physicians practice in a continuous search for a *feasible balance between apparently incompatible, very specific interests and for proportionality* in their interventions. These results were also assessed by the auditor. Also the ‘doing of balance’ was facilitated through the discussions and the lessons retained from them, by the tips physicians shared. For instance: how to involve patients and relatives when taking measures to limit freedom or not.

Thirdly, an increased awareness emerged of *the art and necessity of judging* amid the many daily uncertainties of practicing (insufficient knowledge, unsuitable guidelines, impossibility of verbal communication with the patient) while more often than not urgent action is needed. We saw that in the first periods physicians presupposed that diagnostic and treatment decisions had to be based on objectifiable criteria and guidelines. Later on, they recognized that daily uncertainties were ubiquitous and unavoidable. Then they started to use and discuss numerous other knowledge sources, like medical intuition. Again, we see here an example of distributed intelligence. Furthermore, they gave each other advice about improving judgments. For example: how to avoid various pitfalls (deciding too soon that there is an obvious pattern). These are examples of first and second loop learning: learning new conduct from the observation of others; learning to understand material and cognitive schemes which determine actions.



Finally, the physicians learned to *practice the art of reflection*, especially by repeatedly practicing reflecting together, thus realizing a deliberative practice according to Van de Wiel and Van den Bossche, (2013). We concluded that reflection occurred and improved, by using criteria like: carefully listening, balancing options, sharing perspectives and critically reconsidering the morality (the good) of actions. This was referred from the recorded lessons, confirmed by the experiences of the first researcher and affirmed by the members of the focus group. Moreover, the practitioners learned to practice *reflexivity*, i.e. they became able to make explicit, and to criticize their own hidden convictions and assumptions, the taken for granted, routines. For instance, the assumption that professional care is only meant for the patient and not for her next of kin; or, that physicians have no further role to play when all treatment options for a patient have been ‘exhausted’. This is an example of triple-loop learning, which resulted in physicians’ increased capability to actively reflect together.

In addition to increased awareness of the components of practical wisdom and increased reflexive capability, the case discussions resulted in the acknowledgement that the components of practical wisdom are all very *concrete and therefore manageable*. Balancing and judging, determining goals and reflecting appeared to occur in various daily and situation-dependent forms. The discussions led to recognition of the four components in these mundane forms, so that the *morality* of the practices could also emerge in multiform, seemingly trivial shapes: postponing an operation to help the patient prepare better for the risks she was likely to run; deciding not to apply freedom constraints to prevent falling, because the disadvantages of constraints for a specific patient are disproportionate to that risk.

The second research question: can we demonstrate *the impact* of the practical wisdom learned on the individual physician’s actions, on the practices and on the context of the practice has been answered through the impact analysis. Again, it was not possible to observe individual learning effects. The social learning has partly been discussed above; furthermore, it appeared from the impact analysis. Practical wisdom turned out to have ‘crystallized’ in the physicians’ mores (Bontemps et al., 2019). To clarify this, we refer to the practice of supporting each other to overcome difficulties experienced while practicing (initiative culture 2); also shared actions to prevent pitfalls of medical thinking (initiative culture 3) illustrate social learning. However, we recognize that the impact of the case discussions predominantly reveals *organizational learning* (Schwarz, 2011; Vriens, Achterbergh & Gulpers, 2016). Structures and culture of the hospital changed as a result of the case discussions, but these changes were also initiated or supported by other, internal-institutional and external factors. Examples are: the structural pre-operative multi-disciplinary consultations for complex patients, and a procedure for structural discussion about treatment limitations. In addition, its impact also applies to the organizational culture where opportunities develop, difficulties can be faced and made the subject of discussion, like flaws in cooperation and organization.

We recognize several forms of social and organizational learning, mentioned by Nonaka and Takeuchi (1995) in this study: socialization – acquiring tacit knowledge from tacit knowledge of a colleague, (physicians reflecting during case discussions act as role

models for their colleagues) and externalization – transforming tacit knowledge into explicit knowledge (how to discuss incompatible goals with patients, thus preventing a conflict).

We have been able to demonstrate that learning practical wisdom in practices can really be promoted through case discussions aimed at learning-in-general. Our assumption is that this learning is likely to produce even better results if discussions are explicitly aimed at learning practical wisdom. This assumption is based on the publications of Iedema et al., (2013) and of Nonaka and Toyama (2007). These authors have proven that practical wisdom is learned mainly through the promotion of reflection and reflexivity by practitioners throughout organizations. In that way, they have argued, practical wisdom can be transferred from the tacit to the explicit domain. This means, that organizations should create ‘spaces’ and time for shared reflections on all details of real and actual actions and experiences. Also, Eikeland (2006) has argued for the introduction of ‘free space’ for practitioners to share their practical knowledge and to create shared practical wisdom.

This also means that health care organizations like hospitals, as Eikeland (2006); Eikeland and Nicolini (2011); Kinsella and Pitman (2012) and Nonaka and Toyama (2007) have stated, would have to rely on kinds of knowledge that are different from those they adhere to currently. That means: they will have to trust knowledge from within professional practices, experiential and tacit knowledge instead of exclusively codifiable, measurable, or explicit knowledge. During our research, we perceived that learning practical wisdom is a fragile type of learning that can be easily disturbed. That is not only because of the hectic and complexity of the professional work-environment; also the disqualification of experiential and tacit knowledge plays a role here.

Finally, a remark is in order about the generalizability of the results. Our aspiration in carrying out this qualitative, descriptive-explorative study was only to realize *communicative generalizability or transferability* (Smaling, 2009a; Timmerman, Vosman & Baart, 2019). This means that the reader herself has to determine whether the results can be transferred to her situation. A supplementary question regards the transferability to other professional domains. Kristjánsson (2015) has pointed to the scientific and the professional realms in which practical wisdom is studied extensively nowadays. He mentions philosophy, socio-political theory and psychology, and in addition nursing, law, business/management, social work, teaching and medicine. We don’t feel able to estimate the possible impact of this study on some of those other professions. However, we assume that developing practical wisdom through the facilitation of joint reflection on everyday problems and situations by practitioners, would apply for other professions too.

## **Conclusions**

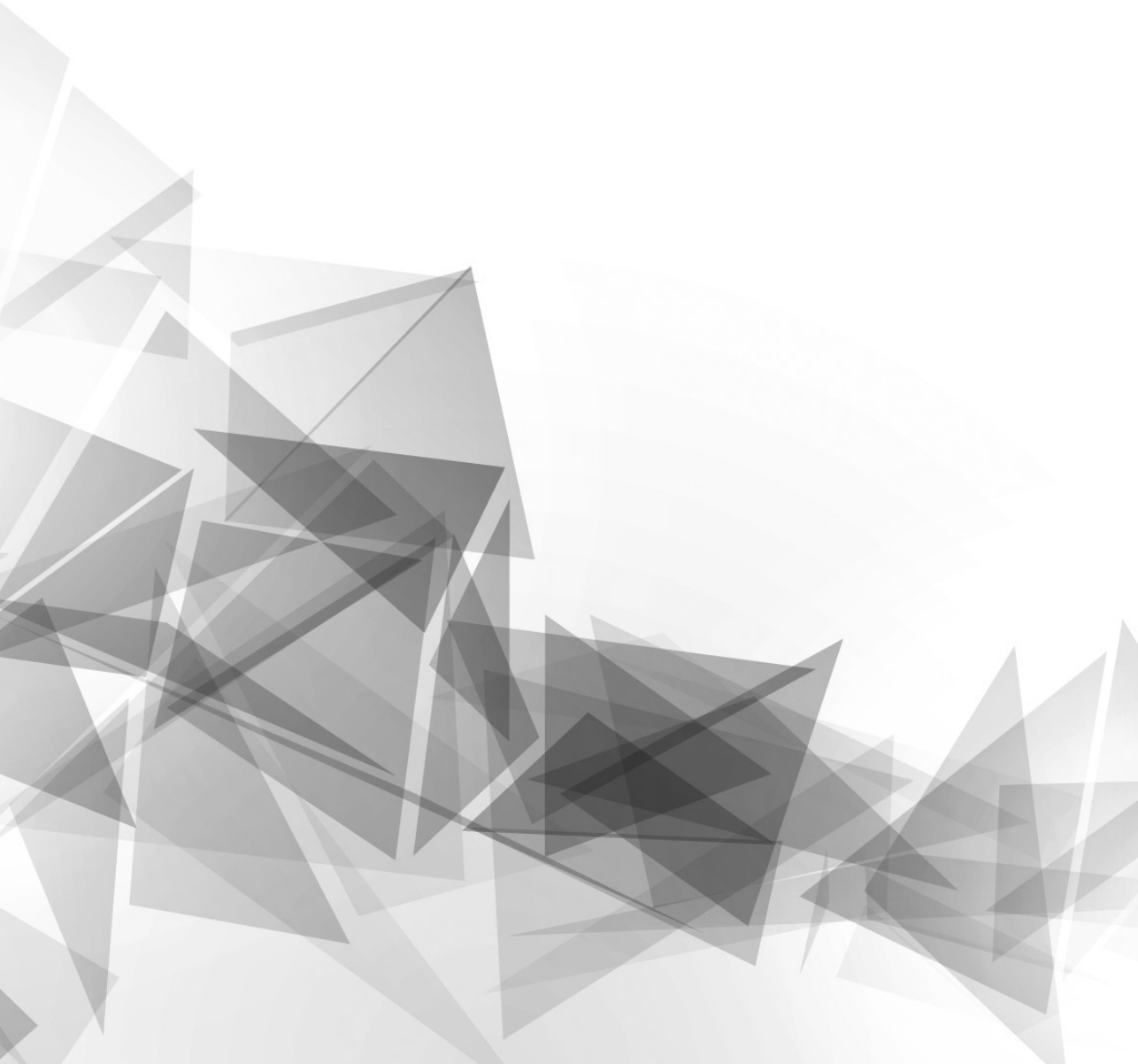
Our study has proven that it is in fact possible for medical professionals to learn practical wisdom, mainly implicitly, through collective case discussions aimed at learning in general. We have been able to demonstrate this for social learning and for organizational learning. The primary effect is greater awareness of the constituent components of the practical wisdom that we have studied: to recognize purpose/morality, finding balance, judging sensibly, reflection and reflexivity. In addition, the acquired knowledge and understanding may establish an

increased capability to enact (the elements of) practical wisdom in everyday work; in this way the intrinsic morality of practices can increase: enacting what is good for each patient. This outcome underlines the point of view of scholars who have emphasized the importance of professionals' joint reflection for learning practical wisdom (Iedema et al., 2013; Kinsella & Pitman, 2012). Based on the remark in the discussion section, we expect that the learning effect would be even greater, if practical wisdom is agreed on as the goal of case discussions. This latter point would need further research. In the same way, further study is required of the practitioners' individual learning through discussions like these. Finally, it has proven to be important to further investigate the conditions for this type of learning in organizations.

We have succeeded in identifying the impact of the lessons learned on the structure and the culture of practices and organization. The impact identified has been validated in a focus group of participating physicians and was considered significant.

The relevance of this research for everyday medical practices results from the fact, that it was the first time that an empirical investigation into learning practical wisdom in medical practices was performed in one organization and over such a long period. As a consequence, we were able to determine that (the aspects of) practical wisdom in these daily practices emerges in very concrete, seemingly commonplace and situation-specific forms. In addition, we saw morality emerge in multiple details and in unexpected, strongly individualized and clearly localized facts. These commonplace particularities should influence current theories on practical wisdom. For physicians in medical practices understanding of these everyday forms is vital to making practical wisdom and morality manageable, and to make it the subject of discussions and reflections. This can stimulate the development of practical wisdom, which can in turn enable the realization of increasingly better care for individual patients. Moreover, it can represent the moral goal of practical healthcare more clearly.

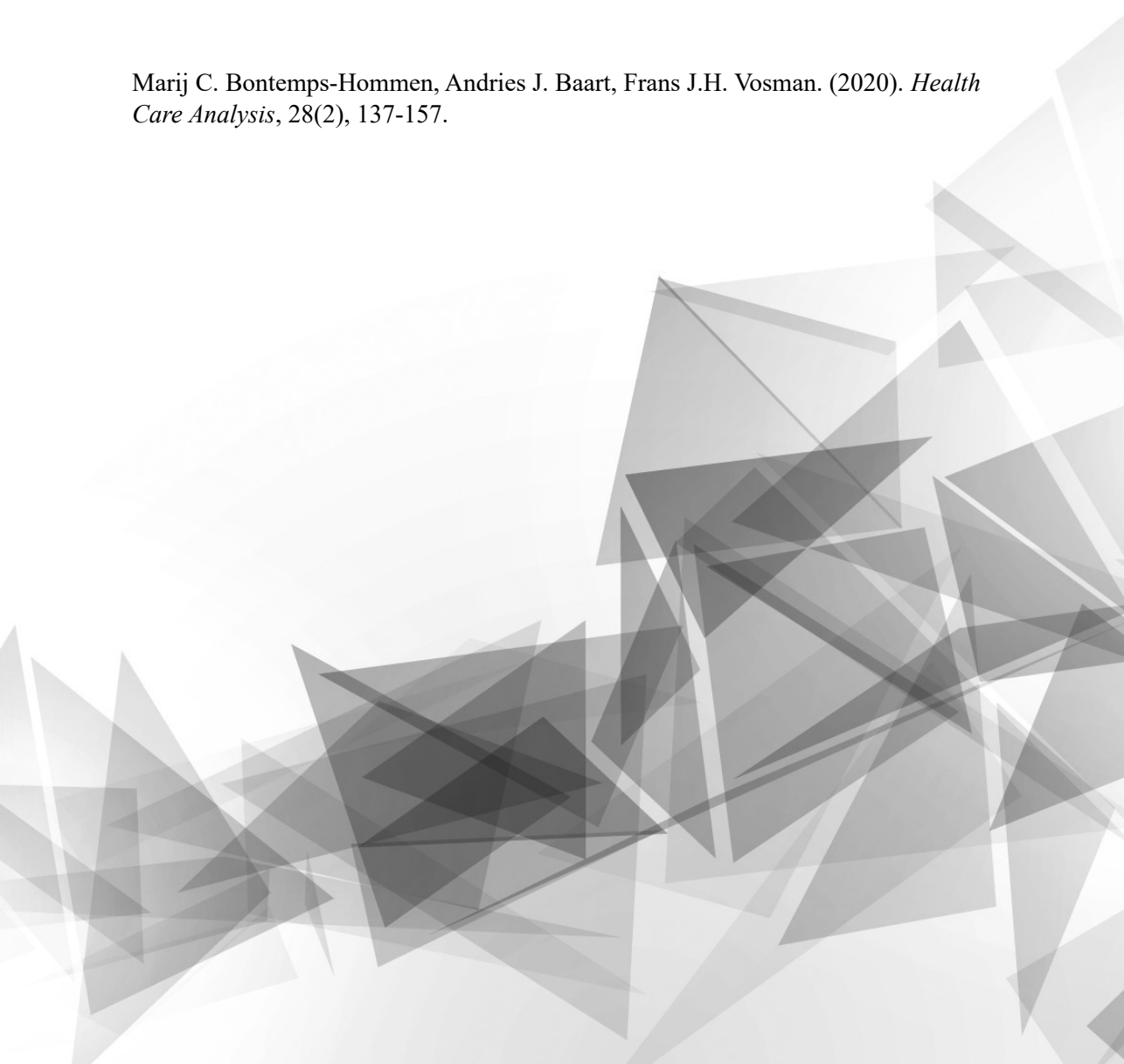
“I must endure the presence of a few caterpillars  
if I wish to become acquainted with the butterflies”.  
Antoine de Saint-Exupéry, *The Little Prince*



# Chapter 6

Professional medical discourse and the emergence of practical wisdom in everyday practices: Analysis of a keyhole case

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The background of the page features a complex, abstract geometric pattern. It consists of numerous overlapping, semi-transparent polygons in various shades of gray, creating a layered, crystalline effect. The shapes are irregular and angular, with some appearing as sharp points or thin lines, while others form larger, more solid-looking areas. The overall composition is dynamic and modern, occupying the lower two-thirds of the page.

## Abstract

In recent publications has been argued that practical wisdom is increasingly important for medical practices, particularly in complex contexts, to stay focused on giving good care in a moral sense to each individual patient. Our empirical investigation into an ordinary medical practice was aimed at exploring whether the practice would reveal practical wisdom, or, instead, adherence to conventional frames such as guidelines, routines and the dominant professional discourse. We performed a thematic analysis both of the medical files of a complex patient and her daughter's diary. We did find practical wisdom, but only sporadically, whereas it has proved to be essential for professional care. This deficit appeared to result from several factors like the organization of the practice; established routines; a hierarchical culture; and a traditional medical discourse. Moreover, we discerned various negative consequences. More empirical research into practical wisdom in everyday medical practices is needed for the benefit of professional and morally good care for every patient.

## Introduction

**Crucial yet invisible.** Interest in practical wisdom - our translation of the Aristotelian *phronesis* - in medical practices and within the medical profession has increased over the past decades (Jordens & Little, 2004; Kaldjian, 2014; Kinghorn, 2010; Kinsella & Pitman, 2012; Kotzee, Paton & Conroy, 2016; Kristjánsson, 2015; Pellegrino & Thomasma, 1993; Vosman & Baart, 2008). Some authors call practical wisdom indispensable, particularly in situations in which uncertainty, complexity and variability play a large role (Kinsella & Pitman, 2012). Conversely, other publications contend that practical wisdom is almost invisible in medical professional discourse and in professional education and assessments (Kinghorn, 2010; Kristjánsson, 2015). Besides, Kinsella and Pitman (2012) have argued: "Professionals in everyday practice are faced with an impossible bind: the need to decide on action in a context where the information available is incomplete, while operating within the dominant discourse of evidence-based practice, that assumes certainty is present" (Kinsella & Pitman, p. 167). Sellman has emphasized, as did Schön (1983, 1991) and Dunne (1993) before him, that professional organizations have narrowed the meaning of 'professionalism' to 'technical rationality' (Sellman, 2012). Kinghorn has called this "the technical project of modern medicine" (2010, p. 94), in which he believes practical wisdom does not play any role. Pitman has maintained, that healthcare organizations and supervisory authorities insufficiently value the relevance of practical wisdom; he has called them "hostile ground for growing phronesis" (Pitman, 2012, p. 131).

**Our questions.** Our assumption is, that practical wisdom is in fact indispensable for modern medical practices, especially for the moral orientation of everyday actions. Modern discourses within health care and the medical profession do not seem to assign a significant place to practical wisdom, while they reduce morality to taking decisions in specific dilemmas (Kotzee et al., 2016; Kristjánsson, 2015). We argue that empirical research, as proposed by practice theory is required to clarify the role of practical wisdom in everyday practice. Practices are defined by Nicolini and Monteiro (2017) as "orderly, materially mediated doings

and sayings . . . and their aggregations.” We are interested in, how medical practitioners, in their practices, deal with the tensions related to practical wisdom that have been identified in various publications, and whether, and to what extent they establish a moral orientation (‘good care’): supporting sick and suffering patients in a meaningful way. We have therefore carried out a case study on the basis of medical files. In this article, we will use these files as a lens through which we observe both the everyday practice and the medical discourse. Our study was guided by three research questions:

**research question 1:** What specific ratio is there in this case, within a medical practice in an institutionalized, complex context (the hospital), between a phronetic approach and a technical-systemic approach?

**research question 2:** What influence does the dominant discourse exert on this ratio?

**research question 3:** What effects does the ratio observed have on the care actually given to the patient and her relatives, and also on the different professionals’ cooperation in the practice?

**Practical wisdom.** Before we further develop our research questions by outlining a research plan, we will first indicate, how we define practical wisdom, in conjunction with the definitions proposed by a number of other authors.

Aristotle regarded phronesis as an intellectual virtue alongside the other intellectual virtues episteme (scientific knowledge) and techné (skill in making things – instrumental knowledge), and the moral virtues. He called it the ‘meta-virtue’ because, after his view, it guides and overarches the moral virtues and it determines their context-related value (Kinsella & Pitman, 2012; Kristjánsson, 2015). In addition, Aristotle has emphasized that praxis and phronesis are interdependent and reciprocally influence each other (Kemmis, 2012).

Kaldjian (2014, p. 70) regards practical wisdom as: “a teleological approach to decision making focused on ends, bounded by moral principles, informed by concrete circumstances, and driven by the right kinds of motivation.” In addition to orientation to a moral goal, several authors (Higgs, 2012; Kaldjian, 2012; Kinsella & Pitman, 2012; Montgomery, 2006) have pointed to the capacity to make clinically correct judgements as the core of practical wisdom in medicine.

Our definition of practical wisdom is based on the Aristotelian concept, but it also takes into account that medical practices have essentially changed in current, late modern times. Current medical practices are characterized by complexity (De Bock, Willems & Weinstein, 2018; Sturmberg, 2018) and they are pervaded by institutional and societal influences (Hafferty & Levinson, 2008; Moore & Beadle, 2006). Consequently, we define practical wisdom as: *the capability, which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for every individual patient, within the context of the practice and its telos, in ever-changing situations, and the capability of knowing how to accomplish this by the most appropriate means, while dealing with complexity and institutional and systemic pressure.*

We will not elaborate on virtue ethics or on the various conceptual controversies about practical wisdom/phronesis in this article. This is because our investigation has primarily an empirical, not a theoretical aim. Against the backdrop of the distinction of first-order and second-order virtues, we have focused on practical wisdom, which, according to that distinction can be seen as a second-order virtue. In order to explore the role of practical wisdom in an average medical practice within an ordinary hospital we will use our definition as a working definition.

**Indicators.** It is important for our study to specify what indicators can help to recognize practical wisdom in practices, and we will therefore now, describe the indicators we used: 1) The practice is *oriented to the particular 'telos'* to be achieved for the individual patient, which is also in line with the professional goal of the practice. (Kaldjian, 2014; Viafora, 1999). 2) The practice *attunes care to patients* in their specific context *through variation and improvisation* (Kinghorn, 2010; Timmerman & Baart, 2016). 3) The practice *focuses on the patient's concerns*, as signposts that point to the goal to be achieved, *using various sources of knowledge*, including emotions and intuition (Mesman, 2002; Sayer, 2011; Stolper et al., 2011). 4) The practice reaches *a balanced judgement* on a patient's condition and situation (Higgs, 2012; Kaldjian, 2014; Montgomery, 2006). 5) The practice *builds and maintains a professional relationship* with the patient (Van Eijdsden, 2018; Van Heijst, 2005; Vosman & Baart, 2011). 6) The practice *deals with complexity, uncertainty and systemic pressure*, to accomplish good care for the patient (Kinsella & Pitman, 2012).

By contrast, we consider the following as indicators of technical rationality: 1) *a focus on procedures*, guidelines, and directions; 2) operating in a *routine* manner and *taking processes for granted*; and 3) using predominantly *evidence-based professional knowledge*.

**Discourse.** A second concept we need to define in advance is 'discourse'. Some traditions regard discourse as a primarily linguistic entity, which needs to be analysed linguistically (Brown & Yule, 1983). However, we follow Shaw and Bailey (2004), Van den Berg (2004) and Jorgensen and Phillips (2002) in favoring a wider interpretation of 'discourse'. The latter authors have mentioned "a particular way of talking about and understanding the world (or an aspect of the world)" (Jorgensen & Phillips, 2002, p. 1). We see discourse as an interpretative framework, which represents a philosophy or a way of understanding reality that reflects how reality is constructed (Iedema, 2005; Nicolini & Monteiro, 2017; Van den Berg, 2004). Thus, a discourse is a way of structuring reality, which determines, what observations, knowledge, arguments etc. are thought to be relevant. A discourse also includes ideas about what the balance of power in a certain situation should be, and it reflects a dominant ideology (Fairclough, 2003; Foucault, 1980; Jorgensen & Phillips, 2002; Van den Berg, 2004). The relationship between a discourse and its representatives (in this case physicians) is reciprocal: the physicians have been formed and continue to be formed by the dominant professional discourse, and they also communicate and personify it (Witman, 2014).

We will define and explain our qualitative empirical research method: a simple case study below, but we will, at first, summarize the case.



## Research method

**Recapitulation of the case.** In early October, a 68-year old woman is admitted to the Intensive Care Unit (ICU) of the hospital via the Emergency Department (ED). She is diagnosed with a cerebral hemorrhage, resulting from a burst aneurysm (a dilatation of a cerebral artery). From the moment of admission onward, her condition and prognosis are poor: she is aphasic (hardly able to speak); she has a hemiplegia; she is incontinent; she is no longer able to take care of herself, nor to walk or sit properly; she has trouble swallowing. After being admitted, the patient undergoes many operations: an external ventricular drain is inserted to drain the excess fluid from her head; the aneurysm is clipped; an internal ventricular drain is placed after numerous lumbar punctures. She is given many therapies, including physiotherapy, oral and intravenous drug therapy, speech therapy and tube feeding. A number of complications occur: accumulation of intracranial fluid; repeated dislocation of the jaw; respiratory infections with respiratory failure, whether or not by aspiration; a urinary tract infection; a pressure sore. She is re-admitted to the ICU on several occasions and is referred to the regular nursing ward each time she recovers. She is seen by 44 physicians. The relatives, in particular her husband and daughter, visit her every day and even spend the night in the hospital for some time during the first ICU-admission. In late December, she passes away relatively unexpectedly.

Our investigation of this case took place within the context of an extensive research program, carried out in a Dutch general training hospital, and of a larger study within the neurology learning community (Baart & Vosman, 2015). The professionals within the learning community raised the case, because it had drawn their attention due to the unmanageable nature of the various problems that arose. At the same time, they pointed out, similar cases occur regularly. Many other cases were available in the research program mentioned above. We have searched for a patient case that was complex, in which multidisciplinary care had to be provided for a long period, of which documentation was complete and which could be studied along different lines. This patient case met all these criteria. Only during the investigation did we discover that it was also an exemplary case (Timmerman, Baart & Vosman, 2019). By choosing the method of a case study we follow Anderson, Crabtree, Steele & McDaniel (2005), Eikeland & Nicolini (2011) and Flyvbjerg (2006) in their rehabilitation of this research method. “The case study approach provides us with a strategy for studying integrated systems” (Anderson et al., p. 681).

**Research sources.** Although we normally prefer direct observation of the caregivers’ dealings with their patients, this was not possible in this case, because the patient had passed away. We decided against conducting retrospective interviews with the people involved, because this might only reveal (possibly biased) explicit knowledge. Instead, we studied the complete medical files, on the premise that the files would reveal traces of implicit or tacit knowledge, as well as assumptions and truths that are taken-for-granted. The files might therefore better reflect the professionals’ discourse. Because the files contained daily reports, we were able to follow in detail what went on from day to day.

In addition to the daily medical reports the medical files included the records of the conversations with relatives; handover notes at transfers from one department to another; summaries of consultations among physicians and with other professionals; reports of additional examinations, surgery, and interventions; and letters to the General Practitioner (GP). Apart from the medical files, we also analyzed the nursing files, from which we will quote on a number of occasions; but we concentrate on the physicians' role and the analysis is therefore based mainly on the medical files.

Additionally, we studied the diary that the patient's only daughter kept of the time her mother was in hospital. We regarded it as useful to analyze the diary, as we supposed that the physicians' discourse would be partly influenced by the relatives' questions and concerns, which would probably be articulated in the diary, and vice versa. The diary also offered us a unique opportunity to form an impression of the family's 'counter-discourse', as well as of its perception of what happened to the patient, and of the information given by the professionals. We also expected that the diary would reveal what effect the case had on the family and would give us a clearer image of emerging practical wisdom, and of its impact.

The hospital's research ethics board has ruled that this case study was subject of a procedure ruled by law, instead of an ethical review. They gave their written permission to use the patient's files for the research, as did the board of directors of the hospital, the medical staff involved, as well as the nursing staff of the emergency department, the neurology ward, and the intensive care unit. The relatives, i.e. the husband and the daughter also gave their written permission to use the patient's files and the diary.

**Content and function of the documents.** In order to evaluate the possibilities and limitations of the reports we studied, we will now discuss *the content* and function of these documents. The daily report in the medical files is written on the basis of pre-determined templates within the hospital, and according to a format defined within the medical profession. The reports consist of an electronic file in which the various sections are pre-programmed. Special departments, like the ICU in this case, have a specific format, which is even more pre-structured, for instance on the vital functions (respiration, circulation, metabolism, neurological state). Such a frame defines in advance what information is relevant or not; and in doing so, the template also directs the user's observation. The format includes the following categories: a description of the patient's condition, reported by the patient herself or by a nurse (*Subjective*); the outcome of the physical examination by a physician and an account of the results of additional examinations (*Objective*); the assessment of all this by the reporting doctor (*Assessment*); and the plan derived from it for the continuation of treatment (*Plan*). (*SOAP*) Reports of conversations with relatives or of consultations are saved in separate directories, which means that they may escape a physician's attention. The diary, written by the daughter for her sick mother, appears to be partly an expression of the writer's feelings and thoughts. A diary is a personal document not limited by general rules. We assume that it especially represents those facts and events that the daughter regarded and experienced as important.

In everyday practice, medical files have at least a dual *function*: they are the central bearers of information about the patient that physicians regard as relevant, and as such, they *represent the patient* (Kotzee et al., 2016). This is important, for instance, for physicians on duty, who are called to a patient due to some acute incident, but who do not know the patient well. In addition, they *structure the medical knowledge* about the patient, in order to enable physicians to decide on the next step in the treatment process (Mesman, 2002). Thus, the files safeguard care from day to day, or from shift to shift (ICU). The attendant risk is that issues that are judged to be important for the short term are represented particularly well, but the long-term goals, the trend and the prognosis less so. The function of the diary is to record events for the author's mother (we know this from a personal communication) and also, to accommodate the daughter's structuring and coming to terms with the events and the emotions that they evoked.

**Method of analysis.** We chose to carry out a thematic analysis of the documents, because we expected that distinguishing dominant themes would give us insight into the physician's construction, or interpretative framework of reality (discourse), and into the role they attribute to practical wisdom. We expected that the thematic analysis of the diary could modify these findings. In using this qualitative empirical method, we relied on the definition and process description (design) of thematic analysis proposed by Braun and Clarke (2006: p. 79): "a method for identifying, analyzing and reporting patterns (themes) within data." Thematic analysis is a "widely used . . . method of qualitative data analysis" and it is a method "in its own right" (Braun & Clarke, 2012, p. 57). Furthermore, it is *only* a method of data analysis. It may be carried out in the context of different research designs, provided that it is suitable to answer the specific research questions. The thematic analysis of the dominant discourse has been a bottom-up, inductive approach, driven by what we have found in the data. Moreover, it has been experiential, in that we have explored the experiences and meanings that were reported in the data. On the other hand, the thematic analysis of practical wisdom has been performed using predetermined codes (the indicators) that were derived from our working definition and from literature; this is a deductive approach. At the same time it is a critical approach in that it has questioned the role of practical wisdom in this practice. Both analyses have been performed from a constructionist theoretical perspective, which means that we consider reality as being constructed by the observers (Braun & Clarke, 2012).

**Procedure.** The researchers were two medical specialists, who are familiar with professional medical discourse and with the format and terminology of the medical files, and two ethicists, who also participated in the larger study mentioned above. The doctors began by separately reading and rereading the voluminous files several times. While reading the documents, they added initial codes (the indicators mentioned above) to the texts, marking and naming parts they regarded as characteristic for the discourse or for practical wisdom. They then exchanged each other's codes and discussed them until they reached consensus; this resulted in a condensation into subthemes. After this, they presented their findings to the ethicists, who had also studied the texts; the group held discussions and deliberated until agreement was reached, including what subthemes and themes could be identified. These

adapted codes and (sub)themes were then applied to content that had not been studied before, followed in the same way by a process of deliberation and adaptation. In this manner, the researchers were able to determine the themes of the underlying discourses of the files and the diary. It proved possible to clarify the ratio between practical wisdom and technical knowledge in this practice. Using questions that were expressed in the discussions, the researchers reassessed the material several times, on a few occasions modifying (sub)themes. In this way, we tried to prevent one-sided and biased interpretations. The validity of this research was thus safeguarded by researcher triangulation: various researchers went through the material independently, and also by the transparent mode of working with codes (indicators). It was further guaranteed by the fact that we used different sources, namely the medical files and the diary. We will comment on the generalizability of the results below, under reflection.

**Limitations.** By limiting ourselves to two written sources, we missed all information exchanged orally during formal and informal discussions. Nor was there any information that did not fit into the files' format: the files do not have a category for the *aim of treatment*. Data about the clinical situation and context were not included either, such as for instance the fact that the physician might be in a hurry or under a lot of stress; or about spatial characteristics; or the variation in the levels of experience of physicians and nurses involved; etc. We can only gain indirect insight into the current habits and prejudices within the practice through meaningful 'signals'; this means we have to interpret them. In this way, the files function as a 'keyhole' on reality. We have to take these limitations into account in our reflection, and when drawing conclusions. Nevertheless, the written sources we used, provide a great deal of detailed and meaningful information about day-to-day work in this practice. In the next section, we will describe the outcome of the thematic analysis and what it can teach us about the underlying discourses and the emergence of practical wisdom.

## Results

**The medical files.** The thematic analysis of the medical files yielded the following results: The files almost exclusively contain *information about the patient's body*, and thus mainly represent her injured body, primarily the brain hemorrhage. The files do not for instance refer to the considerable deterioration in the patient's functions after the clipping of the aneurysm, or on the impact that this had: before the operation she could still speak and move her right body half; afterwards she was aphasic and paralyzed on her right side. By contrast, the diary did describe this deterioration; it caused the relatives considerable shock.

As a rule, the files are restricted to *information about the sick part of the body*, and their focus is thus on *the disease of an organ*. As soon as the patient had to be transmitted to the ICU the focus shifted to the *(dis)functioning of the patient's vital functions* and to how to support these functions.

An example: on 10-17 the neurologist reports: "*Awake, hemiparesis right, aphasia. Consciousness seems to fluctuate somewhat, respiratory pattern evolves accordingly.*" And on 12-22 the

intensivist notes: “Respiratory: RBS without abnormalities. Empty cuff (trachea cannula) for a longer time. Little to no BT necessary, effective cough and swallow function.”

By contrast, the relatives were increasingly worried about the patient’s steady deterioration, especially her low communication abilities, as the diary shows.

In the files, information is *structured according to the diagnosis-treatment scheme* that is customary in the medical profession. We only encountered information that fit into this structure (SOAP). Sometimes the results of consultations or of a grand round were included. There was a category called ‘psychosocial’ at the ICU, but it contained only very general information about the context and the patient’s relationships.

Example: “Married, 2 children (son, daughter) grandchildren, strength in hands impaired because of arthrosis. Works in care for the elderly as a volunteer.”

We did not come across any remarks on the patient’s frame of mind, or on the arthralgia due to her arthrosis. As the diary shows, however, both issues were causes of concern to the relatives. The patient therefore appears from the files as *lacking context*.

The files contain mainly *short-term information*: the writers looked back one day or shift and looked ahead one day or one shift, except when they had to work toward a specific medical goal like an operation that had been scheduled in a few days. In that case, the physicians focused on this interim goal. In this way the doctors obviously safeguarded the continuity of care over a period of a few days at the most. Summaries before the weekend were regularly lacking; whenever they were present, they occasionally contained inaccurate and increasingly incomplete information. In this way, the correct image of the patient’s past became diffuse. This was also true in respect of her future: in the first weeks in hospital, the files occasionally contain a remark about the patient’s future after the admission: about rehabilitation in a rehabilitation center. Later, such references to the patient’s progress in the long term were lacking, nor did we come across reflections on a possible fatal outcome. The reports of conversations with the relatives (except the first family conversation at the ICU) do not contain any information on long-term expectations or goals. By contrast, the daughter regularly wondered in her diary if she ‘will ever get her mother back.’

What do the files tell us about the way the *physicians cooperate with each other and with other professionals*? There is a distinction between the general wards and the ICU. The ICU-files show, that the attending intensivist and the intensive care nurses exchanged and coordinated the information presented per shift. However, this happened far less often with the information from other disciplines in the ICU. The files of the general ward show an allocation of tasks, in which the doctor on duty (the attending) held the coordinating role, assessed the patient, and determined policy. The attending also determined whether consultants or paramedics needed to be involved (a dietician, a speech therapist, or a physiotherapist), or a next step in the treatment route needed to be taken (mobilizing the patient, adapting a treatment or starting a new one). The attending sometimes did, and sometimes did not include the information she got from the nurse on duty in her report. She was the one who gave instructions to the nurses.

Example: on November 11, the attending notes: “Nurse: *does not seem to improve; does not speak, does not make any noises, speech therapist is in consultation. Relatives have made a board hoping she will point at ‘yes’ and ‘no’.* Seems to urinate little.”

The files do not show that doctors and nurses discussed the patient or deliberated among themselves, not even when the relatives observed an alarming deterioration in the patient, as can be seen in the diary.

Consultation with other specialists, as far as reported, (and that is quite rare), was *never multidisciplinary, always bilateral*: the attending presented a problem that is within the colleague’s area of expertise (e.g. the suspicion of jaw luxation to the dental surgeon), and the colleague in turn, pointed out the solutions she had to offer.

Example: on November 11, the attending notes: “ask logo regarding language support”. . . “consult dietician regarding intake, more fluid.” And on November 28: “consultation dental surgery? Or other treatment?”

Observations made by paramedical staff, like the speech therapist and her prognosis that aspiration might occur, were often neglected, even though this prognosis turned out to be accurate.

What do the files reflect about *the way hospital staff communicated with the patient and her relatives*? Obviously, communicating verbally with the patient was not possible on account of her aphasia. Non-verbal communication was possible, however, through motor signals, like moving her head. Nonetheless, practically all communication seems to have been with the relatives. The files contain summaries of conversations during the first week of admission, all but one of which were initiated by the intensivist or the neuro surgeon. Conversation reports during admission to the general ward are few in number, although the patient stayed much longer in the general ward than in the ICU. All of the conversations held in the general ward were on the relatives’ request; mostly because they had experienced a problem. These discussions were not planned structurally (e.g. once a week). In addition, it appears from the reports, that communication with the relatives was *a one-way process*, with the physicians as senders, and the relatives as the recipients of information. Furthermore, it is remarkable, that *information was usually given a posteriori*, for instance, after a complication occurred, and not before, e.g. to prepare the relatives for an expected course. In the conversations with the family, the physicians reacted to, rather than anticipated events.

**Summary and first reflection.** The themes that emerge from the files reveal a discourse with the following characteristics: 1) It is primarily focused on the patient’s body; hence, it is a discourse of the body. 2) It is concentrated on the sick organ and on the disease, not on the patient as a whole person; this means it is a reductionist discourse. 3) It is medically and technically sound, but it trivializes the patient’s context; it is a discourse lacking context. 4) It is mainly directed toward short-term continuity, but pays much less attention to the long term. 5) It suggests that cooperation with colleagues is established as the total of tasks carried out successively or alongside each other. Thus, the discourse compartmentalizes and fragments. 6) It is also a hierarchical discourse, in which the physician

is at the top of the hierarchy (and so has the natural power) and nurses and paramedics are lower down: the doctors give the orders and determine the relevance of information. 7) It includes a model of communication with patients and relatives, that is known as the informative model (Emanuel & Emanuel, 1992), in which the sender, the doctor, determines what is important and in which information is often communicated after the fact. Neglecting the knowledge of paramedics, patients, and relatives, as points 5 and 6 illustrate, corresponds with what Fricker, 2007, has described as “*epistemic injustice*”: “*a wrong done to someone specifically in their capacity as a knower*” (Fricker, 2007, p. 1).

These characteristics mostly fit the construction of reality of a traditional medical professional discourse, which has been characterized as paternalistic (Freidson, 2001; Tonkens, 2008) or as predominantly medical-technical, because observations and actions are mainly guided by medical-technical rationality (Dunne, 1993; Kinghorn, 2010; Schön, 1983). Furthermore, it presupposes a linear, certain, and uniform reality, instead of one that is complex, uncertain, and variable (Kinsella & Pitman, 2012).

**The diary.** The diary illustrates *the great importance that the sick mother has for the daughter*. The daughter wrote that she could not live without her mother, who was her pillar of support and her main conversation partner.

Example: “*became weepy spontaneously, saying loud, no MUMMY, stay with us, it can’t be anything serious. I can’t do without you.*” (page 4) She illustrates this by specifying that she is used to calling her mother whenever she was dealing with something emotionally important. “*it was an automatism of mine. When I am glad – or sad, I always call our mum.*” (p 20)

The diary voices *the daughter’s fear that her mother will die, an intense emotion*, which returned at every perceived deterioration in the patient’s condition and alternated with hope and joy whenever small improvements were observed.

Examples: when she hurries to the hospital after being called by her father to tell her that her mother has been hospitalized, she writes: “*my heart began to throb, I began to walk faster and faster. It is bad, it is bad, it is serious.*” (p 3)

Just before the operation during which the aneurysm will be clipped: “*Yes, our mum was doing really well. Wonderful feeling – yes, I am getting my mum back very slowly.*” (p 45)

A second cause for intense emotions that emerges from the diary is the experience of the staff’s lack of consideration with the mother.

Example: the relatives, after signaling that the mother is becoming more and more drowsy (a symptom of increasing intracranial pressure, to which their attention had been drawn by one of the intensivists at an earlier stage), while the doctors initially do not recognize this: “*furiously – angry – sad if we had not raised the alarm they wouldn’t have done anything .... through the cerebral fluid .... much drowsier every day.*”

The daughter also wrote about *how she understands ‘good care’*, both in her own life and in this professional situation. She described it as: “*being there for you.*” “*we are there for one another.*” “*I will be there for you.*” In different variations, such a phrase appears 22 times

in the diary. It seems to be her expression of recognition, of staying close. Whether or not professionals show this kind of consideration, also determines the opinion she has of them. Those who gave personal attention to the mother are described with appreciation and she knows their names. The others are indicated with the impersonal “they”.

The diary reflects the *very precise observations* of the daughter, who knows her mother perfectly well. This allows her to notice at an early stage from small signals when her mother’s condition is going to deteriorate or to improve. This shows her to be a *knower* in Fricker’s sense. (see above)

Example: when the mother returns to the ICU on the day of admission after an extra ventricular drain has been placed: “*she said something, after a few times we understood it. She said I need to pee (...) Wow our mum can speak (I thought to myself) (...) I clearly saw that she moved both her arms to push herself up (...) again I thought wow she is not paralyzed.*” (p. 10)

The diary illustrates how the daughter is sometimes, but usually not, *acknowledged as a knower, and as a partner* in care.

Example: when the daughter warns a nurse on November 13, because she observed ever since November 8 that her mother is sleepy and drowsy all the time, she notices that the attending physician only orders a CT-scan of the brain the next day. It is eventually carried out on November 15 and the relatives receive the result on November 16 (8 days after their first observations). The amount of fluid and thus the pressure, in fact appear to have increased inside the skull, and treatment is finally started. Disappointed the daughter notes: “*because of this a week’s delay for recovery.*” (p 69)

On other occasions, the relatives did *not feel recognized in their natural concern* about their mother. We see an illustration of this when the mother developed a respiratory insufficiency and again had to be referred to the ICU. Apparently, the relatives were not informed, and so they arrived unsuspecting for visiting time.

The daughter wrote: “*arrived in the corridor and saw nurses go to another room with our mum’s possessions. I say to our dad, oh, our mum is moving again. Nurse said we have taken your mother to a single room, I walked on normally, the curtains were drawn. I opened the curtains and saw 5 doctors and our mum wearing an oxygen mask ...*” (p 71)

The lack of care for and the disregard of the relatives led to a serious breach of trust and to the development of a conflictual relationship with the doctors. The lack of recognition for the relatives also illustrates a lack of practical wisdom. (indicators 3 and 5)

**Summary and first reflection.** The themes we found in the diary, suggest that the daughter’s discourse is a *discourse of the quotidian*, in which the meaning of loving relationships (‘being there for you’) plays a key role. We can therefore also call it a *relational discourse*, one which resembles the *care-ethical discourse*. The latter discourse emphasizes the meaning of the relational embedding and context for the emergence of good care and thus of practical wisdom (Tronto, 1993; Van Heijst, 2005; Vosman & Baart, 2011). These discourses contrast with the doctors’ technical discourse. However, practical wisdom can be



very helpful in dealing appropriately with this contrast, and preventing or solving problems arising from it.

The diary also indicates the daughter's negative response to the doctors' detached, technical, reductionist discourse: disbelief, disappointment, anger and distrust.

**Discerning practical wisdom.** In order to discern practical wisdom in the medical files, we used the concept heuristically. We will now describe our findings according to the indicators, presented in the introduction.

***Orientation to a specific telos:*** the good to be achieved for this particular patient in a professionally competent way. We have found that the practitioners attempted to carefully define feasible and appropriate treatment goals for their patient, according to their professional standards. To give one example: the decision to perform a neuro surgical operation, during which an intraventricular drain would be placed to drain the accumulating cerebral fluid and to diminish cerebral pressure, was postponed because of indications of an infection which had to be treated first. In the meantime, the liquid was drained by means of lumbar punctures. However, there were no efforts to investigate the patient's context or her former way of life in order to adjust long-term professional goals to her specific situation. The relatives' own aim was expressed by their hope to retrieve their well-known intimacy with 'mum', varying from doing the ironing together and watching television, to constantly talking about each other's wellbeing. We searched the files in vain for professional attempts to bridge the gap between this hope and the instrumental treatment goals. In this way, the files show that goals are defined according to the dominant technical professional reasoning.

***Attuning care to the patient through variation and improvisation.*** We observed instances of this in the behavior of an intensive care nurse; she perceived the intimate relationship between the patient-mother and her daughter, and decided to involve the daughter in everyday care for her mother. She purposefully used the shower cream which the daughter had brought to comfort the mother, and allowed the daughter to participate in the care. Likewise, a speech therapist asked the relatives to tell her about the patient's personality, her interests and daily life before the illness, in order to tailor her assistance to the patient's needs; these were examples of practical wisdom. The physicians, on the contrary, predominantly appeared to adhere to their routines and standards.

***Focusing on the patient's (and relatives') concerns, using various sources of knowledge, including intuition and emotions.*** Although a doctor had already had a long conversation with the patient's husband and daughter on the day of admission, the intensivist on duty decided to make time for another conversation with the son. The latter arrived in the hospital at 11.00 p.m., returning from his holiday destination, after an emergency call from his sister. Thus, the intensivist showed, that he was touched by the son's concern and demonstrated practical wisdom (Molewijk, Kleinlugtenbelt & Widdershoven, 2011; Stolper et al., 2011). However, practical wisdom was lacking in the ICU, where the intensivists needed the speech therapist's opinion, in addition to their own judgement, before removing the trachea cannula, and yet failed to consult the speech therapist. A lack of practical wisdom is

also apparent in the neglect of the relatives' concern about their mother's deteriorating condition.

***Reaching a balanced judgement about the patient's condition and prognosis.*** After admission, the physicians' judgement appears to be appropriate; moreover, their judgement about the right treatment and the poor prognosis were communicated sincerely to the relatives. These are examples of practical wisdom. However, the subsequent erroneous judgement about the rising intracranial pressure, especially the neglect of the relatives' keen observations, shows a lack of practical wisdom.

***Building and maintaining a professional relationship.*** The files reveal that in this case the professionals failed to maintain a professional relationship with the patient's relatives. It would have been practical wisdom to observe and utilize the family's intensity of emotions as a signal that tensions in the professional relationship were mounting and to address them in order to keep or recover that relationship. Unfortunately, this did not happen, either because professionals felt incapable of doing so, or because they believed the emotions resulted from a procedure with many aspects, which they were unable to influence (for both statements see Baart & Vosman, 2015).

***Wisdom in navigating complexity.*** We also looked for practical wisdom in physicians' signaling of and dealing with their complex, not always optimal, work context, but there were no indications of this. The files provide several examples: the patient was transferred from one ward to another on a Friday afternoon with minimal accompanying information. There is nothing in the files to indicate that the doctors were aware that the fact that the transfer would happen just before the weekend meant a potential risk for this patient, all the more so because she could not speak. Relatives did not appear to be prepared for this transfer, either (see also Hall, Robertson, Merkel, Aziz & Hutchens, 2017; Mannix, Parry & Roderick, 2017). A second example: a great number of physicians appear to have contributed to the medical files and thus to have been actively involved in the medical care of this patient. We counted 44 physicians, 26 in the ICU and 18 from the other departments, as well as 106 different nurses and paramedics. We did not read anywhere that the physicians realized that the doctor-patient relationship was bound to remain distant and superficial on account of these large numbers, and that the effect on patient and relatives could be alienating and anonymizing. Neither did we see any indication that the physicians realized that this number involved the risk that they would lose sight of the patient's personality and medical history, because they appeared to be informed only fragmentarily, possibly incorrectly, and that they might thus lose sight of the aim of their treatment. These weakened care relationships probably impeded the emergence of practical wisdom (Van Eijdsden, 2018; Vosman & Baart, 2011).

**Summary and first reflection.** We have certainly identified traces of practical wisdom in this practice, as far as the files allow us to judge. However, in the ratio between practical wisdom and the professional technical rationality of protocols, guidelines and routines, the latter was dominant. Practical wisdom probably lost out, or was not given enough opportunity to emerge.

In the following section we will discuss the factors which enabled this asymmetrical ratio to emerge, and the ensuing effects for the care provided, as well as for the mode of cooperation within the practice.

## Reflection

**An asymmetrical ratio.** The thematic analysis of the medical files has given us an understanding of the doctors' discourse. This appears to be a traditional, medical professional discourse, appropriate for the technical-rational view of medical practice. The views and norms for procedures (like file-keeping), routines, modes of cooperation and hierarchy in professional relationships are standardized and fixed; the physicians, in view of their peers' and supervisors' subsequent appraisal, therefore probably tend to behave according to these views and norms (Witman, 2014). This discourse seems to obstruct an adequate awareness of the complexities, uncertainties and variabilities both in the patient's condition and in the practice context.

By contrast, practical wisdom implies the necessity of attuning care to every individual patient in her specific context and situation (Baart & Vosman, 2015; Kinghorn, 2010). Moreover, the good to be achieved for individual patients proves to be changeable (Gawande, 2014; Kaldjian, 2014). Everyday complexity, with its inevitable uncertainties and un-predictabilities requires adequate judgements (Vosman & Niemeijer, 2017). The analysis revealed a lack of practical wisdom, as outlined above, in this practice.

The files also permitted us to observe the factors that possibly occasioned the asymmetrical ratio between practical wisdom and technical reason. These factors were partly related to the professionals' (view on their) practice in the strict sense, partly to the systemic infrastructure of the hospital.

**Practice-bound factors.** In addition to the *dominant (technical) discourse*, we observed the following: the *large number of professionals*, none of them was able to establish and maintain a relationship with the patient and her family; the *large number of transfers*: the patient was transferred within the hospital on eleven occasions, and each time information was lost; the *mode of professional cooperation*, consisting of a variety of bilateral consultations, while the coordinating physician changed frequently; the *hierarchical approach*, in which the doctor determined what is relevant on the basis of a reductionist discourse, which filters or neglects information; material factors, like the *format of the electronic record*, which has no sections on 'treatment-goal', 'the patient's social situation' (context), or 'long-term prognosis', but was completely pre-programmed according to the current diagnosis-treatment model.

**Infrastructural factors.** The files also offered us a view of some infrastructural aspects of the organization of the hospital, which can also impede the emergence of practical wisdom (Vriens, Achterbergh & Gulpers, 2016). During this patient's admission, the neurological ward apparently did *not* have *any structure for multi-disciplinary deliberation*,

aimed at joint reflection on a patient; apparently, there were no *arrangements* to put in place *the safeguards* that should surround an internal transfer, to *guarantee continuity of care* for the patient; similarly, *conversations* with (relatives of) patients who are hospitalized for lengthy periods of time, *were not planned regularly*, and no efforts were therefore made to maintain the relationship and exchange information; in the culture of this ward, there appeared to be *no tradition of instantly alerting the relatives* in case of *sudden deterioration of the patient's condition*; *neither* did it appear normal to allow a concerned family member *to be present during the daily care* for the patient (a conflict arose about this between the daughter and a nurse who told her to wait in the corridor.)

**Occasional practical wisdom and its consequences.** What were the possible consequences of the merely accidental presence of practical wisdom and the dominant medical-technical rationality? Because our view of the practice was limited, we were particularly cautious in drawing up our conclusions on this point. The sources reveal that *increasing reciprocal estrangement and tension*, mistrust and ultimately rejection and conflict arose between the professionals on the one side, and the patient's relatives on the other. Moreover, we identified *a number of flaws* in the diagnostic and treatment process (described above); the patient and her relatives were *not given the opportunity to prepare together for the end* which was probably approaching; *the relatives (and the patient?) did not feel supported* by the professionals in the suffering caused by their mother's illness, invasive treatments, and death; *the physicians showed frustration and despair* in respect of their inability to solve the frosty relationship with the family. Our suggestion is, that practical wisdom could have prevented or minimized at least some of these consequences.

**Proposals.** Our findings enable us, to formulate several proposals, aimed at restoring the balance between practical wisdom and technical rationality in comparable situations. Firstly, medical professionals and medical practices should include, both structurally and ad hoc, moments for (preferably multi-disciplinary) reflection on the moral question whether they are giving 'good care' at that specific time and on what the aim of their involvement with an individual patient should be. Secondly, the format of the electronic medical record should be scrutinized, and complemented by categories like '*goal*', and '*context*'. Thirdly, the infrastructure, i.e. structure and culture, of the hospital organization should be transformed, so that practical wisdom can thrive, e.g. by stimulating reflection as mentioned; by stimulating improvisation and diversification on behalf of each patient's particular circumstances, and by promoting the importance of engaging the knowledge, experiences and concerns of patients and their relatives. Finally, medical professional associations should support the development of practical wisdom: they should criticize the one-sided promotion of the medical-technical discourse, and provide post-graduate courses or peer-coaching models to develop practical wisdom in practices (Hafferty & Levinson, 2008; Kinghorn, 2010; Kinsella & Pitman, 2012).

**Generalizability.** A single case study like this, allows us to make an in-depth investigation of details in their relationship with each other, and this can yield new insights (Anderson et al., 2005; Eikeland & Nicolini, 2011; Flyvbjerg, 2006). The exact way in which factors and actors play a role and influence each other in such a case, is defined locally and temporally. Patients and their relatives differ from each other in many aspects, but they also

have much in common. The same applies to individual professional practices, physicians, and hospitals. That is why ‘communicative generalizability’ is the only objective of this study (Eikeland & Nicolini, 2011; Smaling, 2009a) i.e. the readers of this case study will have to determine themselves whether and to what extent the research results are important for their practices.

**Implications.** What does our research add to the literature on practical wisdom? It is an empirical study, which, through the key hole of a complex patient’s medical files and a diary, has provided a picture both of day-to-day care and of the doctors’ discourse. Our detailed observations and analysis make it possible to complement the theoretical insights on practical wisdom. In addition to the institutional, systemic, and professional pressure, described in the literature, professional medical discourse also appears to threaten practical wisdom, as do factors linked to everyday medical practice. We observed, for example, how the professional relationship with a patient was distributed over many professionals, which made it difficult to maintain the relationship. We also found, that specialized medical discourse and the mode of cooperation that arises from it (the sum of bilateral consultations), can impede joint reflection. Finally, we observed, that a hierarchical culture with the physicians at the top, and the dominant medical-technical rationality both facilitate the neglect or disregarding of knowledge of ‘subordinates’ and of patients and their relatives, possibly resulting in failing medical assessment, and a failure to maintain the orientation to the good that is being pursued for the patient. Practical wisdom nonetheless appeared to emerge now and then; it should be possible to expand these occasional manifestations.

## Conclusion

Our study has answered the question what the ratio was between practical wisdom and technical rationality in an everyday medical practice and in the dominant professional discourse. It has also demonstrated the effects which this ratio had on the care given to the patient and her relatives and on cooperation within the practice. Influenced by the dominant professional discourse, technical and systemic rationality appeared to prevail, although practical wisdom was observed incidentally. This asymmetrical ratio appeared to have negative consequences for the medical care provided and for the relational fine-tuning of care for the patient and her relatives, so that professionals were unable to satisfactorily support them in illness and suffering. Misunderstanding, distrust and ultimately a conflictual relationship were the result. Better integration of practical wisdom into this practice could possibly have prevented or solved these problems. The impact of the asymmetrical ratio on professional cooperation was that multi-disciplinary, joint reflection on the patient was scarce and that the knowledge of relatives, nurses and paramedics was often neglected, indicating ‘epistemic injustice’.

Our research has led to additional insights regarding practical wisdom. In addition, it has enabled us to make several proposals to create scope for practical wisdom. However, more empirical research into practical wisdom in medical practices, aimed at better integration of practical wisdom into those practices is needed in order to achieve good care that is attuned to each individual patient.



“Never do what your mother tells you to do,  
and everything will be all right for you.”

Annie M.G. Schmidt, *De regenworm en zijn moeder* [*The earthworm and his mother*]






# Chapter 7

## Making the Best of it: Practical Wisdom in Professional Care for Adolescents with Type 1 Diabetes Mellitus

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The background of the page is a complex, abstract geometric pattern. It consists of numerous overlapping, semi-transparent polygons in various shades of gray, creating a layered, crystalline effect. The shapes are irregular and angular, with some appearing as sharp points or thin lines, while others form larger, more solid-looking areas. The overall composition is dynamic and modern, occupying the lower two-thirds of the page.

## Abstract

Multidisciplinary professional care for adolescents with type 1 diabetes mellitus has been supported by detailed international consensus guidelines since 1995. However, several professional authors have argued that it takes more than excellent guidelines to give good care also in a moral sense in daily practices. In this article, we report on an exemplary case study into the adolescent diabetes outpatient clinic of a Dutch general hospital, with the aim to explore how practicing professionals enacted the attuning of general guidelines to individual patients in their specific contexts. To realize this aim, we have conducted ethnomethodologically inspired, participatory observations, and an abductive analysis, using tools that have been derived from grounded theory. We carried out the inquiry using the heuristic lenses of relationality and practical wisdom. In addition, we used care ethics and practice theory as theoretical frames. Relationality and practical wisdom appear to be strong vectors of good care in everyday diabetes practice.

## Introduction

**The problem: friction between guidelines and practice.** In 1995, the International Society for Pediatric and Adolescent Diabetes (ISPAD)<sup>1</sup> published consensus guidelines for the medical care of children and adolescents with diabetes mellitus, and these guidelines have been regularly updated and complemented. The latest evidence on the disease has been incorporated into the guidelines, in combination with the expert knowledge of a multi-disciplinary group of experienced professionals. The guidelines have been adjusted to the characteristics of local, regional, and national conditions. For instance, the American Diabetes Association published ‘Children and Adolescents: Standards of Medical Care in Diabetes 2018’<sup>2</sup>, whereas in the Netherlands, the Dutch Diabetes Federation in cooperation with the Dutch Association of Pediatric Medicine, produced a ‘Standard of Care’ (2009)<sup>3</sup> based on these guidelines. In the formulation of ISPAD the ultimate *goal of care* for adolescents with diabetes mellitus is: “high quality of life, normal growth and development, and lower attainable risk of acute and long-term diabetes complications”. This goal describes the perfect, successful end point of professional diabetes care.

The *standards* set out in the guidelines are biomedical target values of good care, described as physical, biochemical and psychosocial characteristics such as: optimal average blood glucose level (HbA1c 58 mmol/mol); normal growth and weight; no acute or late complications of the disease; self-management and independence. The guidelines also include standards for procedures and planning of care (frequency of check-ups; multi-disciplinary teams; use of plans for education and care).

Inevitably, these guidelines are based on average patients. The guidelines do not discuss how possible discrepancies between standard and individual patients should be bridged.

As it happens, however, authors from medical (Gawande, 2002; Gawande, 2007; Groopman, 2007; Hibbert, 2012; Kaldjian, 2010, 2014; Kinghorn, 2010; Montgomery, 2006;

Mukherjee, 2015; Pellegrino & Thomasma, 1993; Stolper et al., 2011) and from non-medical backgrounds (Baart & Vosman, 2015; Eikeland, 2001; Kinsella & Pitman, 2012; Mol & Law, 2004; Mol, 2006; Timmerman & Baart, 2016; Vosman, Timmerman & Baart, 2018) have argued that practicing professionals need more than these useful guidelines to give good care to their patients. Several authors have mentioned that practitioners should be able to *acquire adequate knowledge* about the individual patient in her situation and context. The authors state moreover, that *other modes of knowledge* are required than evidence as it appears in the guidelines, or basic scientific medical knowledge, for instance intuitive, and experience-based knowledge.

Furthermore, in these publications is stated that professionals should focus not only on realizing medical standards, but also on *meeting moral norms*, that is to “appreciate what is good for a patient as a person, not merely as a biological being” Kaldjian (2014, p. 73). This is the *ethical* dimension of care, according to Kaldjian.

Finally, several authors have *qualified the ideal goal* of professional diabetes care. For example Iedema, Mesman and Carroll (2013, p. 81) have argued that daily practice is : “a mode of practice that aligns with what is possible more than with what is formally required.”

Consequently, there appears to be a problem for professional practices of how to determine the correct ratio between the general knowledge of the guidelines and personal and situational knowledge about the individual patient (Mol, 2006). Or, in addition: how to find the correct balance between biomedical standards and moral norms in individual cases (Schermer, 2001); or how to transform ideal purposes into achievable goals (Franklin et al., 2019). This problem has led to the following research questions:

### **Research questions.**

1. How is a balance enacted between personal and situational patient knowledge and biomedical patient knowledge as prescribed in the guidelines, through ordinary actions within an everyday diabetes practice? This question will be addressed specifically for a) individual practitioners, b) the diabetes team, and c) the way the infrastructure of the practice facilitates this.
2. How is (are judgements on) morally good care enacted, in relation to the medical standards of the guidelines through ordinary actions within an everyday practice? This question will similarly be addressed specifically for a, b and c (see above).
3. How is a balance established between agreed, appropriate goals for individual patients in their specific contexts and the general goals laid down in the guidelines? This question will, once again, be addressed specifically for a, b and c.

Before we describe the research method we have used in this study, we will introduce the conceptual lenses through which we observed the practice.

### **Our perspective: care ethics, relationality, care practices and practical wisdom.**

First, we approached our subject from a *care ethical perspective*. In the context of the current study, this specifically means that we regard giving professional care as a *relational activity*, in which “care . . . results, becomes structured and relevant from thinking, exploring and

steering relationally” (Baart, 2018, p. 74). Furthermore, we argue that it is distinctive and relevant for patients in care relationships to be *vulnerable and dependent*, because they are ill and are suffering (Vosman & Niemeijer, 2017).

Second, we studied medical care as a *practice*, and we have used this term as it is defined in certain practice theories. Nicolini (2012, p. 220) has described practices as “real time doing and saying something in a specific place and time” (Also see Nicolini & Monteiro, 2017; Schmidt, 2012). Practices of care are enacted and re-enacted not by isolated individuals, performing alongside each other, but in complex networks of and interactions between actors, including patients in their contexts, and material and immaterial non-human actors (Barad, 2003; Setchell, Abrams, McAdam & Gibson, 2019). Moreover, Vriens, Achterbergh and Gulpers (2018), as well as Moore (2005), and Moore and Beadle (2006) referring to MacIntyre (1985), have emphasized the relevance of the infrastructure in which practices are embedded. They advocate the alignment of organizational purposes with the ‘internal goods’ of embedded practices.

Third, we have aimed at understanding professional practices ‘on their own terms’ (Eikeland & Nicolini, 2011; Mesman, 2002; Mol, 2006; Vosman & Niemeijer, 2017; Schmidt, 2012; Saraga, Boudreau & Fuks, 2019; Vosman & Baart, 2015), i.e. on the basis of the rationality ‘imbedded’ in these practices, a rationality which might be different from that of biomedical sciences. Mol (2006) has described this rationality as ‘the logic of care giving’; others have mentioned *practical wisdom* as its distinctive characteristic (Bontemps, Vosman & Baart, 2019; Kaldjian, 2014; Kinghorn 2010; Kotzee, Paton & Conroy, 2016; Pellegrino & Thomasma, 1993; Tyson, 2028). Our supposition has been that, by observing through the lens of practical wisdom, it is possible to make the ‘logic’, or the ‘grammar’ of the practice perceptible, and to describe it subsequently (Eikeland & Nicolini, 2011). We define practical wisdom heuristically as: *the capability which emerges in acting jointly within medical practices, of knowing how to remain focused on achieving the good for every individual patient, in ever changing situations within the context of the practice and its telos and of how to accomplish this by the most appropriate means, while dealing with complexity and institutional and systemic pressure*” (Bontemps et al., 2019). We regard ‘the good’ as specific to individual patients in their contexts and situations, as variable, and as something that can only be validated retrospectively, by the experience of the care recipient (Klaver, Van Elst & Baart, 2014; Timmerman, Baart & Vosman, 2019).

Our hypothesis is that observations made through the observational frameworks of *relationality*, *practices* and *practical wisdom*, will enable us to identify new and unexpected issues in the practice of care for diabetes patients, and to learn how good care is enacted in professional practices. The following section will set out the research methodology that we have devised to answer the research questions.

## Method

**An exemplary case study.** We have opted to conduct a qualitative, exploratory case study, through direct observation of an adolescent diabetes outpatient clinic (practice) in a

Dutch general hospital. We approached this complex case (practice) according to Stake's constructivist-interpretivist orientation (Harrison, Birks, Franklin & Mills, 2017) and as a complex and integrated whole according to Anderson, Crabtree, Steele and McDaniel Jr. (2005). We chose ambulatory care for patients with the *chronic disease* of type 1 diabetes mellitus, because this is a disease that has a great impact on patients' daily lives and context (Hinder & Greenhalgh, 2012; Mol & Law, 2004; Mol, 2006). In addition, it is a difficult task to achieve the stable regulation, that the guidelines recommend. We then chose the age group of *adolescents* – children in the transition period to maturity, aged 12 to 21 – because this group's physical, mental and social stability is under pressure during this phase, and the patients must establish ways of coping with the disease, independent from parents or counsellors (Crone, 2008). Supporting adolescents with diabetes therefore constitutes a real challenge for practitioners; this makes the case an exemplary one (Timmerman et al., 2019): "The exemplar methodology is a sample selection technique that involves the intentional selection of individuals, groups, or entities that exemplify the construct of interest in a highly developed manner" (Bronk, 2011, p. 1).

**An ethnomethodologically-inspired approach.** Nicolini (2012) has described "ethnomethodologically(EM)-inspired approaches", alongside other methods, which are 'slow' and 'in-depth', and enable observation of details and specific particulars of a situation, as appropriate for research of practices. According to Nicolini, an EM-inspired approach focuses on accurately re-constructing a) the means practitioners use to accomplish actions together and b) the organization of relationships and interactions. Patton (2002) has emphasized that EM is focused on making the tacit knowledge of a practice explicit (Polanyi, 1969), and on making sense of daily activities.

Nicolini's advice is to focus the research of practices not only on actions, interactions, and meanings, but also on "the landscape of tools, artefacts, and resources" (Nicolini, 2012, p. 223] and on the way these material agents are integrated. He also recommends taking note of the observable goal orientation, morality, and concerns within the practice.

**Participatory study.** Direct observation of practices, 'fieldwork', consists of "the circumstance of being in or around an on-going social setting" (Patton, 2002, p. 262). This implies a more or less participatory approach. Patton has listed many advantages of direct observation, including being able to observe matters of which the participants are not aware in a practice, issues participants do not want to talk about in interviews, and issues that go beyond the participants' selective perception, thus obtaining a more complete overall image (Patton, 2002, p. 27).

At the time the observations were carried out, the first researcher worked as a pediatrician in the pediatric practice concerned, but she was not a member of the diabetes team. She was therefore both involved with, and at a distance from the team that was under study. According to Eikeland and Nicolini (2011), commitment to and active participation at a practical level during a well-defined period have the advantage that the researcher can better observe the sought-after 'grammar' of the practice. They have advocated "a new type of 'detached' research aiming at knowledge and understanding from within the knowers' own practice, not from a segregated position outside" (Eikeland & Nicolini, p. 7). The purpose of

this type of research is twofold: to produce a new type of theory, that is comparable to the grammar of language; and to provide “a tool for insight” into the practice to practitioners. However, our modest goal was only to acquire some important theoretical insights.

As an insider and because of her experience, the first researcher had an understanding of the culture, the structures, and the context of the practice. That is why she must be considered as competent to devise adequate and rich interpretations of the data. However, her double role (as a colleague and a researcher) may also have led to bias and blind spots (Patton, 2002; Smaling, 2009a). Thus, safeguards had to be included to ensure the internal validity and trustworthiness of the study. First, we applied investigator triangulation: the critical co-evaluation of the observations and analysis by the two co-authors, who are ethicists and who are not affiliated with the hospital in question, although they are experienced researchers in other hospitals. Moreover, the researcher returned the entire research report to a group of seven professionals from the diabetes practice in question: member checking in a focus group (Birt, Scott, Cavers, Campbell & Walters, 2013). Practitioners were asked to check facts and interpretations and to add essential information they were missing. Results were adapted after reflection and deliberation within this group.

Permission was obtained from the Institutional Ethical Committee and the Hospital Board to carry out this study. All patients involved, their parents and the practitioners gave their verbal informed consent, after they had been informed of the aim and the methods of the study. The data will be presented in de-identified form. In order to protect the participants’ privacy, pseudonyms have been used, and where necessary, factual details have been changed.

**Research data.** Within the time-frame of three years (2014 to 2016), the first researcher gathered the research data by observing ten consultations for diabetes patients, during which on average five patients were seen, including preparatory discussions and final evaluations. Doing this, she was able to observe the five pediatricians and the four diabetes nurses who were members of the diabetes team, and 42 adolescent patients, some of them twice. In addition, she observed four contacts between patients and a dietician, and three between patients (accompanied by a parent, or by the whole family) and a psychologist. She followed a patient after the diagnosis had been made, during the first two months of ambulatory care. She observed the first contact between an adolescent in transition and the internist. If necessary, she interviewed practitioners informally immediately after a consultation, to ensure proper understanding. Furthermore, she interviewed one of the pediatricians, two very experienced diabetes nurses, and the child psychologist, with the aim to gather additional information, that could not be derived from available data (for example regarding their specific education). She attended two formal (quarterly) and three informal (weekly) team meetings; in addition, three educational meetings, and the presentation to practitioners and patients of a new device for glucose monitoring. She studied all available documents, such as the education plan per year group of 8 to 18-year-olds, individual care plans, and quality-of-life-questionnaires for children and parents. She consulted national and international guidelines, health insurers’ compensation rules, and quality and safety standards.

She made notes (field notes) of the observations, recorded the conversations and made verbatim transcripts of these (Philippi & Lauderdale, 2018).

**Method of analysis.** We chose to conduct an abductive analysis, using elements of grounded theory (Glaser & Strauss, 1967), modified according to Charmaz's constructivist views (Charmaz, 2006; De Boer, 2011; Bainbridge, Whiteside & McCalman, 2013), such as the specification of 'sensitizing concepts'; coding - initial, focused and theoretical -; memoing (researcher's notes to document a line of thought and decision making); and constant comparison, to guarantee the rigor of the analysis, and to allow for conclusions to be drawn on the concepts of relationality and practical wisdom, that would be grounded in the data.

Performing an abductive analysis means that a researcher enters the field with preconceived theoretical ideas, not as a theoretical 'tabula rasa', and aims for new theoretical insights from the observed practice. Abductive analysis was improved by using the methodological steps of revisiting (over time, repeatedly re-evaluating data) and de-familiarizing (regarding data as deviant and strange) according to the recommendations of Timmermans and Tavory (2012) and Timmerman et al. (2019).

After a first analysis of part of the data had been completed, the first researcher drew up a first draft text, which she critically discussed with the other researchers. The discussions yielded new insights and problems; subsequently, she repeated the analysis and adjusted the text. This was repeated until all data were analyzed and saturation was achieved. Finally, she presented the entire report to the focus group, and adapted the text again.

In the following section, we will represent the results of the observations we made through the heuristic lenses of relationality and practical wisdom, and of the subsequent analysis, based on the three research questions, each broken down for practitioners, team, and infrastructure.

## Results

**First research question: How is a balance enacted between personal and situational patient knowledge, and bio-medical patient knowledge as prescribed in the guidelines, through ordinary actions within this diabetes practice?**

**This question will be addressed specifically for**

**Individual practitioners.** All practitioners appeared to have explicit knowledge of the latest guidelines. In addition, these guidelines were easily available electronically. Enacting a proper balance appeared to depend on *gathering, integrating and applying knowledge* in an iterative movement.

*Gathering knowledge:* the 'regular team' (pediatrician [PE] and diabetes nurse [DN]) assigned to every patient, usually knows its patients from the beginning of the illness. During the intensive support that is offered at the emergence of the diabetes, professionals become acquainted with the patients' living conditions, their personal characteristics, their school and

leisure activities; they record this in the patients' files. Moreover, the regular team prepares each consultation contact, for instance by reading laboratory results and measurement results sent in (biomedical knowledge), and by reviewing the most recent arrangements made with the patient. During this preparatory deliberation, the team anticipates the consultation by sharing all kinds of knowledge gathered since the last consultation and by considering common policy. "What does this mean?" "Which of us will join?" "How are we going to proceed?" The same procedure is followed for annual check-ups, but in the larger team. In addition, the entire team as a whole informally discusses current patient issues at a fixed time every week.

We observed that, during the consultations, practitioners attempted to increase personal knowledge, and knowledge about the patient's living context by *asking* the patients *many questions* and by asking *more questions* if they perceived any difficulties or signals of ambiguities. In doing so, they not only concentrated on facts, but first and foremost on the *patient's perspective* on this factuality.

*Bram, who has an insulin pump, has started secondary school this year. PE: "How is school?" B: "Yes, fine." PE: "School fun?" B: "Yes, It is." PE: "Tell me, did anyone from your previous school go to the same school?" etc. Later on in the conversation PE: "Does anyone care, that you are different from the others? Does it bother you?" B: "Yes, it does, cause I'm often too low, for instance, when I'm going to play soccer or something like that.." PE: "Yes, you spend a lot of time outdoors don't you? Hanging out outside?" (...) "Is that why it's more difficult for you to know beforehand that you are going to play outside? Is that why?" B: "Yes, it is."*

*Integrating/applying knowledge:* The following example shows that the practitioners include knowledge of the person (PE: "Nick has the characteristics of autism – the outcome of a psychological inquiry -. This will lead to problems with his diabetes because he is unable to put things into perspective") in the way they deal with a bio-medical patient problem.

*Nick, who has an insulin pump, is upset, because he regularly, but not always has a hypoglycemia when he returns from his weekend job in the library. The diabetes nurse, like a detective, goes through the possible causes of the problem with him: his activities at work; the circumstances under which the hypo attacks occur; when and what he eats and when he injects insulin and how much. She then discusses in detail which pump settings he can use to take less insulin on Saturdays and how he can check when and whether the blood glucose levels are acceptable without them interfering with his work.*

The practitioners also communicated medical-scientific knowledge, dosed and tailor-made, during consultations: too much protein in the urine may be an indication of too high blood glucose levels over a longer period; even if patients have a glucose sensor, blood glucose levels must still be checked three times a day through a finger prick in order to calibrate the sensor; the areas used for finger pricks and for injections of insulin must be changed regularly; the dietician takes the patient through a checklist she has made to intercept hypo attacks.

Bio-medical patient knowledge is derived from physical examinations, lab results and digital graphs. The division of tasks between pediatrician and diabetes nurse, that we observed, is as follows: The pediatrician does the physical examination, according to a fixed



pattern (for instance, she always checks pricked areas), draws attention to medical points of importance, like blood pressure or co-morbidity with diabetes (coeliac disease) etc. The diabetes nurse, together with the patient, looks at computer diagrams of blood glucose levels, intake of carbohydrates in food and levels of insulin injected; she also discusses the right use of materials. Other tasks were mutually interchangeable. The physical examination proved to be an intimate moment between doctor and patient, and regularly was an opportunity to gather more specific knowledge about the patient. “Where did you get that beautiful tan?” “Hey, you always prick in the same place; there is even a little wound. Why is that?” “I Can’t see any pricked areas on your tummy; do you ever prick there?” The physician ‘feels’ any tension that the patient may display, observes a patient blush, tremble or perspire. Conversely, because of the increased perception of vulnerability, barriers sometimes disappear, allowing patients to express themselves more easily.

It is remarkable, that when they inspected their personal graphs on the screen with the DN, patients seemed to observe themselves from a distance, and it was precisely this distance that seemed to facilitate honest conversation about the results.

*Hans, who has an insulin pump, and is a secondary school student: DN: “Do you see those strange outliers – 20 on one occasion and 16 on another. Are you able to explain that in retrospect?” H: “Yes, I am, it is from injecting too late for a snack or injecting not at all on every occasion ...that happens from time to time; I’m too lazy, or I forget it, or I think it’s OK” (...)* DN: “So, there is usually an explanation? Not that you are saying: how is that possible? I’m such a loser?” H: “Well, it’s usually that I take a snack and forget to inject.”

*Applying knowledge:* We regularly heard practitioners ask: “Are you comfortable pricking your finger and injecting in class?” When they found that a patient was worried about something, or was unable to solve some recurring problem they, generally, did not offer directive recommendations in accordance with the guidelines. Instead, they often worked on the basis of their knowledge of the patient-in-context to stimulate her to find an appropriate solution herself. Thus, they encouraged the patient’s growing independence.

*The pediatrician discusses the weekend with Tom. “If you begin your Saturday by working ( at home on the farm), and then go mountain biking, your injection schedule should really look very different than on schooldays. How would it be different?”*

Summary: The practitioners had ready knowledge of the guidelines. Additionally, from the first introduction of a new patient on they acquired and updated their personal and contextual knowledge of the individual patient by asking questions, asking further questions, deliberating with their colleagues in the diabetes team, and consulting notes laid down in the electronic patient record. Biomedical patient knowledge was gathered from physical examinations, lab results, measurement results and digital graphs. They integrated and used that knowledge when giving advice and when choosing an appropriate approach.

**The diabetes team.** The members of the smallest team shared knowledge and experience on the spot, when they met the patient together; that is why they often succeeded in giving complementary guidance. In the following example, the DN’s input of experience-based knowledge (routinizing an activity that is experienced as disagreeable, works better

than having to take a decision over and over again) and the PE's input, intuitively linking motivation and result, mutually reinforced each other.

*Independent Ruud, who has an insulin pump, has an HbA<sub>1c</sub> of 65 mmol/mol. But he is not satisfied with this reasonable result, because he is struggling hard to achieve good regulation. He measures his blood sugar at least six times a day, he injects insulin when he eats an additional snack etc. Nevertheless, he has one hypo attack on average per week, which causes him a lot of problems. The DN, thinking practically, discovers that this is possibly caused by the fact that he does not change his infusion device often enough, because he finds that unpleasant. She advises him to reduce his aversion by turning this activity into a routine, changing it at fixed times, three times a week. The PE addresses Ruud in a different way: "There's one thing I maybe think is still quite a challenge: you're really putting in a lot of effort, and you'd like to ultimately see... you'd like it to produce a better result (...) that would also keep up your motivation!" R: "Yes, it will."*

The larger team appeared to be effective in *gathering, integrating and applying* knowledge, possibly because of the frequency and variety of interactions between its members, which generally meant they were able to complement each other. They asked each other for advice on problems with assessments or judgements, or when they found it difficult to deal with a patient or family. Moreover, it also struck us during the observation of the interaction pattern in the larger team that the formal hierarchy (the PEs are at the top, followed by the psychologist and finally the DNs – sometimes seniority or recognition of an expert status resulted in higher ranking in the hierarchy for someone otherwise lower down) was present in interactions, but it was rarely expressed in the form of members exerting dominance on the basis of their position or their personality. Most of the time, the team members approached each other as equals and showed appreciation for each other's expertise; contributions were assessed on the criterion of their value for the patient. The PE just as easily took advantage of the DN's expertise, for instance in relation to Ahmed who was not handling his sensor well and was afraid to prick at school: PE: "Can you make a schedule for him in which you mention how often he has to prick his finger? And perhaps explain at school, as well? And go through it with Ahmed in a quiet moment?" or, vice versa, in relation to Kees, who had offended the DN by bluntly refusing to attend an educational program: DN: "Can you find out why, and explain to him why we think it is really necessary?"

*During the briefing for the annual check-up of Vicky, who was referred back to the PE by the internist after transition because she took irresponsible risks and refused to take advice, the team discusses the strict course that is to be followed. However, the DN who obviously knows the girl well, says: "You have to realize that she is already reluctant to come. Now, she has a new doctor, while she was really devoted to her former pediatrician. Let her just come with whatever she wants." This proposition is accepted; and as it turns out Vicky is very cooperative.*

Disagreements and conflicts also occurred, for instance about the set-up of the weekly informal discussions. During the observation period, these sometimes led to confrontations, but not to a split within the team or to a loss of mutual trust.

Summary: Frequent, formal and informal interactions, complementarity and mutuality were characteristic features of the diabetes team. This facilitated the gathering, integrating and applying of (personal, contextual and biomedical) knowledge. Despite the formal hierarchy, we observed egalitarian relations and mutual appreciation among the team members. They

gave each other advice and accepted each other's advice. They discussed disagreements and did not allow these to escalate into a conflict.

**The infrastructure.** The material infrastructure of the practice, which was partly built by the team itself, is well-developed. We will only address three elements; firstly, the *ICT facilities*. The constant availability of electronic information has become indispensable in the care of diabetes patients. This infrastructural facility enables caregivers to communicate 24 hours per day; full patient details are available to all of them in real time and in easily accessible format. In addition, the electronic medical record shows laboratory results and diagrams that make the quality of the diabetes regulation, - the extent to which the biomedical standards are met - visible at a glance (stable or unstable; number of deviating values; the severity of the deviations; corrections applied; unexpected interventions). In this way, the ICT facilities support the integration of the different modes of patient knowledge.

In this article we have chosen to include limited description of two other elements from the infrastructure: the *quality-of-life questionnaire*, which patients and parents complete separately at annual check-ups and which is discussed together, and *the individual care plans* which contain points of interest for the three months that follow.

The '*quality-of-life questionnaire*' consists of 36 questions, distributed across a number of domains such as 'general', 'mood', 'body image', 'social life', and 'living with diabetes' and it also includes a couple of open questions. The introduction states that "the primary objective is . . . to identify possible problems and barriers . . . and to offer extra help where necessary." In an interview, one of the DNs explained what insights this list can provide: "Because of these lists, we gained more insight into the different aspects of the life of a family, without having to ask explicitly. Parents and child have the opportunity to introduce subjects for discussion themselves." Thus it helps the practitioners to obtain a better understanding of the impact the disease has on the patient's life. The first question has proven to be a good trigger to express themselves for adolescents who do not normally speak very easily about their illness and the concerns it causes them: "There is a ladder. The 10 at the top of the ladder means the best life you can imagine. The 0 at the bottom of the ladder means the worst life you can imagine. Where on the ladder is your life in general?"

*Irma, who has an insulin pump, gives her life 7 out of 10. PE: "So, there's room for improvement, but it's not very bad either." I: "No, it isn't." PE: "What would you like to see changed?" I: "Er.." PE: "I had expected you would say 'no diabetes' straight away." I: "No, no pump." PE: "No pump? Why?" I: "I can't even wear a dress."*

*Jasmine, who also has an insulin pump, answers the question: "Does your diabetes prevent you from doing things away from your parents?" (parties, staying the night somewhere, going out) as follows: "I prefer it when they stay with me." The PE concludes from this that diabetes is causing undesirable social obstacles in this instance; she begins a conversation about removing these.*

The *personal care plans* were developed by the team themselves. The plans are used by patients from 12 years on, and they are updated during each consultation. The patient's role is mentioned in the introduction: "You are responsible for your health yourself, together with your parents". Patients can specify the appointments they have during a three-month

period; they read what they have to do before the check-up (test blood just before they go into the consultation, read out the pump one day before the appointment), and what they can expect during a check-up (discussion of blood test results, checking of pricked areas, weight, height and growth, questions about hyper and hypo attacks etc.). For every checkup, they can also write down what arrangements were made about the details of the treatment: basal insulin, ratios, sensitiveness, target for blood glucose levels etc. There is space to address health objectives, but, above all, to set personal targets.

The personal care plan which the patient keeps up to date herself, has proven to be a rich source for the practitioners to acquire situational and personal patient knowledge. It illustrates what difficulties adolescents face in dealing with the illness. At the same time, the care plan stimulates reflection on dealing with diabetes in everyday life.

Summary: The three infrastructural issues mentioned have proven to be tools that patients can use to control their life with diabetes. For practitioners the tools can clarify a number of patient issues and concerns that would have remained hidden without them. Thus, the tools facilitate practitioners' integrating and applying personal, contextual and biomedical patient knowledge, as well as patients' involvement in these processes.

**Second research question: how is (are judgements on) morally good care enacted in relation to the medical standards of the guidelines, and how are they expressed in ordinary actions within this practice? This question will similarly be addressed specifically for:**

*Individual practitioners.* We observed that the PEs and the DNs in their contacts with patients regularly mentioned the medical standard that they were concentrating on: optimal and stable regulation of diabetes to prevent early or late complications. It was also clear that they engaged with the patient on how that standard could be obtained in daily life. (For the latter, see the example of Tom, described under the first research question).

*In the case of Judith, who has an insulin pump, and an HbA<sub>1c</sub> value that is much too high (83) the PE finds out by asking questions that the girl only measures her blood sugars twice a day: in the mornings and in the evenings. The PE also finds out that Judith does not properly correct values that are too high. After many questions and negotiations they agree that Judith will measure at least four times a day, and that she will correct blood sugar levels that are too high. In this way she will try to reach the standard again.*

However, during almost every consultation we also observed that practitioners pursued a moral standard (appreciating what is good for the patient as a person) even if this meant that they had to deviate from the medical standard, albeit within the confines of a certain bandwidth. Remarkably, the practitioners we observed seemed to take this as a matter of course. Although there were various differences, explicit deliberation about the principle appeared to be barely necessary. When asked about this, they explained it by: "It is all about the patient." "The patient must be able to carry on." The extent of the bandwidth within which deviations from the medical standards are deemed to be acceptable, was determined on an ad-hoc basis or in mutual consultation; and this bandwidth was not identical for every patient.

*It transpires that Emiel, who has an insulin pump, has moved into his own place a few months before the consultation. This boy with a mild intellectual disability gets little support in dealing with his diabetes from his (divorced and also mentally disabled) parents (both of whom are living with new partners). He has accepted a job at a car wash and is running his own household: he does his own shopping, cooking and cleaning. He even managed to decrease his HbA<sub>1c</sub> value from 92 to 80. It is evident that he counts his carbohydrates fairly assiduously and adjusts his insulin dose accordingly. The PE and DN both consider this such a great achievement that they congratulate Emiel and motivate him to continue in this vein (“Keep it up! Good job!”) without mentioning “but of course, the standard is 58.”*

*Jasmine is over-accurate and worries about her high glucose levels. It transpires that her HbA<sub>1c</sub> value has risen from 41 to 48. The PE tries to rein her in, judging that the strict regulation of blood sugar levels is threatening to dominate the girl’s life; furthermore, she recognizes the risks for the future (becoming de-motivated by the instabilities of adolescence that are irreversibly approaching). She says explicitly that she is very pleased with these levels and stimulates the girl to check her blood glucose levels less often.*

Summary: The practitioners prioritized moral norms above biomedical standards and in fact did take this as a matter of course. They determined the limits of justifiable deviations from the biomedical standards through reflection and deliberation. The acceptable deviation bandwidth was different for every patient.

***The diabetes team.*** It is striking that the psychologist on the team (whose discipline predisposes her to be less focused on pursuing exclusively biomedical norms), regularly and explicitly raised the question : “What is *good care* here?” This question usually was followed by a dialog during which various considerations were discussed and a direction was chosen. An example:

*Alice is able to achieve with her insulin pump a sharp regulation of blood sugar values, but also has many hypo attacks which make her uncertain and ill-tempered. She is working as a trainee at a health care institution, with irregular working hours, including night shifts. The psychologist she is seeing due to severe family problems, proposes that she should stop with the insulin pump: “You have to look at the technical aspect (achieving balanced regulation) alongside the emotional aspect (being able to live a pleasant and quiet life) and you would like them to overlap. That doesn’t always work.” The PE and DN subsequently decide to switch to a schedule of four injections a day with an insulin pen, which does not permit the same accuracy in regulation, so that a rise of the average blood sugar level is expected.*

*Three months later, at the outpatient consultation (where she attends with her mother), Alice appears to be pleased and motivated and says: “I have a more pleasant life now.” Her mother says: “We have chosen value of life; Alice is feeling better, she is more fun with higher blood sugar levels and it has become much quieter at night; she sleeps better.”*

Summary: in the diabetes team, the psychologist especially emphasized the priority of the moral norm over the biomedical standard. The team participated through mutual reflection and deliberation.

***Facilitating through infrastructure.*** It is clear that the *electronic patient record* facilitates reflecting on the biomedical standard versus the moral norm. An unstable pattern

and a lot of red figures in the laboratory results, pointing at deviations from the guideline standard, are, also, sure indications of a life that is frequently disturbed by diabetes.

The *quality-of-life questionnaire* constitutes a second resource: a low number on the list indicates that there is a problem with ‘living with the disease’, often illustrated by answers to follow-up questions such as: “*how often does diabetes stop you when you are planning to do something with the family?*” and “*how does diabetes hinder you in your social life, friendships and relationships?*” or “*how often does diabetes disturb your leisure time?*” The answers give the practitioners valuable input for a conversation about achieving a balance between medical and moral standards. They can assist in weighting aspects: “what is most important for you?” and in looking for ‘livable’ solutions.

The same is true for the *individual care plans*: the biomedical standards and the standards for the organization of care that have been incorporated in them. Under the heading: ‘health targets’ the plan states: “*keep an account here of your (measured) values and living habits. Discuss what goes well and what could be better for you with your physician or with the diabetes nurse.*” This chapter of the care plan can provide starting points for an exchange and for the weighting of biomedical and moral standards in the consultation or in the team.

*DN in team:* “*Alice may achieve a fasting blood sugar level of between four and six (that is the target), but that only works if she measures glucose (finger prick) during the night; it would interfere with her sleep. Maybe we should accept a higher morning glucose level.*” PE: “*Yes, we should; a night’s rest is very important for her. But how are we going to do that?*”

Summary: the infrastructure creates scope for thinking together about a normal life, in which medical standards are judged in relation to moral norms. This was confirmed in the focus group.

**Third research question: How is a balance established between agreed, appropriate goals for individual patients in their specific contexts, and the general goals laid down in the guidelines? This question is addressed specifically to**

***Individual care givers.*** Determining objectives, is a matter of defining purposes for the short term (motivation, tight regulation without disruptions, self-reliance or independence), and for the long term (absence of complications and a high quality of life in the long run). In their interactions with diabetes patients, the practitioners looked for acute disruptions, signals of poor motivation or poor acceptance of the disease, and of lasting dependency, in particular on parents, and subsequently discussed these.

*Smart Joris, who has an insulin pump, is careless about his disease, and for instance only checks his blood sugar once or twice a day. As a consequence, he only narrowly escaped a major disruption on several occasions. The PE strictly confronts him with this behavior. Then Joris says: “I don’t like my diabetes” PE: “You don’t like your diabetes; you just don’t want to live with it.” J: “No, I don’t.” PE: “Right?.” J: “Yes.” PE: “Perhaps we have to start helping you a bit with it.” J: “Yes.” PE: “Cause that’s the package deal: this diabetes belongs to you!” J: “Er..” PE: “and it won’t go away if you don’t stick to our plans.” J: “No.” PE: “Cause if you can control your diabetes well, there is a lot you can do. More than that: you can simply live a normal life.”*

*Ilse, who also has an insulin pump, is going on a working holiday to Nicaragua. The pediatrician discusses the journey with her: necessary precautions; what she has to take with her, for instance a spare pump and a spare meter, insulin pens etc. The pediatrician ends the conversation with: "You can consult directly with the diabetes team in the Netherlands about all your blood sugar problems. You can always contact us." The pediatrician judges, that precisely this patient, although she is very independent, needs confirmation that she can ask for help, if necessary.*

*For Emiel (see above), PE and DN see it as the maximum achievable result, that he is able to live an independent life (a job, a driving license, playing sports, performing housekeeping tasks, communicating, digitally about diabetes, and also, in case of illness or exceptional circumstances, keeping his blood sugar at an acceptable level within wider limits) and that this requires a major effort on his part. That is why they (possibly temporarily) accept his current blood sugar levels that are too high.*

Summary: The practitioners interpreted the vague concept of 'quality of life' as 'normal adolescent life among family and peers, with as little disruption or hindrance from diabetes as possible'. At the same time, they continuously were aware of the aim to prevent early and late complications for their patients. They had to deal with the tensions caused by the discrepancy between ideal and realizable goals.

**The diabetes team.** Occasionally, sharing and exchanging knowledge about current developments led to high biomedical targets being adjusted.

*At the briefing for the annual check-up, the intelligent, but quiet Roel is discussed. The psychologist shares her impression that Roel is being kept childish and dependent at home, because his parents are very concerned about disruptions. The team members agree without much discussion that Roel should become more independent and make arrangements on how to facilitate this.*

The team probably realizes and accepts that promoting Roel's independence means at the same time that his diabetes regulation temporarily becomes less strict.

*The team discusses Kees (parents recently divorced; he and his younger brother live alternatively with the father and the mother). All the practitioners see that it is very difficult for Kees that his parents argue a lot about how to deal with his diabetes. The father leaves (too?) much to the boy himself; the mother is over-concerned and even checks his blood sugar level with finger pricks in the middle of the night. The psychologist suggests that Kees is experiencing a conflict of loyalty and that he suffers from his parents' approach. However, loyal as he is to both parents, he does not want to discuss this burden with other people. This could also be the reason why he is refusing to attend educational meetings.*

The team members agree on a short-term aim for Kees in this fragile context: to be able to sustain the situation without serious deregulations (so temporarily accepting higher blood sugar values) and to maintain his care relationships with the team (so temporarily accepting that he won't attend educational meetings).

Summary: the practitioners needed the discussions and the sharing of responsibilities in the team to be able to adjust the purposes set out in the guidelines, and thus to deal with the tensions mentioned above.

**Facilitation by the infrastructure.** The purpose of the international guidelines has been incorporated explicitly into the *quality-of-life-questionnaires*, but it has been reduced to more modest proportions: “*help children/adolescents in their efforts to overcome psychosocial problems and barriers.*” The questions are specific; answers constitute the basis for discussing everyday life and impediments that patients experience, with the aim of removing them. One example is the objective: “*I am satisfied with the way I look.*”

The individual care plan offers scope both for general purposes derived from the guidelines (the ‘know’ and ‘can do’ goals) and for personal objectives. It often mentions typical everyday challenges for the patient in question, such as:

*“Think of something that can remind me to do blood sugar checks when I am playing at a friend’s.” “Think about at what age I want to be ready to go to an internist.” “When I get the pump, measure my blood sugar at school as a fixed habit.” “I am going to make an appointment at the hospital, together with my parents and my girl-friend to decide whether I want to continue with the pump.”*

It is clear from the preceding that, although the ideal purposes of the guidelines set the horizon for professional care, the practitioners and the team frequently opted to (possibly temporarily) adjust these purposes to what they thought was feasible, realistic or desirable for each individual.

Summary: the findings illustrate that this practice focuses on constantly gathering knowledge about the individual patient (and her perspective) in her situation, in addition to gathering biomedical patient knowledge, and to integrating these types of knowledge. We observed that with the help of the integrated knowledge the practitioners regularly considered to what extent it was possible to deviate safely from the biomedical standards on the basis of the moral standard: to live a good life with the disease. Purposes were broken down into feasible sub-objectives; the absolute ideal of the guidelines was regularly reduced to a realistic target: to carry on with daily life, with as few disruptions and restrictions on account of the diabetes as possible. Thus, a balance appeared to be struck regularly between the guidelines on the one hand, and the particulars of a patient in her specific context and situation on the other. We were able to describe *how* these balances were enacted, and we will reflect on this under ‘reflection’.

We asked the focus group about *factors* that they *experienced as being a hindrance or a help* when it came to this process of constantly balancing the guidelines with the specific situation of the individual patients. They mentioned two major impeding factors: 1) no or very limited professional relationship, for instance when they had to unexpectedly take over from a colleague. They stated that it was difficult or even impossible to build a relationship of trust under pressure. In these circumstances, they mostly made only medical-technical agreements with patients. 2) Time constraints, being in a hurry, stress through overburdening. The group emphasized that they needed a certain peace of mind and relaxation to be able to observe, judge, weigh and decide properly. Although this has been taken into account in the planning of consultation hours, the schedule is often disrupted by unforeseen events. The practitioners mentioned three major supportive factors: 1) Mutual support in the team, mutual deliberations, joint training courses and working together to organize activities for patients. 2)



Being able to discuss questions or problems instantaneously and informally with one or more team members. 3) Being familiar with the living environment of their patients and being able to give care ‘close to home’.

However, the underlying question of this study is the question of the ‘grammar’ (Eikeland and Nicolini, 2011), or ‘internal logic’ (Iedema, Mesman and Carroll, 2013; Mol, 2009) of the practice.

**The ‘internal logic’ of the practice.** As stated above, we have tried to improve the abductive analysis, by using the lenses of relationality and practical wisdom. What did we see through these lenses?

**Relationality.** The relationality lens enabled us to distinguish the ‘logic of the practice’ in the *structure and content of the consultations*: from the beginning through the central part to the conclusion. *The start of consultations* appeared to be aimed at (re-)affirming a relationship, which can be characterized as open, confidential and safe. The practitioners did not go straight to the point; the greeting was always very cordial: the practitioner turned to the patient, looked them in the eye, shook their hand and welcomed them by saying “*Hi, hello, Niels*”, or “*Welcome, Irma*”, followed by an expectant “*How are you?*” This welcome was often followed by a few pleasantries: when 15-year-old Erik arrived, without his mother for the first time, he was greeted with: “*Hey, Erik, all alone!!! Cool! Did you tell her to stay outside?*” Now and then there was small talk or a direct question: “*Did you pass your driving test?*” or “*How was Nicaragua?*”

During the *central part*, the ‘body’ of the consultation, the subject was diabetes itself, recent incidents, the measurements presented, difficulties and questions, physical examination and the best possible approach for the period ahead. The characteristics of the relationship mentioned above probably made it easier for patients to express mistakes, difficulties that they experienced and concerns. Practitioners asked *direct questions*, asked *further questions if necessary* and *listened intently*. It was striking in this context that they *alternately* adopted the *professional perspective* and the *perspective of the patient’s life*. In addition, that they actively looked for the meaning-for-the-patient of any behavior or expression. Only when they had been able to discover that meaning, did they present their advice, and this in a way they judged to be suitable for the patient.

*Lucas has a diabetes pump, is in the midst of puberty and is very focused on his appearance: he wants to look slim and muscular, and that is why he does not want to inject into his abdomen. His diabetes regulation is far less stable than it was in the past; he has been injecting extra insulin several times a day and despite this, his HbA<sub>1c</sub> value has increased. When he is asked follow-up questions, he appears to assume that a larger insulin requirement means that his diabetes is ‘getting worse’. He is therefore unwilling to agree to a higher dose of basal insulin. When the pediatrician has managed to clarify this, she explains in detail that he has a greater insulin requirement, because “that is normal for your age, because the sensitivity for insulin changes, that is consistent with your growth, that is consistent with your build, that is consistent with puberty, isn’t it, so, actually it’s a normal phenomenon.” In addition, the pediatrician cautiously suggests to Lucas that he should also consider injecting into his abdomen, but does not insist that he should start doing this immediately, because she expects that he needs time to adapt his behavior.*

The fact that practitioners sometimes paid a *relatively great deal of attention to professionally insignificant matters* (which, however, were obviously bothering the patient, even though they were unrelated to their diabetes, their ‘concern’ according to Sayer, 2011), seemed to result from their habit of listening intensely and inquiring actively into the patient’s concerns.

*Emiel (see above) is concerned about pimples on his legs. The pediatrician spends much time talking about this, examines his legs thoroughly and discovers a connection with Emiel’s work at the car wash. He explains that it is probably a harmless rash, and that Emiel can probably solve the problem by applying Vaseline to the affected areas every day.*

The *conclusion of a consultation* included making or summarizing arrangements for the next three months period. The way this was done varied however: from going over everything very explicitly and item by item to simply mentioning everything in passing, or even a general ‘carry on’. It is evident that the practitioners adjusted the way they approached the patient to what they believed was necessary or appropriate in the professional relationship: sternly, encouragingly, stimulatingly, casually, etc. Goodbyes to mark the end of the meeting were usually warm and informal: “*See you soon.*” “*Happy holiday.*” “*Good luck with your test.*”

Our observations show that the absence of relationality on several occasions, caused problems (mutual misunderstanding, conflicts) or awkward conversations, particularly when the subject under discussion was a lack of compliance or an unstable diabetes regulation:

*Ahmed, who has been living in the Netherlands for a few years, visits the consultation with his parents. They are refugees from the Middle East. Ahmed has an insulin pump and a glucose sensor, but he uses these devices in a manner that increases risks. The DN has asked the new PE, who is going to have her first encounter with the patient, to discuss this problem with him. The PE agrees to do this. At the start of the consultation, she is nervous and she immediately raises the problem: too few calibrations of the sensor, insufficient corrections of high glucose levels and too high HbA<sub>1c</sub> values. A conflictual situation then arises with the father, who even accuses the PE of discrimination.*

Afterwards, reflecting on the case, the PE suggested it would have been better not to have accepted the DN’s ‘order’, precisely because she had not yet been able to build a relationship with the patient and his relatives.

Professional relationality has to be built and maintained; it is a specific kind of relationality that is needed to attune care every moment anew to particular patients in their specific situations. For mutual relationality it is also essential for patients to believe, that practitioners’ aim is to achieve the best possible outcome for them, so that they are willing to be honest and open.

Our study shows that the practitioners and the diabetes team focus their ‘ordinary actions’ on entering into and maintaining a professional relationship with patients and their relatives, as well as on accepting their professional responsibility in these relationships. In addition, that they succeeded in using that relationship to acquire and renew the personal and situational knowledge they need in order to fine-tune their treatment of the diabetes patients.

One of the pediatricians in the focus group pointed out: “*You always have to keep working on the fragile relationship with the patient based on mutual trust. That is because the patients must be able to rely on you any time they need you.*” In conclusion, this study proposes that relationality as described belongs to the ‘grammar’ of professional care. The other important constituent appears to be practical wisdom, to which we turn now.

**Practical wisdom.** Practical wisdom emerged preeminently as *the ability to determine*, sometimes in an instant, *what is good for the patient*, what the patient needs to continue her life. In addition, it appeared as *the ability to individualize* medical standards and the objectives of the guidelines.

Our observations give rise to further elaboration on *how* individualization was realized in this practice. In the first place, it involved *estimating the bandwidth within which it was possible to deviate from the medical norms* without harmful consequences for the patient, and it involved *determining the bandwidth margins*. *The ability to judge* was essential for the practitioners and the team to be able to perform this task. For instance in the case of Emiel, the team members judged that, unlike the former value (92), an HbA<sub>1c</sub> value of 80 was acceptable for that particular moment. The DN confirmed in an interview that she expected Emiel would soon learn to approximate the threshold. Thus, the judgement above, like other judgements appeared to be influenced by the situation, by the here and now. Individualization was also evident in *judging the hierarchy of norms*, in which moral norms were sometimes put alongside and sometimes above medical norms.

*In the case of Emiel, the practitioners judged that (in the current situation) it was more important to help him lead an independent and meaningful life, than to hold him to the optimal HbA<sub>1c</sub> value. In the case of Alice, it was more important to reduce stress levels caused by the disease, to improve sleep, and to achieve greater stability than to recommend use of the insulin pump according to the guidelines. In the case of Kees, it was about being able to survive the conflict of loyalty with his parents rather than being forced to attend educational meetings.*

At the same time, however, the practitioners know that if they allow patients to free themselves of the standard, there could be harmful consequences due to early (acute disruptions) or late (vascular damage) complications. Practical wisdom emerges in the ability to compromise between skirting the norm and crossing critical limits.

Likewise, adapting the excellent objectives of the guidelines to objectives that are regarded as feasible for a specific individual: a life that patients can bear because they do not experience it as a disabled life, appears to be a manifestation of practical wisdom. The practitioners kept looking for the best possible ‘overlap’ between the ideal objectives and their patients’ personal objectives. To this end, they used acquired knowledge of the person and their situation, such as impairments patients were already living with (Niels’s autism, Emiel’s intellectual disability, Vicky’s psychological lability, conflictual living conditions (Kees), and lack of understanding in the living environment of school and work ( a ban on checking blood sugar during class time).

At the same time, practitioners were serious about the prevention of early and late complications, focusing on a life-not-disturbed-by-the-disease in the future.

PEs emphasized this during the physical examination: “Always prick the side of your fingers and switch fingers regularly. Why is this again?” They promoted developing a life style that includes sports and exercise, gave extra attention to the regulation of blood sugar when engaging in physical exertion and sports, and they did this both individually and during educational meetings. They also highlighted the prevention of complications during their discussion of the insulin-pump read-out and the blood sugar diagrams: “What can the results be if your blood glucose levels are too high or too low?” followed by: “What can you do to prevent these highs and lows?” And when giving individual advice: Emiel is told by the DN: ‘Now that you are living on your own, ... when you go to sleep after an evening out, you have to set the alarm clock to measure your glucose level.’ The PE tells Joris: “It’s dangerous to deal so carelessly with your pump; perhaps you’ll have to go back to using the pen.”

We observed an ongoing search for the best possible way to follow, meandering and improvising, supported by inventiveness, intuition, tacit knowledge, and experience. The professionals in the focus group acknowledged that this was essential to their craftsmanship.

**Doing relationality and practical wisdom.** Our observations show that relationality and practical wisdom are *established in the doings and sayings of the practitioners and the team* and in addition, that these *must be re-established in every new situation* (a new problem, a different check-up appointment). They also demonstrate that relationality and practical wisdom occasionally failed to help a patient well, despite the practitioners’ efforts and deliberations. For instance, it proved impossible to support Kees in his loyalty conflict with his parents. Over time, he switched hospitals, owing to the imminent obligation to attend the educational meetings.

We also observed that relationality and practical wisdom were *imbedded in self-developed, routinized actions, within the team and the infrastructure*: consultations that begin by asking questions to establish the context; structural discussions before and after the consultation; sustained sharing of knowledge; the team culture and a way of cooperating that was aimed at complementarity and reciprocity and the desire to bear responsibility together; discussing care plans and quality-of-life-questionnaires with patients.

Finally, we saw relationality and practical wisdom emerge in *the quality of the professional attitude adopted by the practitioners*: searching for solutions together with the patient; looking for and responding to concerns; discussing possibly tolerating a deviation. We also occasionally observed it when the practitioners adopted a *specifically teaching, educational attitude* to transfer their expertise, attuned to the individual patients, in suitable doses and in a dialog with the patient. And also, whenever the practitioners in question *approached the patient as an expert on her own disease*. Sometimes they were surprised by solutions that patients or relatives had found.

*Lucas’ mother found a special needle on the internet that can be used to install an infusion system, so that insertion is less painful. Jeroen’s mother proposed that she would measure her son’s blood glucose levels and adapt his insulin pump after an operation her son had to undergo, when the anesthetist admitted she found it difficult to do this.*

Summary: the ‘internal logic’ or ‘grammar’ of this adolescent diabetes practice is characterized by relationality and practical wisdom. Relationality and practical wisdom appear to be indispensable to enact accurate balances between personal-situational and guideline knowledge, norms and purposes.

## Reflection

Our research questions were aimed at *the enactment* of workable ratios of guideline knowledge, standards and goals on the one hand and patient oriented knowledge, norms and goals on the other, in an outpatient diabetes practice. We have described the outcomes of the study per question in the results section. Apparently, ordinary actions have to be attuned time and again to each patient in a purposeful, continuous and multifaceted way in ever changing situations. Hinder and Greenhalgh (2012) have emphasized the importance of personal and situational knowledge in caring for people with a chronic condition. However, they did not point out in what way this knowledge can be properly balanced with guideline knowledge and standards from moment to moment, in everyday practices.

In addition, we found that the underlying ‘internal logic’ of the practice was characterized by *relationality* and *practical wisdom*, and we have described *how* relationality and practical wisdom were established. So far, hardly any attention has been paid to the empirically investigated ‘how’ and the ‘internal logic’ of medical practices in publications, with some exceptions: (Iedema et al., 2013; Mesman, 2002; Timmerman & Baart, 2016; Mol & Law, 2004; Mol, 2006; Saraga et al., 2019). The results section shows that our empirical findings differ from statements about relationality and practical wisdom in theoretical publications.

For example: professional relationality turns out to differ significantly from simply having empathy, or from communicating excellently, as Bensing (2000) and Visser (2017) seem to believe. Conversely, professional relationality as a practice means the enactment of knowing and understanding a contextualized patient and her perspective. This study demonstrates additionally, that it means the imbedding of relationality in individual practitioners’, team and infrastructural *routines, culture and structures*, for example in structural team discussions before and after each consultation, and in a culture of confidentiality and safety. The performativity of cultural aspects in practices has been confirmed in an empirical study by Setchell et al. (2019). The embedding of individual activities in the actions and influences of other agents (like team, culture and infrastructure) has also been described as a necessary condition for the emergence of practical wisdom defined as acting virtuously within organizations by Vriens et al. (2018).

Although the ability to individualize has been mentioned as an essential element of practical wisdom by Aristotle and other authors (Hibbert, 2012; Kaldjian, 2014; Kinghorn, 2010; Kotzee et al., 2016), none of these authors has further elaborated on how individualization is realized in practices. We have found that it involves estimating the bandwidth within which deviating from medical standards is judged acceptable, and that it involves determining bandwidth margins. This again has been demonstrated in other

*empirical* studies of practices. For example, Mesman (2002, p. 159) has called the process that concerns the demarcation of boundaries a “source of morality in practices.” Saraga et al. (2019, p. 44) have mentioned “trespassing common boundaries and limits” such as guidelines “by applying one’s own judgement or intuition” as a characteristic of clinical practices.

Kaldjian (2010; 2014); and Pellegrino and Thomasma (1993) have emphasized goal-directedness as a feature of practical wisdom, but they did not pay any attention to the practical challenge of bridging the gap between excellent and realizable goals. The empirical investigation of Franklin et al. (2019) has illustrated that health professionals’ interaction styles determine to what extent patients’ participation on personal goal setting is allowed. Our study has clarified that even practitioners’ interaction styles must be attuned to the particularities of patients and their actual situation.

Kinsella (2012) has called the art of balancing a characteristic of professionalism and practical wisdom. Kaldjian (2010, 2014) and Montgomery (2006) have mentioned sound judgement an identifier of practical wisdom. However, none of them was able to explain that balancing and judging are being established by an ongoing search for the best possible way to follow: meandering and improvising, supported by inventiveness, intuition, tacit knowledge, and experience. Conversely, the observations of this practice as well as discussing everyday work with practitioners revealed, that professionals judged these features to be essential for their craftsmanship. Mol and Law (2004), describing ethnographic observations of practices of care, have used ‘tinkering’ to characterize the improvising, meandering working method of practitioners.

Finally, the problem of *uncertainty*, that is currently inextricably linked to professional practices (Kemmis, 2012), has differently been addressed from within practices. In the focus group, the professionals involved, indicated that they experience deviating from the biomedical standards and the goals of the guidelines as a continuous and burdensome uncertainty which is inextricably linked to their life as a professional. “Is it possible always to comply with the guidelines? At what cost? How do I know that I am right? Nobody can take that uncertainty away from you.” Mesman (2002, p. 159) has contended in relation to this: That the existing rules carry a certain idea of a practice and a problem and that this does not always fit with real practices. This study has revealed that deliberations in a committed team can be very important in supporting practitioners, who have to endure these uncertainties.

The relevance of this research emerges in the fact, that *over a longer period of time* we have observed the *everyday practice* of taking care of patients suffering from a *chronic disease*, through the lenses of *relationality* and *practical wisdom*. Although care ethicists have pointed out that relationality is essential for people to live together in this world (Tronto 1993; 103), and practical wisdom has been identified as necessary for medical professional practices (Kinghorn, 2010; Kaldjian, 2014), so far, relationality and practical wisdom have been described mainly theoretically from the outside, and mainly as characteristics of individuals. This case study shows *from within a medical practice, in what way* relationality and practical wisdom are *enacted*. This has not been done before in such an extensive and longitudinal way.

**Limitations.** Although they were extensive, our observations only covered a limited section of the diabetes practice: limited in time – developments go on; for instance the diabetes practice of the hospital concerned has in the meantime been transferred to a larger hospital – and in the elements they focused on. For example: the professionals in the focus group indicated that the practice as described was the result of a lengthy and fragile growth process, that included trial and error. Our study was not, however, designed to give any attention to this growth process. Nor could it reflect on the wider organizational and national infrastructure of the practice, even though there is so much more to say, for instance, about the influence of technologies on life with and treatment of diabetes.

The lenses we have chosen form a second limitation; they show a number of aspects of the practice sharply and clearly; but other elements remain vague. Observation using other frameworks would certainly have highlighted other aspects. For instance, it has been insufficiently clarified that treating patients with a chronic disease is an ongoing process, not the sum of isolated moments, and that the examples in time, place and persons that are depicted are only incomplete representations of that process, as Schermer (2001) has emphasized too.

A third limitation arises from the case study as such. As Anderson et al. (2005) have described, case studies make it possible to study a practice as an integrated whole, but at the same time it is difficult to generalize from them. That is why our aim instead has been communicative generalizability or ‘transferability’ (Smaling, 2009a; Timmerman et al., 2019). This means that the readers must judge to what extent the results can be transferred to their own practice.

## Conclusion

To conclude: care given in this practice was good care to the extent that it was possible to stay close to the patient, to move at the pace of the patient’s difficulties and concerns and at the same time, to comply with medical evidence, norms, and purposes in the best possible way. A certain synthesis was often, but not always reached through the ‘logic’ or ‘grammar’ of the practice, which consisted of relationality and practical wisdom. The thorough empirical investigation from within this everyday practice has enabled us to describe the characteristics of this grammar.

We also conclude that in modern practices, individual professional acting is embedded in the social and material network of the practice: in the treatment teams and the infrastructure (in a narrower and a broader sense). This means, that relationality and practical wisdom do not only emerge in the actions of individuals, but also in the social and material agents which together constitute networks. Our study has been able to demonstrate this in the practice in question through numerous examples.

Future research could focus on further exploration of these networks and the influences that are brought to bear upon them, in particular, social and material influences, as

well as on the broader infrastructure of practices, constituted by healthcare organizations and the funding and supervisory bodies that surround them.

## Notes

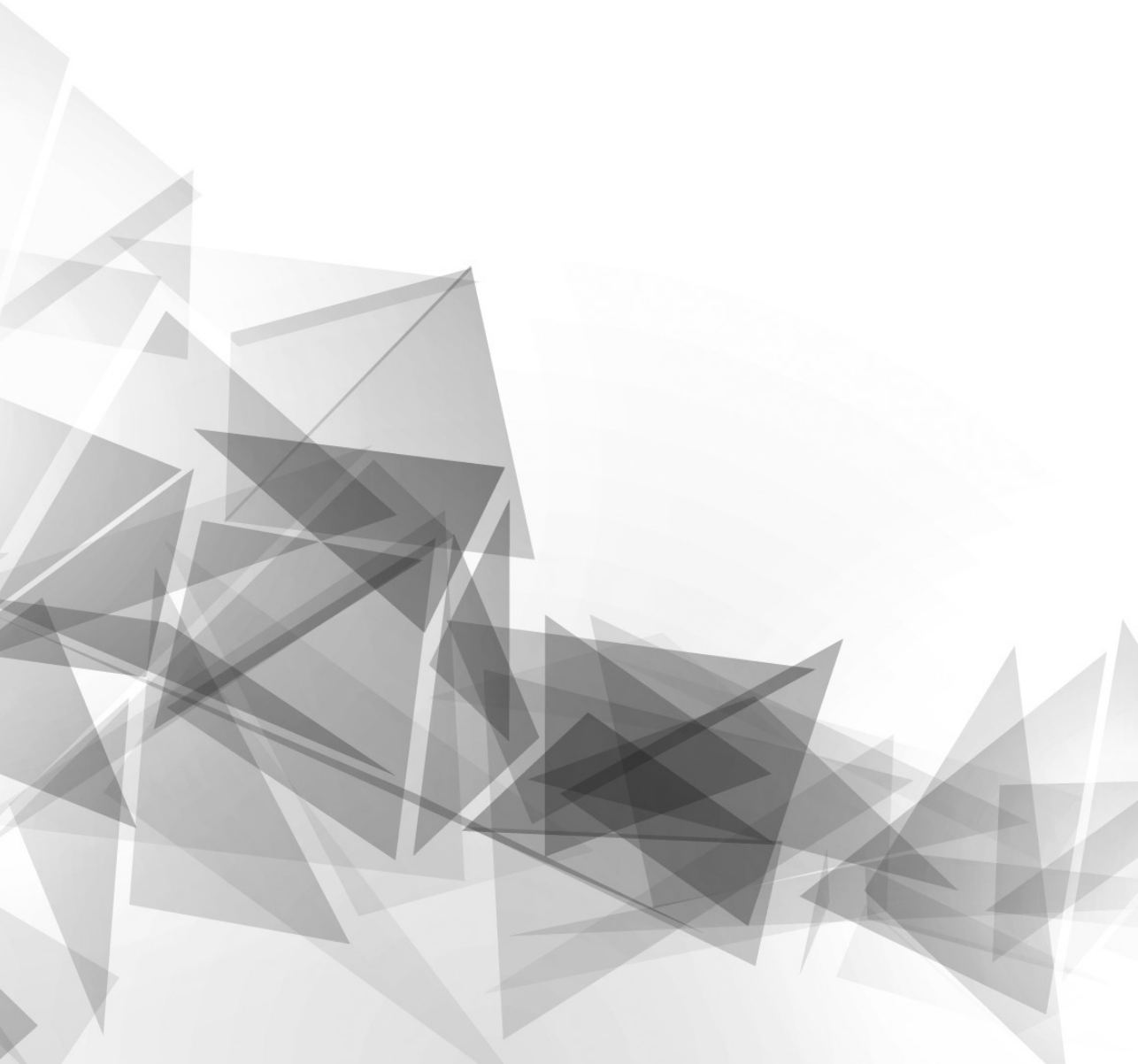
1. International Society for Pediatric and Adolescent Diabetes: ISPAD Clinical Practice Consensus Guidelines 2018. <https://www.ispad.org/ISPADGuidelines2018>
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“But still, if it’s true,  
how can it be a lie?”

Astrid Lindgren, *Pippi Longstocking*



# Chapter 8

## Conclusions and Reflection



## Introduction

We will start this concluding chapter by giving an overview of its structure: first, we will summarize the conclusions that follow from the results of the four separate empirical studies; then we will point out the interconnections between them. We will subsequently integrate the results and attempt to gain a deeper understanding of them, reflecting for instance on the meaning of practical wisdom for the morality of the care given within medical practices and health care institutions. We will also return to the question raised in chapter one: whether, and if so, why, practical wisdom is becoming increasingly important for medical professionalism as a ‘praxis’: activities impregnated with morality, in the current complex, dynamic and pluralistic healthcare context that is strongly marked by a chameleonic neoliberal discourse (Biebricher, 2017).

Second, we will discuss what these results mean for our heuristic, tentative definition of practical wisdom: do they require that the definition be adapted and if so, how, or can it remain unchanged? Next, we will reflect on the implications of the conclusions for theories about practical wisdom, particularly theories related to medical professionalism.

Third, we will discuss the possible implications of our findings for the frameworks chosen for this research: care ethics and practice theory, in particular the specific school whose main representatives are, Nicolini (2012), Schmidt (2012) and Gherardi (2016).

Fourth, we will evaluate the research methods that have been used, specifically participatory research from within medical practices.

Fifth, we will discuss the relevance of this study for practitioners. Subsequently, and in relation to this, we will discuss to what extent the results obtained are transferable or not, and thus whether they are also relevant for different medical and non-medical practices.

Finally, we will make suggestions for further research of morality and practical wisdom in professional practices, both medical and otherwise.

### 1.1. Results: summary of the empirical studies

1. In chapter 4, ‘*The multiple faces of practical wisdom in complex practices*’, we provided a survey of the various *manifestations of practical wisdom* that we have observed. We observed *patterns* such as: 1) a meandering instead of a linear work routine; 2) attuning the available means (e.g. guidelines) to the patient through improvisations; 3) getting the timing right for the patient; 4) taking advantage of different sources of knowledge; 5) actively maintaining, repairing or consolidating professional relationships. Moreover, we found various ‘*interruptions*’ or disturbances (of workflow and routines; of the doctor-patient relationship; of physicians’ (work) conditions; of patient’s characteristics) of which it has been suggested that they are able to trigger or encourage the emergence of reflection and practical wisdom (Frank 2012). Reflection and practical wisdom did not automatically result from these

interruptions. We were only able to investigate to a certain extent our assumption that the triggering of practical wisdom could be facilitated or obstructed by specific *'figurations'* of the work structure. Finally, we reached a few unexpected insights, such as that *professionals' awareness of the good* (the telos) is the essential point of reference for practical wisdom, and that practical wisdom as *'doing wisdom'* takes seemingly *trivial, commonplace forms*.

2. In chapter 5, "*Professional workplace-learning. Can practical wisdom be learned?*" we investigated whether practicing medical specialists learn practical wisdom through regular joint case discussions that are focused on a general learning objective. This study did not offer any insight into medical practitioners' individual learning. However, it did demonstrate social learning (in medical practices) and organizational learning (in the hospital organization) of practical wisdom. Social learning emerged as 1) *increased awareness and recognition* of the four components of practical wisdom (telos, balance, judgment and reflection/reflexivity); 2) *increased reflexive capability*; 3) *recognition of the morality* of medical practices in mundane, multiform shapes (postponing an operation to help the patient prepare better for the risks she was likely to run; deciding not to apply physical restraints to prevent falling, because the disadvantages of restraints for a specific patient are disproportionate to that risk); 4) *implicit or tacit knowledge* of practical wisdom (Nonaka & Takeuchi, 1995; Polanyi, 1969; Vosman & Baart, 2008), i.e. 'practical wisdom' was not mentioned explicitly anywhere; 5) *distributed intelligence* (Iedema, Mesman & Carroll, 2013)/*distributed wisdom*: practical wisdom was 'crystallized' in *the physicians' mores* (see chapter 3). Moreover, the practical wisdom derived from the case discussions *emerged in the structure and culture of the hospital organization*, as the impact research showed. In that sense, there had been *organizational learning of practical wisdom* (Minzberg, 2012; Schwarz, 2011; Vriens, Achterbergh & Gulpers, 2016).
3. In chapter 6, "*Professional medical discourse and the emergence of practical wisdom in everyday practices. Analysis of a keyhole case*" we investigated 1) the ratio between the phronetic and technical-systemic approach to a case within the medical practice of a training hospital, 2) the influence on this ratio of the dominant discourse and of the care organization and 3) their effects on the care given and on cooperation between the various professionals.

We found an asymmetric ratio between the technical-systemic approach (which relies on protocols, guidelines and routines) and the phronetic approach, with the former being the dominant approach. The factors that occasioned the asymmetric ratio were partly *practice-bound*, like the *dominant (medical-technical) discourse*, and were partly *characteristics of the infrastructure* of the hospital.

We were able to identify the devastating *consequences* of the suppression of practical wisdom, for example growing *reciprocal estrangement, loss of trust, mutual misunderstanding* and *conflict* between the professionals and the patient's relatives. Our suggestion is that practical wisdom could have prevented, minimized, or solved at least some of these consequences.

4. In chapter 7, “*Making the best of it: practical wisdom in professional care for adolescents with type 1 diabetes mellitus*”, we examined how practitioners struck a balance between knowledge of patients, moral norms and individual objectives on the one hand, and general guidelines, medical standards and ideal goals on the other. We found that *a balance appeared to be struck* regularly in this practice between the acquisition and use of knowledge (general as well as specific), dealing with standards/norms (for medicine and life), and defining (sub-)objectives (ideal and realizable ones). We also found that the ‘internal logic’ (Mol, 2006) or the ‘grammar’ (Eikeland & Nicolini, 2011) of the practice lies in relationality and practical wisdom. We subsequently looked at how the professionals and the team, supported by the infrastructure, enacted relationality and practical wisdom. The team, with characteristic mutuality, turned out to be important as a context in which mutual reflection and consultation were possible on the basis of equality; it also facilitated ad hoc informal or crisis meetings, and offered support for difficult decisions. The professionals had developed and honed the infrastructure of the practice over many years so that it optimally supported relationality and practical wisdom.

In addition, relationality emerged in 1) the *structure and content of the consultations*. It was striking that professionals were guided by the patient’s perspective, or ‘concern’ (Sayer, 2011); this became clear, among other things, from the fact that they were willing to discuss matters that were unimportant from a professional point of view, but that patients worried about. 2) In addition, relational work turned out to be translated into action routines and work structures. 3) Finally, the practitioners had developed a specific, flexible attitude (similar to the habitus defined by Aristotle, 2009; Bourdieu, 1990; and Eikeland, 2006), in which they easily attuned their approach to the specific patient they were seeing (directive, stimulating, compassionate etc.).

*Practical wisdom* emerged preeminently as 1) the *ability to determine*, sometimes in an instant (intuitively and creatively), *what is good for the patient*, what the patient needs to continue her life. 2) In addition, it appeared as *the ability to individualize* medical standards and the objectives of the guidelines. Individualization was realized by *estimating the bandwidth within which it was deemed acceptable to deviate from the medical norms without harmful consequences for the patient*. This involves *determining the margins of the bandwidth*. 3) Practitioners and the team both need *the ability to judge* to be able to perform this task (Kaldjian, 2014; Montgomery, 2006). 4) Individualization was also evident in *judging the hierarchy of norms*, with moral norms sometimes being placed alongside and sometimes even above medical norms. Practical wisdom emerged in the ability to compromise between skirting the medical norm and crossing critical limits (Mesman, 2002; Saraga, Boudreau, & Fuks, 2019). 5) In addition, *adapting the excellent objectives* of the guidelines to objectives that are judged to be *feasible* for a specific individual appeared to be a manifestation of practical wisdom.

## 1.2. Results: interrelations, or how each theme emerges in the separate studies

1. The theme of the first study (chapter 4), *manifestations of practical wisdom* in everyday practices, also appears in the other three empirical studies. In chapter 5, patterns already described such as the meandering work routine (in which professionals deviated from schedules, or inserted moments of reflection or interdisciplinary deliberation on a dead-end diagnostic path) were again discernable. The same is true for *improvising: attuning available means to the particular patient by modifying them*, i.e. adjusting guidelines, procedures, routines and instructions (for instance, when it is necessary to pursue opposite goals, such as reduction of liquid because of heart failure and, conversely, supplementation of fluid because of the threat of dehydration for the same patient). There are also various examples of the three other patterns mentioned before. We also saw new patterns, such as *actively investigating the patient's perspective* (if necessary through the relatives) and *taking time-out to hold a multi-disciplinary consultation* to solve difficult diagnostic or therapeutic problems. In chapter 6, we recognized the sporadic practical wisdom in *getting the time right for the patient's sake* when an intensivist decided to make herself available for another conversation with a concerned relative at an unusual time. Apart from the patterns already mentioned in chapter 4, two new patterns stand out in chapter 7: first, the *recognition of the patient's concern* and the decision to let this be decisive, although it seems medically unimportant, and second, the professional's *tolerating of certain behaviors on the part of the patient* (Van Heijst, 2005; Vosman & Baart, 2008), i.e. professionals did not purposefully emphasize or only minimally emphasized undesired patient behavior (alcohol consumption), for instance to avoid damaging the relationship or trust.

In chapter 5, we sought and found '*interruptions*' or '*disruptions*': the practice was riddled with these. The most common were uncertainties of various kinds, unexpected problems in the organization or the conditions of care (operation theatre not available; computer network malfunction; medicine or tool ordered was wrong or was delivered too late etc.), and disruptions of the doctor-patient relationship (through misunderstandings, incomprehension etc.). In chapter 6, we noticed that the indicative role of the many interruptions (unexpected transfers; a life-threatening incident; intense negative emotions on part of the relatives) was practically absent. On the other hand, in chapter 7, the warning function was mostly excellent. For example: patients made surprising, unexpected remarks: "I cannot even wear a dress!" "Stay overnight? I would prefer them to come to me." All the studies confirmed that the interruptions were not automatically used as a signal for the emergence of practical wisdom.

Chapters 5 to 7 yielded many examples of *figurations* in the work situation that had a facilitating or a constraining influence on the alerting function of interruptions. In chapter 5, cultural and structural factors exerted a positive influence (a learning, open-minded, safe culture of mutual support by colleagues and the opportunity for planned and unplanned multi-disciplinary consultations in all kinds of situations respectively). Chapter 6 listed the constraining figurations of the practices involved and of the hospital infrastructure. However, chapter 7 clarified, how several

figurations facilitate the function of interruptions as an alert, and thus the emergence of practical wisdom. Examples are: the team's qualities and thus, the quality of the social environment and of professional relationships; the team-culture as described above; the design and accessibility of the EPR; and the infrastructure, including all kinds of tools, such as individual care plans and quality-of-life questionnaires.

Additional findings (not looked for, but serendipitously found) from chapter 4 were: practical wisdom is manifested in '*ordinary actions*'. This means that practical wisdom appears to be not only wisdom in reasoning, but also and possibly primarily wisdom in action.

Moreover, this wisdom in action appears to take *seemingly trivial and commonplace forms*. Both findings were confirmed in the follow-up studies. Thus we concluded in chapter 5 that practical wisdom had acquired "*a concrete and manageable face*". We found there that practical wisdom emerges in "various daily and situation-dependent forms", which we called 'mundane' and 'trivial'. In chapter 6 we recognized practical wisdom in the action of a nurse, who let a patient's daughter participate in her mother's daily care even though this was against existing explicit custom. In chapter 7 we identified practical wisdom in the joint and intentional acceptance of deviating standards and in practical advice (to change the infusion system at set times); again, therefore, in actions, judged to be very normal by the practitioners.

2. The theme of the second study (chapter 5) is *learning* (four distinctive factors) of *practical wisdom*. Learning to distinguish one or more factors and learning to use these factors in daily work also appeared in the other studies. It was acknowledged in chapter 4, that the point of reference for practical wisdom is *the telos*: "the good that has to be achieved for the patient *and* that is in accordance with the goal of the professional practice". We also found there that this goal varies for individual patients and their situation. In chapter 6, it became clear that learning practical wisdom (here, particularly learning *reflection and reflexivity*) was constrained, or perhaps made impossible by such things as the dominant, technical-instrumental professional discourse, the absence of structural opportunities for multi-disciplinary consultation, a mode of cooperation that involved mainly bi-lateral consultations and a hierarchical structure. The constraint consisted of the inability to perceive one-sidedness and deficits in its own discourse; a culture characterized by absence of openness to different perspectives (see also Jenkins, Kinsella & Deluca, 2018). In chapter 7, we identified a *learning culture* within the diabetes practice, consisting of listening well, an attitude of inquiry, frequently changing perspectives, especially in contacts with patients, recognition of uncertainties and intentionally setting aside time for reflection, including explicit reflection on *the actual goal* of professional guidance, the right *balance* between what is desirable and what is feasible and on achieving good shared *judgement* by carefully weighing pros and cons.

We found social and organizational learning in chapter 5, but could not demonstrate the occurrence of individual learning. In chapter 7, it was made plausible



that this social and organizational learning can stimulate individual learning and vice versa.

3. The theme of chapter 6 is the suppression of practical wisdom, due to the fact that medical professionals are primarily guided in their daily activities by the dominant, professional, technical-instrumental discourse. Moreover, suppression takes place due to specific practical and infrastructural figurations which in turn are determined by institutional control. In chapter 4, various suppressing factors were mentioned, such as the imposition of general and binding rules, appointments and routines, limited time and mandatory schedules. These create “hostile ground for growing pronesis” according to Pitman (2012, p. 131). As the opposite, ‘contextual promoting figurations’ for practical wisdom we described “structural moments for reflection” in chapter 4, such as “care provider huddles (informal meetings) at the beginning of every shift” (Widmer, Swanson, Zink & Pines, 2018). Chapter 5 shows that creating structural scope for joint reflection, purposefully learning to reflect and jointly realizing the kind of culture mentioned above (learning, safe, open-minded, supportive) appear to facilitate the emergence of practical wisdom. In chapter 7, the professionals named factors that hinder them in developing practical wisdom, such as lack of time or time pressure and being obliged to treat chronic patients with whom they have not had the opportunity to build a good professional relation. These contextual factors correspond with the figurations in chapter 4.

All our empirical investigations were focused on practices, not on individual actors. We therefore paid less attention to personal impediments or stimuli for practical wisdom.

4. In the fourth study (chapter 7), we investigated the subject of *individualizing by keeping course while being prepared to compromise*. In this study, the contrast with providing medical care in a linear, systematic way became very clear. Meandering or ‘tinkering’ (Mol, Moser & Pols, 2010; Timmerman & Baart, 2016) is essential, because it is necessary, time and again, to determine each patient’s goal, as well as whether and to what extent deviations from general guidelines (to attune care to the individual patient in her actual situation and context) are acceptable. Knowing how to individualize appropriately (taking the ‘particulars’ into account) here stands for practical wisdom. (Aristotle, 2009; Kinghorn, 2010; Hibbert, 2012; Kaldjian, 2014; Kotzee, 2016). In chapter 4, the second manifestation pattern of practical wisdom appeared to be: *attuning available means* to the patient and the situation by modifying them. Also, attunement to the individual patient is the (sub-)goal of the other manifestations mentioned in chapter 4. Thus the meandering procedure represents the aspect of compromising. In chapter 5, one of the learning points under ‘telos’ was that this telos frequently needs to be specified according to situation and patient. *Finding a concrete balance*, as indicated with many examples, is intended ‘to hit the mean’ (Eikeland, 2006) in the Aristotelian sense, i.e. not an average or median, but a balanced best point between two extremes. Weighing at another moment under

different circumstances may yield a different ‘mean’. Burbules (2019, p. 128) means the same when he refers to “finding the sweet spot”. For the indicators of judgement and reflection, the *ability to differentiate* appeared to be necessary to assess the particulars of a patient and her situation. In chapter 6, there was insufficient individualization and therefore a lack of practical wisdom; in this case, in particular, the professionals failed to distinguish the patient’s and her relatives’ concern, or to use the relatives’ knowledge to achieve good individual fine-tuning. This chapter also demonstrates that individualization is more difficult the more guidelines or a dominant discourse become a decisive factor. Moreover, this chapter shows, that fine-tuning is practically impossible when good professional relationships or relationality as a characteristic of the practice are lacking. This is because it is precisely *in* professional relationships that a patient’s distinctive characteristics and her perspective can emerge.

None of the four studies, offered any opportunity to directly study *the influence of extra-institutional factors* on the practices: such as the prevailing political and social discourses; the supervisory authorities that often have a strongly technical-systemic orientation (on quality, safety, accountability systems); the government authorities and health insurers; or public opinion, influenced by traditional and social media. Yet, these extra-institutional influences can be indirectly recognized in the studies through the dominant professional discourse and through the organization in which the practices studied are embedded. This is clear from for instance the emphasis on efficiency, with ensuing work pressure (chapter 7), from the uncertainty that professionals experience when they deviate from protocols and guidelines (chapter 7), or from the absence of ‘reflective spaces’ i.e. opportunities for joint reflection (chapter 6). Extra-institutional bodies especially seem to represent a restricted view on the ethics of medicine and health care: they regard this either as a matter of taking decisions on social dilemmas (euthanasia, abortion, genetic manipulation) or as decisions that are confined to the private sphere of individuals (Tronto, 1993; Vosman & Baart, 2008; Baart, 2018). Baart has therefore spoken of ‘moralicide’ (smothering the ability for moral reflection) in the professional sphere. Moral issues, as they emerge in the present study, are invested, as it were, with a different identity, for instance a legal, organizational, or systemic identity and are consequently no longer recognized as ethical issues. There are still many questions and opportunities for future research here.

We have presented the outcomes of the studies in relation to one another in the table below.



Theme Chap.	Faces of practical wisdom	Learning of practical wisdom	Suppression/promotion of practical wisdom	Individualization by keeping course while being prepared to compromise
4	<p>Meandering work routine Attuning available means to the particular patient Getting the time right for the patient's sake Taking advantage of different sources of information Maintaining/consolidating professional relationships</p>	<p>Awareness of fluidity and specificity of the goals; goals have to be in accordance with the telos of the practice.</p>	<p><i>Suppressing figurations:</i> Imposition of general and binding rules, appointments, routines Limited time/time constraints Mandatory schedules <i>Promoting figurations:</i> structural moments for reflection: care provider huddles</p>	<p>Meandering work routine Attuning available means to the particular patient</p>
5	<p>Actively investigating patient-perspective Taking time-out for multidisciplinary deliberation</p>	<p><i>Social learning:</i> increased recognition of telos, balance, judgement, reflection Increased reflexive capability The awareness that morality emerges in mundane, multifaceted shapes Knowledge of practical wisdom remains tacit (implicit) Distributed knowledge of practical wisdom <i>Organizational learning: structures:</i> Reflexive spaces are created Accredited training hospital specialists <i>Organizational learning: culture:</i> Professionals supporting each other Capability to discuss sensitive issues</p>	<p><i>Suppressing figurations:</i> not named <i>Promoting figurations:</i> creating reflexive spaces Realizing a supportive and open minded culture</p>	<p>Adjusting goals to contextualized patients Finding balance by hitting the mean/finding 'the sweet spot' Developing distinctive capability for a better judgement Determining the course from moment to moment by joint reflection and deliberation</p>
6	<p>No new faces</p>	<p>Learning impeded by dominant technocratic</p>	<p><i>Suppressing figurations:</i> dominant medical-technical</p>	<p>Particularization is constrained by the dominant technocratic</p>

		<p>discourse</p> <p>Mode of professional cooperation and inequality of professionals impede learning</p> <p>Lack of reflexive spaces</p> <p>Learning impeded by lack of arrangements to guarantee continuity of care in relation to patient transfers</p>	<p>discourse</p> <p>Large numbers of professionals and patient transfers</p> <p>Bilateral professional consultations exclusively</p> <p>Strong hierarchy and inequalities between professionals</p> <p>Material factors (format of EPR)</p> <p>Lack of reflexive spaces</p> <p>Lack of arrangements to guarantee continuity of care in relation to patient transfers</p> <p>Lack of traditions surrounding patient/relatives-contacts</p>	<p>discourse</p> <p>Obstruction of particularization by deficient professional relationships with patient and relatives</p>
7	<p>Distinguishing and addressing patient-concern</p> <p>An attitude of 'letting it happen' on the part of the professionals</p>	<p>Learning by listening intensely</p> <p>Learning by inquisitive and flexible attitude</p> <p>Learning by switching perspectives</p> <p>Learning by recognizing uncertainties</p> <p>Learning by deliberations</p> <p>Learning by creating ad hoc reflexive spaces</p>	<p><i>Suppressing figurations</i>: lacking or very limited professional relationship</p> <p>Time constraints; stress through overburdening</p> <p><i>Promoting figurations</i>: mutual support in the team</p> <p>Ability to discuss problems instantaneously and informally</p> <p>Being familiar with the living environment of patients</p>	<p><i>Relationality</i>: the structure of consultation hours is focused on confirmation and strengthening of professional relationships</p> <p>Relationality has been translated into routines</p> <p>Relationality is reflected in flexible attitude</p> <p><i>Practical wisdom</i> emerges in determining the bandwidth, and the demarcation of boundaries around norms</p> <p>Creatively and intuitively grasping the good for the patient</p> <p>Judging the hierarchy of norms</p> <p>Adapting ideal goals to make them realizable</p>

**Table 1: Interrelations between the results of four empirical studies into practical wisdom in everyday medical practices**



### **I.3. Results: integration**

In this section, we will do two things: first, we will look at outcomes of this inquiry into everyday medical practices, that emerged accidentally: things we did not set out to seek, but that we serendipitously found nonetheless. Second, we will investigate the conclusions that arise when the results of the four studies are interrelated at a higher level: overarching conclusions.

*Practical wisdom involves interconnected reasoning and actions: practical reasoning and ordinary actions.* Although this outcome has already been mentioned above, we will give a detailed explanation here, because this finding of our empirical research is a concrete instantiation of the concept that has been developed theoretically. Kinsella and Pitman (2012, p. 1) depict phronesis “ as an organizing framework for professional knowledge.” Kinghorn (2010, p. 100) describes practical wisdom as: “practical reason leading towards action.” Eikeland (2006, p. 5) emphasizes that “ its primary focus is ‘application’, performance, or enactment ”, but these authors do not address what ‘practical reasoning’ and ‘enactment’ look like in practice and how they can be discerned in daily practices. The current study demonstrates that the reasoning does not foremost refer to taking decisions as Kaldjian (2014) and Conroy et al. (2018) emphasized, but to observing well, to being able to perceive other perspectives (at least the patient’s perspective), to evaluating and weighing, to being able to handle uncertainties, to clarifying specific, feasible and desired goals and to realizing these using the most appropriate and available means. This implies that the reasoning has been incorporated into actions and also has actions as its goal; and conversely that knowledge emerges from actions, as Kemmis (2012) emphasized. This illustrates the interconnectedness of reasoning and actions. Moreover, our study shows that not only basic-scientific knowledge and evidence are important for detailed, specific observation and for practical reasoning, but also the practitioner’s mature experience, emotions, and intuition, and their ability to listen carefully to patients and their relatives. This issue has already been raised in publications by clinicians (Groopman, 2007; Gawande, 2014; Westendorp & Kusumastuti, 2019). ‘Reasoning in action’ can manifest itself in many forms: for instance in resolutely returning to the beginning of the complaints with the patient, adopting an inviting attitude when resistance on the part of the patient is to be expected, or looking together as a team for the best solution by weighing various alternatives (deliberation). Our study shows that practical reasoning is always focused on actions and manifests itself in actions. Practical wisdom differs, therefore, from clinical reasoning, which is primarily oriented to knowing. Moreover, the actions often appear commonplace, sometimes trivial, mundane: watchful waiting, postponing a treatment to be able to consult colleagues, giving a patient the time for reflection; repeatedly asking open questions to gain better understanding, involving someone who has the patient’s confidence, taking a reasoned decision to deviate from a guideline or instruction etc. In such seemingly unessential actions, practical wisdom is manifested in practice. Practical wisdom is not primarily about solving difficult problems (for instance agreeing a treatment limitation with a patient), although, these problems too, certainly ask for practical wisdom. *Practical wisdom is the capability to purposefully attune the practice from moment to moment to what the specific patient needs in her situation through everyday actions.*

***Interruptions replace dilemmas as ‘initiators’ of practical wisdom in daily work.***

Traditionally, *dilemmas* are regarded in medical ethics as initiators of explicitly moral actions and as the subject of moral deliberation (Stolper, Molewijk & Widdershoven, 2016; Inguaggiato, Metselaar, Porz & Widdershoven, 2019). (for morality and practical wisdom see the next section). Moreover, medical literature deals especially with certain *specific dilemmas*, such as to refrain from treatment versus to start or proceed with treatment, curative or palliative treatment, whether or not to perform euthanasia, whether or not to recommend an abortion, whether or not to conduct genetic research, whether or not to inform (Pellegrino & Thomasma, 1993; Kaldjian, 2010, 2014; Kristjánsson, 2015). This study shows that the ‘*interruptions*’ - of the work situation or of the practitioners’ stream of thoughts - as mentioned by Frank (2012) can cause practical wisdom and, therefore, morality to emerge. This may happen through individual reflection, sometimes in a flash (the ‘reflection-in-action’ mentioned by Schön, (1987) or through inter-individual, more time consuming deliberation. These interruptions emerge, just like practical wisdom, as nonspecific, diverse everyday manifestations, as ‘ripples’ in practices (an emergency intervention that disturbs the planning of consultation hours, unexpected or fierce emotions in a patient that have to be taken care of, the sudden bright understanding that a diagnostic hypothesis is not accurate). However, in order to make it possible for practical wisdom to emerge, these disturbances need to be perceived and then used as a signal for ‘practical wisdom’; it is not a matter of automatic causation.

There is another difference between the traditional dilemmas mentioned in the literature and clinical practice: the concept of *di-lemma* suggests, that it is *a matter of either/or* between *only two incompatible alternatives* By contrast, Eikeland (2006, p. 42) argues: “First of all, divisions do not necessarily operate in pairs, neither in Aristotle nor in the real world. In addition the divisions are not always mutually exclusive. There are many overlaps, and many fuzzy borderlines.” Complexity theory has similarly criticized binary thinking based on science (Hollnagel, Wears & Braithwaite, 2015) because it does not fit into the complex reality of current care practices. The interruptions mentioned do fit this reality, precisely because they leave scope for nuances, alternatives and possible solutions .

***Multiform, changing figurations may support the emergence of practical wisdom; management aimed at control, efficiency, and linear planning impede it.*** Practice theory (Schmidt, 2012; Nicolini, 2012; Gherardi, 2016) investigates “how concerted accomplishments and performances are connected and hang together to form constellations or larger assemblages” Nicolini & Monteiro, 2017, p. 13). Moreover practice theorists, like complexity theorists (Dekker, 2011; Sturmberg, 2018; Braithwaite, 2018), emphasize that in a complex reality like the current one, linearity is an illusion and that the impact of a single factor is unpredictable. They thus qualify the possibilities of management and planning in complex practice situations. The current research shows that there are all kinds of figurations in practices, which either support or obstruct the emergence of practical wisdom and the alerting effect of interruptions. Figurations are networks of human and non-human, material and immaterial, interrelated and interdependent factors, which constantly adapt in dynamic processes (Elias, 1971; Wilterdink, 2011; Schmidt, 2012). We mentioned a number of facilitating and constraining figurations: an open-minded, safe, supportive culture of cooperation versus a technical-instrumental dominant discourse respectively, and also studied the material surroundings as a part of the figurations (the EPR, individual care plans). In addition, we demonstrated that although there are interruptions with an alerting effect and

although the figurations are of a facilitating nature, yet, practical wisdom does not automatically emerge. For instance, see in chapter 7 the pediatrician who agrees to confront a patient with a failure to follow up prescribed treatment. However, she does not have a professional relationship with this patient yet. This example also illustrates that in complex practice situations single influences can have unpredictable consequences: there was an unpleasant clash between this practitioner and the patient's parents, because the father, totally unexpectedly, linked the confrontation to earlier incidents that had happened with someone else and that he had experienced as discriminatory. This implies that practical wisdom in organizations and practices cannot be established by straightforward management programs, nor by organizing course programs in isolation from daily practice. However, organizations and practices can design and modify their infrastructure in such a way that practical wisdom can flourish. Listening to the 'knowers' within core-practices, creating reflective spaces, providing 'good care' by showing flexibility and readiness to adjust, and the promotion of a culture of mutual support are certainly necessary to achieve this purpose. (see also Nonaka & Toyama, 2007; Minzberg, 2012; Eikeland, 2006; Vriens et al., 2017)

***Practical wisdom (phronesis), skills (techne) and basic sciences and evidence (episteme) partly overlap and have fuzzy boundaries.*** In the four empirical studies, practical wisdom regularly emerged as working towards a goal (the good for the patient in the long term and in the short term) in an improvising, searching, meandering way; a goal, that was sometimes difficult to grasp, because it was opaque and fluid. One example was, to establish what a 'good life' might imply in the current and future situation for the patient with diabetes whose sugar level was difficult to regulate and whose insulin pump was replaced by an insulin pen. In his publications (1987; 1983/1991) Schön addressed solving professional problems by improvisation supported by reflection in the 'messy swamp' of daily reality. He compared practicing professionals to musicians in a jazz orchestra who improvise on a theme. Broad experience and great competence (knowledge and skill) are needed for such improvisations to be successful, both with regard to the music they make with their own instruments and to realize optimal harmony. The same is true for the medical professionals we have observed. The improvisation and meandering did not happen at random, nor were they separated from the context of the practice. Instead, they were done in a goal-oriented way, using the available experience, knowledge and competence, and in a way that was appropriate to the history and situation of this patient in this practice. We observed the emergence of practical wisdom *and* competence (Sennett, 2009; Tyson, 2018) for instance in the way a practitioner performed a physical examination, encountered a patient or colleague, accepted that a patient needed time to take in the news, or in the way they used an instrument (a needle, a stethoscope) or a device (blood pressure device, a monitor). Thus, practical wisdom also manifested itself as a quality of technical-professional actions. Burbules (2019, p.130) also pointed out: "Techne and phronesis aren't opposed to one another, they are related – and related in such a way that one enables the other." Eikeland (2006), too, emphasizes that practical wisdom presupposes that actors have acquired general professional competences and have knowledge of the domain in question, including of the specific telos. He argues that professional competences and knowledge are essential to analyzing localized situations adequately and to weighing different goals and arguments through deliberation.

***Practical wisdom and relationality are interrelated and interdependent.*** The four empirical studies show that practical wisdom in medicine today does not emerge without relationality, neither in reasoning nor in other actions. As chapter 7 in particular shows,



*correct, integral perception* of the patient in her unique situation and context constitutes the basis for adequate diagnostics and together with this, for adequate determination, from moment to moment, of the treatment. For the correct integral perception of a complaint or problem, good professional relationships with the patient and good professional relationships among colleagues are necessary. Facts are exchanged in these professional relationships, and, moreover, different perspectives become apparent and different meanings emerge. That is exactly how the integral and individual aspect of care can be realized. Chapters 5 and 7 show, that the structural exchange of these perceptions, interpretations, perspectives and meanings through joint inter-professional reflection, deliberation and dialog (see above) are also indispensable to realizing practical wisdom as a team. Chapter 6 demonstrates that the absence of joint reflection and consultation has disastrous implications for the quality of the treatment and for the professional relationships. Scholars such as Eikeland, 2006, Baart and Vosman, 2011, Frank, 2012, Sellman, 2012, Baart, 2018, Saraga, Boudreau and Fuks, 2018, and Burbules, 2019, in their publications emphasize the interconnectedness of relationality and practical wisdom. However, they only speak about individual care givers, not about continuously changing groups that provide care. Nor do they give due consideration to the dynamics of care situations. On the basis of this study, we maintain that the flexible structuring of care is necessary for the enactment of practical wisdom and relationality. This creates room for joint deliberation and reflection as soon as the need for this is felt.

There is also another kind of relationality that differs from the interpersonal one in current complex practices. This is relationality which manifests itself in the shifting connections between ever-changing agents of very diverse kinds: people, material factors (technologies, objects, buildings, devices), immaterial factors (habits, laws, norms, discourses) etc. Such relationalities for instance highlight the structuring and standardization of practices. Practical wisdom also emerges in knowledge of the importance to focus these networks of relationalities on the goal that has to be achieved for the individual patient (Baart, 2018). Our study shows this very well in cases where the bandwidth of professional standards was stretched in order to serve the goal established for the patient better. Saraga et al., (2018) have named this phenomenon ‘trespassing boundaries’. In chapter 6, we discussed professionals’ uncritical acceptance (there was no reflective space for dialog) of the dominant discourse and of the electronic patient record, and these elements consequently unwittingly obstructed the emergence of practical wisdom. However, in chapter 7 we showed that the ICT- infrastructure (designed with the participation of professionals) supported and broadened the relationality of the professionals and patients, thus promoting practical wisdom. Mol, Moser and Pols (2010) emphasize that technologies depend on people who can attune the techniques to the different situations through an ongoing process of ‘tinkering’; they therefore argue that professionals should relate critically and consciously to the technologies which are part of their practice so as to be able to give better care.

***Practical wisdom as enacted morality, in contrast to practical wisdom as the (master) virtue.*** What do the results of the four empirical studies tell us about the basic principles from which we started our investigations? One of the principles was: morality (practical wisdom) in medical practices involves *the enactment of good medical care* for every patient in her specific, actual situation and context, *focused on a goal that is agreed with the patient*. Moreover, this specific good needs to be *in harmony with the professional ‘telos’* of medical practice. The professional ‘telos’ of medical practices is defined by the medical oath: to promote health, to cure the sick, to relieve suffering, to support the patient

and to be there for the patient and help her to live with her illness, even when recovery is not possible. In order to realize good care, it is essential to be able to discern the good as a goal, and to focus the organization of the practice on achieving this good.

Like Heuts and Mol (2013) we found that this good is '*multiple*', i.e. *plural*. We also found, that its fluid character is *variable* over time (Vosman & Baart, 2011; Vosman & Niemeijer, 2017) and *emergent*: "good is what turns out to be good" (Klaver, Van Elst & Baart, 2014, p. 759). On the basis of this study, we do not therefore see the good as uniform, stable and computable. Morality, practical wisdom, as the enactment of good care emerged in the form of *reasonable actions* (balancing, judging, reflecting, deliberating etc.) in the four empirical studies, actions through which it was possible to identify the good that was the purpose, at least temporarily. Moreover, it became evident that morality as good care can be realized in professional, *everyday actions agreed with the patient*.

By contrast, Aristotle and the neo-Aristotelians (see for instance MacIntyre, 1985; Schwarz & Sharpe, 2011; Kristjánsson, 2015; Conroy et al. 2018) see phronesis (practical wisdom) as a virtue, a stable characteristic of people, which people acquire by making recurrent efforts to practice this virtue over the course of their lives and their professional careers. Aristotle sees phronesis first and foremost as an intellectual virtue, which is, however, inextricably linked with the moral virtues in the sense that the moral virtues are necessary to determine the 'ends' at which actions and practices need to be aimed (Eikeland, 2006), while phronesis can help to find the best possible 'means' to reach those ends. Moreover, according to Aristotle, practical wisdom integrates and coordinates the moral virtues as the 'master virtue' (Eikeland, 2006; see also Kristjánsson, 2015). In this vision actors can decide with the help of phronesis what moral virtues need to be exercised in particular situations, and to what extent and in what interrelationship. Moreover, it is remarkable that Conroy et al. (2018) in their study of practical wisdom among medical professionals, describe a virtue continuum that strongly deviates from the virtues mentioned by Aristotle: including courage, kindness, moderation, justice. Phronesis is admittedly one of the virtues they mention, but they also refer to 'virtues' we would in fact define as competences such as 'lawful', 'culturally competent', 'interpersonal communication'. We assume that these 'modern virtues' reflect their 'rethinking' of Aristotle in the current social context.

We did not elaborate in the current study on virtue ethics or on virtues other than practical wisdom, because in our vision on morality, morality is disconnected from such stable qualities of individuals. We certainly do not deny the importance of individual professional righteousness. But, as explained in chapter 3, the approach to morality and practical wisdom that we have chosen is in line with the practice-theoretical framework of this study (see in particular Gherardi, 2016 p. 686: "practices have agency") and with the current complex, pluralistic and dynamic social context. After all, the influence of individual actors, even of medical professionals, is seriously nuanced by the complicated networks in which they function and in which actions count more than intentions or personal characteristics.

***Practical wisdom emerges in practices and organizations, not just in actions of individuals.*** What do the results of the four empirical studies say about the second important principle with which we started our research? Although we have already mentioned this on many occasions, we would like to emphasize it again here. The four empirical studies confirm

that the subjects of practical wisdom include *not just individual actors*, but *also teams, groups, practices and infrastructural factors* within organizations. We have studied practices and infrastructures not only as facilitating or obstructing the emergence of practical wisdom, but also as subjects of practical wisdom. A practice characterized by practical wisdom is, it has been shown open-minded (the current study; Jenkins et al., 2018); has a safe (the current study; Saraga et al., 2018), professional and supportive culture, and its structure has ‘built-in’ *spaces* (i.e. opportunities) for reflection, deliberation and dialog, both ad hoc and on a regular basis (the current study; Eikeland, 2006; Burbules, 2019). Eikeland argues (2006, p. 46) “that systemic space, for both dialogue and deliberation, is necessary in practical social life: work life, private life, professional, ethical and political”. He points out different functions of ‘deliberation’ (p. 47) (“part of professional practice performing”) and ‘dialog’ (“professional practice reflecting and inquiring”, in which practice and organizational frameworks are contemplated critically). An organization or healthcare institution characterized by practical wisdom also has the infrastructural features mentioned. Moreover, it is primarily focused on the primary goal of the practices that constitute the core activities of that organization. For instance: a hospital, which manifests practical wisdom as an institute must identify and realize ‘good medical care for all patients’ as its main objective (MacIntyre, 1985; Moore & Beadle, 2006; Moore, 2005, 2008; Minzberg, 2012; Vriens et al., 2016). The practices and organizations studied in this research show that practical wisdom emerges verifiably in practices and organizations that, at least to some extent, facilitate practical wisdom, and it has also become clear that in these environments practical wisdom can be learned (chapter 5 and 7). By contrast, on ‘hostile ground’ (see chapter 6) practical wisdom is more likely to be suppressed.

***Practical wisdom is an essential part of professional moral grammar.*** Finally, what does this empirical study tell us about the initial assumption of this dissertation: that practical wisdom is indispensable for medical professionalism? Our study has taught us, that everyday medical work is moral because it is focused on establishing the good for every patient in accordance with the definition of this good in the medical oath. It thus confirms that daily medical work must be characterized not only as *a practice* (in keeping with Nicolini and Monteiro’s definition [2017] “orderly materially mediated doings and sayings . . . and their aggregations”), but also as a *praxis* (in keeping with Kemmis’ description, (2012, p. 150): “Praxis is a particular kind of action that is morally committed, and oriented and informed by traditions in a field”). In the practices studied, the good appears to be beset with uncertainties related to its fluid, emergent and multiform character; that is why it can only be, to a greater or lesser extent, *approached*. The empirical sub-studies also show that, nowadays, the good needs to be realized in various complicated, even complex practice situations. That is why, at present, practitioners need a navigator to stay on track, to identify and realize this good using the most appropriate means. They can find that navigator in practical wisdom, which is linked to relationality.

Although the knowledge, skills and attitudes (competences), partly theoretical, partly practical, that practitioners acquire during their long-term training, can lead to versatile *craftsmanship* (see Sennett, 2009 and Tyson, 2018), these competences are essential, but not sufficient to morally navigate current, complex cluttered practices, where decisions have to be taken and action is required, despite the fact that many things remain uncertain. Therefore, the navigator is more aptly characterized as a *capability*, which in Fraser and Greenhalgh’s description (2001, p.24) is: “the ability to adapt to change, generate new knowledge and

continuously improve performances.” Similarly, *Beauchamp and Childress’ ethical principles* (1985), although useful, are not sufficient to help enact the patient’s good in everyday situations: they are too unspecific and too abstract, as such authors as Hall, 2011 and Mukherjee, 2016 have also observed. Nor are *virtues as individual achievements* (as advocated by Pellegrino and Thomasma, 1993; Kaldjian, 2014; Kristjánsson, 2016 Kotzee, Paton & Conroy, 2018) sufficient, because in complex practices these individual character traits cannot ensure that joint actions embedded in a specific institution remain focused on the patient’s good.

Our study shows clearly that, in late modern practices, practical wisdom cannot adequately be performed if this capability is acquired by individual practitioners only; practical wisdom must also be a capability of the practices and the care organizations in which individual professionals are embedded. (see the chapters 5, 6 and 7).

#### I.4. Summary

Practical wisdom involves practical reasoning and ordinary actions; it can be initiated by ‘interruptions’; its emergence within practices can be facilitated or inhibited by specific ‘figurations’. Practical wisdom in medicine is intertwined with *techne* (skills) and *episteme* (evidence). Practical wisdom and relationality are interrelated and interdependent.

Our focus is on practical wisdom as *the enacted morality of practices*, not on practical wisdom as a virtue of individuals. Practical wisdom is the essential feature of professional moral logic in medicine.

We will now reflect on the second question we mentioned in chapter 2: what do these results mean for the heuristic concept of practical wisdom, that we have used in the four empirical studies without intermediate modification, on the basis of the theoretical explanation in chapter 3?

## II. What do the results of the four empirical studies mean for the concept of practical wisdom?

We retained the same tentative, heuristic definition of practical wisdom unchanged throughout the four empirical studies. Now, however, in this concluding chapter, we will critically evaluate this definition on the basis of our results. We do this by asking the questions: what part of the definition should remain unchanged and why? What must be changed and why? The definition has been reproduced once again below; the parts that must remain unchanged have been underlined and the parts that must be changed in bold. We will subsequently clarify why we think the underlined parts should remain as they are and the bold parts should be changed. The words in italics will also remain unchanged, but require no further discussion.

*“Practical wisdom is the capability, which emerges in acting jointly within medical practices, of **knowing how to remain focused on achieving the good for each individual patient, within the context of the practice and its telos, in ever changing situations, and of***

**how to accomplish this** by the most appropriate means, while dealing with complexity and situational and systemic pressure.”

We will now, step by step discuss which part of the definition can remain unchanged and which must be adjusted on the basis of the results in the empirical study:

1. Practical wisdom is the capability...

Fraser and Greenhalgh (2001) have argued, that when it comes to solving problems in situations with many uncertainties, and as, subsequently, tasks and context are less familiar, professionals do not benefit much from *competences* (knowledge learned, skills acquired); by contrast, they need *capabilities*, i.e. potential abilities (“to adapt to change, generate new knowledge and continuously improve performances” p. 24). The situations mentioned are characteristic for the current, complex, professional work environment. Our research also demonstrated this trend. We have therefore retained the word ‘capability’.

We do not speak of virtues, either in the original, or in the modified version of the definition; as we repeatedly discussed, this is because our focus is not on the character traits of individuals, but on united deeds within practices, on actions.

2. ... which emerges

An emergent phenomenon is the opposite of a Newtonian, calculable phenomenon where the emergence is explained on the basis of the characteristics of its parts. An emergent phenomenon results from the interaction between entities, none of which themselves have the characteristics of the phenomenon in question, as is the case in complex systems (Dekker, 2011). In that sense, practical wisdom is an emergent phenomenon, just like consciousness, the virtuosity of a concert, the beauty of a ballet performance or the skillful teamwork of a football team. Thus, practical wisdom is a quality of the performance of a practice. The study of an emergent phenomenon therefore needs to take place in situations in which the diversity of ‘agents’ and the interactions between these agents can be observed; such as complex case studies (the current study; Anderson, Crabtree, Steele & McDaniel, 2005), video-recordings (Iedema, Mesman & Carroll, 2013), stories (Conroy et al., 2018), or biographies (Tyson, 2018).

3. “**acting jointly** within medical practices” becomes “joint actions within medical practices”.

The second formulation, reflects more clearly than the first one that, what is at stake is the standard of teamwork, the quality of *working* together and at the same time of working *together*, or, of *collaborating* and at the same time *coordinating*. The second formulation indicates that practical wisdom emerges *within* the interactions, *within* the joint performance. Chapter 6 clearly illustrates the point: good cooperation between medical specialists is not the predictable result of tasks performed well simultaneously or successively, according to a division of tasks agreed beforehand, but can emerge within the teamwork of interacting actors. The functioning of a team

that works well together, is more than the sum of separate jobs well-done, and cannot be reduced to these.

4. “of **knowing how**” becomes “incorporating the grammar of good care”.

In the former definition, ‘knowing’ and ‘knowledge’ are emphasized, in isolation from actions. The new formulation shows more clearly that the ‘knowing how’ relates *exclusively* to knowledge, that is reflected in those actions that represent the specific logic of good care, within the framework of a specific ‘grammar’ (Nicolini & Eikeland, 2011), i.e. of specific, familiar, practical playing rules.

5. “**remain focused on achieving the good** for each individual patient” becomes “aimed at discerning and focusing on each particular patient’s good”.

The new formulation more clearly expresses that the practice of caring for patients including practical wisdom, is a practice, whose goal must initially but also repeatedly thereafter, be discerned, so that it is subsequently possible to work steadfastly towards this goal (see chapters 4, 5 and 7). The new formulation, like the old one, still highlights the necessity of individualizing care, i.e. attuning care to the particularities of each specific patient in her context. Discerning the individual’s goal has now been integrated into the definition, because this capability to discern is also an aspect of practical wisdom (see chapter 7). What remains unchanged is that the morality of the medical practice is included in “the good”, as has been elaborated previously.

6. “**within the context of the practice and its telos**” becomes “that is also in accordance with the telos of the practice”.

In the former formulation, the connection that has to be guaranteed between the specific goal that must be achieved for the patient, and the telos of medical practice as laid down in the medical oath, remains obscure. The second formulation is less ambiguous: the patient-goal must remain within the bandwidth of the practice-goal. In chapter 7 we discussed the difficulty of achieving maximum overlap between both types of goals.

7. “**in ever changing situations**” becomes “in a dynamic process”.

The new formulation more clearly expresses that care processes evolve from moment to moment, from week to week and sometimes from year to year. It also articulates more clearly, that these care processes should demonstrate continuity as well as adaptation to changing circumstances and conditions. And, that therefore, the discerning of the goal and the maintaining of the goal should again and again be attuned to the patient.

8. “**and of how to accomplish this** by the most appropriate means” becomes “using the most appropriate means”.

Once again, ‘knowing how’ has been omitted from the definition. Here too, this has been done to indicate that the focus is on *actions*, which also include knowing.

The new formulation reflects the fact that the physician's expertise exists by virtue of properly using the right means in the right way at the right time. (see for instance chapter 4: 'getting the time right for the patient's sake).

9. "while dealing with complexity and with **situational** and systemic pressure" becomes: "while dealing with complexity and with operational and systemic pressures".

The initial definition did not mention the *pressure to act* under which physicians work. Physicians are expected, even required to *do* something, whereas it is sometimes better to refrain from doing, to postpone, wait, take time to reflect, or not to treat at all, because the possible damage caused by or the risks involved in the treatment in question are judged to outweigh its benefits. (Spronk, Widdershoven & Alma, 2020).

Professionals have criticized this definition because of its complexity. They would prefer to have a more concise formulation. They often mentioned the definition by Schwarz and Sharpe (2011): "To do the right thing in the right way", as an example. Our objection to this definition, is the word 'right', which implies applying rules and regulations, or a reference to justice. Instead we use 'good', a word that refers to a comprehensive morality. Moreover, we think that it is not possible to force this complicated, multi-faceted concept onto the Procrustean bed of such a simple, and inevitably reductive definition which leaves essential details unnamed. We therefore propose the following revised definition of practical wisdom in medical practices; we believe that, although this definition may lack the elegance of a more compact formulation, it has the merit of being accurate.

*Practical wisdom of medical practices is the capability which emerges in joint actions, that incorporate the logic of good care and are aimed at discerning and focusing on each particular patient's good, that is also in accordance with the telos of the practice, in a dynamic process, using the most appropriate means, while dealing with complexity and with operational and systemic pressures.*

### **III. The results of the research in relation to theories on practical wisdom in the literature**

It must be emphasized from the start that the current empirical research can only give rise to a number of fragmentary comments on the extensive theories on pronesis and practical wisdom in literature. The obvious reason is that the research is primarily empirical, i.e. focused on a limited selection of medical practices in hospitals. With this caveat, we believe comments are in order on the literature in respect of three major issues:

1. *Not virtues but moral actions.*

It is remarkable, that recent publications, following Aristotle, deal with practical wisdom *in the context of virtue-ethics, defining a virtue as a personal achievement*, often according to MacIntyre's (1985) interpretation. According to Kristjánsson (2015, p. 300), virtue-ethics has replaced deontology as "the moral theory of choice", particularly in academic discourse. This is much less the case in professional ethical education. Again according to Kristjánsson, the latter is still

largely dominated by deontology or principles-ethics, laid down in Beauchamp and Childress's four principles (1985): beneficence (to do good), non-maleficence (to do no harm), to respect the patient's autonomy, to act justly. However, we have found that virtue-ethics does not meet the requirements for a workable ethical compass for medical practices. As we have stated above, the focus of our study of practical wisdom was not on virtues, but on actions and practices that have so far been neglected in the literature. This is why we think morality emerges mainly in 'accomplishments', 'performances', or *actions in the here and now within practices*, in such actions that are aimed at realizing 'the specific good-for-the-patient', which, moreover, overlaps with the 'telos' of medical practice. It is likely, that such performances are related to virtues, but we have not examined this relationship further in this study.

2. *Not individual, but joint actions and organized reflection within practices.*

An important critical comment that arises from the current study on the way theory about practical wisdom has so far developed (see MacIntyre, 1981; Pellegrino & Thomasma, 1993; Eikeland 2006; Kinghorn 2010; Kaldjian, 2010; 2014; Kinsella & Pitman 2012; Tyson 2015, 2017; Conroy et al. 2018), is that practical wisdom is also a characteristic of joint actions and of practices, i.e. not exclusively of individual actions ("practices have agency", according to Gherardi, 2016, p. 686). Moreover, practical wisdom appears to be embedded in the infrastructure (structure and culture) of a practice; in addition, the infrastructure does or does not show practical wisdom. For instance, we have observed this in the form of "*systemic space*, for both dialogue and deliberation" (Eikeland, 2006, p. 46). Based on our study, we advocate, as does Eikeland, the introduction of reflective 'spaces' in professional work environments. These should be both *structurally present*, planned spaces, such as the monthly case discussions which were described in chapter 5, or the "care provider huddles (informal meetings) at the beginning of every shift" mentioned in chapter 4, and spaces *created ad hoc* during daily work. This also corresponds to the "reflection-in-action", as described by Schön (1983/1991), which he observed in addition to "reflection-on-action" for reflective practitioners.

3. *Not reasoning and knowledge isolated from actions, but acting sensibly, in which knowledge and reasoning are integrated.*

A third point of criticism on the theories of practical wisdom that emerges from our research is that theory has so far been developed in studies external to and about practices, but not from within practices. Our study was carried out from within medical practices; it shows that practical wisdom is not primarily about thinking and reasoning about actions before they are performed, but about everyday actions, into which wisdom is incorporated.

Moreover, our research fleshes out what sensible day-to-day activities look like; we mentioned mundane or trivial actions and inconspicuous figurations which can testify to skill (*techne*) and wisdom (*phronesis*). Practical wisdom was seen to emerge less frequently in single heroic deeds. The mundane actions for instance included intentionally responding to the patient's concern (chapter 7); acting wisely



therefore means: to focus on what the patient needs here and now. And one of the figurations was for example the joint evaluation of the digital curves of measuring results during the outpatient diabetes clinic. In literature that is not based on observation of practices, practical wisdom is predominantly problematized as a form of knowledge: “how do we conceive of knowledge in the professions” and described as “an organizing framework for professional knowledge” (Kinsella and Pitman, 2012, p. 1). However, in this publication, Kemmis also describes the danger that “phronesis comes to be regarded simply as a form of knowledge ‘in the heads’ (and moral commitments) of practitioners rather than in terms of practical reasoning and practical philosophy”. The Jubilee Centre for Character and Virtues of the University of Birmingham (Kristjánsson, 2015; Kotzee, et al., 2017; Conroy et al., 2018) similarly approaches practical wisdom primarily as a form of knowledge, which, according to the authors is expressed by medical professionals in the decisions they take. In their empirical research they have especially studied decision processes (i.e. cognitive processes). The triviality of wise actions is one finding in particular that could not have been demonstrated by a theoretical study or without contacts with professionals and patients. This is why our study shows the importance of observing practices in the here and now, so that theories about practical wisdom can be criticized and completed on the basis of practices. When this is specifically done on the basis of examples of *praxis* (meaning “practices that are intrinsically moral”), the relevance of theories to acting morally within professional practices will evidently increase.

#### **IV. ‘Putting practice into theory’ or ‘the talk-back from empirical research to care-ethical insights’.**

The first quotation in the sub-title above is derived from Mol, Moser & Pols (2010); the second from Vosman, Timmerman & Baart (2018). What critical comments or clarifications does our empirical research generate for care ethics?

1. Care ethicist Van Heijst (2005, p. 66) has stated: Care is not an action, but a relationship and within that relationship the appropriate things are done. Other care ethicists, too, have emphasized that care is realized within and through relationships. We have seen in our study that relationality consists not only of the relationship between two people, a care giver and a care recipient. Instead, it consists of extensive relational networks between individual care givers and care recipients, between groups of care givers and care recipients as well as of non-human agents, both material and immaterial. If the appropriate things that belong to good care have to be done within such extensive networks, these relational networks also have to be tailored to and equipped for giving good care. Although Joan Tronto emphasized as far back as 1993 that care is not limited to interpersonal relationships or to dyadic interactions, the care ethical study of relational networks in a wider sense has so far been limited.
2. In chapter 7 in particular, the reciprocal connectedness of relationality and practical wisdom came to the fore. While theorists who have studied practical wisdom, have emphasized its connectedness with relationality (Eikeland, 2006; Baart & Vosman, 2011; Frank, 2012; Sellman, 2012; Baart, 2018; Saraga et al., 2018; Burbules, 2019),

so far care ethicists (apart from the group of researchers around Vosman and Baart) have not paid much attention to practical wisdom. As our study shows that identifying and establishing the good in care practices requires not only relationality but also practical wisdom, we recommend that care ethicists be more attentive to practical wisdom.

3. Although care ethicists such as Tronto (1993, 2013), Vosman and Baart (2015), Vosman, Timmerman and Baart (2018; 2019) see care as a practice, the connection between care ethics and practice theories has so far been very weak. More than a decade ago, in 2005, Van Heijst (2005, p. 64/65) quoted the Dutch writer Hella Haasse, who stated that doing odd jobs around the house, carrying out routine chores, and being attuned to, or involved with the personalities of the other members of the household, are two sides of the same coin. In other words: care, like practical wisdom (see chapter 7) is not only established by working explicitly on the relationship, but also in arranging things, in routine business, in ordinary activities. Our empirical study of care practices which used methods from Nicolini's toolkit, has provided new insights into the relationship between routine actions on one hand and tacit knowledge, care-ethical assumptions and the intentions implied in these on the other. On this base, we recommend that care ethicists pay more attention to everyday activities within care practices.
4. Care ethics as political ethics is concerned with (the effect of) care as an activity that creates, structures and legitimizes relationships between people. These relationships determine where the power lies, whose voice is heard and who receives attention. This 'political' aspect can be clearly seen in our study; in our view this means that this aspect must be explicitly called political. Chapter 6 shows that factors such as the *hierarchical position* of care givers (with regard to colleagues and other professionals, and in relation to patients), just like the *preferred medical-technical and systemic knowledge* and *structures based on efficiency rules*, determine ranking within medical care. Conversely, in chapter 7 we illustrated that the logic of care, that is characterized by relationality and practical wisdom establishes a different arrangement of cooperation, which makes it possible for instance to deal carefully with vulnerable patients. Such political-ethical observations illustrate how "care as an activity that enables us to live together in an ordered way" (Timmerman, Vosman & Baart, 2018, p. 414) works out in practices. We recommend supplementing these observations of everyday practices with new observations to flesh out what 'care-ethics as political ethics' means.
5. Our study has provided a platform for the most important persons, the 'knowers', in care practices, especially for the physicians as care givers, and to a lesser extent also for the patients and their relatives as care recipients (for instance, in chapter 6 the patient's relatives, and in chapter 7 the patients and their parents who visit the diabetes consultations). This has permitted us to see, for instance, what the consequences of 'undergoing' (Vosman & Niemeijer, 2017) or 'enduring' (Van Heijst, 2016) are for

care givers. They reported that they found the many (also moral) uncertainties in their daily work difficult to deal with. They also mentioned that the uncertainties they have to endure increase their sense of vulnerability vis-à-vis supervisory authorities. Such observations from practices of care provision give substance to theoretical remarks about vulnerability. Care ethics has so far paid little attention to approaching practices from within.

Conclusion: on the basis of our empirical study we are able to provide the above recommendations to care ethics: incorporate greater attention to relational networks in care instead of focusing only on interpersonal or dyadic relationships; incorporate greater attention to practical wisdom, linked to relationality; incorporate the application of practice-theoretical research methods; incorporate the explicit study of care-ethics as a political ethics into practices; and finally, incorporate empirical research from the ‘knowers’ perspective into practices.

## V. Evaluation of specific practice-theories as a theoretical framework.

Gherardi (2016) has described the ‘school’ within practice theory, that she and Nicolini belong to, as the ‘sociology of translation’ or the ‘actor-network theory’. One of its characteristics is “a mode of ordering the social in which doing and knowing are not separated and the knowing subject and the known object emerge in their ongoing intra-action” (Gherardi, 2016, p. 685). This specific practice-theoretical framework (of the sociology of translation) has guided our observations and analyses of practices, and we are now able to make the following comments concerning this theory:

1. This framework helped us to put the role of the individual actors in medical practices into context (see especially chapters 6 and 7).
2. This framework helped us to see the important role of ever-changing teams in medical-professional practices. On the one hand, groups of cooperating professionals of all kinds exist always and everywhere: physicians seldom, if ever, work alone. On the other hand, the power of these teams depends on the settings within which they work (see for instance the part on impact in chapter 5).
3. This framework has helped us to observe and communicate the role of material and immaterial, infrastructural factors in medical-professional practices and of the agency these factors and the practices have (Barad, 2003; Gherardi, 2016). For instance, the role of the electronic patient record (EPR) and of professional discourse in chapter 6; that of the ‘culture’ within the hospital in chapter 5, and that of the individual care plan in chapter 7.
4. This framework has helped us to observe the fluidity, the aspect of ‘becoming’ in practices (Gherardi, 2016; Nicolini, 2012; Baart & Vosman, 2011), including the influence of the history and the anticipated future of practices. For instance, the good

for the patient had to be re-invented time and again in changing situations in chapter 5, and the practice studied in chapter 7 appeared to have been molded by the participants over the years.

5. This framework has helped us to observe and analyze the intertwinement between knowing and doing, between epistemology and ontology, which made it possible to externalize (or make explicit) tacit knowledge (Nonaka & Takeuchi, 1995). A good example of this can be found in chapter 7 where practitioners have to define – the boundaries of – the bandwidth within which to act.
6. This framework has also taught us that giving feedback to practitioners about insights acquired in empirical research, will give practitioners new insights into what they previously took for granted, or subconsciously assumed to be true. These new insights make reflection and transformation possible (Eikeland & Nicolini, 2011). Chapter 7 contains a good example of this: the insight that it is ‘allowed’ in the relationship with a patient to make critical comments about the patient’s behavior.

Conclusion: the practice-theoretical framework, that we used in our study helped us to provide new perspectives on the medical practices that we studied. Having said this, our research may also offer feedback on this framework that may add new insights to it. For instance, that this research is even more time-consuming than expected, and that the balance that must be found between closeness to the practice and distance through critical reflection is hard to find. Our suggestion is, that practice-theorists, apart from a toolkit, also should formulate recommendations for the practice of doing practice-theoretical research.

## VI. Methodological evaluation

1. We explained in chapter 2 why an empirical inquiry into practical wisdom should be both *qualitative and explorative*. In the same chapter we indicated that we used specific lenses to study the practices in question, so as to be able to make new observations, because these lenses would be able to shed light on other aspects than the usual professional or quantitative-empirical perspectives could. We chose care-ethical and practice-theoretical perspectives to approach the cases we studied. When we compare our results with similar research (such as Visser’s, 2017, and Conroy’s et al., 2018) we can conclude that we have been able to make new observations (such as broadening the concept of relationality to include more than interpersonal relationships, and the fact that practical wisdom emerges at least as much in wise trivial actions as it does in difficult rational decisions).
2. A further choice we made, was to conduct our research *from within practices*, using direct observation or observation through a mediating database. Moreover, this research was done by a researcher who is also a medical specialist and knows the nature of the practices studied from her own experience, i.e. it was *participatory research*. This research from within has made aspects of medical practices visible to

the researchers, which have never been observed through research from an outside perspective. That is the case, for instance, for the role of interruptions (and their manifestations) as opposed to that of dilemmas, as initiators of moral actions (practical wisdom). Also, for the role of changing figurations as opposed to structured deliberation or planning in facilitating moral actions. In addition, the research from within has yielded new insights for practitioners. It has undermined a number of previously undoubted assumptions, such as the supposed good of streamlined logistics (it sometimes proved to be better to meander or to reserve time for joint reflection). However, participatory research from within must meet certain conditions, in order to be able to yield valid results (see points 3 and 6).

3. The researchers opted for close cooperation between the first researcher-professional ('knower' of the practices in question) and two co-researchers-ethicists who were not associated with the practices and who cooperated from another discipline and from outside the practices themselves. The resulting *synergy between inside and outside* proved to be productive. It contributed to the validity of the research, because it saved the first researcher from blind spots and from taking for granted what is self-evident within the practices studied (for instance the lack of reflective 'spaces' in the daily work environment). On the other hand, the ethicists' theoretical insights into the daily practice sometimes proved not to be true or the reality turned out to be different than expected, as we discussed in sections II and III.
  
4. Our decision to conduct *case research* in different forms, in order to do justice to the richness of detail and the contextual data of everyday practices, has made it possible to observe many details that have not been sufficiently recognized before, as well as contextual information concerning these data. This is the case, for instance, with the way in which the dominant professional discourse and the structuring of the clinical working environment influence practices, as described in chapter 6. The case study design with direct observation has thus proven fruitful for the description and analysis of the everyday reality of practices. Other researchers have used a similar design to approximate clinical reality. In our research, we have tried to avoid certain shortcomings of studies that are based upon the interpretations or views of the professionals involved. Iedema et al. (2013), for instance, used *video footage of real-time daily clinical practices* and invited the clinicians involved to reflect together on the images. Timmerman and Baart (2016) used in-depth interviews and focus groups of general practitioners to study in what way general practitioners need practical wisdom and how they can cause practical wisdom to emerge when supporting patients at the end of their lives, even on their deathbeds. An alternative for case studies is *narrative research*. This was used by Tyson, who called it a "systematic narrative approach" (Tyson, 2015, p. 229) in his reflections on the "educational biography of a master bookbinder . . . and two stories he tells, one of his education in Paris and one of his own deliberations in teaching bookbinding." Kotzee et al. (2017) chose systematic "in-depth narrative interviewing and analysis" of physicians at different stages of their careers. Unlike observation through the interpretations of professionals, direct

observation, as we applied in our research, can reveal issues that clinicians themselves see less clearly or are reluctant to raise, such as assumptions, presumptions, or sensitive matters. That is the specific relevance of observational case study, and it is on account of this that our research is an indispensable supplement to the ‘indirect’ observation mentioned above.

5. We used *analytical techniques*, that we deemed appropriate for the research questions and the available data bases of the four empirical studies. The analytical techniques have been sufficiently underpinned in the separate studies. We can conclude here that they are *convergent* and that results *mutually reinforce* each other. We regard this convergence as an extra indication of the validity of our research.
6. The *validity* of empirical research usually refers to the accuracy with which the object under investigation is presented, or the accuracy of reflections on this object. As we tried to observe the grammar of the practices examined, i.e. the specific, internal logic belonging to the practice, validity in this case also means: the accuracy with which the internal logic of the knowers within the practice is made explicit. Moreover, validity is an indication of the robustness and rigor of the research methods chosen: these methods must cast light on what they are focused on and not on other things. In order to safeguard this, we examined the ‘resonance’ with practitioners in the practice (the extent to which they recognized our findings and judged that these adequately reflected reality), through peer-debriefing, member-checking in focus groups and feedback from the learning community. We safeguarded the rigor of the research methods in all sub-studies through researcher-triangulation. Chapter 5 reports the audit procedure as a method of validation. This laborious procedure is to be highly recommended, because it requires the analytical researcher to account for and underpin each step of the analysis to an external auditor. Such techniques are essential for qualitative research to guarantee the reliability of the results, including for readers who are not involved in the practice studied.
7. The *abductive analysis* (Timmermans & Tavory, 2012; Timmerman, Baart & Vosman, 2019) that we performed assumes, (as chapter 3 describes) that, although the analytical researcher did not use a deductive method (for instance by using interview questions entirely based on a specific theory), she is not a blank page when it comes to theory. We therefore as much as possible defined our theoretical frameworks beforehand (the heuristic definition of practical wisdom, care ethics, certain practice theories). A further characteristic feature of abductive analysis is that it is oriented towards a process in which the various aspects involved mutually unlock each other: the empirical insights unlock the theoretical frameworks and the theoretical frameworks help to observe the empirical data more precisely. The former is discussed in sections II and III; the latter in section V. These results show that our abductive analysis has been successful.

Research of practices, which is carried out over an extended period of time and through time-consuming observations and analyses, is not currently very popular, precisely because it takes so much time and cannot yield representative results. Moreover, this kind of research is not much valued in current neo-liberal social discourse, because it does not lead demonstrably to an increase in the effectivity or efficiency of the practices as measured by quantifiable criteria. Our response to these objections is that deeper insights into the complexity of daily professional work can only be gained through such, and similar, research. We also argue, that this kind of research enables positively inspired qualitative improvement of professional work (unlike the negative input of complaints and mistakes), because it brings to light matters that professionals take for granted, but which are in fact not a given at all, thus making it possible to change them. Finally, we contend that this kind of research gives morality the place it deserves: at the very heart of scholarly, professional, social and political, attention.

## VII. Transferability and relevance

Timmerman, Baart & Vosman (2019) have described criteria for the transferability of empirical research of practices. Although the current research is not a phenomenological but a practice-theoretical study *from within* practices, the criteria they have devised can nonetheless be used to judge the transferability (rather than generalizability) of the results.

The researcher and co-researchers have ensured that the cases we chose fulfill the first criterion: 1) *exemplariness* (“the case exemplifies the construct of interest in a highly developed manner”). Compliance with the second criterion: 2) *extensiveness* of the case descriptions (i.e. containing many concrete details and notes on the relevant context) has been confirmed by the two co-researchers and the auditor who had the opportunity to examine the descriptions. 3) The third criterion is *the rigor of the analysis*, mainly based on the validity of the construction and of the process. This criterion has been met in the sub-studies; the two co-researchers validated this. 4) The fourth is *the innovative potential* of the concepts developed and the theoretical insights, for both researchers and practitioners. The innovation for researchers has been demonstrated above; the innovation for practitioners is that our study will give them new insights into the morality of practices. This will enable them to focus their practices more effectively on the moral goal. 5) Finally, there is the criterion of *resonance validity*, which consists in the practitioners’ agreement with the findings, or, more precisely, in the confirmation by the practitioners that the findings help them in their daily practices, especially in obscure situations where choices have to be accounted for. The resonance validity of our findings has been confirmed by the practitioners through member checking and peer debriefing in focus groups.

The question remains, to what extent the results of observations of long-term admission to hospital, or outpatient care for adolescents with a chronic condition, are transferable to *other forms of medical specialist care in hospitals*, such as acute care (ED, ICU), care for patients with a psychiatric disease, or for patients with a simple, clear problem. Equally, it must be asked to what extent the results of ten or a hundred cases gathered in a

general hospital are transferable to other settings, such as first-line healthcare, or rehabilitation care, or care for the elderly. The answer is that transferability depends on the *similarities* between these forms of care, particularly when care is given in settings with significant differences. We contend that there are similarities on a meta-level: in all kinds of settings, professionals work together in groups; in all kinds of settings, calls for reflection and reflexivity must find a way; in all kinds of settings, professionals must judge and determine together with their patients what the good is that has to be enacted, and how the enacting can happen; in all kinds of settings, professional relationships must be established and used to give good care. There are thus significant formal similarities. The precise way in which practical wisdom can possibly emerge, may be different in other settings, but the specific examples described in our research can nevertheless, because of the similarities on the meta-level, support the performance of practical wisdom in those practices.

Another question is whether the results are transferable to *other professional practices*, such as the fields of justice, education, nursing, management and governance of organizations. Here too, professionals must themselves identify the similarities between medical practices and legal, educational, managerial etc. practices, to ensure that the results are transferable. General lessons from our research can possibly help; for instance, seemingly neutral issues, self-evident assumptions and rules contain hidden, implicit choices and value judgements upon which professionals should critically reflect, and which can be changed (see for instance the implicit choice favoring the dominant medical-professional discourse in chapter 6). We have called reflection, that includes critically judging and transforming practices, *reflexivity* (with Iedema, 2011; Kinsella & Pitman, 2012, and Kemmis, 2012). It is connected with practical wisdom. In his explanation of reflexivity, Iedema emphasizes that it mostly reflects *social, joint reflection*, aimed at conduct and situations in the here and now. He has underlined that attempts to comprehend and modify a practice with the help of reflexivity will have the best chance of success if the infrastructure within which they take place is open to such reflexivity and thus to learning and changing. Our study also bears this out, as it has identified figurations that promote or hamper practical wisdom. Recognizing such figurations also offers possibilities to change them. Another general lesson is that in each of the professions mentioned, general rules must be attuned to individual people in specific situations and that the professionals in question must establish a certain bandwidth, including its borders. These borders determine when compromising on the rules involves unacceptable risks for a client or the unacceptable stretching of a norm (see chapter 7).

This discussion of the transferability of our research findings also shows the practical relevance of our study. Specifically, the study is relevant because it shows that it is essential for professionalism to ‘embed’ practical wisdom in training and in daily practice. This has been demonstrated through analysis of the practices of medical specialists in hospitals, but this finding can be transferred to the practices of physicians in other settings, as well as to other kinds of professionals because the problems to which practical wisdom is a response also arise there. All professions can benefit from the promotion of reflection and reflexivity on the work. And, analogous to *jurisprudence* in legislation, forms of *mores prudente* for professional ethics (Van Doorn, 2008; Kanne & Grootoink, 2014; Buitink, Ebskamp &



Groothoff, 2019) should be gathered, made transparent and discussed in broad professional forums. In this way, discussions about morality in daily practices, like discussions about evidence, could become common practice, allowing for the further development of the practical wisdom of professional work and of professional practices.

### **VIII. Suggestions for further research of practical wisdom**

We will conclude this chapter with a number of suggestions for future research of practical wisdom in professional practices. In making these suggestions, we go beyond the scope of our research. But the limited extent of our empirical study invites us, as it were, to articulate these proposals. We must begin with a strong recommendation to conduct qualitative empirical research from within practices, preferably in conjunction with practitioners on the work floor. Needless to say, we argue for specific attention for the morality of those practices, that is, for empirical research of professional morality. It would be interesting to investigate morality and practical wisdom in other hospital settings. We have mentioned such possible settings as acute care in the Emergency Department, or an Intensive Care Unit, or elective care with a high patient turnover, or care for patients with psychiatric conditions. Other possibilities are settings involving care for specific groups, such as geriatric patients who are at the end of their lives, or for newborns whose lives have just begun. Does practical wisdom emerge in the same way in such groups and in such settings? How can morality be given the key role it deserves, also in different settings?

There are sporadic examples of studies that have looked at how practical wisdom and relationality are incorporated into the medical curriculum and into formal training of physicians after registration (see the project by Conroy et al., described in their publication of 2018; also the research of Stenersen Hovdenak and Wiese in medical training in Tromsø, Norway, 2018; and the publication of Verkerk, De Bree & Mourits about training reflective professionalism for residents, 2007). Such research should be extended with observational research from within practices. Furthermore, modifications of the ‘Bildung’ (Tyson, 2018) of medical professionals should be implemented during the pre-clinical stage and in the work place.

As we have indicated above, practical wisdom could be investigated further in the context of other social professions, such as legal, psychological and social work and education, but also in accountancy, management, government and politics. Many examples of such research in respect of these other professions already exist: psychology (Ardelt, 2003); management and organizations (Nonaka & Toyama, 2007; Schwarz, 2011; Küpers & Pauleen, 2013); justice and politics (Mantel, 2013; Cantrell & Sharpe, 2016); accountancy (Vosselman, 2019). Yet there is lack in these studies of observational research of practices, in cooperation with ‘knowers’ of the practices and focused also on the development of new concepts and theories.

Our research did not give us sufficient opportunity to thoroughly investigate practical wisdom (and relationality) of teams, specifically teams of changing composition. The same is true for practical wisdom (and relationality) of organizations, condensed in the infrastructure of structures and cultures. A lot of theoretical literature on the moral compass of organizations

is already available, but here, too, there is a lack of detailed descriptions of concrete examples, such as Vriens et al. (2017) have done, conscientious qualitative empirical research.

We expect that implementing these suggestions will not only increase the attention that is given to the practical wisdom of professionals, but above all cause practical wisdom to develop in all kinds of practices. Our research has convinced us that more practical wisdom can lead to better quality of care, i.e. care that it is better attuned to the individual patient. Also, that it can contribute to a better life for patients with a chronic or terminal disease, and, finally, to greater happiness for professionals who have the meaningful but difficult task to perform their profession together, competently and wisely.

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## Appendix I

### Justification data management

The data that have been investigated and analyzed for this thesis are stored under the authority of St Jansdal Hospital. These data include medical files: confidential information about patients and professionals, that may not be disclosed.

The empirical studies have been approved by the Ethical Committee of St Jansdal Hospital as well as by the Board of the hospital. Verbal informed consent has been obtained from all the patients and professionals that were involved, after they were given accurate information about the aim and procedures of the study. All identifying information has been removed and sometimes details have been adjusted for privacy reasons.

Rules concerning data management have been changed over time; these rules were different at the start of this investigation. This is the reason that we were not able to meet the actual rules sufficiently.

The table below is an overview of the research data that were observed and the way they were analyzed.

Substudy	Raw Data	Availability	Analysis technique	Published in
<b>The multiple faces of faces in complex clinical practices</b>	Thick descriptions of 10 complex patient cases and related documentation	On paper	Qualitative Heuristics and elements based on the grounded theory	Journal of Evaluation in Clinical Practice
<b>Professional workplace-learning: can practical wisdom be learned?</b>	The self-reported lessons learned from 100 multi-disciplinary case discussions	Digitally	Content Analysis via the Directed Approach i.e. using predetermined codes	Vocations and Learning
<b>Professional medical discourse and the emergence of practical wisdom in everyday practices</b>	The patient's complete medical file and her daughter's diary about this hospitalization	Digitally	Thematic analysis of the dominant professional discourse and the diary	Health Care Analysis
<b>Making the best of it: practical wisdom in professional care for adolescents with type 1 diabetes mellitus</b>	Recorded observation data, field notes and documents of the ambulant diabetes practice (consultation hours, team discussions, educational meetings)	Partly digitally, partly on paper	Abductive analysis of direct observations	Submitted to The Journal of Clinical Ethics

## Appendix II

### Glossary

Ability	The power, skill, means and opportunity to perform an action; it tends to come in degrees
Capability	The competence or potential to perform an action; tend to be either-or propositions
Capacity	The power or potentiality of receiving, holding, absorbing or accomplishing something; it is said of persons or things
Concern	According to Sayer (2011): things that are important to people; things people care about
Distributed intelligence	Cognition, knowledge or wisdom that are not confined to an individual; rather they are spread over individuals, objects, artefacts and tools in the environment
Emergence	The process or event of something coming into existence or prominence; in philosophy and systems theory emergence occurs when an entity is observed to have properties its parts don't have on their own, for instance beauty or balance
Enactment	The act of putting something in action; the act of performing
Ethnomethodology	The study of how social order is produced in and through processes of social action; it is a fundamentally descriptive discipline
Figurations	Networks of human and non-human, material and immaterial, interrelated and interdependent factors, which constantly adapt in dynamic processes
Internal logic of a practice	The ways of thinking and acting that are crucial to a certain practice; for instance in health care good care is something that grows out of collaborative and continuing attempts to attune knowledge and technologies to diseased bodies and complex lives (Mol, 2009)
Interruption in a medical practice	Something that interferes with or disrupts a task, a workflow, reasoning, a professional relationship, planning and schedules, and therefore is a possible signal for reflection and practical wisdom
Morality in medical practice	The performance of medical care that is good for a specific patient in a particular situation and context, focused on a goal that is attuned to the patient and is also in harmony with the 'telos' of the practice
Mores prudence	Ethical jurisprudence, i.e. an ethic on the basis of previous cases
Performativity	The power (for example of language, discourse, management, systems or technologies) to produce or change something, to function as a form of action
Phronesis	An ancient Greek word for a type of wisdom or reasoning. In Aristotelian ethics it is an intellectual virtue that is to be distinguished from other intellectual virtues such as episteme and techne. It is a type of wisdom that is relevant to practical action
Practice	"Orderly, materially mediated doings and sayings (..) and their aggregation" (Nicolini and Monteiro, 2017)

Praxis	"A particular kind of action that is morally committed, and informed by traditions in a field" (Kemmis, 2012)
Reflection	Serious and careful thought in and on practice (Schön, 1983) that results in actions and interrogations of the practice
Reflexivity	Reflection that is aimed at <i>critical</i> interrogation of the social and (im-)material conditions under which knowledge comes into being. It refers to the examination of beliefs, judgments and actions that are embedded in a certain practice and may influence the practice
Tacit knowledge	Skills, ideas and experiences that people have but are not codified and may not or not easily be expressed; for instance the knowledge enclosed in riding a bike
Telos	A term used by Aristotle to refer to the full potential or inherent purpose or objective of a person or thing, similar to 'end goal'





## Samenvatting

Praktische wijsheid staat vanaf de laatste decennia van de 20ste eeuw toenemend in de belangstelling van professionals van allerlei aard: psychologen, juristen, docenten, managers, bestuurders en medici. Deze vernieuwde belangstelling is toegeschreven aan factoren als: de toenemende complexiteit en de alsmaar versnellende ontwikkelingen van laatmoderne samenlevingen en de eraan gekoppelde onzekerheden, aan het wegvallen van vertrouwde ideologieën en denkkaders, en aan de technologisering en instrumentalisering behorend bij het momenteel in de westerse wereld overheersende, door marktdenken beheerste neoliberale discours.

Met name professionals die te maken hebben met morele vraagstukken hebben daardoor toenemend behoefte aan een kompas dat hen helpt te koersen op moraliteit: het doen van het goede en het geen schade toebrengen. Het dagelijks werk van medische professionals, artsen, is doordrenkt met moraliteit. Medici-practici vragen zich voortdurend af: wat is hier en nu voor deze individuele patiënt goed om te doen (of te laten)? Hoe voorkom ik schade of te grote risico's op schade voor deze mens die aan mijn zorgen is toevertrouwd? Zou het ontwikkelen van de Aristotelische phronèsis, die wij vertaalden als 'praktische wijsheid' kunnen helpen bij het vinden van de juiste weg in de wirwar van alledaagse morele vragen in door onzekerheid en complexiteit gekenmerkte moderne praktijken? Dat was de vraag die het uitgangspunt vormde voor dit onderzoek.

Wij onderzochten in actuele dagelijkse praktijken van medici in een algemeen ziekenhuis of en zo ja hoe praktische wijsheid een rol speelt bij het vinden van moreel verantwoorde wegen en oplossingen voor patiënten. Het is een kwalitatief-empirisch onderzoek van binnenuit praktijken. De onderzoekers hebben zich echter tevens (en onvermijdelijk) laten leiden door theoretische kaders nl. die van de zorgethiek en van bepaalde praktijktheorieën en tevens door het streven praktijken te onderzoeken van binnenuit, niet van een afstand. De zorgethiek is de stroming in de ethiek die 'zorgen voor' als onmisbare basisfunctie van menselijk samenleven beschouwt en van daaruit de betekenis van relationaliteit, van onderlinge afhankelijkheid, van kwetsbaarheid én van het politieke in het samenleven beoordeelt. De praktijktheorie, in dit onderzoek vooral vertegenwoordigd door Nicolini, Schmidt en Gherardi, ziet als eenheid van samenleven en als studieobject niet primair het individu, ook niet het sociale, maar praktijken. En praktijken zijn steeds wisselende samenstellingen van individuen, groepen, materiële en immateriële infrastructurele factoren die 'doen', die 'tot-stand-brengen'. Het onderzoek van binnenuit, betekent dat de onderzoekers bewust niet willen abstraheren van voor buitenstaanders onbegrijpelijke of onbetekenend lijkende details, en dat zij ook niet de werkelijkheid willen reduceren door slechts in te zoomen op deelaspecten. Zij hebben juist actief gezocht naar het ervaringswet en –beleven van de meest betrokkenen in de bestudeerde praktijken: de professionals en de patiënten.

Wij hebben, alvorens te beginnen met de vier empirische studies die het leeuwendeel van het onderzoek vormen, oriënterend literatuuronderzoek gedaan naar praktische wijsheid en zijn daarbij tot een voorlopige, heuristische definitie van praktische wijsheid gekomen:

*praktische wijsheid is het vermogen, dat emergeert in gezamenlijke acties binnen medische praktijken, en dat bestaat uit het gefocust weten te blijven op het bereiken van het goede voor elke individuele patiënt, binnen de context van de praktijk en haar telos, in steeds wisselende situaties; aangevuld met het tot stand brengen van het goede met behulp van de best passende middelen, waarbij adequaat wordt omgegaan met complexiteit en met institutionele en systemische druk.*

Het empirische onderzoek had steeds een dubbele doelstelling: wij wilden enerzijds meer aan de weet komen over praktische wijsheid in de dagelijkse praktijk (hoe ziet die er uit, waardoor wordt ze bevorderd of tegengewerkt, kunnen medici praktische wijsheid leren en zo ja, hoe dan etc.), anderzijds wilden wij nagaan of de hierboven geformuleerde definitie in stand kon blijven of gewijzigd diende te worden én wilden wij de theoretische kaders die wij hierboven hebben beschreven vanuit de onderzoeksresultaten kritisch bevragen.

Hoofdstuk 3 omvat een uitgebreide verantwoording van de methodologie die we hebben toegepast bij de empirische onderzoeken. De moeilijkheid was het onzichtbare (praktische wijsheid) zichtbaar te maken, ofwel een moeilijk grijpbaar, niet direct waarneembaar concept in te kleden met kenmerken ontleend aan de dagelijkse praktijk van het medisch werk. Daarbij wilden wij, hoewel onontkoombaar kwalitatief, verantwoord onderzoeken door transparant te zijn over de toegepaste observatie- en analysetechnieken en subjectieve oordelen en interpretaties laten toetsen aan criteria van beproefde en valide technieken en werkwijzen.

De hoofdstukken 4 tot en met 7 bevatten het verslag van de empirische onderzoeken, waarbij achtereenvolgens de nadruk ligt op verschillende thema's. In hoofdstuk 8 brengen wij die thema's weer met elkaar in verband en komen wij tot integratie en conclusies.

Hoofdstuk 4 behandelt verschijningsvormen van praktische wijsheid in de dagelijkse praktijk. Wij vonden onder meer: het resoluut in gesprek met de patiënt teruggaan naar het begin van de klachten, wanneer er een schijnbaar onoplosbare medische puzzel is ontstaan; ook een meanderende werkwijze in tegenstelling tot planmatig recht op het doel afgaan. Wij ontdekten de interessante 'onderbrekingen' of 'verstoringen' van het gaande werk, van de routine of van een gedachten stroom, die als signalen voor het emergeren van praktische wijsheid kunnen fungeren, mits professionals ervoor open staan en erop bedacht zijn. Als dergelijke 'verstoringen' ontdekten wij: een spoedcasus die tussendoor komt en waarvoor geplande werkzaamheden opzij moeten worden gezet zonder betrokkenen tekort te doen, een bevinding die tegenstrijdig is met een vermoede diagnose, een hevige emotie bij professional of patiënt. En tenslotte ontdekten wij dat 'figuraties' van belang zijn: netwerken van menselijke en materiële met elkaar verbonden en van elkaar afhankelijke factoren, die telkens veranderen in dynamische processen. Die figuraties kunnen het emergeren van praktische wijsheid bevorderen of juist belemmeren. Tijdsdruk, allerlei bindende regels of verplichtingen kunnen bijvoorbeeld belemmerend werken. De belangrijkste bevinding van dit deelonderzoek

was misschien wel, dat praktische wijsheid inderdaad gewoon blijkt voor te komen op de werkvloer, ook al heeft niemand er expliciet aandacht aan besteed. En verder dat de manifestaties van praktische wijsheid bijna banale, gewone, alledaagse vormen aannemen; deze bevindingen werden in alle volgende onderzoeken bevestigd.

In hoofdstuk 5 onderzochten we of praktische wijsheid geleerd kan worden gedurende het dagelijks werk, met name door het systematisch houden van multidisciplinaire casusbesprekingen die gericht zijn op ‘ervan leren’ in het algemeen. Dit bleek inderdaad het geval, althans voor zover gemeten aan vier indicatoren voor praktische wijsheid: doelgerichtheid, balans, oordeel en reflectie/reflexiviteit. Wij toonden geen individueel leren aan, wel sociaal en organisatieleren, hetgeen respectievelijk naar voren kwam in het toegenomen vermogen van gezamenlijke reflectie en reflexiviteit, en in het regulier scheppen van reflectieve ruimten in de organisatie; daarnaast uit talrijke andere voorbeelden. Wij toonden ook aan dat dergelijke op leren gerichte besprekingen bijdroegen aan het gezamenlijk tot stand brengen van een cultuur waarin het elkaar als collega steun verlenen prevaleerde boven competitie, een cultuur waarbinnen praktische wijsheid kan gedijen.

In hoofdstuk 6 zochten wij naar de invloed van het overheersende professionele discours op de verhouding tussen een rationeel-technische logica en een logica van praktische wijsheid in de onderzochte praktijk. Wij vonden een disbalans ten gunste van de rationeel-technische logica en ten koste van praktische wijsheid. Wij vonden tevens dat deze scheve verhouding deels werd bepaald door het overheersende traditionele medisch-technische discours (kenmerken: ziekte-gericht, reductionistisch, korte-termijn-georiënteerd, gefocust op het volgen van richtlijnen en protocollen, een bilaterale in plaats van een multidisciplinaire samenwerking, een hiërarchische werkwijze waarbij de medici aan de top van de hiërarchie staan en te eenzijdig de dienst uitmaken), maar ook door de organisatiestructuur en –cultuur, waarbij maatregelen om continuïteit van zorg te garanderen bij transfers van patiënten en bij de verdeling van de zorg over grote aantallen professionals ontbraken.

In hoofdstuk 7 was het thema: het schipperend op koers blijven in een ambulante diabetespraktijk voor adolescenten met diabetes mellitus type 1. Hoe te verbijzonderen naar de individuele patiënt bij het tegelijkertijd verplicht toepassen van internationale richtlijnen? Hoe adequaat kennis van de patiënt in haar situatie te verwerven en die te verbinden met de wetenschappelijke kennis over de ziekte, hoe een ideaal gesteld einddoel van de behandeling te rijmen met een voor de patiënt haalbaar doel, waarbij zij ook nog een goed leven geniet en hoe de in richtlijnen vastgelegde standaarden te verbinden met de morele norm van ‘het goede voor deze patiënt’? Wij zagen in dit onderzoek dat zowel de individuele professionals, als de teams die gevormd waren in het kader van de diabetessprekuren, als de deels zelf gecreëerde infrastructuur geïmpregneerd waren met relationaliteit en praktische wijsheid, waardoor alle genoemde actoren in staat waren meestal en grotendeels een goede balans te vinden tussen de dwingende richtlijn en dat wat voor de patiënt het zwaarste woog. Praktische wijsheid in deze situatie betekende vooral dat de professionals de juiste bandbreedte wisten te bepalen waarbinnen zij nog verantwoord konden afwijken van de richtlijnen, terwijl zij tegelijkertijd de grenzen wisten vast te stellen die niet meer verantwoord (dus zonder kans op schade) overschreden konden worden. Een andere leerzame bevinding was, dat de professionals de

knagende en onoplosbare onzekerheid die hun vak kenmerkt, wisten te verlichten met behulp van discussies in het team van professionals, waarbij zij hun onzekerheden deelden en gezamenlijk een route uitstippelden.

In het concluderende hoofdstuk 8 integreerden wij de uitkomsten van de vier empirische onderzoeken als volgt: praktische wijsheid omvat praktisch redeneren en alledaagse professionele activiteiten; praktische wijsheid kan geïnitieerd worden door ‘verstoringen’, en de emergentie van praktische wijsheid kan worden belemmerd of gefaciliteerd door specifieke ‘figuraties’. Praktische wijsheid is verweven met technè (vaardigheden) en met epistèmè (evidence). Praktische wijsheid en relationaliteit zijn onderling verbonden en onderling afhankelijk. Wij concludeerden bovendien dat wij in dit onderzoek de nadruk gelegd hebben op praktische wijsheid als de gerealiseerde moraliteit van praktijken, niet op praktische wijsheid als een deugd van individuen. En ook dat praktische wijsheid de essentiële component is van de professionele morele grammatica (logica) in de geneeskunde.

In hoofdstuk 8 beredeneerden wij ook, dat wij op basis van dit onderzoek op onderdelen de heuristisch gebruikte definitie van praktische wijsheid moesten wijzigen. De nieuwe definitie luidt:

*praktische wijsheid is het vermogen dat emergeert in gezamenlijke acties binnen medische praktijken, die de logica van goede zorg belichamen doordat zij gericht zijn op het onderscheiden en het verwerklijken van het goede voor elke individuele patiënt afzonderlijk, dat tevens in overeenstemming is met het telos van de praktijk; in een dynamisch proces, met inzet van de best passende middelen, terwijl de situatie-gebonden complexiteit en operationele en systemische druk adequaat worden gehanteerd.*

Wij gaven op drie punten commentaar op de bestaande literatuur over praktische wijsheid, en wel als volgt: praktische wijsheid gaat niet op de eerste plaats om deugden maar om morele acties; ze gaat niet voornamelijk over activiteiten van individuen maar over gezamenlijke acties en over georganiseerde reflectie binnen praktijken; praktische wijsheid omvat niet op de eerste plaats redeneren en kennis, geïsoleerd van acties, maar wel verstandig doen en laten, waarin redeneren en kennis zijn opgenomen.

Ook becommentarieerden wij in hoofdstuk 8 de bestaande zorg-ethische literatuur, resulterend in de aanbeveling dat de zorgethiek zich meer met praktische wijsheid gaat bezig houden omdat deze naast relationaliteit nodig is om het goede in praktijken te identificeren en tot stand te brengen. Ten aanzien van de practice theory maakten we de opmerking dat zij behalve aan een gereedschapskist voor het verrichten van praktijkonderzoek ook aandacht moet besteden aan de juiste uitvoering van dergelijk onderzoek.

Tenslotte vroegen wij ons af of de uitkomsten van dit onderzoek overdraagbaar zijn naar andere vormen van medisch-specialistische zorg in ziekenhuizen en naar andere professionele praktijken. En wij beantwoordden die vraag als volgt: de overdraagbaarheid hangt af van de overeenkomsten tussen de verschillende vormen van professionele zorg, respectievelijk van professionele praktijken. Wij zien die overeenkomsten op meta-niveau: in

allerlei settings functioneren professionals in samenwerkende groepen; in allerlei settings dienen gezamenlijke reflectie en reflexiviteit een vorm te vinden; in allerlei settings moeten professionele relaties worden gevormd en benut om goede zorg te verlenen, etc. etc. Daarbij kunnen algemene lessen uit dit onderzoek zeer behulpzaam zijn. Een voorbeeld: schijnbaar neutrale routines, vanzelfsprekendheden en regels omvatten verborgen, impliciete keuzes en waardeoordelen, waarover professionals kritisch moeten nadenken en die zij kunnen veranderen, zoals het vigerende medisch-professionele discours waarvoor impliciet gekozen is. Hiermee is ook de praktische relevantie van dit onderzoek gegeven: Op de eerste plaats geeft het professionals in medische praktijken nieuwe inzichten in praktische wijsheid en haar belang voor het dagelijks werk, dat intrinsiek moreel van aard is. Op de tweede plaats levert het inzichten op in de invloeden die zich doen gelden op dat dagelijks werk, en in hoe die de moraliteit van dat werk (dat wil zeggen het tot stand brengen van goede medische zorg) kunnen ondergraven of bevorderen. Die inzichten kunnen professionals gebruiken om de betreffende invloeden te veranderen. Op de derde plaats heeft het onderzoek onderbouwd dat het voor professionaliteit essentieel is om praktische wijsheid ‘in te bouwen’, zowel in de opleiding als in de dagelijkse praktijk. Dat geldt voor medische en voor andere professionele praktijken, voor zover zich ook daar de problemen, waarop praktische wijsheid het antwoord betekent, optreden. Daarom zou in alle professionele praktijken het bevorderen van reflectie en van reflexiviteit op de werkvloer aandacht moeten krijgen, en voor de professionele ethiek zouden vormen van *mores prudentie* moeten worden verzameld, inzichtelijk worden gemaakt en bediscussieerd in brede professionele fora (vergelijkbaar met de jurisprudentie in het recht). Daarmee zouden discussies over moraliteit, net als die over evidence, gemeengoed kunnen worden. Vervolgens zou de moraliteit, de praktische wijsheid van professioneel werk en van praktijken verder ontwikkeld kunnen worden. Ten slotte zou praktische wijsheid meer aandacht moeten krijgen van professionele opleidingen, van professionele organisaties en van de instituten waarbinnen professionals werken; immers die instituten bepalen verregaand de figuraties die de emergentie van praktische wijsheid (dus van moraliteit) steunen of belemmeren.

Wij eindigden met een aantal aanbevelingen voor verder onderzoek. Daarnaast met het uitspreken van ons vermoeden, door dit onderzoek tot overtuiging gegroeid, dat meer praktische wijsheid 1) kan leiden tot een betere kwaliteit van zorg: zorg die beter aansluit bij de individuele patiënt, 2) dat zij kan bijdragen aan een beter leven van patiënten na of met een ziekte en 3) aan meer geluk voor professionals die een zeer zinvolle maar moeilijke taak hebben in het vakbekwaam, wijs en samen beoefenen van de professie.



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## Curriculum vitae

Marij Hommen werd geboren in Heerlen, op 7 maart 1948 en groeide op in Pey-Echt. Zij studeerde pedagogiek van 1969-1972 aan de Rijksuniversiteit Utrecht, behaalde Colloquium Doctum in 1972 en startte vervolgens de opleiding geneeskunde aan dezelfde universiteit. In 1979 deed zij artsexamen, waarna zij de specialisatie kindergeneeskunde begon in het Sint Josephziekenhuis te Eindhoven. Zij werd in 1984 als kinderarts geregistreerd en werkte daarna nog een jaar als chef de clinique kindergeneeskunde in genoemd ziekenhuis.

Van 1985 tot 1996 was zij kinderarts in het Dr. J.H. Jansenziekenhuis, Emmeloord; van 1993 tot 1996 tevens vertrouwensarts inzake kindermishandeling te Lelystad. Van 1996 tot 2016 was zij als kinderarts verbonden aan ziekenhuis St Jansdal in Harderwijk. Hier werd zij in 1997 tevens benoemd tot lid, in 2005 tot voorzitter van de raad van bestuur. Zij beëindigde haar bestuurlijke werkzaamheden eind 2008. Van 1999 tot 2019 bekleedde zij diverse functies als lid en voorzitter van raden van toezicht in de zorg. Van 2008 tot 2013 was zij behalve kinderarts adviseur kwaliteit en veiligheid voor de medische aansprakelijkheidsverzekeraar Centramed. Van 2016 tot 2018 was zij docent ethiek en moreel beraad aan de St Jansdalacademie; als zodanig formuleerde zij ethische beleidskaders en ontwierp zij een model voor moreel beraad in de dagelijkse werksituatie. Sinds 2014 fungeert zij als kwaliteitsauditor van het NIAZ (Nederlands Instituut voor de Accreditatie van Zorginstellingen).

Vanaf 2009 volgde zij enkele modules van de masteropleiding Zorgethiek aan de Universiteit Tilburg, gevolgd door dit promotieonderzoek dat zij afrondde aan de Universiteit voor Humanistiek te Utrecht.

Marij Hommen is getrouwd met Jacques Bontemps; zij hebben drie kinderen: Sander, Joep en Saskia, en vijf kleinkinderen: Loet, Ties, Doutzen, Sef en Elske.



