

**The Pelican OReCO (Optimizing Rectal Cancer Outcomes) Program: In Collaboration with ACPGBI
“Decisions, Incisions, Technology”**

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Introduction

The modern management of rectal cancer involves complex decision-making processes based on accurate imaging, selective use of pre-operative neo-adjuvant therapies (which is occasionally curative), precision surgery and detailed pathological analysis of the resected specimen. Unsurprisingly, this complex management plan involves a multidisciplinary team (MDT) approach with often numerous shared decision making conversations with the patient. Indeed, the key concepts are that “Decisions are more important than incisions” and precision surgery in the form of total mesorectal excision (TME) remains pivotal to optimize outcomes. (1). We have previously addressed the MDT aspects of managing rectal cancer in Pelican Workshops (1), extending from

- The MDT-TME Development Program (2003-2007),
- The Low Rectal Cancer Program (LOREC) (2009-2012),
- The Significant Polyp Early Colorectal Cancer (SPECC) Program (2014-2017) and
- Improving Management for Patients with Advanced Colorectal Tumours (IMPACT) (2018-2020).

These Pelican workshops progressed from the evolution around the principles of an MDT in the context of precision surgery by TME, to the difficulties in assessing and managing low rectal cancer in the LOREC program. More latterly the complexities of managing the extremes in the neoplastic pathway from large, possibly malignant, rectal polyps, to advanced and metastatic disease were addressed in SPECC and IMPACT respectively. The focus of SPECC and IMPACT was on the need to minimize over, and under-treatment, in patients with disease ranging from non-malignant to metastatic colorectal cancer. There has been tremendous enthusiasm and support for Pelican Cancer workshops and previous programs have been highly rated by Colorectal Cancer MDT's all over Great Britain and Ireland. The focus has been on bringing together people who manage these complex diagnostic and management decisions in face-to-face workshops. The aims have been to share our understanding on the optimal individualised therapy for all patients with rectal neoplasms, ranging from significant rectal polyps to advanced and metastatic disease, and discuss the many uncertainties and unknowns. The Pelican workshops have helped to refine treatment and improve outcomes and the principles and concepts of these workshops have been replicated in part, or in whole, in many parts of the world.

Rectal Cancer Treatment in Evolution

As Heraclitus stated, “The only constant in life is change” and in this context the management of rectal cancer has changed considerably, and continues to do so, even during the two decades of Pelican Cancer Workshops. The range of procedures, and complexity of techniques currently available to manage rectal cancer means that almost no individual clinician is now equipped with the decision making, and technical skills, to offer the full plethora of techniques. For optimal outcomes for individual patients with rectal cancer, intra-hospital and interhospital referral may be the way forward.

Novel changes in rectal cancer management range from non-operative treatment (in the 5% or so who respond completely to immunotherapy and the 15-20% or so who get a sustained clinical response after chemo-radiotherapy) to patients with early rectal cancer where trans-anal, endoscopic excision, or contact radiotherapy, may be all that is required to cure. In addition, accurate whole-body imaging can now detect patients with advanced metastatic disease where major rectal excisional surgery may do more harm than good and where combinations of chemotherapy, radiotherapy, and best supportive care (Palliative Care) can prolong quality and quantity of life far beyond that achieved by rectal resection. In this context Palliative Care medicine is a key component. Therefore, it is essential that patients with rectal cancer are discussed in a colorectal MDT. The majority still undergo some form of surgical procedure, and the surgeon has to be able to manage recurrence after failure of non-operative techniques.

Surgery and The Rise in Robotics

Surgery is an ancient craft with ever evolving instruments, controlled by the hand of a surgeon, to eradicate and treat human pathology. The technical skill needed to perform an operation has to be acquired by repetitive practice, based on instruction and training by a mentor, and the trainee apprentice model was the traditional pathway to independent practice. Maintaining and developing this precision skill is a life-long learning process. There seemed little need, or role, for scientific method in the trainee apprentice model and in the 18th century, anatomical dissection, and knowledge, was the basis for surgical practice. A recent excellent review by Hughes and Macintyre entitled “Surgeon-anatomist to robotic technicians? The evolving role of the surgeon over three centuries” outlines the history of surgery over the last three decades from surgical scalpel to current robot assisted technology (2). Hughes and Macintyre proposed that surgical advancement in the 18th and 19th

centuries depended on creative individuals with innovative flair prepared to pioneer often risky procedures in the face of mainstream opposition (2).

The foundation for this individualism was based on the study of anatomy, predominantly inspired by the first Edinburgh Professor of Anatomy, Alexander Munro (1697-1767) and the surgeon anatomist brothers, William Hunter (1718-1783) and John Hunter (1728-1793) (2). John Hunter is generally regarded as the father of scientific surgery and proposed that surgery should be based on the principles of reasoning, observation and experimentation. To that we would add continuous audit and documentation, with presentation and publication, of immediate, and long term outcomes to validate a known, or new, procedure. The IDEAL collaboration has provided a framework to do this in a systematic way.

As a consequence of changes in rectal cancer management and the increasing use of precision imaging and surgical technology, the numbers of patients requiring major excisional surgery is diminishing but the complexity of intervention in many of the patients requiring surgery is increasing. The higher proportion of patients with advanced disease combined with many who have regrowth after initial complete response, combine to increase the complexity of the surgery required to cure. Additionally, the widespread introduction of novel access techniques, including trans-anal surgical interventions, laparoscopic surgery, and more recently an exponential growth in robotic platforms for major surgical intervention, has created further unknowns on the optimal management of an individual patient with rectal cancer.

In this context the Association of Coloproctology of Great Britain and Ireland (ACPGBI) has drawn attention to the small numbers of rectal cancer operations being performed in some hospitals, and in addition many surgeons performing small numbers of cases (3). Specialization in rectal cancer within units is recommended as occurs already with pelvic floor and pouch surgery and there is a case that some units might cease to operate on rectal cancer patients and refer to larger centres (3). The key recommendations were inter-hospital referral and specialization within units to optimize outcomes (3).

Whilst these suggestions have some merit, all colorectal MDT's need knowledge, experience and personnel who understand the diagnostic and management complexities and optimize decision making, wherever the operation is performed, should major excisional surgery be required.

Thus, there is a need for all Colorectal MDT's to have a fundamental knowledge base in the decision making skills on significant rectal neoplasms (rectal SPECC), selection for neoadjuvant therapy in confirmed cancer, optimal

surgical intervention by an experienced surgeon, with appropriate technology, and strategies for follow-up to detect and treat functional problems and manage cancer recurrence. A recent paper by Boyle et al entitled “What is the impact of hospital and surgeon volumes on outcomes in rectal cancer surgery? (4) used retrospective NBOCA data suggested centralizing rectal cancer surgery with the main focus of increasing hospital volume may have limited impact on NHS surgical outcomes. Boyle et al suggested that quality improvement initiatives should address a wider range of evidence based process measures, across the multidisciplinary team pathway, to enhance outcomes for patients with rectal cancer (4). The Pelican OReCO aims to focus on such measures.

Pelican OReCO(Optimizing Rectal Cancer Outcomes) Program – In collaboration with ACPGBI-

Pelican Cancer Foundation have developed the OReCO program of colorectal MDT one day face to face workshops to be delivered to all 19 Chapters of ACPGBI across GB and Ireland between January 2024 and December 2027. The aim is to raise standards on rectal cancer management across all colorectal MDT's, to maximise outcome for the benefit of the greatest number. These principles have been the focus of previous workshops and the current program aims to expand on previous work and modernise thinking and practice in the light of recent developments. Now more than ever, optimal case selection and appropriate surgical techniques for managing rectal cancer are needed and “Decisions are more important than incisions” (1). When it comes to surgical decision making and performing the required surgery for colon and rectal cancer, the role of the surgeon as an individual who has knowledge of surgery and the patient, and can interact with medical and radiation oncologists, radiologists, nurse specialists, palliative care teams, and numerous other professionals is pivotal. Team working with these large teams optimizes outcomes but ultimately the surgeon is generally the interface between the patient and the treatment, and commonly has overall responsibility for treatment and continuity of care. Pelican OReCO, in collaboration with ACPGBI, aims to promote effective and cost-effective management of rectal cancer by optimal decision making, and precision surgery based on established principles with appropriate affordable technology.

References

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