

Appropriate preoperative investigations in the management of rectal cancer

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McMullen and colleagues¹ have examined the practice patterns of a cohort of Ontario surgeons in their preoperative assessment of rectal cancer. In so doing, they raised important questions about the lack of evidence-based guidelines upon which surgeons could logically and reliably make decisions. They have also implied that variations in educational experience as well as location of practice drive decision-making.

In 2000 there were 6165 new diagnoses of rectal cancer and 1401 rectal cancer deaths in Canada.² Significant variations of outcomes based on practice location in Ontario have been described, again attributed to perceived issues of access to care, knowledge base, attitudes or training.

The 3 factors contributing to staging of rectal cancer are colon status, presence/absence of distant metastases and local extent of disease. What specific questions about preoperative staging can be answered with scientific evidence; what actions are reasonable in the absence of clear evidence; and on what criteria should these decisions be based? The criteria I use, arbitrary as they may be, include:

1. Has the test under consideration some validity (sensitivity, specificity)?

2. Will the treatment plan be altered by the information obtained?
3. Where choices exist with no clinical evidence of superiority, how can costs be minimized?

The colon: Evidence suggests that at diagnosis, up to 30% of rectal cancers have synchronous colonic polyps and 4%, a synchronous cancer. Presence of a large cluster of adenomas or a second cancer would almost certainly alter plans for surgery and radiation. It would be difficult, for example, to support preoperative radiation of a rectal cancer while another in the transverse colon was left untreated.

Recommendation: Preoperative colonoscopy; if unavailable (or if a high-quality contrast enema has already been radiographed), barium enema is a reasonable substitute.

Distant metastases: The most common sites of rectal cancer metastases are liver and lung. The more distant the primary cancer, the greater the likelihood of lung metastases; based on the systemic versus portal route of spread. There is little evidence of the superiority of ultrasound over computed tomography (CT) in screening for liver metastases, but in Canada ultrasound is generally more accessible.

Presence of diffuse distant disease not amenable to curative metastectomy would likely influence decisions on treatment of the primary. A complex locally advanced rectal cancer with “incurable” distant disease may be symptomatically managed by a diversion colostomy or no surgery.

Recommendation: Chest radiography is cheap and accessible; local access to ultrasound or CT of the liver/abdomen varies. About carcinoembryonic antigen (CEA), more has been written with less benefit to patients than I care to think about. Preoperative CEA *might* affect postoperative case management but will have little effect on preoperative planning.

Local extent of disease: This most controversial area is where I may be accused of being “dinosaur-like” in approach. Locally advanced rectal cancer, as evidenced by transrectal ultrasound (TRUS), magnetic resonance imaging (MRI), CT or a well-educated index finger, is more difficult to remove and cure than small, mobile, less-advanced disease. The decision to use preoperative neoadjuvant chemoradiation is based on this diagnosis of “advanced local disease.” McMullen and coauthors² attest that evidence for superiority of

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any investigative technique (radiologic “digital” v. surgeon “digital”) is lacking. I generally rely on my finger, corroborated by TRUS unless MRI or CT has already been done. This preference is entirely logistical, as locally I have easier access to TRUS than to CT or MRI.

Recommendation: Determine by available means if the tumour is a big, fixed mass that would be best treated with neoadjuvant therapy.

Caveat: With our evidence base so scant, consider participating in trials that may teach us more about appropriate staging.

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References

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2. Statistics Canada. Canadian cancer statistics 2004.

Audit to improve

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*Vision without action is a daydream.
Action without vision is a nightmare.*
— Japanese proverb

Surgeons who have achieved practice perfection, read no further. The rest of us wonder how to maintain and enhance our performance according to expectations of ourselves and colleagues, and how to adopt “best practices” displayed in journals and education sessions. Achieving those goals challenges us because of competing demands on our personal and institutional resources, and because, frankly, we have not been taught how to do it. We engage in life-long learning of medical expertise, effective communication, accurate documentation and wise resource allocation, but we have not learned how to monitor and improve ourselves in those functions. Because data-gathering and accountability for our performance are increasing at local, provincial and national levels, we will face growing requirements to maintain and improve our practices,

and prove that we have done so.

To that end, Birch and colleagues¹ have served us well by providing a stepwise approach to one of Maintenance of Certification’s (Maincert’s) most difficult yet rewarding types of continuing professional development: self-audit. The authors summarize arguments that lectures and other “traditional” continuing-education methods do not lead effectively to changes in practice; they provide the rationale for Maincert’s attribution of “double points” toward accreditation for time spent in self-audit; and they describe how to perform an audit of a part of one’s clinical practice. The simplicity of their approach makes it accessible to any surgeon with little more than a pencil and the motivation to improve her or his performance (and get double points).

Several questions arise from the authors’ report. Who will cover the human and capital resources required for yet another activity expected of practitioners? How will surgeons find the time to self-audit? Who will pro-

vide the education and other enablers such as templates like the one they provide for appendectomy? Will surgeons risk legal discovery if they document care in which adverse outcomes were associated with variances in the processes of care? Can surgeons and other clinicians be motivated to practise self-audit regularly? Lastly and most importantly, will self-audit make us better surgeons?

The authors begin to answer some of these queries, but full discussion of all of them would warrant a separate article. Before considering issues of resources and motivation, we need assurance that improvement of quality through self-measurement and incremental practice changes improves the outcomes of care. Data to support that contention have grown considerably in the last decade, from specific types of practice improvements cited regularly in journals dedicated to health care improvement² to larger-scale efforts, such as work in the US Veterans Administration system,³ cited in clinical journals. Based

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