

Dictum of Success in Pelvic Exenterative Surgery

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Pelvic exenteration represents the standard of care for patients with locally advanced and recurrent malignancies of the pelvis. Although acceptance has been slow due to the historically high rates of morbidity and mortality reported in the 1940s, recent decades have seen dramatic improvements in outcomes. Advances in chemotherapy, radiotherapy and immunotherapy have shifted treatment paradigms, while surgical techniques have evolved and become more finessed [1]. The trio of success in exenterative surgery, both objectively in terms of survival, and subjectively in terms of quality of life and health economics, is based around **'one-third selection process, one third decision-making and one-third surgical technique'**.

Selection process, standardisation of referral criteria, improved access to services, better coordination of care and careful assessment of individual patients through a dedicated complex colorectal cancer multidisciplinary team can result in significant benefits to patients requiring pelvic exenteration. Streamlined, standardised and well-communicated management can deliver timely, cost-effective and high-quality care resulting in high rates of complete tumour excision of over 90% and low mortality and morbidity [2].

Decision making developments in advanced pelvic oncology relate to improvements in MRI, navigational tech-

nology, the use of radiologically-guided, three-dimensional reconstructions to allow complete extensive resections, and greater adoption of neoadjuvant treatments, including reirradiation, intra operative radiotherapy and total neoadjuvant treatment. There is persistent and substantial variation in treatment decision-making for people presenting with advanced/recurrent pelvic cancer worldwide. Most of the decision-making process, including the recommendation to support or not support advanced pelvic cancer surgery, is based on the experience of individuals and centres, and does not follow a comprehensive evidence-based approach that is well supported by cancer specialists, patients and carers. Treatment decision-making has commonly survival as the solely desired postoperative outcome. There is no evidence on important composite measures, such as survival, morbidity, and quality-of-life outcomes, to inform treatment decision-making. Moreover, the definition of optimal outcomes and the views of cancer specialists, health economists, epidemiologists, health policymakers, patients, and carers on their accepted influence on decision-making are lacking. Therefore, the boundaries of pelvic surgical oncology of the future must try to address unwarranted treatment decision-making variation in patients with advanced or recurrent bowel cancer by developing simple evidence-based surgical information that includes patient choice, physical, nutritional, and psychological information, surgical outcomes, patient-reported outcomes (quality of life), morbidity, treatment costs and survival [3,4].

Surgical technique in achieving the holy grail of an R0 margin is determining not only the resectability of pelvic malignancy, but also the radicality of the surgical approach required. If the disease abuts or involves an organ, that organ should be resected en bloc and not 'shaved' free of tumour. This has led to dramatic improvements in R0

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rates in the lateral compartments in the pelvis. Refining techniques continue to facilitate 'higher and wider' resections at the periphery of the pelvis as well. Pelvic Exenterative surgery has undergone dramatic evolution in recent decades from what was a palliative procedure in gynaecologic practice. It now represents the possibility of cure for patients with advanced pelvic malignancy and the standard of care for surgical oncologists. The PelvEx collaborative, the Beyond TME Collaboration, and the IMPACT Initiative have played important roles in providing a forum for surgeons to engage with one another and in facilitating the coordinated collection and pooling of data for what remains a relatively uncommon procedure [5,6].

Adding collaboration, teaching and research opportunities to the '**one-third selection process, one third decision-making and one-third surgical technique' trio** will allow specialist surgeons to practice more precision surgery in dedicated institutions, equipped with state-of-the-art technology providing compassionate care through a clinical approach based on direct personal interaction with patients.

REFERENCES

1. Steffens D, Solomon MJ, Young JM, Koh C, Venchiarutti RL, Lee P, et al. Cohort study of long term survival and quality of life following pelvic exenteration. *BJS Open* [Internet]. 2018 May;2:328-35. Available from: <https://pubmed.ncbi.nlm.nih.gov/30263984/>
2. Kontovounisios C, Tan E, Pawa N, Brown G, Tait D, Cunningham D, et al. The selection process can improve the outcome in locally advanced and recurrent colorectal cancer: Activity and results of a dedicated multidisciplinary colorectal cancer centre. *Colorectal Dis*. 2017 Apr;19(4):331-8.
3. Kok END, van Veen R, Groen HC, Heerink WJ, Hoetjes NJ, van Werkhoven E, et al. Association of image-guided navigation with complete resection rate in patients with locally advanced primary and recurrent rectal cancer: A nonrandomized controlled trial. *JAMA Netw Open* [Internet]. 2020 Jul;3(7):e208522. Available from: <https://pubmed.ncbi.nlm.nih.gov/32639566/>
4. Voogt ELK, van Zoggel DMGI, Kusters M, Nieuwenhuijzen MGAP, Bloemen JG, Peulen HMU, et al. Improved outcome for responders after treatment with induction chemotherapy and chemo(re)irradiation for locally recurrent rectal cancer. *Ann Surg Oncol*. 2020 Sep;27(9):3503-13.
5. Solomon MJ. Redefining the boundaries of advanced pelvic oncology surgery. *Br J Surg*. 2021 May;108(5):453-5.
6. Shaikh I, Aston W, Hellawell G, Ross D, Littler S, Burling D, et al. Extended lateral pelvic sidewall excision (ELSiE): An approach to optimize complete resection rates in locally advanced or recurrent anorectal cancer involving the pelvic sidewall. *Tech Coloproctol*. *Tech Coloproctol*. 2015 Feb;19(2):119-20.