

# COME VERIFICARE E MANTENERE LA CLINICAL COMPETENCE NELLE COLONSCOPIE DI SCREENING

*Romano Sassatelli – Gastroenterologia Endoscopia Digestiva*

**AOECI**  
**COMPREHENSIVE**  
Cancer Centre



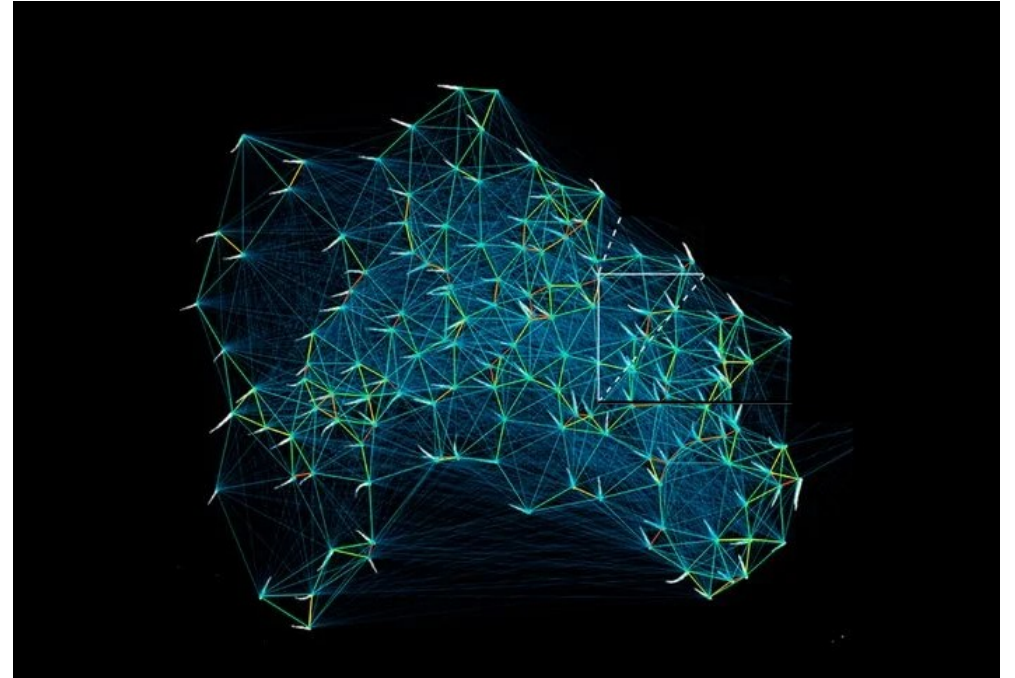
22 OTTOBRE 2024

SALA "20 MAGGIO 2012" TERZA TORRE  
VIALE DELLA FIERA 8, BOLOGNA

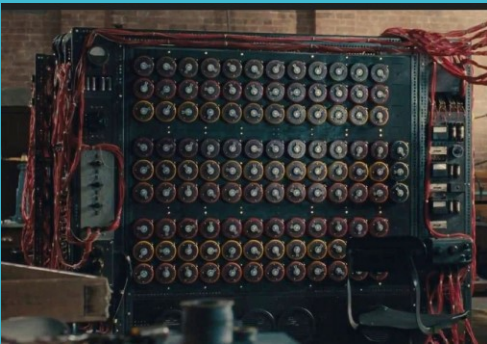




- KPI
- AI



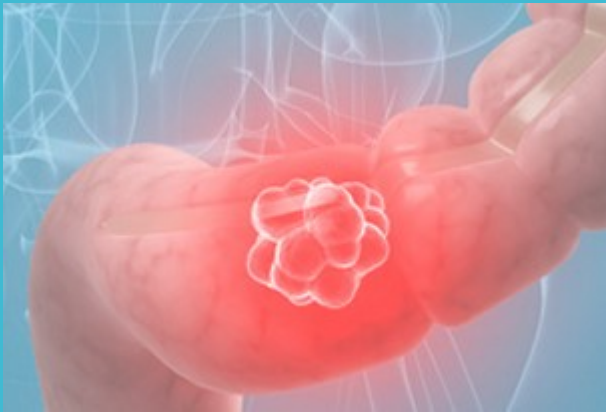
# Anche se comunque



- DK Rex  
Key quality indicators in  
colonoscopy  
Gastroenterol Rep 11, 2023
- JC Anderson, DK Rex  
Performing High-quality,  
safe, cost-effective and  
efficient basic colonoscopy in  
2023: advice from two experts  
Am J Gastroenterol 118, 2023
- K Mazanti Cold  
Computer-aided quality  
assessment of endoscopist  
competence during  
colonoscopy: a systematic  
review  
GIE 100 (2) 2024

# PCCRCs

*(post-colonoscopy  
colorectal cancers)*



# Focus la persona

**Endoscopy**

ORIGINAL ARTICLE

## Quality of colonoscopy in an organised colorectal cancer screening programme with immunochemical faecal occult blood test: the EQuPE study (Evaluating Quality Indicators of the Performance of Endoscopy)

Manuel Zaira,<sup>1</sup> Carlo Senese,<sup>2</sup> Filippo Da Re,<sup>3</sup> Alessandra Barca,<sup>4</sup> Lujaina Ada Bonelli,<sup>5</sup> Renato Carrizzano,<sup>6</sup> Renato Facci,<sup>7</sup> Lucia Di Furia,<sup>8</sup> Emilio Di Giulio,<sup>9</sup> Paola Mantellini,<sup>10</sup> Carlo Naldoni,<sup>11</sup> Romano Sassatelli,<sup>12</sup> Douglas Rex,<sup>13</sup> Cesare Hassan,<sup>14</sup> Marco Zappa,<sup>15</sup> the Equipe Working Group

**ABSTRACT**  
**Objectives** To assess variation in the main colonoscopy quality indicators in organised colorectal cancer (CRC) screening programmes based on faecal immunochemical test (FIT).  
**Design** Data from a case series of colonoscopies of FIT positive subjects were provided by 44 Italian CRC screening programmes. Data on screening history, endoscopic procedure and histology results, and additional information on the endoscopy centre and the endoscopists were collected. The adenoma detection rate (ADR) and caecal intubation rate (CIR) were assessed for the whole population and the individual endoscopists. To explore variation in the quality indicators, multilevel analyses were performed according to patient/centre/endoscopic characteristics.  
**Results** We analysed 75 549 (mean age 61.3 years; men 57%) colonoscopies for positive FIT performed by 479 endoscopists in 79 centres. ADR ranged from 13.5% to 75% among endoscopists (mean 44.8%). ADR was associated with gastroenterology specialty (OR: 0.87 for others, 95% CI 0.76 to 0.99) and, at the endoscopy centre level, with the routine use of sedation (OR: 0.80 if occasional <math><0.15\%</math>; 95% CI 0.66 to 1.00) and availability of screening-dedicated sessions (OR: 1.25; 95% CI 1.11 to 1.40). CIR ranged between 58.8% and 100% (mean 91.7%). Independent predictors of CIR at the endoscopist level were the yearly number of screening colonoscopies performed (OR: 1.21 for endoscopists with >400 colonoscopies; 95% CI 1.11 to 1.24) and, at the endoscopy centre level, screening-dedicated sessions (OR: 2.18; 95% CI 1.24 to 3.83) and higher rate of sedation (OR: 14.7 if occasional; 95% CI 0.24 to 0.92).  
**Conclusions** The quality of colonoscopy was affected by patient-related, endoscopist-related and centre-related characteristics. Policies addressing organisational issues should improve the quality of colonoscopy in our programme and similar programmes.

**INTRODUCTION**  
 Colorectal cancer (CRC) is a major cause of morbidity and mortality.<sup>1</sup> CRC screening with faecal

**What is already known on this subject?**

- Organised colorectal cancer screening programmes with immunochemical faecal test have been implemented in Europe.
- The quality of colonoscopy is critical for the overall success of these organised programmes.
- Adenoma detection rate and caecal intubation rate are the most important indicators of the quality of colonoscopy.

**What are the new findings?**

- In the Italian screening programme with immunochemical faecal test, the overall level of quality of colonoscopy was adequate, with the adenoma detection and caecal intubation rates being 45% and 93%, respectively.
- There was substantial variation among the endoscopists in both indicators. This variation was explained by at least three levels of predictors, namely at per-patient, per-endoscopist and per-centre levels.
- Gastroenterology specialty, sedation and the availability of screening-dedicated sessions were associated with the adenoma detection rate. Sedation, the availability of screening-dedicated sessions and the volume of screening colonoscopies were associated with the caecal intubation rate.

**How might it impact on clinical practice in the foreseeable future?**

- Policies addressing organisational issues, such as sedation, the availability of screening sessions and endoscopic retraining are likely to improve the overall quality of colonoscopy in this setting.

**KEYWORDS** adenoma detection rate, colorectal cancer, colonoscopy, endoscopy, gastroenterology, immunochemical faecal occult blood test, organised screening programme, quality indicators, screening-dedicated sessions, variation

Manuel Zaira, Carlo Senese, Filippo Da Re, Alessandra Barca, Lujaina Ada Bonelli, Renato Carrizzano, Renato Facci, Lucia Di Furia, Emilio Di Giulio, Paola Mantellini, Carlo Naldoni, Romano Sassatelli, Douglas Rex, Cesare Hassan, Marco Zappa, the Equipe Working Group

BMJ 2016;354:f444



Quality of colonoscopy was adequate, with the adenoma detection and caecal intubation rates being 45% and 93%, respectively. There was substantial variation among the endoscopists in both indicators. This variation was explained by at least three levels of Predictors, namely at per-patient, per-endoscopist and per-centre levels. ► Gastroenterology specialty, sedation and the availability of screening-dedicated sessions were associated with the adenoma detection rate. Sedation, the availability of screening dedicated sessions and the volume of screening colonoscopies were associated with the caecal intubation rate. ► Policies addressing organisational issues, such as sedation, the availability of screening sessions and endoscopist retraining are likely to improve the overall quality of colonoscopy in this setting

Il volume  
conta, però...



Kim, Cancer Res Treat 2024 Apr; Dong, J Gastrointestin Liver Dis 2021 ; 30 (3);  
Sapci, Am J Surg 2022 (223); Lu, JAMA open, Jan 31, 2023

## Initiatives to increase colonoscopy capacity – is there an impact on polyp detection? A UK National Endoscopy Database analysis

OPEN  
ACCESS

Authors

Liya Lu<sup>1,\*</sup>, Jamie Catlow<sup>1,2,3</sup>, Matthew D. Rutter<sup>1,2,‡</sup>, Linda Sharp<sup>1,‡</sup>, on behalf of the NED-APRIQOT study team<sup>†</sup>

# Workload

**Background** To address mismatch between routine endoscopy capacity and demand, centers often implement initiatives to increase capacity, such as weekend working or using locums/agency staff (insourcing). However, there are concerns that such initiatives may negatively impact quality. We investigated polyp detection for weekend vs. weekday and insourced vs. standard procedures using data from the UK National Endoscopy Database.

**Methods** We conducted a national, retrospective, cross-sectional study of diagnostic colonoscopies performed during 01/01–04/04/2019. The primary outcome was mean number of polyps (MNP) and the secondary outcome was polyp detection rate (PDR). Multi-level mixed-effect regression, fitting endoscopist as a random effect, was used to examine associations between procedure day (weekend/weekday) and type (insourced/standard) and these outcomes, adjusting for patient age, sex, and indication.

**Results** 92 879 colonoscopies (weekends: 19 977 [21.5%]; insourced: 9 909 [10.7%]) were performed by 2 496 endoscopists. For weekend colonoscopies, patients were less often male or undergoing screening-related procedures; for insourced colonoscopies, patients were younger and less often undergoing screening-related procedures (all  $P < 0.05$ ). Fully adjusted MNP was significantly lower for weekend vs. weekday (incidence rate ratio [IRR] 0.86 [95%CI 0.83–0.89]) and for insourced vs. standard procedures (IRR 0.91 [95%CI 0.87–0.95]). MNP was highest for weekday standard procedures and lowest for weekend insourced procedures; there was no interaction between procedure day and type. Similar associations were found for PDR.




**Conclusions** Strategies to increase colonoscopy capacity may negatively impact polyp detection and should be monitored for quality. Reasons for this unwarranted variation require investigation.



OPEN ACCESS

Guideline review

# JAG consensus statements for training and certification in colonoscopy

Keith Siau,<sup>1,2</sup> Stavroula Pelitari,<sup>3</sup> Susi Green,<sup>4</sup> Brian McKaig,<sup>5</sup> Arun Rajendran,<sup>6</sup> Mark Feeney,<sup>7</sup> Mo Thoufeeq,<sup>8</sup> John Anderson ,<sup>9</sup> Vathsan Ravindran,<sup>10</sup> Paul Hagan,<sup>11</sup> Neil Cripps,<sup>12</sup> Ian L P Beales,<sup>13,14</sup> Karen Church,<sup>15</sup> Nicholas I Church,<sup>16</sup> Elizabeth Ratcliffe,<sup>17,18</sup> Said Din,<sup>19</sup> Rupert D Pullan,<sup>20</sup> Sharon Powell,<sup>21</sup> Catherine Regan,<sup>21</sup> Wee Sing Ngu,<sup>22</sup> Eleanor Wood ,<sup>23</sup> Sarah Mills,<sup>24,25</sup> Neil Hawkes,<sup>26</sup> Paul Dunckley,<sup>27</sup> Marietta Iacucci,<sup>2,28</sup> Siwan Thomas-Gibson ,<sup>25,29</sup> Christopher Wells,<sup>30</sup> Aravinth Murugananthan,<sup>5,31</sup> On behalf of the Joint Advisory Group on Gastrointestinal Endoscopy (JAG)






# Definire la competenza

**1.1: Competence in colonoscopy is defined as the ability to perform colonoscopy, including all relevant peri-procedural and post-procedural aspects consistent with current BSG colonoscopy best practice standards and guidelines**

Evidence: **Very low**; Recommendation: **Strong**;  
Agreement: **100%**

Competence in endoscopy may be defined as the ability to independently carry out procedures in a safe and effective manner, and across a spectrum of case difficulties and case contexts. For colonoscopy, this should cover the necessary periprocedural and post-procedural aspects according to national standards, set by the JAG,<sup>10</sup> the BSG and the ACPGBI.<sup>3</sup> The UK standards for colonoscopy published in 2016 contain guidance on the minimum key performance indicators (KPIs) required for competent colonoscopy.<sup>3</sup> Guidance for tattoo placement and biopsies for chronic diarrhoea should be followed. On review by the working group, KPIs appropriate to reflect trainees' performance summarised in [table 2](#).

# Standards

Quality indicator	Minimal standard (where exists)	Aspirational target (where applicable)
<b>For individual operators</b>		
Number of procedures per year (Including those directly supervising a trainee within the room)	100	150
 Digital rectal examination	100%	
Unadjusted caecal intubation rate*	90%	95%
Terminal ileal intubation rate in % (for information only)		
Polyp detection rate**	15%	20%
Polyp retrieval rate	90%	
Withdrawal time	6 minutes	10 minutes
Rectal retroversion rate	90%	
Comfort score***	<10% moderate or severe discomfort	
Median dose (Age <70) Midazolam	≤5mg	
Median dose (Age <70) Pethidine	≤50mg	
Median dose (Age <70) Fentanyl	≤100mcg	
Median dose (Age >70) Midazolam	≤2mg	
Median dose (Age >70) Pethidine	≤25mg	
Median dose (Age >70) Fentanyl	≤50mcg	
Greater than recommended dose of sedation	0	
Unsedated procedures in % (For interpretation of other results only)		
<b>For the whole service</b>		
Bowel preparation adequate or above for each different regime ****	90%	95%

Numero minimo di colonscopie in autonomia per ESGE: 280

# Trainee

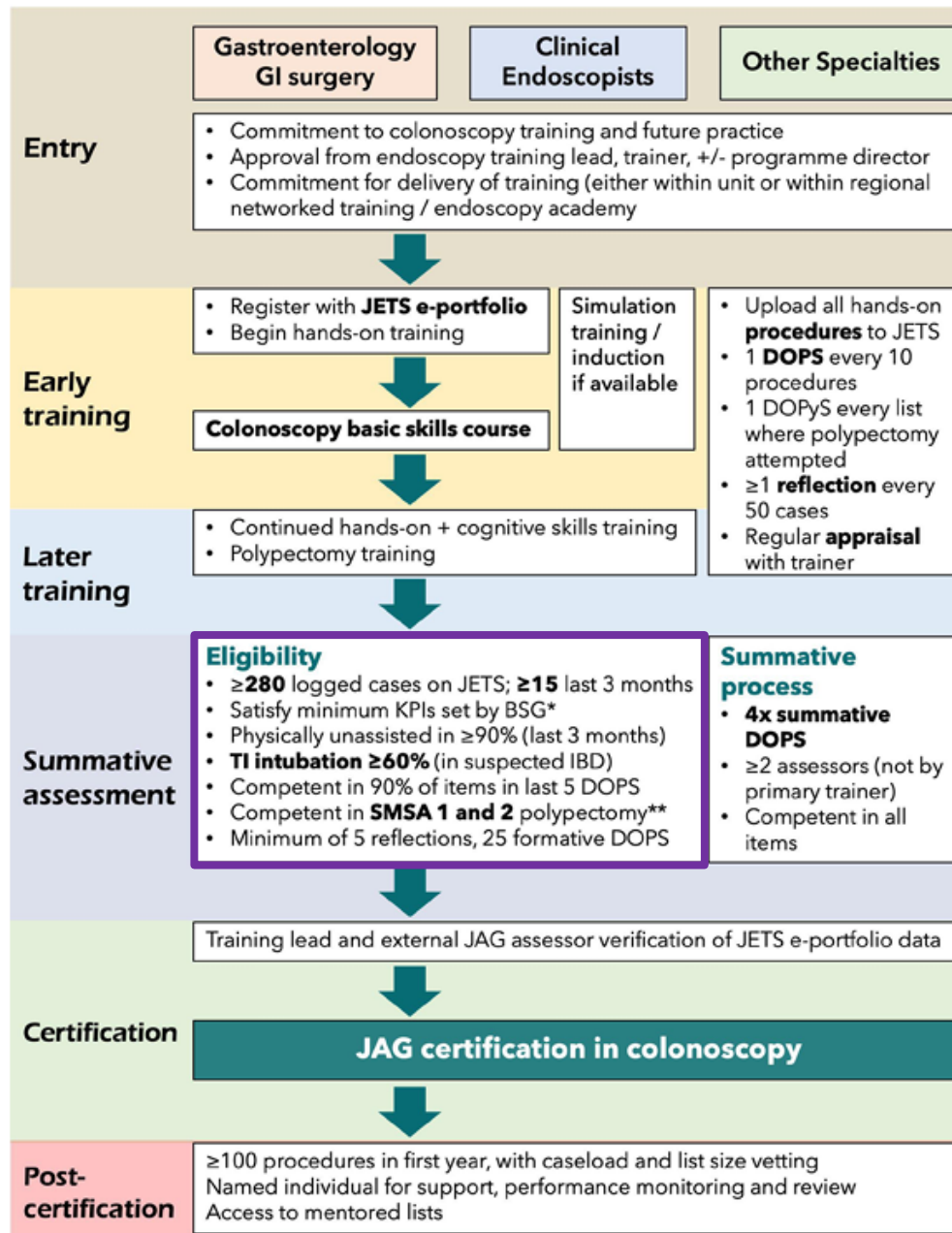
**Table 2** Trainee-relevant key performance indicators (KPIs) in colonoscopy (extrapolated from the UK quality standards document by Rees *et al*)<sup>3</sup>

<b><i>KPIs</i></b>	<b><i>Minimal standards</i></b>
Unassisted caecal intubation rate (CIR)	>90%
Rectal retroversion	>90%
Adenoma detection rate*	>15%
Polyp retrieval rate	>90%
Patient's comfort	<10% mod-severe discomfort

This excludes KPIs which may be primarily influenced by the trainer, for example, sedation doses, withdrawal time, adenoma detection rate.

\*Polyp detection rate may be used as a substitute.

# IL PERCORSO



# Cosa sa fare l'endoscopista competente

**1.3: Competence in colonoscopy requires the ability to recognise normal findings, describe and document abnormal findings and take appropriate action.**

Evidence: **Very Low**; Recommendation: **Strong**;  
Agreement: **100%**

**1.4: Competent endoscopists in colonoscopy should be able to demonstrate endoscopic non-technical skills (ENTS) as defined in DOPS and DOPyS.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

**1.5: Competence in colonoscopy includes the ability to identify and manage immediate and late complications of the procedure demonstrating effective clinical, endoscopic and non-technical skills (ENTS) to coordinate subsequent action.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

**1.6: Competent endoscopists should be able to recognise the adequacy of the endoscopic procedure performed and recommend subsequent action.**

Evidence: **Very low**; Recommendation: **Strong**;  
Agreement: **100%**

**1.7: Competence in polypectomy should be based on achieving all competencies defined in the DOPyS form rather than a set minimum number of procedures.**

Evidence: **Very low**; Recommendation: **Strong**;  
Agreement: **96%**

**1.8: Competent endoscopists should be able to define the difficulty level of polypectomy using the SMSA scoring system.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **96%**

**1.9: Endoscopists should be able to competently document polyps using the Paris classification.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

**1.10: Endoscopists should competently use at least one validated optical diagnosis system to classify and document polyps.**

Evidence: **Moderate**; Recommendation: **Strong**;  
Agreement: **100%**

# ENTS

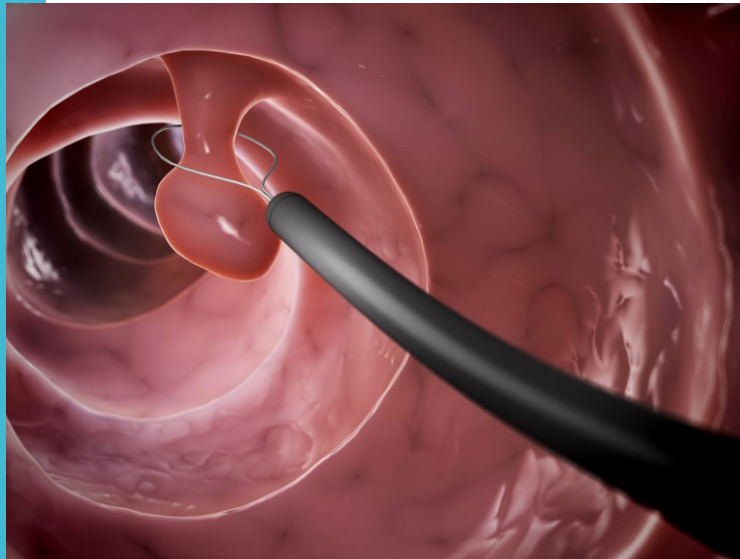
## Endoscopic Non Technical Skill



*Competenze cognitive,  
interpersonali e sociali che  
consistono soprattutto di  
capacità di comunicazione,  
di lavoro di squadra, di  
consapevolezza  
situazionale, di leadership,  
di capacità di giudizio e di  
prendere decisioni*

# SMSA

(Application of SMSA divides complexity of polypectomy into four levels: level 1 (4–5), level 2 (6–8), level 3 (9–12), and level 4 (>12).



**Table 1**  
SMSA scoring system.

	Benchmarks	Points
Size	<1 cm	1
	1–1.9 cm	3
	2–2.9 cm	5
	3–3.9 cm	7
	>4 cm	9
Morphology	Pedunculated	1
	Sessile	2
	Flat	3
Site	Left	1
	Right	2
Access	Easy	1
	Difficult	3

Level 1: 4–5 points. Level 2: 6–9 points. Level 3: 10–12 points. Level 4: >12 points.



E ancora...

**1.11: Endoscopists in colonoscopy should be competent to perform safe and effective polypectomy of SMSA level 2 polyps as a minimum.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

**1.12: Endoscopists must be able to competently demonstrate safe and appropriate use of diathermy relevant to polypectomy.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

**1.13: Endoscopists should be able to competently manage post-polypectomy perforation and bleeding using endoscopic clips and at least one other method of haemostasis while demonstrating relevant ENTS.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **100%**

# Come acquisire la competenza JAG

Recommendation statement	Level of evidence	Strength
2.1 Lower GI endoscopy training should take place in a unit that maintains its training environment to JAG standards.	Very low	Weak
2.2 Colonoscopy trainers should meet colonoscopy standards as defined by JAG GRS and BSG quality standards.	Low	Strong
2.3 The training programme should include opportunities to gain experience and competencies in ENTS.	Low	Strong
2.4 Trainees in colonoscopy should attend a JAG approved Basic Skills in Colonoscopy course during training.	Low	Strong
2.5 Lower GI endoscopy trainees should apply for a JAG approved basic skills course at the start of LGI endoscopy training and attend this within their first 70 procedures.	Low	Strong
2.6 Virtual reality simulation training for endoscopic technical skills is encouraged in conjunction with conventional endoscopy training to enhance development of early endoscopic technical skills. Trainee simulator-based training should be directly supported by appropriately skilled trainers/supervisors.	Moderate	Strong
2.7 Training in polypectomy should start early during basic colonoscopy training and continue in parallel with this.	Very low	Strong
2.8 Attendance at a hands on (tissue/tissue-like) model endoscopy course with exposure to differing polyp resection techniques, submucosal injection techniques, haemostatic therapy and tattooing is encouraged.	Very low	Strong
2.9 Polypectomy training should include skills acquisition in cold snare, hot snare and basic lift assisted polypectomy to a minimum of SMSA level 2.	Low	Strong
2.10 Trainees should receive training in Paris polyp classification and validated optical diagnosis systems. When available, supportive web-based training tools should be used and any relevant modules completed prior to the basic skills course.	Moderate	Strong

Recommendation statement	Level of evidence	Strength
2.11 Appropriate discussion and reflection related to polyp classification and management should occur throughout training.	Very low	Strong
2.12 All parameters described in DOPS/DOPyS should be included during skills training.	Very low	Strong
2.13 Water-assisted insertion techniques may improve patient comfort levels and technical success, and should form part of training in colonoscopy.	Low	Weak
2.14 Where available, magnetic endoscopic imaging should be used for colonoscopy training and should be preferentially used for training lists.	Low	Weak
2.15 A trainee should undertake a minimum of 280 colonoscopy procedures to be eligible for summative assessment in colonoscopy.	Low	Strong
2.16 Trainees who hold JAG certification in flexible sigmoidoscopy should have a minimum of 200 lifetime colonoscopy procedures to be eligible for summative assessment in colonoscopy.	Very low	Strong
2.17 A trainee should have a minimum number of dedicated training lists as defined by the JAG training standards.	Low	Strong
2.18 It is recommended that a trainee should receive a minimum of one DOPS per training list.	Low	Weak
2.19 It is recommended that a minimum of one DOPyS should be completed for every training list where a polypectomy has been attempted by a trainee.	Low	Weak
2.20 Trainees must complete a reflection tool on JETS every 50 procedures. This forms a framework for meetings with their endoscopy supervisor every 6 months or less.	Low	Strong

# Competence assessment

Recommendation statement	Level of evidence	Strength
3.1 DOPS should be used as the competency assessment tool in lower gastrointestinal endoscopy.	Low	Strong
3.2 Each formative DOPS should be performed on a single pre-selected case.	Low	Strong
3.3 The last 5 DOPS prior to summative assessment must be rated competent without supervision in >90% of all items, with none requiring maximal or significant supervision.	Low	Strong
3.4 DOPyS should be used as the polypectomy competency assessment tool for both technical and non-technical skills.	Low	Strong
3.5 For competence at SMSA Level 1 polypectomy, a minimum of 2 SMSA Level 1 DOPyS should be competently performed using the following methods: cold snare polypectomy, diathermy-assisted resection of stalked polyps and diathermy-assisted EMR. The last 4 DOPyS (Level 1) should score 'competent for independent practice' in all items.	Very low	Strong
3.6 For competence at SMSA Level 2 polypectomy, a minimum of 2 SMSA Level 2 DOPyS should be competently performed for each of the following methods: cold snare polypectomy, diathermy-assisted resection of stalked polyps and diathermy-assisted EMR. The last 4 DOPyS (level 2) should score 'competent for independent practice' in all items.	Very low	Strong
<p>3.7 Eligibility for summative assessment in colonoscopy may be triggered once the following are met:</p> <ol style="list-style-type: none"> <li>1. Meeting criteria for BSG standards for competence in colonoscopy relevant to trainees—averaged over a 3-month period (ie, unassisted caecal intubation rate 90%+, rectal retroversion 90%+, polyp detection rate 15%+, polyp retrieval rate 90%+, patient comfort: &lt;10% with moderate–severe discomfort)</li> <li>2. Attaining minimum colonoscopy procedure count of 280 (200 if certified in flexible sigmoidoscopy)</li> <li>3. Have performed at least 15 procedures over the last 3-month period</li> <li>4. Attendance of JAG Basic Skills in Colonoscopy course</li> <li>5. Terminal Ileum intubation rates (60%+ in suspected IBD)</li> <li>6. Meeting formative DOPS and DOPyS requirements <ul style="list-style-type: none"> <li>– Minimum of 25 formative DOPS</li> <li>– Last 5 DOPS rated competent without supervision for 90%+ of all items</li> <li>– Evidence of competency in SMSA level 1 polypectomy</li> <li>– Evidence of competence in SMSA level 2 polypectomy</li> </ul> </li> <li>7. Evidence of engagement with the JETS reflection tool (minimum of 5 reflection entries)</li> </ol>	Low	Strong
3.8 For successful completion of the summative DOPS assessment, the trainee should be rated as 'ready for independent practice' in all items within four DOPS by a minimum of two different assessors who are not the trainee's usual trainer.	Low	Strong

# Mantenere la competence

Postcertification support



**4.1: Newly certified endoscopists should have access to a named individual and meet on a regular basis to discuss cases and to review progress.**

Evidence: **Very Low**; Recommendation: **Strong**;  
Agreement: **96%**

**4.2: Endoscopy departments should have systems in place to ensure appropriate list size and case load selection for newly certified endoscopists.**

Evidence: **Very Low**; Recommendation: **Strong**;  
Agreement: **96%**

**4.3: Certified endoscopists should perform at least 100 procedures a year to maintain competence.**

Evidence: **Very Low**; Recommendation: **Strong**;  
Agreement: **100%**

**4.4: Certified endoscopists should have access to mentored lists.**

Evidence: **Low**; Recommendation: **Strong**; Agreement: **91%**



## Altri step



- Training in basic gastrointestinal procedures (ESGE+ESGENA, 2023)
- SIED-GISCOR recommendations for colonoscopy in screening (DLD2024)
- Endoscopic submucosal dissection technique and technology (ESGE 2024)
- Colorectal polypectomy and endoscopic mucosal resection (ESGE 2024)

# Under Performers

Table 1: Framework for identifying and managing underperformance in endoscopy.

Issue	Identifying underperformance	Managing underperformance			
Endoscopic (technical) skills	<ul style="list-style-type: none"> <li>National data collection (ERS, BCS, NED)</li> <li>Local expectation to audit against KPIs as part of GRS</li> <li>'Good Medical Practice' placing responsibility on the individual to self-audit and use CPD to ensure personal development as part of PDP</li> <li>Endoscopy governance</li> <li>Self-reporting</li> </ul>	<ul style="list-style-type: none"> <li>Verify issue and communicate concerns.</li> <li>Risk stratification (based on severity and chronicity of underperformance)                             <ul style="list-style-type: none"> <li>Low: Inform and re-evaluate</li> <li>Moderate: Mentorship, internal support, reducing list size and not allowing the individual to train others so that they focus on their own performance. PDP to identify learning needs and agree support model with their appraiser or mentor</li> <li>Severe: Peer-review of technical skills; review privileges for independent endoscopy.</li> </ul> </li> <li>Mentorship in screening (with a cohort trained through SAAS).</li> <li>Attendance at upskilling courses; formal evaluation using DOPS assessments.</li> </ul>	Behaviours	<ul style="list-style-type: none"> <li>Peer-feedback as part of revalidation for doctors and nurses</li> <li>Individual concerns raised by staff members or patients</li> <li>Endoscopy governance</li> <li>Self-reporting</li> </ul>	<ul style="list-style-type: none"> <li>Would sit within the professional conduct framework, hence could be managed:                             <ul style="list-style-type: none"> <li>locally by a QA lead</li> <li>within a directorate or division to provide externality and appropriately trained individuals to support</li> <li>medical director's office through the Maintaining High Professional Standards Framework, depending on severity, chronicity.</li> </ul> </li> <li>Core to the approach is appropriate data collection (MSF / 360), supported discussions and reflection, simulation based training and access to external programmes, with the use of a formal process of conduct only in very extreme cases, with a plan for remediation.</li> <li>Non-technical skills training.</li> </ul>
Health	<ul style="list-style-type: none"> <li>Self-reporting and appraisal as routes to identify concerns</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health, eg ergonomics review / engagement with GP / use of external resources eg NHS Practitioner Health Programme.</li> <li>For those with lack of insight, this would sit under the medical director's office who would provide support, or with a director of nursing.</li> </ul>	Extrinsic	<ul style="list-style-type: none"> <li>GRS as a measure of whole unit performance and standard setting</li> </ul>	<ul style="list-style-type: none"> <li>Local and GRS driven systems to define the model of a good unit and support / advise on managing this.</li> <li>JETS Workforce programme to upskill endoscopy assistants and improve unit quality.</li> </ul>

# DOPs



Date of procedure			
Trainee name		Membership no. (eg. GMC/NMC)	
Trainer name		Membership no. (eg. GMC/NMC)	
Outline of case			
Difficulty of case	Easy	Moderate	Complicated
Please tick appropriate box			

Level of supervision	Maximal supervision	Significant supervision	Minimal supervision	Competent for independent practice	Not applicable
Complete DOPS form by ticking box to indicate the appropriate level of supervision required for each item below. Constructive feedback is key to this tool assisting in skill development.	Supervisor undertakes the majority of the tasks/decisions & delivers constant verbal prompts	Trainee undertakes tasks requiring frequent supervisor input and verbal prompts	Trainee undertakes tasks requiring occasional supervisor input and verbal prompts	no supervision required	
Pre-procedure					
Indication					
Risk					
Confirms consent					
Preparation					
Equipment check					
Monitoring					
Sedation					
Comments					
Procedure					
Scope handling					
Tip control					
Air management					
Proactive problem solving					
Loop management					
Patient comfort					
Pace and progress					
Visualisation					
Comments					
Management of findings					
Recognition					
Management					
Complications					

Level of supervision	Maximal supervision	Significant supervision	Minimal supervision	Competent for independent practice	Not applicable
Post-procedure					
Report writing					
Management plan					
Comments					
ENTS (endoscopic non-technical skills)					
Communication and teamwork					
Situation awareness					
Leadership					
Judgement and decision making					
Comments					
Learning Objectives for the next case					
The objectives should be added to the trainee's personal development plan (PDP) once DOPS is completed					
1.					
2.					
3.					
Overall Degree of Supervision required	Maximal Supervision	Significant Supervision	Minimal Supervision	Competent for independent practice	
	Supervisor undertakes the majority of the tasks/decisions & delivers constant verbal prompts	Trainee undertakes tasks requiring frequent supervisor input and verbal prompts	Trainee undertakes tasks requiring occasional supervisor input and verbal prompts	no supervision required	
Please tick appropriate box					

Date of procedure	
Trainee name	
Trainer name	
Polyp type	
Please tick appropriate box	
Polyp site	
Difficulty of case	Easy
Please tick appropriate box	

Level of supervision	Maximal supervision
Complete DOPyS form by ticking box to indicate the appropriate level of supervision required for each item below. Constructive feedback is key to this tool assisting in skill development.	Supervisor undertakes the majority of the tasks/decisions & delivers constant verbal prompts

**Optimisation**

Achieves optimal polyp views and position	
Determines full extent of lesion	
Adjusts/stabilises scope position	
Chooses appropriate polypectomy technique	
Checks equipment and snare closure prior to insertion	
Checks appropriate diathermy settings	
Uses appropriate polypectomy technique	
Photo-documents pre and post polypectomy	
Comments	

Selects appropriate snare size	
Directs snare accurately over polyp head	
Correctly selects en-bloc or piecemeal removal depending on size	
Advances snare sheath towards stalk as snare closed	

Level of supervision	Maximal supervision
Places snare at appropriate position on the stalk	
Mobilises polyp and applies appropriate degree of diathermy	
Comments	
<b>Small sessile lesion</b>	
Adequate sub mucosal injection	
Checks lesion lifts adequately	
Selects appropriate snare size	
Directs snare accurately over the lesion	
Correctly selects en-bloc or piecemeal removal depending on size	
Appropriate positioning of snare over lesion as snare closed	
Tents lesion gently away from the mucosa	
Uses cold snare technique or applies appropriate diathermy	
Ensures adequate haemostasis prior to further resection	
Comments	
<b>Large sessile lesion</b>	
Examines remnant stalk/polyp base	
Identifies and appropriately treats residual polyp	
Identifies bleeding and performs adequate endoscopic hemostasis if appropriate	
Retrieves, or attempts retrieval of polyp	

Level of supervision	Maximal supervision	Significant supervision	Minimal supervision	Competent for independent practice	Not applicable
Places tattoo competently, where appropriate					
Comments					
ENTS (endoscopic non-technical skills)					
Communication and teamwork					
Situation awareness					
Leadership					
Judgement and decision making					
Comments					
Learning Objectives for the next case					
The objectives should be added to the trainer's personal development plan (PDP) once DOPyS is completed					
1.					
2.					
3.					
Overall Degree of Supervision required	Maximal Supervision	Significant Supervision	Minimal Supervision	Competent for independent practice	
	Supervisor undertakes the majority of the tasks/decisions & delivers constant verbal prompts	Trainee undertakes tasks requiring frequent supervisor input and verbal prompts	Trainee undertakes tasks requiring occasional supervisor input and verbal prompts	no supervision required	
Please tick appropriate box					

DOPys



# Visione globale



Royal College of Physicians

**JAG** Joint Advisory Group on GI Endoscopy

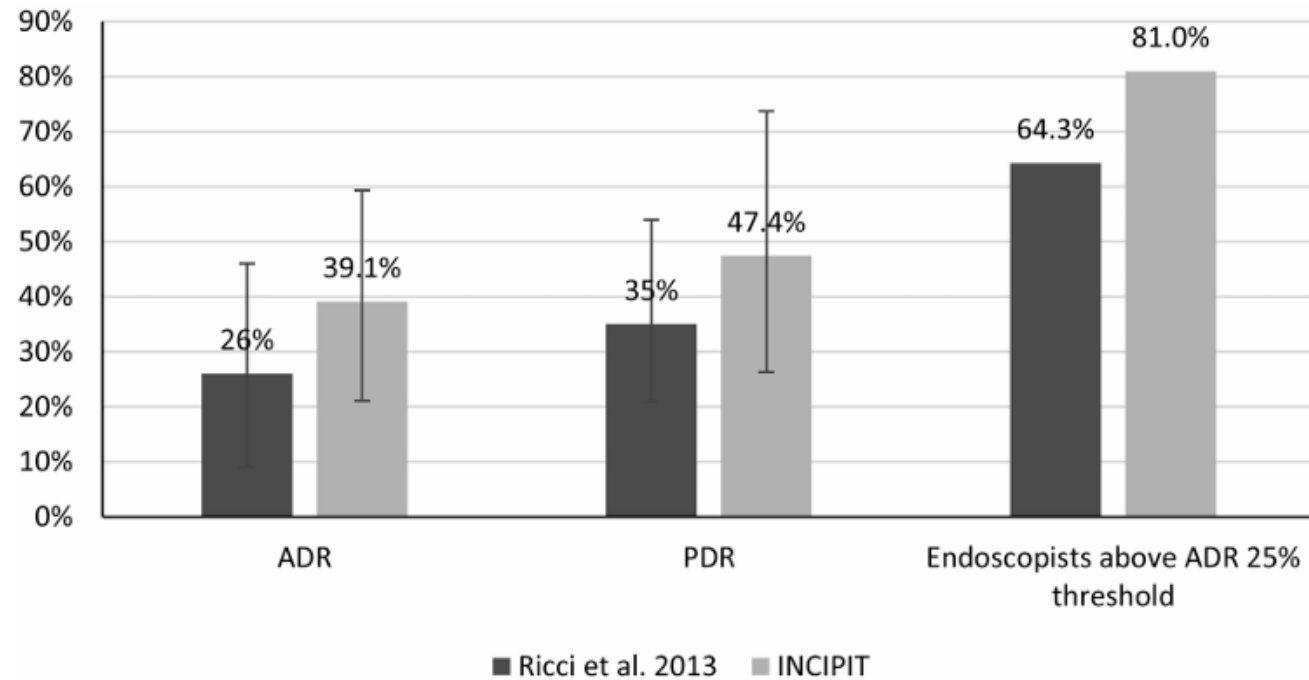
JAG accreditation  
Global rating scale (GRS)  
for UK services

Published: 2021 | Updated 2023

Accreditamenti  
(SIED, Regionali di screening...)



# Evidence



**Fig. 1.** Comparison of adenoma detection rate (ADR), polyp detection rate (PDR), and endoscopists above the ADR 25% threshold here and in the study by Ricci et al. from 2013. Error bars represents ADR and PDR ranges among endoscopists.

Testoni, DLD 55 (2023)

# Impact of a scalable training program on the quality of colonoscopy performance and risk of postcolonoscopy colorectal cancer



Douglas A. Corley, MD, PhD,<sup>1,\*</sup> Christopher D. Jensen, PhD, MPH,<sup>1,\*</sup> Jeffrey K. Lee, MD, MPH,<sup>1</sup> Theodore R. Levin, MD,<sup>1,2</sup> Wei K. Zhao, MPH,<sup>1</sup> Joanne E. Schottinger, MD,<sup>3</sup> Nirupa R. Ghai, PhD, MPH,<sup>4</sup> Chyke A. Doubeni, MD, MPH,<sup>5,6</sup> Ethan A. Halm, MD,<sup>7</sup> Celette Sugg Skinner, PhD,<sup>8</sup> Natalia Udaltsova, PhD,<sup>1</sup> Richard Contreras, MS,<sup>9</sup> Bruce H. Fireman, MA,<sup>1</sup> Charles P. Quesenberry, PhD<sup>1</sup>

Oakland, Walnut Creek, Pasadena, California; Columbus, Ohio; New Brunswick, New Jersey; Dallas, Texas, USA

Volume 98, No. 4 : 2023 GASTROINTESTINAL ENDOSCOPY 609

**Background and Aims:** Endoscopist adenoma detection rates (ADRs) vary widely and are associated with patients' risk of postcolonoscopy colorectal cancers (PCCRCs). However, few scalable physician-directed interventions demonstrably both improve ADR and reduce PCCRC risk.

**Methods:** Among patients undergoing colonoscopy, we evaluated the influence of a scalable online training on individual-level ADRs and PCCRC risk. The intervention was a 30-minute, interactive, online training, developed using behavior change theory, to address factors that potentially impede detection of adenomas. Analyses included interrupted time series analyses for pretraining versus posttraining individual-physician ADR changes (adjusted for temporal trends) and Cox regression for associations between ADR changes and patients' PCCRC risk.

**Results:** Across 21 endoscopy centers and all 86 eligible endoscopists, ADRs increased immediately by an absolute 3.13% (95% confidence interval [CI], 1.31-4.94) in the 3-month quarter after training compared with .58% per quarter (95% CI, .40-.77) and 0.33% per quarter (95% CI, .16-.49) in the 3-year pretraining and posttraining periods, respectively. Posttraining ADR increases were higher among endoscopists with pretraining ADRs below the median. Among 146,786 posttraining colonoscopies (all indications), each 1% absolute increase in screening ADR posttraining was associated with a 4% decrease in their patients' PCCRC risk (hazard ratio, .96; 95% CI, .93-.99). An ADR increase of  $\geq 10\%$  versus  $< 1\%$  was associated with a 55% reduced risk of PCCRC (hazard ratio, .45; 95% CI, .24-.82).

**Conclusions:** A scalable, online behavior change training intervention focused on modifiable factors was associated with significant and sustained improvements in ADR, particularly among endoscopists with lower ADRs. These ADR changes were associated with substantial reductions in their patients' risk of PCCRC. (Gastrointest Endosc 2023;98:609-17.)

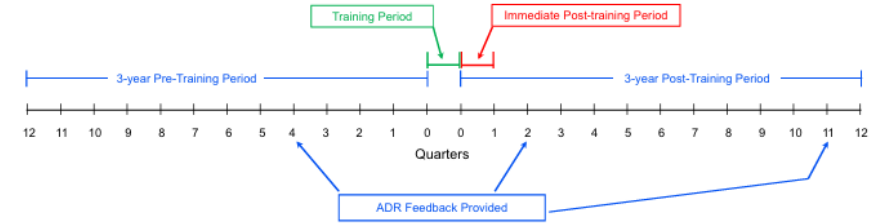


TABLE 2. Endoscopist ADR changes by training period and median pretraining ADR

Endoscopists	3-Year pretraining period	Immediately after training	3-Year posttraining period
	Absolute % ADR change per quarter (95% CI)	Absolute % ADR change per quarter (95% CI)	Absolute % ADR change per quarter (95% CI)
All endoscopists, n = 86	.58 (.40 to .77)	3.13 (1.31 to 4.94)	.33 (.16 to .49)
Lower ADR endoscopists, n = 43	.43 (.19 to .67)	4.89 (2.42 to 7.36)	.27 (.18 to .51)
Higher ADR endoscopists, n = 43	.80 (.54 to 1.06)	.73 (-1.71 to 3.17)	.40 (.18 to .63)

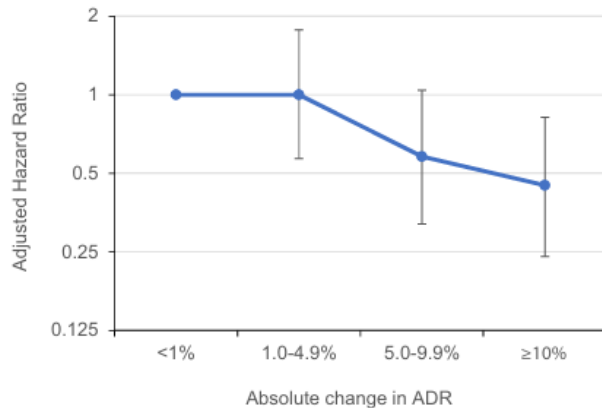


TABLE 3. Adjusted hazard ratios for the associations between change in pretraining versus posttraining endoscopist ADR and risk of PCCRC in the 3-year posttraining period, for all endoscopists and stratified according to change in ADR

Absolute ADR change	Cancer-negative colonoscopies, n	PCCRC cases, n	Person-years	Crude cancer rate*	Adjusted hazard ratio (95% CI)
Per 1% (all endoscopists)	146,786	97	413,581	23.5	.96 (.93-.99)
<1%	24,750	22	69,677	31.6	1.00 (referent)
1.0-4.9%	30,648	30	86,457	34.7	1.00 (.57-1.77)
5.0-9.9%	44,032	25	124,185	20.1	.58 (.32-1.04)
$\geq 10\%$	47,356	20	133,261	15.0	.45 (.24-.82)

## Nationally Automated Colonoscopy Performance Feedback Increases Polyp Detection: The NED APRIQOT Randomized Controlled Trial

Jamie Catlow,<sup>1,2</sup> Linda Sharp,<sup>2</sup> Janelle Wagnild,<sup>3</sup> Liya Lu,<sup>2</sup> Rashmi Bhardwaj-Gosling,<sup>2,4</sup> Emmanuel Ogundimu,<sup>3</sup> Adetayo Kasim,<sup>3</sup> Matthew Brookes,<sup>5,6</sup> Thomas Lee,<sup>7</sup> Stephen McCarthy,<sup>8</sup> Joanne Gray,<sup>8</sup> Falko Sniehotta,<sup>9</sup> Roland Valori,<sup>10</sup> Claire Westwood,<sup>11</sup> Richard McNally,<sup>2</sup> Josephine Ruwende,<sup>12</sup> Simon Sinclair,<sup>11</sup> Jill Deane,<sup>11</sup> NED APRIQOT Trialists Group, and Matt Rutter<sup>11</sup>

# Evidence

The intervention non-significantly increased endoscopist case-mix adjusted polyp detection, significantly increased polyp detection rate and unadjusted mean polyp detection.

Our fully automated process was feasible and scalable.

Engaged endoscopists benefitted most. Future work should explore improving engagement.

Clinical Gastroenterology and Hepatology

NED-APRIQOT, a cluster-controlled randomized trial of evidence-based theory-informed automated performance reports in 36 centres (541 endoscopists, >70000 procedures).

**Although our automated feedback intervention did not increase aMNP significantly in the intervention period, MNP and polyp detection rate did improve significantly. Engaged endoscopists benefited most and improvements were not maintained postintervention; future work should address engagement in feedback and consider the effectiveness of continuous feedback.**





## RER, 2025



- Definire il percorso operativo
- Misurare le competenze (automatica?)
- Impostare un programma di retraining
- Valutare gli esiti
- Agire prospetticamente per la manutenzione della competenza e per il training dei nuovi ingressi
- Certificazione?