Clinical quality indicators in inflammatory bowel disease

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Variability of care may indicate issues with standards of care, although such variation may also reflect a lack of adequate evidence. Such variation in practice has been clearly shown in both pediatric and adult ulcerative colitis and Crohn disease management in both ambulatory and hospital settings. Clinical quality indicators in inflammatory bowel disease (IBD) have started to evolve rapidly, although development of such quality indicators in a chronic disease may be challenging. Although the development of clinical quality indicators in colonoscopy, such as the Global Rating Scale, have transformed the practice of colonoscopy, the development of quality metrics for IBD is far more difficult because relating outcome measures to structure or process is not always evidence based. The clinical quality indicators may not be the same during hospitalization and ambulatory care. The different stages of disease, such as achieving early diagnosis, induction of remission, maintenance of remission, monitoring for adverse events, surgery and postoperative care, and pregnancy and reproductive health, may all require different and distinctive indicators. Clinical quality indicators may also differ depending on payer perspective, hospital administration perspective, expert physician perspective and patient perspective. It is also not always clear whether rates or sentinel events should be measured.

Currently, the clinical quality indicators have generally focused on process, although clear evidence that identified processes clearly influence outcomes are often lacking. The American Gastroenterology Association Bridges to Excellence IBD Care Recognition Program has established nine process-related indicators that may enable physicians to achieve recognition for quality health care and fulfill Physician Quality Reporting System requirements. Some of these indicators are also included in the quality indicators proposed by the Emerging Practice in IBD Collaborative group and published in the current issue of the *Journal* (1) (pages 275-285). While process indicators may be used to assess quality of care provided by individual physicians, structure indicators may be more important for hospital administrators and IBD centres to establish 'Centres of Excellence'. Various international IBD organizations are working on defining such structure indicators. Unlike the Global Rating Scale in colonoscopy (2), patient experience indicators are still lacking in IBD, and this may reflect the lack of involvement of patient organizations in defining the indicators. Both disease-specific and generic indicators may have roles to play in benchmarking practices and improving the standard of care (Table 1).

Moreover, several studies are currently evaluating therapeutic strategies in IBD related to outcomes and these may be the most critical studies to refine our clinical quality indicators at individual practice, IBD centre and institutional levels. Quality improvement programs in IBD that may require significant investment of resources (such as change in structure) must show improvement in defined outcomes. These outcomes must be sensitive to interventions and robust. A few well-validated, evidence-based clinical quality indicators are better than numerous 'soft' indicators. Nationally collected data using Internet-based platforms are better than local data collection alone. In addition, clinical quality indicators should also aim to reduce inappropriate utilization of investigations and therapy.

It is important to stress that clinical quality indicators should be designed to drive quality improvement rather than simply measure performance. It is crucial to obtain engagement of all stakeholders by clearly establishing the evidence base for clinical quality indicators. Institutional and organizational commitment, compensatory payer commitment and cultural commitment are all necessary elements of successful implementation. An institutional culture of commitment to quality of care is important for disease-specific quality of care to thrive.

We also need to standardize and refine outcome measures that are robust, evidence based and valid in IBD. Rates, such as hospitalization and surgery, are variable and do not necessarily relate to meaningful and patient-important outcomes, although these may affect resource utilization. End points, such as mucosal healing, have not been prospectively and robustly linked to intervention-related long-term outcomes. It is important that clinical quality indicators do not anticipate the evidence from such outcome studies, but follow establishment of the evidence. Establishing standards of care, such as that by the United Kingdom IBD Standards Group, is an aspiration that must be grounded in evidence. However, the increasing drive to improve quality of care in IBD is extremely encouraging and deserves the support of all organizations involved in the care of IBD patients.

TABLE 1
Examples of clinical quality indicators in inflammatory bowel disease (IBD)

Domain	Indicators
Structure	Multidisciplinary team IBD nurse practitioner Expert surveillance colonoscopy Access to expert colorectal surgeons
Process	Tuberculosis and hepatitis B screening before biological therapy Vaccination program in immunosuppressed patients Prevention of thromboembolism Monitoring for bone loss
Outcome	Steroid-free remission Perioperative mortality Bone fractures
Generic	Patient experience in clinic Patient understanding of management plan Adherence to medications

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