Multidisciplinary Rectal Cancer Care in the United States: Lessons Learned from the United Kingdom Multidisciplinary Team Model and Future Perspectives

UK Lessons for the US MDT

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Rectal cancer care is complex, and the first therapeutic act is crucial. With the wide range of health-care professionals involved, an enormous potential for poor coordination and miscommunication exists. In the United Kingdom (UK), multidisciplinary teams (MDTs) were implemented in 1995 on impetus from the Calman-Hine report, which stressed the need for specialist care and multidisciplinary management of cancer services. The MDTs sought to improve coordination, communication, and decision-making between the health-care team and patients.1 By bring together the experts, MDTs aimed to reduce variation in treatment and survival patterns. It is now mandatory in the UK for colorectal cancer treatment decisions to be made within the context of an MDT meeting. Since inception, the MDT structure has evolved to the peer review process to ensure high quality decision-making is made and that the decisions are implemented.2 MDT recommendations are followed upwards of 90%, and lack of compliance with recommendations is related to patient co-morbid disease and patient preferences.2 Notwithstanding widespread use, limited research shows MDT effectiveness for clinical decisions in the UK.1,3 As the United States (US) follows the UK’s MDT model, there is question of if the MDT has an impact on overall outcomes.4 There is a need for dramatic improvement in the US, where unacceptably high variability in treatment and outcomes by cancer center type, geographical location, and hospital volume are seen.5 Despite advances in surgical technique and multimodality therapy, US rectal cancer care remains somewhat chaotic.5 The American College of Surgeons (ACS) Commission on Cancer (CoC) National Accreditation Program for Rectal Cancer (NAPRC) was created to emulate the UK and Scandinavian models, developing certified centers of excellence, following evidence-based care pathways and protocols to reduce disparity and improve outcomes.6

Intuitively, there appear to be undisputable MDT benefits in rectal cancer. True to their intended goal, MDTs have promoted teamwork, communication and cooperation between disciplines for optimal diagnosis, evidence-based decision making, treatment planning, improvements in survival, and both patient and clinician satisfaction.7 The prognosis of rectal cancer has improved, with better rates of morbidity, permanent colostomy creation, and oncologically acceptable rectal excision, leading to lower recurrence, better disease-free survival and overall survival.6 MDT meetings directly impact patient assessment and management, with the discussion changing the operative plan in a substantial portion of rectal cancer patients before surgery, especially locally advanced cases.3,7 The system also allows for robust governance around research or innovative practice and offers both patients and clinicians reassurance that the care plan is being delivered under a consensus management strategy. An example of this approach could be patients treated under “watch and wait” strategies. Such data will be captured as surveillance metrics within the developing NAPRC.

The real question may not be if the MDT process improves clinical outcomes, but if we are properly measuring them. At inception, there were no standardized metrics or
methods to measure implementation or effectiveness, so no reliable figures for quality improvement exist. The US model could build upon this by the introduction of peer-review and patient-related outcome metrics at onset, establishing the role of nursing navigators, institutional data trackers for timely reporting, and universal access to a comprehensive database like the National Bowel Cancer Audit for benchmarking outcomes.

However, true implementation of the MDT process needs to occur for real progress to be made. The question should transition from, “Does this work?” to “How can we use this process to apply the evidence and further improve outcomes?” For example, the interval between neoadjuvant chemoradiotherapy and surgery is not standardized. Using an evidence-based standard could optimize the chances of complete pathologic response (pCR) and perhaps increase organ preservation. Currently, the Response Evaluation Criteria In Solid Tumors (RECIST) criteria are the only validated measures to assess response in primary disease, albeit few validations exist for outcomes in rectal cancer, and none for recurrent rectal cancer. Harnessing the evidence from the Magnetic Resonance Imaging and Rectal Cancer European Equivalence (MERCURY) Study Group and subject matter experts, the MDT practice can evolve to using MRI for risk stratification, routinely re-imaging after neoadjuvant treatment, for predictive and prognostic imaging biomarkers, such as extramural venous invasion (EMVI) and tumor regression grade (TRG). With this information, we can stop treating lymph nodes in the mesorectum, which will be removed with a proper total mesorectal excision, and employ these biomarkers to guide adjuvant treatment, timing, and surgical options. The team can also work towards establishing an objective response threshold in patients undergoing treatment for recurrent disease. The US is clearly ready for MDT rectal cancer care, and using the UK framework and future direction gives promise for success. Within this framework, the colorectal surgeon can serve as the team leader, furthering an individualized plan for best overall outcomes, considering the oncologic and functional outcomes, as well as the patient preferences.

References


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