Chapter 2

Specialists' expectations regarding joint treatment guidelines for primary and secondary care

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Objective: To identify factors that may hinder or facilitate specialists' use of joint treatment guidelines for primary and secondary care.
Design: Qualitative study using focus group discussions based on a topic guide with open-ended questions.
Main outcome measures: Themes identified by two researchers that specify the specialists' views on the use and implementation of treatment guidelines in general, and transmural guidelines in particular.
Setting: Departments of Cardiology and Internal Medicine in three Dutch hospitals.
Study participants: Ten general internists, 11 cardiologists, and six gastroenterologists participating in seven group discussions.
Results: Specialists did not perceive the treatment guidelines as useful for their own field of expertise, but expected that joint guidelines might improve integration between primary and secondary care. Furthermore, the guidelines could be useful for areas outside their expertise, for specialists in training, and for general practitioners. Concerns were expressed regarding their content and development process. In addition, specialists feared negative consequences, such as loss of autonomy, extra administrative workload, and organizational and financial barriers such as loss of industry-sponsored research and conferences.
Conclusion: The specialists are not very motivated to use the guidelines themselves. This is a major obstacle that should be addressed in an implementation programme. Furthermore, negative outcomes at organisational and financial level must be minimised or compensated for. A joint implementation programme seems worthwhile, making use of the advantage seen by specialists in making agreements with general practitioners.

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Introduction

Chronic patients often need care from both sides of the primary and secondary interface. Currently, there is little coherence across these sectors regarding treatment guidelines and drug selection [1]. Lack of consistency and cooperation between primary and secondary care can lead to inefficient care and places patients at risk of unnecessary investigations and polypharmacy [2]. Conflicting information or seemingly inconsistent care reduces the patient's confidence, and may result in non-compliance [3]. The need for improving the integration of care provided by different physicians has recently been stressed by the European Working Party on Quality in Family Practice [2]. One of the recommended actions was that general practitioners and specialists should establish local clinical guidelines together. In the Dutch health care system, this is certainly relevant since it is a gatekeeping system. Patients need a referral from their general practitioner to have access to specialist or hospital care. After discharge, most patients are treated again by their general practitioner. Patients also need a referral for outpatient clinics, where the specialist can decide to treat the patient on an outpatient basis or refer the patient back to the general practitioner for further treatment [4]. This implies that the responsibility for the treatment of a chronic patient may alternate more than once between the general practitioner and a specialist.

In the year 2000, several programmes have been set up in The Netherlands to improve the quality of transmural therapeutic care. In other countries, such care has also been called integrated care, shared care, joint care or seamless care [5]. The aim was to improve both quality and efficiency by bringing the therapeutic care provided by general practitioners and hospital specialists in line with each other on a regional level. The approach chosen in several regions was to develop treatment guidelines to be used by all physicians. At the time of this study, 16 guidelines for transmural care were being developed in the province of Groningen in the north of The Netherlands. Local committees of specialists, general practitioners, and pharmacists were involved in the development of these guidelines. They used the available evidence as well as existing national guidelines and local formularies for either primary or secondary care to establish a uniform treatment policy for all patients with specific diseases. For all relevant indications and subpopulations, drugs of first-choice were selected using criteria of efficacy, safety, user-friendliness, and applicability. The resulting transmural treatment guidelines are unique in combining recommendations for general practitioners as well as specialists including the allocation of some treatments between primary and secondary care.

To stimulate the adoption and use of the guidelines an implementation programme is needed, because simple distribution usually does not change clinical practice [6].

There are many possible barriers and facilitators for adopting clinical guidelines [7-9], which can be found on different levels (Table 1) [8,9]. Identification of such factors is essential for choosing the best fitting implementation programme. Most studies conducted previously were surveys using close-ended questions, which limits the barriers observed to those selected by the researchers [9]. Furthermore, most studies examined only one or two types of barriers in one setting. The majority of studies have looked at barriers seen in family or general practice, and studies focusing on specialists' views on treatment guidelines are scarce [8,9]. In The Netherlands one study looked at internists' perceived barriers to the implementation of diabetes guidelines in hospitals [10]. The most important barriers anticipated were organizational and financial barriers. One study identified barriers for improving transmural pharmacotherapy as perceived by hospital pharmacists and clinical pharmacologists [1]. These health care professionals also considered organizational and financial problems as the most important barriers. No studies could be found on factors related to physician acceptance, or adherence to guidelines for integrated or transmural care.

Table 1: Barriers to the use of clinical practice guidelines

Content of guideline
Recommendations are not based on relevant and reliable scientific evidence
Recommendations are not concrete and precise
Recommendations are not consistent with current beliefs
Development process
Lack of feeling of ownership of guideline
Lack of authority of the organization or people developing the guideline
Lack of trust in people involved in developing guideline
Distrust of the objectives underlying the guideline
Target population of physicians
Negative attitudes towards guidelines in general, such as fear of losing autonomy, belief that they are not applicable to individual patients or that they are too rigid to apply
Little or no motivation for using guideline, such as belief they will not improve outcomes, that one can not perform accordingly, and satisfaction with current behavior
Organization and setting
Lack of time or resources to implement and follow all recommendations
Lack of (financial) incentives
Negative attitudes in professional environment towards using guidelines
Recommendations conflict with other agreements or guidelines
Recommendations conflict with patients' wishes

In this study, our aim was to explore the factors that may limit or facilitate the use of joint treatment guidelines for primary and secondary care as perceived by Dutch specialists in order to develop a suitable implementation programme. Questions

addressed were: What barriers and facilitators were seen for using treatment guidelines in general, and transmural guidelines in particular? Were there barriers or facilitators that were specific for the type of hospital, for the medical speciality or for one treatment guideline?

Methods

We chose a qualitative research method enabling identification of all factors that were relevant in a specific setting or context. Focus group discussions were held with several groups of specialists at different hospitals, and discussing different disease topics for which guidelines for transmural care were being developed. We chose three transmural guidelines as cases for this study, i.e. for the treatment of hypertension, heart failure, and gastric diseases [11]. These guidelines affect the practice of a substantial number of physicians in primary and secondary care. They were not yet published at the time of data collection, but all specialists had been informed through news bulletins about their development and also about the goals of the programme for transmural pharmacotherapy in their region. From the hospitals involved in our study, four general internists, four cardiologists and two gastroenterologists were members of the committees responsible for developing the guidelines.

Study population

Only specialists commonly dealing with one or more of the selected topics were included, i.e. general internists, cardiologists, and gastroenterologists. Three of the five hospitals in the province of Groningen were included. These hospitals were selected for their difference in organizational structure. One was a large university hospital where specialists were employed by the hospital. The second was a large teaching hospital where specialists work in private group practices. The third was one of the three smaller non-teaching hospitals where specialists also work in private group practices. Since not all specialities were offered in these smaller hospitals, we selected the hospital where at least two of the three specialities were present for our study.

We sent introduction letters to all general internists, cardiologists, and gastroenterologists in the selected hospitals. The aim was to conduct separate discussions for each hospital and each medical speciality with groups of four to eight people, but for some groups the maximum number possible was less than four. In the non-teaching hospital, where only two cardiologists and no gastro-enterologists worked, one combined focus group was planned. One member from each group was personally asked to set the best time and place for the discussion, and also to encourage specialists with presumably different opinions to participate. For six focus groups, it was possible to find a time and place where five or six

specialists could attend. For one group, the maximum number possible of three specialists was invited to the meeting.

Data collection

A topic guide with open-ended questions was used to steer the discussion (see Appendix). We tested this topic guide with a general internist and a cardiologist. The first questions focussed on current use and advantages or disadvantages of guidelines in general. Next, the transmural care aspect of the new guidelines was discussed. The participants were asked to think about possible pros and cons of having a transmural guideline for a specific subject. General internists discussed possible guidelines for hypertension and gastric diseases, gastroenterologists talked about gastric diseases, and cardiologists discussed the subjects heart failure and hypertension. Each discussion lasted approximately one hour. The moderator was a medical doctor who was not part of the study population. On two occasions, one of the authors (P.D.) moderated the discussion. All the discussions were held in meeting rooms in the specialists' own hospitals during lunchtime or after hours from April to June 2000.

Analysis

All discussions were recorded on tape and transcribed verbatim. We conducted a content analysis based on an inductive approach using the constant comparison method [12]. Firstly, one researcher (W.N.K.) identified the main themes running through the data that were related to our research questions. Seven themes were identified after the analysis of the first focus group. A second researcher independently analysed the same data to check the consistency of these themes. Subsequently, both researchers analysed all transcripts independently, manually dividing the texts in parts referring to similar notions, and classifying these segments to one of the themes. Discrepancies were discussed until agreement was reached. The texts from all seven focus groups could be classified according to the identified themes. Separate reports were made for each focus group summarising the statements within each theme. These reports were sent to the participants for checking.

Using the reports we searched for factors that were specific for a hospital organization, medical speciality or guideline. Firstly, we compared statements mentioned from the focus groups in the university hospital with those from the non-university teaching hospital and the non-teaching hospital. Secondly, a similar comparison was made looking at statements from general internists, cardiologists, and gastroenterologists. Finally, the reports were checked for statements that were related explicitly to one of the treatment guidelines.

Results

Of the 35 specialists invited to a focus group discussion, 27 attended, resulting in five meetings with four or five participants, one meeting with three, and one with two participants. The participants were 10 general internists, 11 cardiologists, and six gastroenterologists. All participants were males, and their mean age was 46 years (range 31-62 years).

The findings are presented under the seven main themes that emerged from the analysis. These themes are closely related to our research questions, and focus on aspects that may hinder or facilitate the implementation of joint treatment guidelines.

1) Attitudes towards treatment guidelines in general (Table 2)

Most specialists indicated that they do not need treatment guidelines. They believed that most treatment guidelines recommend commonly prescribed drugs with which they are already quite familiar. They were used to working with their personal set of drugs, were guided by international scientific literature, and sometimes had local agreements regarding the treatment of choice within their department or group practice. Most specialists believed that general practitioners need guidelines more than they do, because general practitioners are generalists who have to deal with all diseases. Treatment guidelines were also seen as useful for specialists in training, although some specialists at the university hospital feared that guidelines might lead to 'prescribing without thinking'. Several specialists expressed that guidelines could be useful for diseases outside their expertise. Guidelines always have their limitations in the specialists' opinion. Not every individual can be treated according to guidelines, especially in a hospital setting. Many patients have already been treated with the standard treatment by their general practitioner, and have come to the specialist because they want or need something else. Some specialists mentioned that strictly adhering to recommended doses and duration is also not always possible for individual patients. Guidelines limit the specialists in their freedom of choice. The specialists saw the loss of their autonomy as an important disadvantage of treatment guidelines. They believed that guidelines are often out of date, and new drugs are seldom included. By definition, there is always less evidence for new drugs, and evidence from equivalence studies is not as convincing as evidence from placebo-controlled studies. Some specialists described themselves as keen to prescribe new medications. Many specialists said they needed the freedom to try other treatments.

2) Positive beliefs about the new guidelines for transmural care (Table 3)

Many specialists expressed that a more harmonized prescribing policy could emerge with transmural guidelines. Such guidelines can show what are the drugs of first choice, which is helpful for physicians not specialized in those areas.

Table 2: Examples of attitudes towards guidelines in general

"I never felt the need to consult guidelines. It doesn't have any additional value. We have our own list of drugs that we use."
"We look consciously at the literature and statements of the American Heart Association…"
"Specialists, like you and me, know everything about cardiovascular drugs, but a general practitioner has to know something about every disease and he doesn't know all. For them a guideline is very useful."
"I think that specialists in training will use such a guideline more often than people who work here for a longer time.
We know the drugs that are available for this department, we don't need a guideline. But…for example for antibiotics, I think we fall back on guidelines."
"...that is because of our patient population. We have to do something else, they usually had the standard treatment. They also expect that."
"Especially in a university hospital, you want to get a feeling for a new drug, you want to try it to see how it works .. what your experience is with that drug. You will lose that aspect."
"..the danger we are afraid of is that we lose our autonomy. I just want to have the possibility to prescribe a third, fourth or fifth option. Not that I do that, but I find the idea that somebody else decides that I am not allowed to do so very disturbing"

A regional policy was considered useful when taking over patients from another physician. As one specialist put it: "When patients are referred to you by a general practitioner, it is an advantage if they have been treated with drugs you are familiar with and would consider as first line treatment yourself". Another positive aspect attributed to a regional policy was that all physicians become familiar with the same drugs, which makes it easier to recognize and deal with possible adverse effects and interactions. A uniform policy could also make a better impression on patients. Several specialists saw it as an advantage that the transmural guidelines can be cost saving.

A few medical speciality and disease-specific issues emerged when comparing the data from different focus groups. Cardiologists and general internists mentioned that reduction of the number of different drugs prescribed, especially me-too's, could be an advantage of transmural guidelines. Gastroenterologists never mentioned this as a possible advantage. Regarding the guideline for gastric diseases, both gastroenterologists and general internists mentioned that it could help with rationalizing the use of proton-pump inhibitors. Such possible improvements in rational drug use were not mentioned for the other two treatment guidelines.

3) Negative beliefs about the new guidelines for transmural care (Table 3)

Many specialists feared that the new guidelines would be too restrictive. They feared that they would have to account for not following the guidelines.

Table 3: Examples of beliefs about new transmural treatment guidelines

Positive beliefs
"It would be nice if the northern region could have a consensus. Better cohesion among us, between physicians, between departments, and it makes a better impression on patients."
"If you can make agreements about prescribing not always proton pump inhibitors… that there is also room for H2-antagonists, than we are doing well in this region."
"When I get a patient from a general practitioner with a whole lot of drugs that I am not so familiar with, then I may not recognize all possible interaction problems. .. If some of these problems are excluded by these regional guidelines, it would be an improvement."
Negative beliefs
"I foresee you have to fill in 80 forms to show that this patient needed that drug. Do I have to justify, personally… well, big brother is watching you.
"You create that the industry will do less research. What can they do with a drug they won't sell? That is going to be a problem."
"You give one drug, and thus one manufacturer, a monopoly position. I think you'll become the toy of the industry. I don't think that is good."
"We are not taking part in a committee. There is danger that we are not heard and the committee might force their own preferences through."
"You can bet on it. It will be used politically, that it is no longer a guideline, but that it tells you what you must prescribe"
"..it is the intention of the government that health insurance companies will point out to the doctors that they have guidelines … that they should prescribe according to these guidelines."

This idea of personal justification and the extra work needed to explain why they have to deviate from the guidelines were considered a significant problem. Some specialists believed that these new guidelines are superfluous, because many treatment guidelines already exist.

According to most specialists, the aim of the new guidelines was mainly to reduce costs, which they saw as a negative aspect. They distrusted the involvement and intentions of the Ministry of Health and Health Insurance Companies. Most specialists did not feel involved, because their own department was not adequately represented in the committees developing the guidelines. Some felt that pharmacists were too much involved in the development of these new guidelines. Other specialists voiced their concerns about the influence of the pharmaceutical industry and the possibility of the development of a monopoly. They feared that the industries would try to influence the people developing the guidelines. Furthermore, some felt that the time set for developing the treatment guidelines (6 months) was too short. Another negative aspect seen by several specialists was that industries might lose interest in doing research in this region and will no longer sponsor courses and conferences when certain drugs are not included in the guidelines.

4) Integration with primary care

Some specialists expressed that developing transmural guidelines has the advantage that there is more communication about drug treatments with general practitioners. Most specialists believed that guidelines for transmural care could be useful to bring primary and secondary care more in line with each other, although they also believed that not much fine-tuning was needed. A few specialists reported they were sometimes confronted with a patient receiving an unfamiliar drug from a general practitioner. In The Netherlands, it is common practice that specialists explain their treatment or give advice in referral letters to the general practitioners. According to the specialists, the general practitioners usually follow their recommendations. Some specialists reported that occasionally a treatment intended for long-term use was not continued long enough in primary care. It seldom happened that a general practitioner or a pharmacist substituted a drug advised by a specialist. Several specialists said they may leave the specific drug choice to the general practitioner, giving advice to start treatment with, for instance, an angiotensin converting enzyme (ACE) inhibitor. In some cases, the general practitioner was regarded as the central person who can prevent undesirable combinations of drugs prescribed by different specialists to one patient.

5) Preconditions

A trustworthy representative from each group of specialists should be involved in the development of the guidelines. These specialists should be aware of representing their group, and not try to force their own preferences or those of certain pharmaceutical industries on others. Some specialists mentioned that there should be the possibility to react on the choices made in the guidelines. Others said that the choices should be well motivated, and this motivation should be clear to everyone. Furthermore, the guidelines have to be updated regularly: some say every 6 months, others think every 1 or 2 years is adequate.

Guidelines should not be too restrictive and must include more than one drug per drug group according to many specialists. This allows them to choose from several options, which are seldom fully equivalent. In addition, this prevents one industry getting a monopoly. The specialists said that guidelines should guide and not dictate practice. It must be possible to deviate. There should be room for a specialist to try new drugs or one specific drug for an individual patient who can not be treated according to guideline recommendations. Some specialists indicated that it is essential that specialists at all hospitals in the region, including the university hospital, accept the guidelines and will prescribe the same drugs.

6) Organizational factors

Specialists at one hospital expressed concerns regarding the new guidelines referring back to negative experiences with their hospital formulary. Others

mentioned that these new guidelines might be in conflict with existing treatment recommendations within their department or with guidelines from professional organizations. Some specialists said that they used their freedom of choice in the outpatient clinic to work with drugs that they were not allowed to prescribe within the hospital. A few had concerns that drugs not listed in the guidelines will not be easily available in the future, because pharmacies may not keep them in stock. Specialists at both teaching hospitals said that the standard treatments usually recommended in guidelines were not sufficient in their setting and that they needed other drugs for their patient population. Specialists at the university hospital in particular, focused on ways in which the guidelines could be used and misused when training residents. Specialists at the regional hospital said they tried to limit the number of different drugs they prescribed, because there were a lot of dispensing general practitioners in their region. For the same reason, they tried not to change their preferences too quickly.

7) Incentives and reinforcements

Specialists at the non-university hospitals mentioned the need for financial incentives. They felt they should get some reward for using the guidelines. As one specialist put it: "One way is to impose the guideline, the other way is to make it tempting". Incentives could be, for instance, paying for conferences or for an extra assistant at their department. One specialist however, commented that he could not be bribed to use a guideline he did not support. Many specialists said that savings from using the guidelines should be shared with all people involved.

Some specialists believed that feedback on performance might be useful for stimulating change. For instance, a specialist who always prescribes the most expensive drug, should receive some feedback on that. Others explicitly rejected the idea of being audited.

Discussion

This qualitative study revealed a large number of specialists' attitudes and beliefs regarding treatment guidelines, some of which have not been identified in other studies. In particular, beliefs regarding joint guidelines for primary and secondary care were previously unknown. The specific guidelines were not yet available at the time of the study, limiting the possibility to discuss barriers and facilitators for specific recommendations. However, most specialists were aware of the goals of the programme for transmural pharmacotherapy and of the development of joint treatment guidelines in their region. Early identification of possible barriers and facilitators to the use of such guidelines may help to focus the implementation process.

A possible weakness of this study is the small number of participants in some focus groups. Although more than 75% of the invited specialists participated in the

discussions, there were two groups with less than four participants. In all groups, however, negative attitudes as well as positive attitudes were expressed, resulting in lively discussions between participants.

Barriers could be identified at all four levels described in the literature. In Figure 1, the seven themes found are considered in relation to the different levels of barriers as shown in Table 1. With regard to the *content of the guideline,* only negative beliefs such as guidelines are too restrictive, were identified. Concerning preconditions for both the content and *development of the guideline*, the request for involvement in developing guidelines played an important role. The barriers identified were consistent with the literature [8-10,13,14] and will not be discussed extensively.

At the level of *the target population,* positive and negative consequences for themselves were expressed as well as the advantage of integration with primary care (see Figure 1). Several of the concerns expressed towards guidelines in general, such as the fear of losing autonomy and the belief that guidelines are not applicable to all patients, have also been reported previously [8-10,13,14]. Other barriers concerning the target population are rather new and will be discussed in more detail. Regarding using guidelines themselves in general, the specialists are fairly negative. This is in contrast to general practitioners in The Netherlands who usually see clinical guidelines as a useful tool [15-17]. It is possible that the specialists' attitudes towards a specific treatment guideline will be more positive than towards guidelines in general [9]. It seems, however, that the specialists in our study did not endorse the frequently advocated belief that evidence-based guidelines will improve the quality of the care they provide to their patients [13]. There are two underlying grounds for this. Firstly, the feeling of having expertise on a specific subject appears to be an important barrier for accepting recommendations from others. For diseases outside their own field of expertise, some specialists were more willing to use guidelines. Secondly, several specialists believed that their patients could not or did not want to be treated with the standard treatments recommended in guidelines. The need for guidelines to be evidence-based seems to conflict with the need felt by some specialists that they have to experiment with drugs in situations for which evidence may be incomplete. In particular, specialists from teaching hospitals mentioned that guidelines were not suitable for many individual patients. Both patient characteristics and clinical setting may limit the generalisability of guideline recommendations [18]. One could expect that 'problematic' patients are more often referred to the teaching hospitals. Apparently, dealing more frequently with patients for whom the guideline recommendations may not be valid, can have a large impact on the specialists' views on the utility of treatment guidelines in general.

Although the specialists did not perceive a need for using the guidelines themselves, they did expect several benefits from a uniform regional treatment

policy. It has been suggested that one of the barriers for implementing transmural guidelines is the difference in expertise and focus between primary and secondary care [1]. It seems, however, that the specialists did not object to the idea of developing joint treatment guidelines, but they saw these guidelines mostly as useful tools for general practitioners. In addition, a more general advantage was seen by some specialists with regard to a possible reduction in the number of different drugs used and cost savings. These advantages seem to be related to the therapeutic area. Reduction of the number of drugs was mentioned as an advantage when discussing treatment of cardiovascular diseases, but not when discussing treatment of gastric diseases. This is not surprising given the fact that in The Netherlands there are currently 14 betablocking agents, 13 calcium antagonists, 10 ACE inhibitors, and 6 ACE-II-inhibitors on the market, whereas there are only 5 H_2-antagonists and 4 proton-pump inhibitors available.

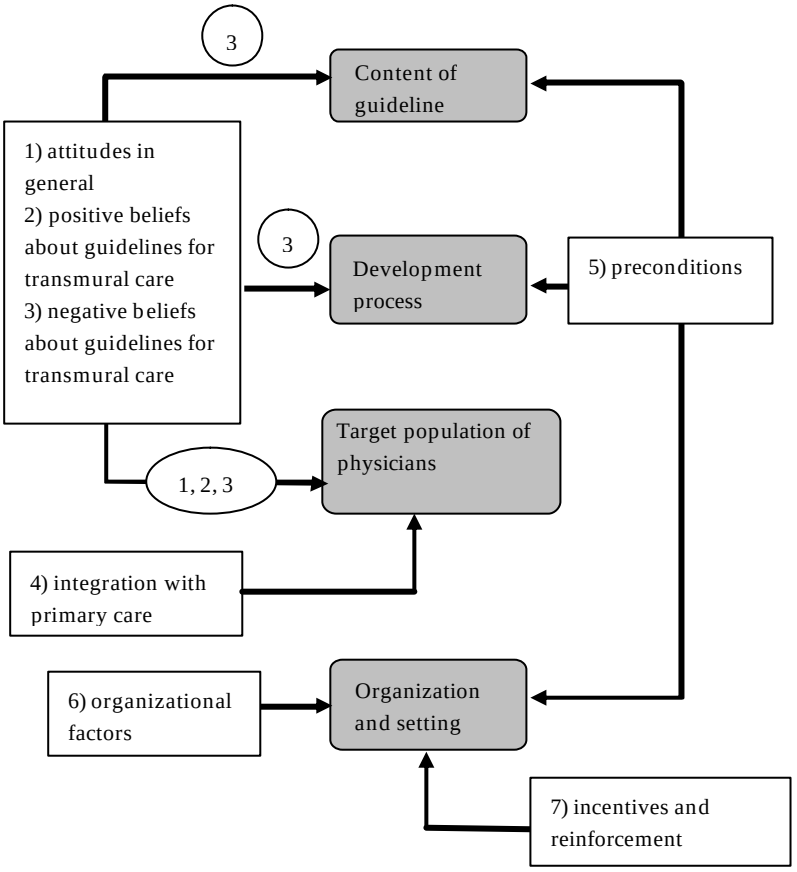
At the level of *organization and setting*, organizational barriers, preconditions, incentives and reinforcements were identified (see Figure 1). Barriers such as fear of increased work-load, fear of possible conflicts with existing agreements or guidelines, and conflicts with patients' wishes were known from the literature [9,13,14,19,20]. This was not the case for the expected negative consequences on research and conference opportunities sponsored by the industry. This may in part be due to the fact that many surveys have been carried out among general practitioners, whose personal involvement in such research is less common. In addition, physicians may have been reluctant in the past to acknowledge the importance of sponsoring by pharmaceutical industries. In our study, the specialists emphasized that nowadays much high quality research and many conferences depend on such sponsoring. Financial incentives, which were identified previously as a possible relevant facilitator in The Netherlands [1,10], were only mentioned by specialists working in private group practices who may receive a more direct benefit from such incentives. One of the barriers for implementing transmural treatment guidelines identified in a study among Dutch hospital pharmacists, i.e. different systems of drug reimbursement in primary and secondary care [1], was not seen as a barrier by the specialists in our study. Apparently, the specialists were not aware or concerned by such reimbursement problems.

Many of the concerns expressed are general barriers for using guidelines developed by others, and not specific for the newly developed guidelines for transmural care. Most barriers were not specific for the type of hospital, the medical speciality or the treatment subject.

Implications

Our research was explorative and focused on identifying possible barriers and facilitators for specialists to use transmural treatment guidelines.

Figure 1: Relationship between levels of known barriers to guideline implementation from literature and the seven themes found in this study. The numbers in the Figure correspond to the numbers of the seven themes in the results section.



Further research is needed to assess the views of general practitioners regarding their use of such guidelines. Based on the results from our study, a number of recommendations can be given regarding the implementation of transmural guidelines (Table 4). The actions suggested tie in with the preconditions and possible incentives or reinforcements mentioned by the specialists themselves to stimulate the use of these guidelines. Regarding the content and development process, the strategies are somewhat limited once the guidelines have been developed. Focusing on the target population, a variety of actions is possible [21]. According to theories of behavior and behavioral change, doctors should have a positive attitude towards guidelines before they are willing to adopt them. Beliefs that the recommended practice will lead to improvements, i.e. positive outcome

expectancies, are important for this attitude [22]. Doctors must learn about and agree with the guidelines, see the need to change, and feel able to change [9,23,24].
The specialists' concerns regarding the content of the guidelines should be considered in the perspective that they were not yet able to evaluate the actual guidelines. Inclusion of more than one drug per drug group and regular updates of the guidelines can remove some of the concerns expressed. To improve the involvement of specialists, trustworthy representatives should be chosen who confer with their colleagues. All physicians should have an opportunity to react on a draft of the guidelines. To counter the belief that the major aim of the developed guidelines is to reduce costs, the choices made in the guidelines should be clearly motivated using the evidence available. The guidelines should include explicit statements of its objectives and also give declarations of all possible conflicts of interest before and during guideline development.
It is expected that the specialists will not be very motivated to learn about the new guidelines or to accept any changes suggested, because they are satisfied with their current practice [25,26]. Audit and feedback can counter this problem by giving information about the current treatment provided to patients visiting both specialists and general practitioners. In addition, feedback on a regional level regarding the numbers and costs of drugs prescribed every year could be of some use. Most specialists do not consider guidelines as innovative and do not perceive that they contain new information for them, which may negatively affect their own active use of the guidelines [27]. Given the finding that the specialists were more positive about guidelines outside their own field of expertise, one could start with implementing those guidelines. Exposure to the guidelines in the context of clinical practice may lead to a more positive attitude towards the use of such guidelines [9]. Using the guidelines in education and training could contribute to this exposure. To avoid misuse, this training should focus on teaching students about the motivations underlying the guidelines. Furthermore, specialists may support the active use of the guidelines in general practice. An implementation programme with joint meetings of specialists and general practitioners may be worthwhile. This focuses on an aspect of the guidelines that is considered new, and makes use of the advantage seen by specialists of making joint agreements with general practitioners.
Finally, it is important to try to minimize or compensate for expected negative outcomes at organizational and financial level. For instance, motivated deviations from the guidelines should be possible without introducing an increase in administrative work. Non-recommended drugs should be supplied in specific cases. Savings from using the guidelines could be used to counter expected losses from industry-sponsored activities. It has been suggested before that supportive changes at economic and organizational levels are needed for successful implementation of transmural guidelines [1].

Table 4: Possible actions addressing identified barriers and facilitators for transmural guideline implementation

Level	Barriers and facilitators identified	Possible actions suggested
Content of guideline	a. Expecting the guideline to be too restrictive b. Expecting that the guideline will be outdated rapidly	a. Include more than one drug per drug group b. Update the guideline every year
Development process	a. Inadequate representation or involvement in developing the guideline b. Fearing that the major aim of the guideline is to reduce costs c. Being concerned with influence of other parties, such as pharmaceutical industries and health insurance companies	a1. Involve credible representatives who confer with their colleagues a2. Present guidelines as draft and give all doctors the opportunity to react b. Clearly state objectives and motivate choices made in the guidelines with evidence c. Declare all possible conflicts of interest before and during guideline development
Target population of doctors	a. Not believing that patient care will improve in own field of expertise b. Expecting reduction of the number of drugs and saving of costs c. Willing to use guidelines outside own field of expertise d. Believing that guidelines could be useful for specialists in training, but also fearing their misuse e. Believing that guidelines are useful for general practitioners f. Expecting positive effects from making joint agreements with general practitioners g. Believing that not all patients can be treated with standard treatment h. Fearing limitations in personal freedom of prescribing	a. Give audit and feedback on suboptimal current practice b. Give feedback on regional level regarding number and costs of drugs c. Start implementation of guidelines outside own field of expertise d. Use guidelines in a constructive way in education and training e. Involve specialists to support implementation in general practice f. Organize joint implementation meetings with specialists and general practitioners g. Allow for motivated deviations from the guidelines h. No action possible that ties in with suggestions made by the specialists

Table 4 (continued): Possible actions addressing identified barriers and facilitators for transmural guideline implementation

Level	Barriers and facilitators identified	Possible actions suggested
Organization and setting	a. Expecting increased bureaucracy regarding non-adherent prescribing b. Expecting a limited availability of non-recommended drugs c. Expecting loss of industry-sponsored activities d. Expecting cost savings for insurance companies e. Expecting that recommendations conflict with what patients want f. Expecting that recommendations may conflict with existing policies	a. Limit administrative workload needed to deviate from guideline recommendations b. Guarantee fast supply of non-recommended drugs for specific cases c / d. Use savings from adherence to guidelines to compensate for financial losses e / f. No action possible that ties in with suggestions made by the specialists.

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Topic guide for discussing hypertension guideline

What is the current situation? Do you have guidelines? Are they treatment guidelines? What is your opinion of those guidelines? Do you use those guidelines? Are there other specific guidelines for the treatment of hypertension?

What is your opinion of treatment guidelines in general? What do you think is good of treatment guidelines? What is not good? Can treatment guidelines give you support for prescribing medications for hypertension?

Is the use of treatment guidelines different for outpatient care?

Treatment guidelines are being developed in the region of Groningen intended for specialists and general practitioners. What do you think of these guidelines? What do you think is good regarding treatment guidelines for transmural care? What is not good? What do you think of a transmural guideline for treatment of hypertension?

Which characteristics of such guidelines are relevant for your consideration of using them?

What could be done in the organization or financially to encourage you to use the transmural guidelines?

Who might influence your use of transmural guidelines?