PERSPECTIVES

Managing underperformance in endoscopy: a pragmatic approach

Colin J. Rees, MBBS, FRCP,[1,2] Siwan Thomas-Gibson, MD,[3] Michael J. Bourke, MBBS, FRACP,[4] Douglas Rex, MD,[5] Paul Fockens, MD, PhD,[6] Michal F. Kaminski, MD, PhD,[7] Neil Haslam, MBChB, FRCP,[8] Martin Walls, MBChB[2]

Newcastle Upon Tyne, Tyne and Wear, Middlesex, Liverpool, United Kingdom; Sydney, Australia; Indianapolis, Indiana, USA; Amsterdam, the Netherlands; Warsaw, Poland

GI endoscopy is increasingly the procedure of choice for the investigation and management of upper and lower GI symptoms. Internationally, key performance indicators are often used to provide key data points and auditable outcomes for endoscopists and endoscopy services with published standards existing for colonoscopy, bowel cancer screening, flexible sigmoidoscopy, ERCP, and upper GI endoscopy. Quality assurance and training programs aim to ensure high skill levels of endoscopists and, supported by quality improvement programs, aim to raise the quality of endoscopy service provision. Currently, only a few defined processes exist to guide services where standards are not being met. This document, written by a group of international endoscopy experts, is intended to provide pragmatic guidance to units or programs for managing performance that fall below the desired level. The guidance has been written generically with principals applicable to all endoscopic techniques.

GI endoscopy is increasingly the procedure of choice for the investigation and management of upper and lower GI symptoms[1,2] and for GI cancer screening programs. As with many areas of healthcare, the performance of individual clinicians is rightly scrutinized to ensure that standards of care are as high as possible. The rise in the use of interventional endoscopy, including ERCP and EUS, is a particularly important consideration for delivering high-quality services because of the more invasive nature of the procedures and higher risks of adverse events. A longstanding challenge, however, is how to deal with underperformance to protect patients and support clinicians, independent of reaching defined thresholds for accreditation.

In an effort to standardize and formalize quality assurance (QA), measures such as key performance indicators[3] are often used to provide key data points and auditable outcomes for many endoscopic modalities.[1,4-8] Such standards are usually written by multiagency panels. In the United Kingdom, stakeholders include the British Society of Gastroenterology, the Joint Advisory Group for GI Endoscopy, and the Association of Coloproctology of Great Britain and Ireland. Internationally, similar QA standards exist with many focusing on cancer screening programs. Screening programs often have higher levels of quality indicators because of the necessity that screening delivers reproducible, high-quality standards across different centers and have been used in many countries to develop quality standards for other endoscopic procedures.[9-12] Both the American Society for Gastrointestinal Endoscopy (ASGE) and the European Society for Gastrointestinal Endoscopy stress that standards used to chart the performance of individuals should not be used to single out endoscopists[13] but to identify "performance gaps"[14] to drive forward quality improvement for services delivered to patients.

Abbreviations: ADR, adenoma detection rate; ASGE, American Society for Gastrointestinal Endoscopy; QA, quality assurance.

DISCLOSURE: *The following authors disclosed financial relationships relevant to this publication: C. J. Rees: Consultant for ARC Medical; research support recipient from ARC Medical, Norgine, and Olympus Medical. S. Thomas-Gibson: Honorarium from Olympus; course fees from Aquilant and Fujifilm. D. Rex: Consultant for Aries Pharmaceuticals, Boston Scientific, Olympus, and Braintree; research support recipient from Boston Scientific, Sebela, Medtronic, EndoAid Ltd, Olympus, Paion, Braintree, and Medivators. M. F. Kaminski: Speaker and teacher for Olympus Poland. All other authors disclosed no financial relationships relevant to this publication.*

0016-5107/$36.00
https://doi.org/10.1016/j.gie.2018.06.029

Received April 19, 2018. Accepted June 29, 2018.

Current affiliations: Northern Institute for Cancer Research, Newcastle University, Newcastle Upon Tyne, United Kingdom (1), Department of Gastroenterology, South Tyneside District Hospital, South Shields, Tyne and Wear, United Kingdom (2), Department of Gastroenterology, St. Marks Hospital, Harrow, Middlesex, United Kingdom (3), Department of Gastroenterology, Westmead Hospital, Sydney, Australia (4), Department of Gastroenterology, Indiana University, Indianapolis, Indiana, USA (5), Department of Gastroenterology and Hepatology, Academic Medical Centre, Amsterdam, the Netherlands (6), Department of Gastroenterology, The Maria Sklodowska-Curie Institute, Oncology Center, Warsaw, Poland (7), Department of Gastroenterology, Royal Liverpool Hospital, Liverpool, United Kingdom (8).

Reprint requests: Professor Colin J. Rees, South Tyneside District Hospital, Harton Lane, South Shields, Tyne and Wear, NE34 0PL, United Kingdom.

QA and training programs aim to ensure high skill levels of endoscopists and, supported by quality improvement, aim to raise the quality of endoscopy services. It should be noted that endoscopy quality is not solely limited to endoscopy practitioners, and consideration must also be given to the environment where endoscopy takes place.[15] It is also important to be aware of the patient population and take note of any confounding factors that could be influencing results. In the United Kingdom, the Joint Advisory Group for GI Endoscopy maintains a global rating scale[16] encompassing endoscopist and unit factors to ensure that the patient is at the center of clinical care, with modified or similar systems used in Canada,[17] New Zealand,[18] and Australia.[19] The Gastronet QA system,[20] used in Norway, Sweden, Latvia, and Iceland, uses endoscopy outcomes to generate reports available to individual endoscopists, which also allows anonymized benchmarking with colleagues. The Polish national Colorectal Cancer Screening Program uses a similar method, showing improvement in completion and adenoma detection rates where endoscopist's baseline performance before intervention is suboptimal but not where performance is well below expected standards. This would suggest that below a certain threshold of performance, informing endoscopists and promoting reflection is not adequate in isolation, and other methods are required.[21] There are currently few defined processes to guide services where standards are not being met. The manner in which identified issues should be dealt with is usually left to individual teams, as recommended by the Canadian Association of Gastroenterology[17] and the ASGE,[22] without any further guidance as to what these plans should contain. There is no requirement in the United Kingdom for reaccreditation, but this is required in the United States[22] and Australia[23] and in the near future will be introduced in New Zealand.[18] The ASGE state this is "mandated by national accrediting organizations to occur every 2 to 3 years."[22]

The most serious consequence of underperformance is the potential harm to patients, but it may also have a wider negative impact on the quality of endoscopy units. Reasons for the failure to achieve standards may be technical in nature, such as lack of knowledge related to endoscopy, poor skills when performing endoscopy, and/or poor compliance with regulatory or documentary requirements. Underperformance may also be related to an endoscopist's behavior, attitude, health, or communication skills.[24] Attitudes and behaviors of the endoscopist may relate to how the endoscopist works within their team; these are termed endoscopic nontechnical skills.[25,26]

IDENTIFYING UNDERPERFORMING ENDOSCOPISTS

One definition of an endoscopist in difficulty[15] that can be adopted is "an individual whose practice in endoscopy falls below current accepted standards of competence, through technical or behavioral issues, thus exposing patients to an increased risk of harm, or compromising the integrity, effectiveness, and/or efficiency of the endoscopy service." It should be part of routine practice that some level of performance data are collected by units. Common mechanisms through which poor performance may be identified are as follows:

1. Self-reporting by the endoscopist him- or herself: These reports should be taken seriously.[15]
2. Through the use of collected data:
   a. By reference to outcome measures, for example, locally/centrally filed data such as key performance indicators.
   b. By data gaps in minimum required datasets or non-submission of performance data.
3. Through the observations of others:
   a. Peer group (eg, direct colleagues)
   b. Coworkers (eg, allied endoscopy staff)
   c. Patients (either directly through patient feedback or complaints)
   d. Formal appraisal, revalidation, and credentialing.

In the United Kingdom, surgeons' performance is monitored against peer performance rather than absolute standards, identifying statistical outliers across the country and alerting departments to this.[27] However, as with many other professional organizations, the method of addressing underperformance is left with local departments, and no guidance is available. A useful method for identifying practitioners in difficulty is the use of funnel plot graphs, a technique that has been used to study endoscopy outcomes such as cecal intubation rates and adenoma detection rates (ADRs) at colonoscopy.[28]

IDENTIFYING ISSUES

Issues pertaining to performance are likely to be multifactorial and should always be considered in the context of the individual and the environment in which the individual practices. If there are issues with departmental leadership and correct protocols are not being followed, for example because of pressures from service leaders, then this "followership" of poor practice may not relate directly to the endoscopists themselves. In this instance, poor role modeling may not be rectified by directing remedial efforts at the individual, and the wider service should be scrutinized. Issues identified should be addressed in a timely manner and in a stepwise fashion commensurate with the seriousness of the issue, always keeping patient safety paramount and in accordance with generic standards such as, for example, good medical practice[29] set out by the U.K.'s medical regulatory body, The General Medical Council.

Case volume is another important consideration. In the United Kingdom, through surgical associations[30,31] and