

IS ENDOSCOPIC-SKILLS TRAINING IN A SKILLS LABORATORY NECESSARY? PERCEPTIONS OF UROLOGY PROGRAMME DIRECTORS IN THE NETHERLANDS

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INTRODUCTION

The increasing use of minimally invasive techniques in urology has sparked a strong interest in training methods and programmes for endoscopic-skills training (EST) [1–4]. Changes in EST should be underpinned by evidence of the acceptability and effectiveness of training programmes. A literature search on EST yielded only information embedded in surveys of practice patterns in endoscopy [5–10]. For Europe, three papers explicitly addressed the perceptions of urologists/trainees about EST and/or training facilities [5,7,10]. This is surprising considering the growing numbers of hands-on courses and training models that are offered and developed in Europe. Most studies concerned laparoscopy, although endourological procedures are also essential techniques for trainees to master.

The paucity of information about current EST necessitates preliminary steps before new training programmes can be developed and introduced. First, we need an inventory of current training methods that are to be supplemented or replaced by a new programme. It is important to also consider urologists' views of current and future training programmes. The inventory should be followed by validation of training models, which can then be implemented in training courses tailored to trainees' learning needs, as perceived by programme directors.

In March 2006, we sent a questionnaire about the current state of affairs in urology training and the use of simulators to all 22 urology programme directors in the Netherlands. The questionnaire had been piloted and consisted of three parts, i.e. demographics, descriptions and availability of training models and courses, and the directors' views of EST for postgraduate specialist trainees. Non-

responders were approached again in May 2006.

The questionnaire consisted of two parts: the first contained six questions about demographics and endoscopic procedures performed by the programme directors; in the second part, 14 questions and 11 statements were included about perceived shortcomings of current EST and recommended improvements. Response options were rank lists, Likert scales and visual analogue scales.

Of the 22 urology programme directors, 20 (91%) responded; 17 (85%) respondents performed endoscopic procedures and 12 (60%) taught endoscopic procedures (supervising in theatre, training on models in/outside their own hospital). Of respondents, 11 (55%) indicated that training models for EST were used in their hospital, varying from video instruction to skills-laboratory courses. EST was compulsory in eight of 13 of the hospitals or regions offering EST. Hospitals supporting and/or offering training programmes paid at least 70% of fees for compulsory courses according to 12 of the 13 hospitals.

Of respondents, eight (40%) doubted whether trainees' working hours were sufficient to gain adequate skills for certification. Another 40% had no doubts and four (20%) held a neutral view. Nine respondents failed to report the estimated hours of EST in their hospital and two respondents indicated being unable to give an estimate of the hours. Nine respondents (45%) gave a median (range) estimate of 16 (0–400) h/years; 10 of the 16 (63%) respondents thought training hours were not enough. Age and number of years as programme director were not significantly correlated with degree of concern (Spearman, $P=0.497$ and 0.920 , respectively), nor were performing or teaching endoscopic

procedures (Pearson chi square, $P=0.469$ and 0.978 , respectively).

All 20 respondents agreed that EST should be an integral part of specialist training; 18 wanted consensus-based guidelines for EST (two missing) and 14 of the 19 (74%, one missing) favoured programme coordination based on national consensus. Practical skills considered essential for postgraduate training by the programme directors varied from communication skills to anatomy and laparoscopic skills. Eighteen programme directors indicated that they favoured compulsory EST (two missing), provided standardized guidelines were available, and 16 (89%) rejected payment of training fees by trainees.

The median ratings of the effectiveness of EST training models ranged from 5.0 to 8.9 on a visual analogue scale (0, not effective; 10, very effective) (Fig. 1). The ratings were highest for the virtual-reality advanced procedural model (8.9) and the *in vivo* animal model (8.8) and lowest for the practice box/mannequin (5.0). The wide range of sds (0.52–2.8) reflects the variety in respondents' opinions.

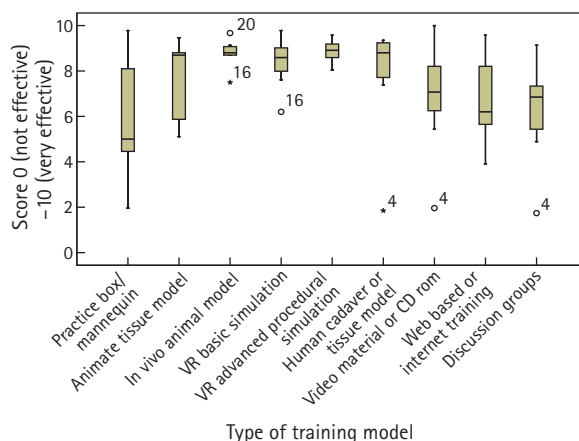
DISCUSSION

The paucity of published evidence might reflect the recent realisation that changes in procedural techniques call for changes in training. The high response rate (91%) of our survey suggests that the results offer a representative picture of urology programme directors' views of the current situation of EST in the Netherlands. Although equal proportions of programme directors (40%) regarded trainees' working hours as detrimental and not detrimental to the learning of endoscopic skills, 10 of the 16 (63%) programme directors thought compulsory training hours were too few.

Apparently, most programme directors perceive a need for improvements in EST, despite their reasonable satisfaction with current training. It is interesting that only 45% of respondents stated the annual number of hours of EST outside the operating theatre, whereas 65% indicated whether the hours of compulsory EST were sufficient or not.

Most of the programme directors thought EST can be best practised on live animal models.

FIG. 1.
The appraisal of training methods.



Despite the advantage of being realistic, these models are labour-intensive and expensive, and one might question whether their use for training purposes can currently be considered as ethically acceptable, especially as alternatives are available for many of the time-consuming details of procedures. Limited knowledge about training models might also explain the differences of opinion among the programme directors about the coordination and venue of training courses (locally, regionally, nationally). These findings support the importance of disseminating information about training models among programme directors.

In conclusion, urology programme directors consider EST an integral component of specialist training in urology, alongside the regular training programme. Despite the absence of unanimity on the most suitable training model, there was a general preference for the procedural virtual reality model and the live animal model. We recommend the use of validated training methods and further surveys of trainees' and

European programme directors' opinions on EST.

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CONFLICT OF INTEREST

None declared.

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Abbreviation: EST, endoscopic-skills training.