

Supplementary material

Appendix

Survey questions for gastroenterology residents

Demographic variables

1. Gender (m/f)
2. Age, ... years (free text)
3. Current gastroenterology residency year (GRY-1, GRY-2, GRY-3, GRY-4)
4. Educational region (dropdown list)
5. Name of current teaching hospital (dropdown list)
6. Previous teaching hospital(s) (yes/no)
7. If applicable: name of previous teaching hospital(s) (dropdown list)

Current endoscopy training program

1. I have already started the endoscopy training program (yes/no)
2. Start date endoscopy training program (free text)
3. I have previously participated in an endoscopy training program (yes/no/don't know)
4. If applicable: the endoscopy training program took place in ... (Rotterdam/Utrecht/elsewhere)
5. If applicable: specify elsewhere (free text)
6. The endoscopy training course is mandatory in my educational region (yes/no/don't know); only if answer to question 10 is 'yes'
7. If applicable: the preclinical endoscopy training course was useful in preparation for my training as an endoscopist (5-point Likert scale)
8. Before I started performing endoscopic procedures on patients, I had exposure to preclinical simulator training apart from a formal endoscopy training course (yes/no)
9. If applicable: number of preclinical simulator procedures, including fundamental skills exercises, I have performed apart from a formal endoscopy training course is approximately... (<10, 10–20, 20–50, 50–100, >100)
10. If applicable: preclinical simulator training was useful in preparation for my training as an endoscopist (5-point Likert scale)
11. The teaching hospital I performed my first endoscopic procedures in patients ... (dropdown list)
12. The first 50 endoscopic procedures I performed in patients were esophagogastroduodenoscopies / sigmoidoscopies / colonoscopies (multiple answers possible)
13. During the first colonoscopies I performed, the endoscopy trainer inserted the endoscope and I only performed the withdrawal (yes/no)
14. In my teaching hospital, the initial period under direct supervision (EPA level 2) is predefined and independent of the skills development of residents (yes/no/don't know)
15. In my teaching hospital, the initial period under direct supervision (EPA level 2) is predefined in (time / number of performed procedures/other); if answer to question 21 is 'yes'

16. The predefined period under direct supervision (EPA level 2) is approximately ... weeks (free text); if answer to question 22 is 'time'
17. The number of performed procedures during the period under direct supervision (EPA level 2) is approximately ... (free text); if answer to question 22 is 'number of performed procedures'
18. Specify other (free text); if answer to question 22 is 'other'
19. Which criteria are used to determine the transition from direct supervision (EPA level 2) to indirect supervision (EPA level 3) in your teaching hospital? (free text); if answer to question 21 is 'no'
20. At the moment of the transition from direct supervision (EPA level 2) to indirect supervision (EPA level 3) I felt sufficiently competent in performing endoscopic procedures under indirect supervision (5-point Likert scale)
21. At the moment of the transition from direct supervision (EPA level 3) to unsupervised practice (EPA level 4) I felt sufficiently competent in performing endoscopic procedures independently (5-point Likert scale)
22. Once I was allowed to perform endoscopies under indirect supervision (EPA level 3), the attending gastroenterologist rarely observed a complete procedure (5-point Likert scale)
23. Once I was allowed to perform endoscopies independently (EPA level 4), the attending gastroenterologist rarely observed a complete procedure (5-point Likert scale)
24. So far, I am satisfied with the way the endoscopy training program is organized in my teaching hospital (5-point Likert scale)

Perceived quality of endoscopy supervision

1. I am satisfied with the quality of endoscopy supervision in my teaching hospital (5-point Likert scale)
2. Endoscopy trainers in my teaching hospital are easily approachable to ask questions (5-point Likert scale)
3. Endoscopy trainers in my teaching hospital provide uniform endoscopy supervision (5-point Likert scale)
4. Endoscopy trainers in my teaching hospital are capable of teaching gastrointestinal endoscopic skills (5-point Likert scale)
5. Endoscopy trainers in my teaching hospital are capable of adequately assessing my level of competence as endoscopist (5-point Likert scale)
6. The level of endoscopy supervision in my teaching hospital is matching well with the level of competence of the endoscopist (5-point Likert scale)
7. I prefer more direct supervision than provided in my teaching hospital (5-point Likert scale)
8. Sometimes I go beyond the limits of my capacities during endoscopic procedures (5-point Likert scale)
9. Sometimes my supervisor takes over the scope without my agreement (5-point Likert scale)
10. Endoscopy trainers in my teaching hospital are supportive and compassionate in case of a complication during endoscopy (5-point Likert scale)

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11. Endoscopy trainers in my teaching hospital are open to feedback on the way they provide supervision (5-point Likert scale)
12. Before the start of an endoscopy program I discuss the patients on the list with my endoscopy trainer (5-point Likert scale)
13. After an endoscopy program I discuss the patients on the list with my endoscopy trainer (5-point Likert scale)
14. Before the start of an endoscopy program I formulate learning objectives together with my endoscopy trainer (5-point Likert scale)
15. After an endoscopy program I evaluate the predefined learning objectives with my endoscopy trainer (5-point Likert scale)
16. After an endoscopy program I formulate areas for improvement and/or new learning objectives with my endoscopy trainer (5-point Likert scale)
17. After endoscopy program endoscopy trainers are prepared to fill in a KPB or DOPS assessment form.

Training-the-endoscopy-trainer

1. Endoscopy trainers in my teaching hospital have received training in how to supervise endoscopy trainees (yes/no)
2. If applicable: approximately ... % of the endoscopy trainers in my teaching hospital have received such training (free text)
3. If applicable: specify (if known) the type of training and where this training took place (free text)

Open-ended questions

1. Positive aspects of the endoscopy training program in my teaching hospital are ... (free text)
2. Areas for improvement of the endoscopy training program in my teaching hospital are ... (free text)
3. This characterizes a good endoscopy trainer: ... (free text)
4. Less good qualities of an endoscopy trainer are: ... (free text)
5. Empty field to enter additional remarks: ... (free text)