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Proportionate patient safety incident reviews: making them less complicated

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Globally, the provision of gastrointestinal (GI) endoscopy is grounded in quality assurance processes to safeguard patient safety. In the UK, the Joint Advisory Group on GI Endoscopy (JAG) oversees this function and its Global Rating Scale is a robust model for high-level quality assurance [1]. In addition, UK endoscopy benefits from comprehensive national datasets from its Bowel Cancer Screening Programme [2] and the National Endoscopy Database [3], enabling close scrutiny of key performance indicators.

Endoscopy patient safety has mostly focused on serious complications and mortality, which are relatively rare occurrences; however, it is increasingly recognized that the prevalence of endoscopy patient safety incidents (PSIs) is widespread and wide-ranging [4]. A proactive approach to endoscopy PSI is required, especially given the aging and increasingly comorbid patient populations, coupled with advances in therapeutic endoscopy. Endoscopy errors present an opportunity to improve patient safety and enhance endoscopy quality. The challenge remains how to identify and disseminate lessons learned beyond the index case.

In this issue of *Endoscopy International Open*, Berry et al. [5] present a three-tiered approach to investigating PSIs: 1) rapid desktop review, 2) mini root cause analysis (RCA), or 3) hospital (organizational) RCA. The focus of this paper is the development and use of the mini-RCA as an effective intermediate strategy. The group prospectively identified PSIs over a 36-month period in a single center, and a group of senior clinicians assigned an appropriate level of investigation for each PSI. A total of 73 PSIs were identified from the 63 006 procedures examined. Six cases underwent a formal RCA, 16 underwent a mini-RCA, and the remainder underwent rapid desktop review. Departmental learning centered around informed consent, pre-procedural assessment, escalation planning, teamwork, and communication. Additionally, the mini-RCA enabled the PSI to be discussed with the endoscopist, to explore their concerns, and to expedite patient communication in line with "duty of candor" principles.

The authors are commended for formulating this mini-RCA as a very practical intermediate measure to fill the hiatus between informal, ad hoc error analysis and the often lengthy and protracted formal hospital RCA processes. The key benefits of the mini-RCA include the fact that it is clinician led and therefore endoscopy specific. Consequently, the analysis can be timely to the incident and relevant to the team, and thus more meaningful learning can be achieved. On a very practical level, this simple tool can be incorporated into the governance processes of endoscopy units and recurrent themes can be identified. There is motivation for improvement when the incident is "close to home" and this process is somewhat independent of institutional bureaucratic processes that can feel detached at best and punitive at worst [6]. Moreover, the mini-RCA gives endoscopy leads a structured approach for managing endoscopist feedback appropriately and sensitively, an aspect that is often overlooked when considering medical error. The concept of clinicians being the "second victim" [7] of error is recognized for surgeons and is relevant to endoscopists too;

endoscopists also need to process PSIs if only to ensure their subsequent performance is not impeded alongside matters relating to their own wellbeing. Tools such as the mini-RCA, if used effectively, can help nurture a culture of learning from error in an institution, as opposed to one that seeks individual blame. By enabling a more tailored level of investigation, it might reduce any negative impact of scrutiny on an individual endoscopist, such as anxiety and cognitive interference, while also mitigating the risk of "review fatigue" and hence the opportunity to learn, if even the most minor of PSIs undergo a detailed hospital-level RCA.

Nevertheless, examination of patient safety incidents remains challenging. The mini-RCA is currently an unvalidated tool in a single center and the question around the wider implementation strategy is not addressed; for example, should this be voluntary or mandated? Gathering PSIs in the first instance remains challenging, as there is no comprehensive, robust measure to collate all near misses up to serious complications. This poses a self-selection bias with perhaps those most motivated to learn from error contributing, possibly at the expense of those without this insight, and inadvertently creating a patient safety echo chamber. Moreover, the true impact of PSIs can only really be fully appreciated with an understanding of the patient's perspective [8]. A seemingly minor error from the clinician's perspective may more detrimentally affect a patient than a more serious one, but clinicians may be more inclined to focus on the latter. While we subscribe to the broad objective of learning from error, the mini-RCA may be perceived as additional workload in an already stretched and in-demand specialty dealing with a backlog of cases from the pandemic [9], although it is perhaps better seen as a means to reduce the overall burden of a robust PSI system by permitting a more proportionate level of analysis and workload. The mini-RCA might favor focusing on an individual endoscopist over teamwork and systems issues if led by those without an in-depth understanding of the nuances of endoscopy error and the myriad of contributory factors. In this respect, the formal RCA may be better placed to identify and address systemic issues lying behind the PSI. Finally, as with all patient safety research, it is difficult to measure the impact of the tool on changes in clinical practice and direct improvements in patient safety, but this measure undoubtedly is part of the "marginal gains" [10] story in improving endoscopy safety and quality.

So, what are the future directions for this mini-RCA tool? Useful next steps would be validation of the tool in other units and an end-user assessment by questionnaire to determine whether the process facilitates learning and impacts practice. There is real benefit in gleaning the key learning points from the mini-RCA and distributing lessons more widely through existing educational strategies such as the JAG "Improving Safety and Reducing Error in Endoscopy" (ISREE) strategy [11]. One aspect of this incorporates an anonymized case of the month published on the JAG website [12] and disseminated to endoscopy users of all backgrounds and across units. The authors highlight the importance of conducting duty of candor conversations with patients and families in a sincere, timely, and transparent manner. This may also be an opportunity to invite the patient experience as one of the most powerful learning tools in the patient safety armamentarium.

In conclusion, there is general consensus that analysis of patient safety incidents in endoscopy is important. Implementing this is challenging and poses many more questions: which patients, which errors, how and when to do this, and who should lead the analysis? PSIs are obviously a route to understanding error but the bridge to effecting meaningful change in endoscopic practice remains challenging. This paper presents a practical middle ground and an endoscopist-led approach to structuring PSI analysis. This enables focused feedback to endoscopists and endoscopy teams and can inform endoscopy governance processes to maximize learning opportunities from endoscopy error.

Competing interests

The authors declare that they have no conflicts of interest.

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