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### What is the diagnosis?

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medic students thoroughly enjoyed the teacher and mentor experience and found it to be very beneficial. They indicated that the programme had improved their interpersonal communication skills and reinforced their own skills and knowledge. They also enjoyed working in small groups as this built their confidence as mentors.

The secondary school students also enjoyed the programme and the rare insight it gave them into paramedic education and practice. They found the paramedic students to be very friendly, knowledgeable and approachable, and gained from their interaction with them.

The *Pathway to Paramedicine Programme* has proven to be very beneficial to both mentors and mentees. The success of the programme has seen it embedded into the undergraduate paramedic degree at Monash University. The programme has also expanded to include greater numbers and has been bolstered by the inclusion of the pre-training of mentors in basic teaching principles.

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## What is the diagnosis?

Wouter A A de Steenhuijsen Pijters, Joost Frenkel, Paul L P Brand & Martine F Raphael

**What problems were addressed?** Lifelong learning is a frequently cited goal in both undergraduate and postgraduate medical education, and repetitive testing has been shown to be effective in increasing factual knowledge and the retention of information.<sup>1</sup> By initiating a weekly, multicentre, quiz-based e-learning system in paediatrics, we integrated continuous learning into daily practice.

**What was tried?** Between May 2011 and March 2014, paediatricians, paediatric residents and researchers in paediatrics at three large (univer-

sity) hospitals in the Netherlands were given the opportunity to voluntarily subscribe to a weekly e-mail-based quiz entitled ‘What is the Diagnosis?’ (WitD?). The e-mail consisted of a brief clinical case description with an image or laboratory result on a general or subspecialty paediatric topic, and concluded with the question: ‘What is the diagnosis?’ Participants were requested to respond within 5 days, after which they were sent an e-mail containing the correct answer, a short explanation, relevant literature references for the diagnosis and a new WitD? case. This cycle was repeated every week.

**What lessons were learned?** Over the course of almost 3 years, a total of 100 WitD? cases were mailed. Within this period, the number of subscribers rose from 360 at the end of the first year to 632 in March 2014. Many subscribers participated irregularly. Across all cases, an average of 27 subscribers (4% of all subscribers; range: nine to 52 subscribers) submitted answers for each WitD? case. Of these, 41% were paediatricians, 43% were paediatric residents, 11% were researchers and 6% had other or unknown roles. Of all answers given, 66% were correct (63% in researchers, 65% in paediatricians and 67% in paediatric residents).

We observed a low response rate; however, many non-responders were exposed to WitD? cases in plenary settings such as clinical teaching rounds and morning reports.

Cases with a low number of participants generated fewer correct answers (< 20 participants: 25% correct answers) than cases with a high response rate (> 35 participants: 75% correct answers) (chi-squared test,  $p < 0.0005$ ). All answers were analysed anonymously to secure a safe learning environment, but anxiety associated with the submission of a wrong answer may still have caused some subscribers to hesitate in responding.

Its dependence on cases submitted by participants represents both a strength and a limitation of the WitD? approach. The method is ‘owned’ by its contributors, which ensures their engagement, but when time constraints and the non-binding request to submit cases led to the presentation of insufficient numbers of WitD? cases, the WitD? team scheduled participating centres to present new cases within predefined timeframes.

In conclusion, we successfully initiated a weekly, multicentre, e-mail-based quiz to promote knowledge acquisition in paediatrics. Despite a low response rate, we believe the WitD? tool represents a promising educational initiative to support individual and group learning processes in clinical reasoning.

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### Entrustable professional activities to enhance continuity of care

Lee Beng Ng & Matthew Ng Joo Ming

**What problem were addressed?** Poor documentation and inadequate communication among care team members and with patients can result in the poor transition of care for patients with multiple co-morbidities. The optimal integration of care requires effective collaboration to execute complex care plans within a multidisciplinary team. Timely advanced care planning can be delivered by a well-trained primary care team, the members of which communicate across the continuum of care with other providers. Junior physicians must be trained to address obstacles and to accomplish the desired quality care outcomes for patients and their families, and to optimise the delivery of transitional care.

**What was tried?** We delivered a 6-month training curriculum using entrustable professional activities (EPAs) to 10 junior physicians (defined as medical graduates aged 25–33 years, with 1–5 years of clinical experience) in a family medicine department which offers transitional care in two settings: an acute care hospital and a community hospital.

Five EPAs were identified as clinical tasks essential to maintaining continuity of care, namely: comprehensive discharge planning; formulating a complex care plan; chairing a multidisciplinary round; holding a family conference, and executing advance care planning.<sup>1</sup> We identified the competencies tested under each EPA and the knowledge, skills and attitudes required for each EPA.

Training was comprised of group sessions, each taken by a faculty champion for that particular EPA. Session formats ranged from group analysis of sample

case summaries to case-based discussions, video clips and role-play. On the ward, training was comprised of observation of faculty members chairing multidisciplinary rounds, conducting family conferences, and executing advance care planning on three occasions before physicians were allowed to perform the tasks under supervision. Physicians delivered care plans formulated after the presentation of a newly admitted patient to faculty staff and were given immediate feedback. For discharge documentation training, faculty staff went through completed discharge case summaries and gave feedback.

The physicians were assessed at baseline, and at 3 and 6 months using the standard EPA global entrustment levels of: 1 = not allowed to perform the EPA; 2 = needs proactive supervision; 3 = needs supervision on demand; 4 = can perform the task independently, and 5 = can supervise new staff.

**What lessons were learned?** One of the challenges referred to the need to manage individual call schedules and the workload of 10 physicians working at two sites. We scheduled training sessions after work hours to enhance reception and improve acceptance. Physicians cited the provision of dinner as a positive factor, but fatigue from the work day was cited as a barrier to their receipt of the curriculum.

The greatest challenge lay in achieving rating standardisation among faculty staff with differing levels of expectation. To achieve standardisation, faculty staff carried out pilot evaluations of the EPAs on the previous cohort of junior physicians attached to the department. Faculty members observed physicians executing an EPA in groups of two or three and gave individual ratings. For the discharge planning EPA, common discharge summaries were disseminated via e-mail for individual faculty ratings. Thereafter, faculty staff engaged in consensus discussion until a standard rating for each EPA was achieved.

We used 5-point scales for checklists of four or five 'demonstrable must haves' during EPAs to further aid the calibration of observed behaviours and provide a more objective basis for awarding the level of supervision.

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