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Speeding up recovery from radical cystectomy: How low can we go?

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Radical cystectomy (RC) is the gold standard treatment for muscle invasive bladder cancer (BC) [1]. It offers the best chance of cure in patients with curable disease and excellent palliation in those with local symptoms from advanced disease. Longitudinal reports suggest many patients accept and adapt to the impact of RC, leading to minimal overall impact on their quality of life [2]. As such, cystectomy also offers a viable alternative to BCG for patients with high risk non-muscle invasive BC. Whilst I recognise the vital role of chemo and radiotherapy play in treating this disease, and that radiotherapy may be a better choice for some patients than RC, it is the morbidity from RC that hinders its wider use and encourages alternatives [3]. For example, studies within the USA reveal that up to 1/3 of patients with muscle invasive cancers do not receive radical treatment [4] and implementation of centralised cancer services in the UK has only now shown survival improvements, as morbidity from RC comes down [5]. The lowering of perioperative morbidity and mortality from RC is changing the face of the operation and increasing its use.

In this month's issue of the BJUi, Miller and colleagues from Exeter, UK combine robot-assisted minimal access surgery with enhanced recovery to report outcomes in a consecutive series of 'state of the art' RCs [6]. The authors show consistent improvements in outcome, such that length of stay halves of the duration of recruitment. Importantly, recovery becomes more predictable (as shown by the converging mean and median length of stay figures), although we are unclear as to how many patients had prolonged stays. Whilst the authors should be congratulated for their efforts in delivering this service and for charting its implementation so meticulously, some key descriptive findings are missing. For example, what is the extent of the variation in their outcomes (range and quartiles) and do the data differ between surgeon? What happened to the 25% of patients who stayed longer than 10 days? Did all patients receive all components of their ERP program, and if not, which were felt to be most impactful? How did length of stay and complication rates differ by reconstructive choice and reconstructive location (intra or extra-corporeal)? Did patient selection stay the same over time, or did improved outcomes lower the 'fit for cystectomy' bar? Many of these

answers will be missing, given that the primary source of information was the BAUS major operations registry. This self-completed dataset is extremely valuable for comparisons between units and trends over times, but has limited data complexity and granularity. Finally, whilst the field is moving towards total intra-corporeal surgery, the reported complication rates appear similar for extra- and intra-corporeal reconstruction, questioning need for the added complexity of intra-corporeal surgery.

Economists, commissioners and patients will want to know the importance of the forces driving these improved outcomes. Do the better outcomes reflect centralisation of services, the team's learning curve, the meticulous use of enhanced recovery or minimal invasive surgery through robotics? The latter has vastly different cost implications to the others. My guess is that whilst all of these aspects were important, it was volume of service (from centralisation) and enhanced recovery that were the main contributors. I speak having seen a similar experience in my unit, although we started robotic surgery at a later date than these authors, and in the knowledge that this group previously published the dramatic impact of enhanced recovery on their open radical cystectomy length of stays [7]. Regardless of these concerns, the outcomes are to be welcomed by urologists and patients, and the team should be congratulated. As length of hospital stay become shorter, our next scientific focus should be on out of hospital recovery. We rarely see data on time taken to return to normal activity and on how patients adjust post-surgery. Whilst return to work is important for younger patients, many with bladder cancer are retired but so it is return to quality of life that matters most. This question becomes even more important in an era of centralised care, where many patients recover away from their surgical teams and conversely surgical teams are less aware of problems and outcomes. Perhaps it will be out of the hospital, that the effort and cost of minimal invasive surgery are justified.

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