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BSG, ACPGBI and AUGIS guidance on the scope of professional practice for clinical endoscopists

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Accepted 24 December 2025

To cite: Livett HK, Scarisbrick L, Everett SM, *et al*. *Frontline Gastroenterology* Epub ahead of print: [please include Day Month Year]. doi:10.1136/flgastro-2025-103322

ABSTRACT

Background This document focuses on the scope of professional practice for clinical endoscopists (previously known as non-medical endoscopists/nurse endoscopists). Clinical endoscopists not only contribute significantly to diagnostic gastrointestinal (GI) endoscopy services, performing upper GI endoscopy, flexible sigmoidoscopy and colonoscopy, but are extending their scope of practice to include more complex procedures such as bowel cancer screening colonoscopy and complex polypectomy.

Aim The previous British Society of Gastroenterology (BSG) Working Party Report on this issue was published in 2005. This revised document aims to provide updated guidance on professional aspects of the clinical endoscopist roles and responsibilities, ensuring safe, high-quality care for patients.

Methods The present document was produced by a guidance development group (GDG) including nurse consultants, clinical endoscopists and gastroenterologists, with experience in training and leading teams of clinical endoscopists. The first draft was developed by clinical endoscopists within the GDG, based on a comprehensive literature review. The wider GDG was then invited to review and contribute to the document and its recommendations. It was recognised that there was a paucity of high-quality evidence and the recommendations have been developed based on the best evidence available and consensus. Consensus was achieved through anonymised electronic voting among the GDG, with at least 80% agreement required for statements to be included.

Results 23 recommendations achieved consensus outlining the roles and responsibilities of clinical endoscopists and encompassing three key components regarding the scope of professional practice: medicolegal aspects of professional practice; training, education and continued professional development; and care of the patient pre, peri and post endoscopy.

Conclusions Clinical endoscopists make a vital contribution to endoscopy, gastroenterology and colorectal services. The present document offers guidance concerning best practice for clinical endoscopists, outlining a path from training to independent practice, management and expansion of practice. The implementation of these recommendations will lead to safer and more effective use of clinical endoscopists within our services, with continuous support and mentorship to promote the expansion of their practice, while ensuring the appropriate governance protocols are in place to provide patients with excellent care in endoscopy.

INTRODUCTION

Since the previous British Society of Gastroenterology (BSG) Working Party Report in 2005,[1] clinical endoscopists (previously known as non-medical endoscopists/nurse endoscopists) have increased in diversity and number exponentially. A BSG analysis of the National Endoscopy Database, between March 2019 and February 2020, confirmed clinical endoscopists are the second largest endoscopist group, performing 23% of the endoscopy workload.[2] The National Census of UK endoscopy services published in 2023, reported that clinical endoscopists were undertaking 31.8% of endoscopic procedures and were 15% of the endoscopy workforce.[3]

Since the original Working Party Report in 1995,[4] expansion of the clinical endoscopist workforce has continued in line with the increased year on year demand for endoscopy. Developments that include

the Bowel Cancer Screening Programme in 2006[5] and other government initiatives[6] have led to an increased demand for endoscopy.[7] While endoscopic activity has returned to pre-COVID-19 pandemic levels, the pandemic increased the need for change in the provision of diagnostic care to deliver the increased demand for endoscopy services. Major changes are planned in line with the Diagnostics: Recovery and Renewal document,[8] including the development of diagnostic hubs to meet the National Health Service (NHS) Long Term Plan commitments.[9]

Clinical endoscopists not only contribute significantly to diagnostic gastrointestinal (GI) endoscopy services, performing upper GI endoscopy, flexible sigmoidoscopy and colonoscopy, but are extending their scope of practice to include more complex procedures such as bowel cancer screening colonoscopy[10] and complex polypectomy.[11] This expansion of professional role is recognised and valued as a solution to cope with the increasing endoscopy demand.[2] Clinical endoscopists have been shown to perform high quality endoscopy, with good patient outcomes and satisfaction and perform procedures to the same standards as medical and surgical endoscopists.[12–17] The introduction of the Clinical Endoscopist Training Programme[18] has further enhanced the reputation of clinical endoscopists. Clinical endoscopists are an expert diagnostic and training workforce valued by our medical and surgical colleagues. By ensuring the incorporation of best evidence-based practice into clinical decision making, clinical endoscopists facilitate and contribute to the whole patient journey including pre, peri and post procedure, to ensure that all elements of the GI endoscopy experience are managed optimally, not just the procedure itself.

This revised document focuses on the scope of professional practice for clinical endoscopists aims to provide guidance on professional aspects of patient care to ensure safe, high-quality care for patients.

The three key components of the guidance are:

- Medicolegal aspects of professional practice.
- Training, education and continued professional development.
- Care of the patient pre, peri and post endoscopy.

STATEMENTS

Medicolegal considerations

1. We recommend that clinical endoscopists are registered with a statutory regulatory body and ensure that appropriate indemnity arrangements are in place for their scope of professional practice.
2. We recommend that clinical endoscopists only perform independent endoscopy in the modalities that they have been trained and demonstrated competency.
3. We recommend that clinical endoscopists work within a governance framework with documented and approved systems of working and practice.
4. We recommend that all clinical endoscopists have an annual appraisal with both clinical supervisor and line manager input. This should cover the entire range of the clinical endoscopist's practice.
5. We recommend that clinical endoscopists have regular scheduled sessions with a clinical supervisor.

Training, education and continued professional development

6. We recommend that prospective trainee clinical endoscopists have at least 3 years postregistration experience, including leadership and/or management experience.
7. We recommend that a job plan and sufficient funding should be in place to fully support the intended scope of practice when employing clinical endoscopists (including trainees).
8. We recommend that a 5-year structured training plan for all clinical endoscopists should be agreed as part of the business case for new recruitment, including training costs.
9. We recommend that clinical endoscopists complete an academic level 7 certification (MSc) as part of their training for the role.
10. We recommend that clinical endoscopists maintain an electronic portfolio of evidence aligned to the knowledge and skills for health framework.
11. We recommend that newly certified endoscopists have mentorship available on site or within the unit support depending on their experience and professional requirements.
12. We recommend that clinical endoscopists are encouraged to participate in related clinical activities, research and management when not undertaking endoscopy.

Care of the patient pre, peri and post endoscopy, clinical endoscopist roles and responsibilities as autonomous practitioners

13. We recommend that clinical endoscopists should be accountable for validating referrals for endoscopy procedures that they undertake, and this should include assessing the indication and appropriateness of the procedure for the patient.
14. We recommend that clinical endoscopists should assess clinical, procedural and patient-specific factors necessary to obtain valid patient consent for the proposed procedure.
15. We recommend that clinical endoscopists attend an independent prescriber course, at a level 7 or as part of a MSc degree, to be able to independently prescribe and administer all the drugs necessary for safe endoscopy practice.
16. We recommend that when clinical endoscopists are unable to complete the qualifications for independent prescribing due to regulatory body restrictions on practice, appropriate clinical governance structures should be implemented to ensure safe medicines management.

17. We recommend that a whole-time equivalent clinical endoscopist should not undertake more than five endoscopy lists per week on a regular basis.
18. We recommend that standard operating procedures (SOPs) for consultant level support on site for any inpatient endoscopy performed by clinical endoscopists are established.
19. We recommend that advanced diagnostic and therapeutic endoscopy, including but not limited to endoscopy in acute GI haemorrhage, endoscopic retrograde cholangiopancreatography (ERCP), endoscopic submucosal dissection, dilatation, endoscopic ultrasound (EUS) (including fine needle aspiration/biopsy) and oesophageal or colonic stent insertions, should not be undertaken by clinical endoscopists.
20. We recommend that endoscopy reports are completed contemporaneously and recommendations for follow-up and management are within the scope of clinical endoscopist practice.
21. We recommend that clinical endoscopists have the competence for reviewing and acting on requested pathology and radiology results where required.
22. We recommend that clinical endoscopists have protected time in their job plan to review requested pathology and radiology results.
23. We recommend that when an adverse event occurs, clinical endoscopists are supported by an appropriate senior clinician and signposted to counselling and wellness through local occupational health resources if required.

METHODS

The present document was produced by a guidance development group (GDG) including nurse consultants, clinical endoscopists and gastroenterologists with experience in training and leading teams of clinical endoscopists. The GDG was established in 2023 following a recommendation from the BSG Endoscopy committee and endorsed by the BSG Clinical Services and Standards Committee. A multimethod approach was adopted to determine the current scope of practice of clinical endoscopists and activity delivered. This involved a national survey to collate data from clinical endoscopists within the UK, which was disseminated electronically by the BSG and the National Clinical Endoscopist Group. A literature search was undertaken through PubMed, Medline, Embase, CINAHL and BNI using the criteria listed in online supplemental table 5. Due to the paucity of high-quality evidence, recommendations have been made based on the best evidence available and expert opinion.

The clinical endoscopists within the GDG produced the first draft of the statements. The wider GDG then reviewed and contributed to the document and recommendations. Anonymised electronic voting was arranged to evaluate consensus on the recommendations. The GDG was asked to vote on a five-point scale of strongly agree, agree, neither agree nor disagree, disagree and strongly disagree for each recommendation. At least 80% agreement was required for consensus. Recommendations failing to reach consensus after the initial round of voting were amended followed by a second round and were removed if consensus was still not achieved.

RESULTS

Medicolegal considerations

Diversity of clinical endoscopists

1. We recommend that clinical endoscopists are registered with a statutory regulatory body and ensure that appropriate indemnity arrangements are in place for their scope of professional practice.

Level of agreement 100%

All clinical endoscopists must be registered with a statutory regulatory body and therefore accountable to their appropriate professional body. A regulated profession is one defined in the Professional Qualifications Act (2022) meaning that it is regulated by law in the UK.[19] By law, all regulated clinical endoscopists must have appropriate indemnity arrangements in place to practise on their respective professional registers. Arrangements must be appropriate to the individual's role and entire scope of practice.[20 21] Clinical endoscopists should always observe their code of professional conduct and only undertake extended roles for which they have been appropriately trained and deemed competent. While it is expected that employers will hold vicarious liability for those within their employ, it is up to clinical endoscopists to ensure that it is in place.

The GDG recognises that the diversity of clinical endoscopists is changing. Originally, Nursing and Midwifery Council (NMC) registered nurses were the main workforce for endoscopy, working under the guidance of the NMC code of professional conduct. More recently, allied healthcare professionals such as operating department practitioners (ODPs) and radiographers, both working under the regulatory body of the Health and Care Professions Council standards of conduct, performance and ethics,[22] have joined the clinical endoscopist workforce and physicians associates working under guidance from General Medical Council (GMC) good medical practice document.[23] Regardless of background, all clinical endoscopists work autonomously and are personally accountable for acts and omissions within their advanced clinical practice.[22 24 25]

Scope of clinical practice

2. We recommend that clinical endoscopists only perform independent endoscopy in the modalities that they have been trained and demonstrated competency.

Level of agreement 100%

As with all healthcare professionals, clinical endoscopists have a duty of care to maintain the health, safety and well-being of all patients in their care. A breach in that duty of care, in act or omission, can

result in legal action. As endoscopists, clinical endoscopists should be aware of the potential risks from endoscopy and under the common law of negligence, duty of care will be judged in law against the standard expected of a reasonably competent endoscopist in a similar situation, regardless of the profession. It is therefore important that the scope of practice of a clinical endoscopist is determined and defined by the employing organisation in collaboration with the clinical lead for endoscopy and directorate managers and is appropriate to the environment in which endoscopy is performed.

Governance and risk management

3. We recommend that clinical endoscopists work within a governance framework with documented and approved systems of working and practice.

   Level of agreement 100%

4. We recommend that all clinical endoscopists have an annual appraisal with both clinical supervisor and line manager input. This should cover the entire range of the clinical endoscopist's practice.

   Level of agreement 100%

5. We recommend that clinical endoscopists have regular scheduled sessions with a clinical supervisor.

   Level of agreement 100%

The clinical endoscopists should be supported by a governance framework overseen by the local Endoscopy User's Group and Clinical Lead for Endoscopy. This should define accountability, with policies and processes that support decision making and ensure effective, efficient and transparent practice. Endoscopy is not without risk and in the event of an adverse event or error, it is not uncommon for endoscopists to experience emotional distress because of both the event and how it is managed. This can have psychological, cognitive and physical effects on individuals.[19 20 26] Within the governance arrangements, there should be a named clinical supervisor to support clinical endoscopists with agreed escalation policies.

Balancing adequate supervision alongside service provision is often challenging.[21 27] The role of a clinical supervisor is essential to ensure that there is continuity of support, learning opportunities to enable the advanced clinical decision making and care required and stipulated by governing bodies.[22 24 25 28 29] Clinical supervisors assist in ensuring that competency or functional capacity to integrate knowledge and skills to clinical practice occurs not only while training but also during independent practice.[30 31]

While each individual clinical endoscopist and organisation may require different governance processes to be implemented, it is the responsibility of the clinical endoscopist to ensure that the correct governance framework is in place. Online supplemental table 1 defines minimum governance requirement for all clinical endoscopists (including trainees).

TRAINING, EDUCATION AND CONTINUED PROFESSIONAL DEVELOPMENT

Recruitment, job plan and training

6. We recommend that prospective trainee clinical endoscopists have at least 3 years postregistration experience, including leadership and/or management experience.

   Level of agreement 100%

7. We recommend that a job plan and sufficient funding should be in place to fully support the intended scope of practice when employing clinical endoscopists (including trainees).

   Level of agreement 100%

Employment of clinical endoscopists should be accompanied by a detailed job description (JD) and a comprehensive job plan, examples of which are widely available.[32 33] The JD should not only support the intended technical skills required as an endoscopist but the expected level of clinical judgement and decision making across the entire scope of practice, including preassessment, history taking, prescribing[34] and dispensing of medications, management of pathology and ongoing management of patients.

The level of independent practice should be accompanied by a governance framework that supports the clinical endoscopist with appropriate certified, funded courses and time allocation to meet the JD and intended scope of practice. It should be ensured that there is sufficient training capacity within endoscopy units prior to employment of trainee clinical endoscopists and that training opportunities for all trainees are considered, particularly in light of recent increased colonoscopy requirements in the curriculum for both surgical and medical specialist trainees. We recommend that a trainee clinical endoscopist should have access to a minimum of two training lists a week[35] with time protected to complete the required academic component and agreed funding to support this. The split between the training components should be 50% academic (including audit and research) to 50% clinical. Because of the level of specialism and autonomy, prospective trainee clinical endoscopist candidates should have at least 3 years postregistration experience. At least 2 years of prior working within an endoscopy environment is recommended as this will expedite pathology recognition and help integration within the endoscopy service and teams. Postregistration experience will give time for the clinical endoscopist to demonstrate enhanced practice skills and competence and the capabilities for advanced clinical practice and the four pillars that underpin this, namely clinical practice, leadership and management, education and research.[36–38]

Structured training plan

8. We recommend that a 5-year structured training plan for all clinical endoscopists should be agreed as part of the business case for new recruitment, including training costs.

Level of agreement 100%

9. We recommend that clinical endoscopists complete an academic level 7 certification (MSc) as part of their training for the role.

Level of agreement 100%

When planning clinical endoscopist recruitment, this should be based on a 5-year plan. This enables consolidation of training in endoscopy and the completion of the academic requirements associated with advanced practitioner status (see online supplemental table 2).

The aim of training is to facilitate the development of a safe and effective clinical endoscopist, by equipping the student with the knowledge and skills to perform diagnostic upper and lower GI endoscopy to a level appropriate for endoscopy practice, incorporating the professional attributes that underpin an advanced practice role. The principles of advanced clinical practice should align with the Royal College of Nursing framework[38] and clinical endoscopists should be able to make sound clinical judgements in the absence of full information and to manage varying levels of risk when there is complex, competing or ambiguous information or uncertainty.

Current established independently practising clinical endoscopists may wish to complete an academic level 7 certification (MSc) as part of their career development, but this is not mandatory. Further recommendations from the NMC regarding the mandate for advanced clinical practitioner registration are awaited but expected to include level 7 academia as one of the pathways for new staff. Recommended guidance for business case inclusion prior to commencement of a training post should include the clinical and academic skills required to work at an advanced level of clinical practice to enable facilitation of advanced clinical decision making appropriate to level of practice.

Training of new clinical endoscopists within this designated academic pathway will assist in meeting the advanced practitioner status expected by governing bodies. In-house training without formal academic training should be carefully considered in light of the success of the NHS England (NHSE) endoscopy training programme and the proposed advanced clinical practitioner mandate. New clinical endoscopists should not perform endoscopy independently without Joint Advisory Group on GI endoscopy (JAG) certification in a specific endoscopic modality.[39 40]

Continued professional development and appraisal

10. We recommend that clinical endoscopists maintain an electronic portfolio of evidence aligned to the knowledge and skills for health framework.

Level of agreement 100%

11. We recommend that newly certified endoscopists have mentorship available on site or within unit support depending on their experience and professional requirements.

Level of agreement 100%

12. We recommend that clinical endoscopists are encouraged to participate in related clinical activities, research and management when not undertaking endoscopy.

Level of agreement 100%

Evidence suggests that a lack of managerial support and cover for clinical commitments, with only mandatory courses being funded, is detrimental to professional autonomy and holistic patient care,[41 42] as this leaves professionals feeling less confident in their practice and patients receiving a lower quality of care, with the need to attend further hospital visits.[41 43–47] Continuous professional development (CPD) jointly with clinical mentorship promotes patient safety[48] and professional competency through acquisition of knowledge and skills and higher confidence in expanding practice over time.[43 45 46 49] This, in turn, decreases errors and promotes patient safety.[50–52] Furthermore, CPD is a minimum professional requirement for revalidation.[22 24]

It is advisable for the clinical endoscopist to liaise with both their clinical supervisor and line manager at the time of appraisal. Any issues in relation to clinical governance or recommendations regarding CPD (personal or professional), changes to job plans or the need to meet/develop service requirements should be discussed with the Clinical Lead for Endoscopy. This process offers transparency of roles and responsibilities and provides support regarding further training or identified opportunities for professional growth.

Designated clinical mentor

The BSG clinical endoscopists survey has highlighted that managerial responsibility for clinical endoscopists is currently being undertaken by matrons, lead nurse endoscopists, service managers, nurse consultants, medical consultants (gastroenterologists and surgeons) or senior/lead GI nurses. This diversity among managerial roles for clinical endoscopists may create challenges in meeting their expanding clinical, educational and managerial needs. Ongoing clinical mentorship is an unmet need for clinical endoscopists and the contribution of more experienced endoscopists and medical colleagues, who are acquainted with endoscopy quality standards, will benefit career progression and professional development. Adequate time to undertake such mentorship should be available, for example, in consultant job plans.

Clinical portfolio

The use of a portfolio jointly with clinical mentorship as part of the appraisal process will promote safety and quality of care.[48] This portfolio could be inclusively used for NMC revalidation purposes.[53]

A clinical endoscopist's clinical portfolio should be kept up to date and include a range of evidence regarding competencies, CPD and local certificates (online supplemental table 3). Accountability for

upkeep of the document will lie with the individual clinical endoscopist.

CARE OF THE PATIENT PRE, PERI AND POST ENDOSCOPY AND OUR ROLES AND RESPONSIBILITIES AS AUTONOMOUS PRACTITIONERS

The clinical endoscopists survey[54] has highlighted the existence of poor governance policies, leading to clinical endoscopists not having a clear scope of practice with well-defined limits, clinical supervision or access to consultant level support for decision making.

Managers can enhance the professional autonomy of clinical endoscopists by promoting their independence in the workplace, ensuring that their skills and competencies are maintained and engaging and appreciating their expertise as a member of the MDT.[25] It is important that the core elements of healthcare professional practice are considered when practising autonomously and independently, and clinical endoscopists must maintain responsibility and accountability based on the standards of advanced clinical practice. This includes an element of humility in accepting and acknowledging limitations in practice, and integrity including admitting errors and mistakes. A framework to guide scope of practice provides a basis for clinical endoscopists to build independent and autonomous practice safely.

Assessment and validation of referrals

13. We recommend that clinical endoscopists should be accountable for validating referrals for endoscopy procedures that they undertake, and this should include assessing the indication and appropriateness of the procedure for the patient.

Level of agreement 100%

14. We recommend that clinical endoscopists should assess clinical, procedural and patient specific factors necessary to obtain valid patient consent for the proposed procedure.

Level of agreement 100%

Clinical endoscopists must have completed recognised training in consent within their local organisations. All clinical endoscopists must follow BSG guidance on consent, and their consent practice must not differ from medical and surgical endoscopists.[55 56] BSG guidance on consent is clear on who can complete the consent process and the training required, as well as Trust governance policies regarding delegation of consent to a non-endoscopist professional.[57 58] Clinical endoscopists should confirm they are in possession of a valid consent, as part of the WHO checklist, before proceeding with an endoscopy procedure.[59]

Sedation

15. We recommend that clinical endoscopists attend an independent prescriber course, at a level 7 or as part of a MSc degree, to be able to independently prescribe and administer all the drugs necessary for safe endoscopy practice.

Level of agreement 100%

16. We recommend that when clinical endoscopists are unable to complete the qualifications for independent prescribing due to regulatory body restrictions on practice, appropriate clinical governance structures should be implemented to ensure safe medicines management.

Level of agreement 100%

Following evidence demonstrating that safe nursing prescribing practice[50 60–64] and patients being receptive to it,[64–69] nurse prescribing became a reality not only in the UK, with a growth of 49.1%[70 71] since March 2018, but also worldwide across Europe, Asia, Australia, North and South America.[71]

The Royal Pharmaceutical Society's Competency Framework for Nurse Prescribers,[52] NMC code[24] and BSG sedation guidelines regulate different aspects of the sedation/prescribing practice of clinical endoscopists and support employers, regulators and prescribers themselves in promoting safe and effective prescribing practice within an MDT.[52] Similar standards are part of the NMC code, in which individual duties of evidence-based practice and working collaboratively are once again reiterated.[24]

The BSG has updated its sedation guidelines for GI endoscopy procedures in 2023[60]—as sedationists, clinical endoscopists must follow these guidelines and have their practice audited accordingly. The clinical endoscopist's duty to clinically assess the patient has been highlighted above.

All clinical endoscopists should assess the appropriateness of patients and prescribe solely within their scope of practice, deferring to other professionals or seeking further senior advice for high-risk prescribing in complex patients.[45 52] This requires local governance protocols, including a non-medical prescribing policy,[45] with a clear infrastructure of managerial support[43] and review of key performance indicators (KPIs), multidisciplinary support and supervision for sedation practice.[34 45 72 73] Underperforming clinical endoscopists for sedation practice should be appropriately managed; this was highlighted in the recent clinical endoscopists workforce survey as an area of concern.[34 45 54 72]

We recommend that clinical endoscopists attend an independent prescriber course, at a level 7 or as part of a MSc degree, in view of the level of responsibility and risks of their role. A prescriber qualification will be of benefit with faster patient access to treatment, reduction in waiting times and a better patient experience. Patient group directions (PGD) may be used while a clinical endoscopist pursues this qualification. Acknowledging that some established clinical endoscopists do not have prescribing qualifications, it is strongly recommended that endoscopy providers should enable completion of this essential part of the clinical endoscopist's role and responsibility.

The BSG sedation guidelines describe best practice for patients who are high risk for sedation or require deep sedation or general anaesthesia—the principles of these guidelines are applicable to clinical endoscopists undertaking such practice. A multidisciplinary discussion and an SOP are required to ensure that the patient selection is appropriate for such procedures and that discussion with the anaesthetic team occurs to ensure patient safety and safeguarding for the clinical endoscopists involved.

Third-party prescribing practice

A national BSG survey highlighted that clinical endoscopists, if not prescribers, administer sedation under a PGD or ask a medical professional or another clinical endoscopist prescriber for a prescription. ODPs and radiographers are unable to prescribe or administer sedation and thus are fully reliant on third-party prescribing.[74]

However, while benzodiazepines and reversal agents may be legally administered under a PGD, opioids cannot, and these play a vital role in patient comfort and tolerance of procedures including upper GI endoscopy.[75 76]

Prescribing for patients that clinical endoscopists have not assessed can ultimately lead to legal liability in case of patient harm, among other risks.[52 77] The GMC, while supporting *prescribing at the recommendation of a colleague* (para 76–78) or *recommending medicines for a colleague to prescribe* (para 79), states that not only should they be delegating to an individual with the qualifications, experience, knowledge and skills to assess suitability for the drug prescribed, but that the individual delegating that responsibility has knowledge of the patient.[77]

This raises concerns where third-party prescriptions are written on mass for a list of named patients or for a list of unnamed patients. Where this practice occurs, local protocols are recommended to support practice and acknowledgement that the medical or non-medical prescriber will be accountable and responsible for the prescribing practices of the clinical endoscopists. This includes covering clinical endoscopists' prescribing practice while completing a prescribing qualification, where the drugs cannot be covered by PGDs. Clinical endoscopists completing a prescribing qualification may also be supported by a designated prescribing practitioner who, under the new regulatory framework, may be a clinical endoscopist who is a non-medical prescriber.

The above considerations support the attendance of clinical endoscopists on a prescribing course. This allows clinical endoscopists to prescribe both sedation and treatments throughout the pre, peri and post patient journey through endoscopy.

Independent and autonomous practice

17. We recommend that a whole-time equivalent clinical endoscopist should not undertake more than five endoscopy lists per week on a regular basis.

Procedural musculoskeletal injuries are prevalent in between 39% and 89% of endoscopists. In one study, 14% of endoscopists reported needing to stop or limit endoscopy procedures due to musculoskeletal injury.[78–81] Repetitive microtrauma has been implicated in injury formation, and procedural volumes (particularly colonoscopy) have correlated with injury.[82] Musculoskeletal injury can vary dependent on modality; for example, upper GI endoscopy has been associated with a higher incidence of shoulder injury in comparison to hand/wrist injury for lower GI endoscopy. Bessone and Adamsen[83] found that endoscopists who performed more than 15 hours of endoscopy or more than 15 procedures per week reported a significantly higher rate of injury than those who undertook less.

Fatigue from prolonged endoscopy has been associated with poor pathology identification such as polyp detection, caecal intubation rates declining with successive procedures, intubation times lengthening and withdrawal times being faster.[84–87] For upper GI endoscopy, the lesion detection rate was found to be significantly higher in the first 3 hours of a session compared with endoscopy performed after this time.[88] Clinical decision-making has been shown to be impaired when healthcare professionals are fatigued, and repetitive decision-making may lead to short cuts and decisions made without careful reasoning, potentially placing the clinical endoscopist in a less suitable cognitive state to make logical and safe decisions about the clinical care of a patient.[89–92]

The standard hours of all full-time NHS staff are 37.5 hours, excluding meal breaks. Working time will be calculated exclusive of meal breaks, except where individuals are required to work during meal breaks, in which case such time should be counted as working time. Unlike medical colleagues, traditionally working schedules for clinical endoscopists have been 5 short days of 7.5 hours or 4 long days (3×9.5 hours and 1×9 hours) allowing for 10 sessions per week.[93] Flexibility over working hours can be difficult to negotiate with individual NHS Trusts. As previously discussed, it is important that clinical endoscopists have roles to support and participate in related clinical activities such as outpatient clinics, patient follow-up, research and management when not undertaking endoscopy. For this to occur, there needs to be careful consideration of how many endoscopy lists clinical endoscopists undertake per week, and job planning is essential to ensure that all roles and responsibilities are completed effectively. It is strongly encouraged that such clinical activities support and parallel the endoscopy activity of the clinical endoscopist, at least in part, providing a more holistic approach that will support patient

care and offer greater job satisfaction for the clinical endoscopist.

The patient and procedure matrix (online supplemental table 4) is a suggested framework by the working party for independent practice based on competency and clinical governance agreement. The introduction of remote diagnostic centres, and/or nurse-led units without direct medical support on site needs careful governance structures in place. The introduction of diagnostic centres can deliver a broad range of elective diagnostics away from acute facilities, reducing pressure on hospitals and giving patients quicker and more convenient access to tests.[94] The aim is to perform 85% of diagnostic endoscopic procedures in these centres, and there is, therefore, the potential for clinical endoscopists to be the lone endoscopist on site. For governance purposes, it recommended that SOPs, protocols and policies are agreed through the endoscopy user groups and organisational governance frameworks to ensure patient and staff safety. These should be implemented prior to the commencement of remote services led by clinical endoscopists. This should include prescribing practices, pre, peri and post care (including escalation of any deteriorating patients, complications or concerns regarding patient care episodes). It should also outline the clinical support available to clinical endoscopists, in the form of a designated clinician(s) who can act as a point of contact for any clinical questions and promptly address urgent patient-related queries not covered by existing clinical protocols.

The procedure and patient risk matrix has been developed using the American Society of Anesthesiologists classification, anticoagulant recommendations and safe sedation guidance.[48 54 95–99] This framework will support clinical endoscopists in their practice, identifying appropriateness of patients and complexity of procedures that align with individual competencies. The framework suggests that:

- Low risk patients and low risk procedures should be addressed by local SOPs.
- For high-risk patients, these should be included in the SOPs but with agreement that additional clinical support is available if required.
- For high-risk or more complex procedures, there needs to be agreement separately by the individual organisation that these procedures can be performed by the clinical endoscopists with appropriate competencies, risk assessment and clinical support. This aligns with the regulatory bodies' general principles and standards of professional practice, including prioritising people, practising effectively, preserving safety, promoting professionalism and trust.[24 100]

In-patient endoscopies

18. We recommend that SOPs for consultant level support on site for any in-patient endoscopy performed by clinical endoscopists are established.

Level of agreement 100%

The same principles regarding competency assessment and appropriateness of patient as outlined throughout this guidance apply to in-patient endoscopies. Clinical governance and local protocols should be in place advocating for consultant level support available on site for escalation of concern regardless of where the referral has originated from, but particularly for inpatient endoscopies. The proximity of such support will depend on the patient status as assessed within the competency of the clinical endoscopist but noting that the risk matrix should be adhered to in all instances.

Advanced therapeutic endoscopy

19. We recommend that advanced diagnostic and therapeutic endoscopy, including but not limited to endoscopy in acute GI haemorrhage, ERCP, endoscopic submucosal dissection, dilatation, EUS (including fine needle aspiration/biopsy) and oesophageal or colonic stent insertions should not be undertaken by clinical endoscopists.

Level of agreement 100%

Acute upper GI bleeding is a medical emergency, whose management demands proficiency and expertise beyond the physical performance of procedure, as recent evidence confirms suboptimal standards of care and high mortality rates.[101–103] The decision to proceed with an endoscopy in an emergency setting and the limit of therapy is the responsibility of the medical consultant for that individual patient. Therefore, this GDG does not advocate that endoscopy for upper GI haemorrhage or out of hours care for such patients is undertaken by clinical endoscopists.

The clinical endoscopist survey as part of this guidance has highlighted that only a few clinical endoscopists support acute upper GI bleeding services. Despite governance protocols in place, the group would advise against such practice. Clinical endoscopists are not medically trained and thus, despite best training and local protocols, their knowledge will not cover all elements of how to manage the broader care pathway for this patient group, including prescribing of blood products.[104]

ERCP, stent insertion, endoscopic submucosal dissection, dilatation and EUS remain controversial areas of practice and governance. Following significant safety and governance issues at more than one NHS trust, both NHSE and BSG have commenced a review of commissioning and service standards. The BSG[105] has undertaken through the Endoscopy quality improvement programme (EQIP) a detailed survey of practice including patient views and has published a detailed service description document for ERCP. Due to the complexity of the decision making for hepatobiliary patients and the frequency and severity of complications related to ERCP, it is not recommended that clinical endoscopists deliver such advanced therapeutic endoscopy.

Report writing and ongoing management

20. We recommend that endoscopy reports are completed contemporaneously and recommendations for follow-up and management are within the scope of clinical endoscopist practice.

Level of agreement 100%

Keeping clear and accurate documentation is essential to safe and effective clinical practice and ensures accountability is upheld.[24 100] The World Endoscopy Organisation (2016) recommends that a report needs to use specific criteria as a minimum data set.[106 107] Clinical endoscopists should ensure that any information or advice given is evidence-based, including information relating to using any healthcare products or services; this assists in maintaining effective communication with colleagues and keeping relevant healthcare professionals informed when sharing the care of individuals. Reporting endoscopy procedures is part of the JAG Quality Standards and Global Rating Scale recommendations.[108] Endoscopy reports are to be completed immediately after each endoscopy procedure. These reports must include follow-up details where appropriate and are to be sent to the general practitioner/referring clinician within 24 hours of the procedure.

Pathology and radiology follow-up

21. We recommend that clinical endoscopists have the competence for reviewing and acting on requested pathology and radiology results where required.

Level of agreement 90%

22. We recommend that clinical endoscopists have protected time in their job plan to review requested pathology and radiology results.

Level of agreement 100%

Organisations will have processes in place that determine how pathology and radiology reports are dealt with and who is responsible for receiving, reviewing and acting on results, as per JAG standards.[108 109] We recommend that a quality assurance process should include accountability regarding the review of these reports requested by clinical endoscopists. Part of an advanced clinical practice role[25 38] is the ability to manage complete episodes of care, with interpretation of results, correlation of these with the initial patient assessment and endoscopy findings, and subsequent advice on follow-up and to provide recommendations for patient management. This also promotes continuity of care, particularly when results arise from straight to test procedures or procedures referred from outside the specialty.[110]

Clinical endoscopists should have weekly protected time in their job plan to review results, and the time should include discussion of cases with the consultant providing supervision. Attending relevant MDT meetings is an essential part of this. This will increase clinical endoscopists' understanding of histological and radiological findings, enhance clinical decision-making skills and promote collaborative working practices.

As with all aspects of practice, clinical endoscopists are expected to have the underpinning knowledge, skills and behaviours to cover this scope of practice,[38] with demonstrable competencies and supported by robust governance frameworks. Local protocols must clarify referral pathways to malignant/benign MDT meetings and other specialities for clinical endoscopists but also describe escalation procedures to consultant-level to support clinical endoscopists in their decision making, whenever clinical queries arise. The clinical endoscopist survey conducted has highlighted the frequent absence of such protocols.

Duty of candour, adverse events and resilience

23. We recommend that when an adverse event occurs, clinical endoscopists are supported by an appropriate senior clinician and signposted to counselling and wellness through local occupational health resources if required.

Level of agreement 100%

Transparency and candour are essential; in the unfortunate situation where a patient is harmed and this was probably preventable, they or their legal next of kin are informed of the full facts in a truthful and honest way.[111] This should be at the earliest possible opportunity, and this is a statutory obligation for healthcare professionals.[112–115] Clinical endoscopists have a crucial role in influencing, facilitating, supporting and monitoring that duty of candour happens in clinical practice.

Such incidents have the potential to cause healthcare professionals' significant distress. Early reports describing the emotional impact of medical errors are widely documented.[116–118] Formal and informal reflection has long been used in nursing as a way of validating experiences. The need to academically reflect is beneficial to not only the individual but to the provision of high-quality evidence-based care and improved decision-making processes.[53 119 120] All reflections need to be discussed with a designated clinical supervisor/manager to ensure learning outcomes have been recognised and achieved using SMART (Specific, Measurable, Achievable, Realistic and Timebound) objectives.[121]

Recommendations for future studies

- Impact of clinical endoscopists' prescribing practice on patient experience and service efficiency.
- Review of clinical incidents concerning clinical endoscopists' practice, including sedation/prescribing practice.
- Impact of clinical endoscopists performing inpatient procedures including whole care pathway analysis.
- Barriers and facilitators to clinical endoscopists performing complex/high-risk procedures.
- Benefits of advancing practice to expand into outpatient clinic settings.
- How are non-technical skills applied to clinical practice by clinical endoscopists during training?

- Barriers to clinical endoscopists publishing research or audit.

Guidance review

The GDG recommends this guidance is reviewed in 5 years' time.

CONCLUSIONS

Clinical endoscopists have proven themselves an essential workforce in endoscopy, gastroenterology and colorectal services. While their training pathway has been thoroughly discussed and continues to be supported by JAG, their autonomous and independent practice, as part of advanced nursing practice, has not. The present document offers guidance about best practice for clinical endoscopists, outlining a path from their training to independent practice, management and expansion of practice.

It is recognised that local funding, service needs and practices differ nationally, with challenges dictating how this guidance can be adopted. Nevertheless, its implementation will lead ultimately to a safer and better use of clinical endoscopists as resources in our services, with continuous support and mentorship to promote the expansion of their practice, while ensuring the appropriate governance protocols are in place to provide patients with excellent care in endoscopy.

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Acknowledgements Declaration of personal interests: No conflict of interest to declare.

Contributors HKL and LS are the senior and corresponding authors of this guidance document. The manuscript was drafted by HKL, MV, HG, SS and LS. The manuscript was critically reviewed, revised and approved by all authors. The literature search was performed by University Hospitals Morecambe Bay NHS Trust (Paul Tickner and Teresa Knowles) reviewed by LS, HKL, HG, MV and SS.

Funding This guidance document was commissioned by the BSG.

Disclaimer This guidance represents a consensus of best practice based on the available evidence at the time of preparation. They may not apply in all situations and should be interpreted in the light of specific clinical situations and resource availability. Revision may be necessary as new data appear. Clinical considerations may justify a course of action at variance to these recommendations, but we suggest that reasons for this are documented in the medical record. BSG guidelines and guidance are intended to be an educational device to provide information that may assist in providing care to patients. They are not rules and should not be construed as establishing a legal standard of care or as encouraging, advocating, requiring or discouraging any particular treatment.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

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