Original Study

Contemporary Patterns of Multidisciplinary Care in Patients With Muscle-invasive Bladder Cancer

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Abstract

Multidisciplinary care is crucial for the optimal treatment of patients with muscle-invasive bladder cancer. We surveyed practitioners regarding the multidisciplinary care models currently used in their practices. Most providers used some form of multidisciplinary care, with sequential clinic visits on different days the most common approach. However, most providers preferred an integrated multidisciplinary care protocol involving same-day concurrent or sequential clinic visits.

Background: Multidisciplinary clinics integrate the expertise of several specialties to provide effective treatment to patients. This exposure is especially relevant in the management of muscle-invasive bladder cancer (MIBC), which requires critical input from urology, radiation oncology, and medical oncology, among other supportive specialties. **Materials and Methods:** In the present study, we sought to catalog the different styles of multidisciplinary care models used in the management of MIBC and to identify barriers to their implementation. We surveyed providers from academic and community practices regarding their currently implemented multidisciplinary care models, available resources, and perceived barriers using the Bladder Cancer Advocacy Network and the Genitourinary Medical Oncologists of Canada e-mail databases. **Results:** Of the 101 responding providers, most practiced at academic institutions in the United States (61%) or Canada (29%), and only 7% were from community practices. The most frequently used model was sequential visits on different days (57%), followed by sequential same-day (39%) and concurrent (1 visit with all providers; 22%) models. However, most practitioners preferred a multidisciplinary clinic involving sequential same-day (41%) or concurrent (26%) visits. The lack of clinic space (58%), funding (41%), staff (40%), and time (32%) were the most common barriers to implementing a multidisciplinary clinic. **Conclusion:** Most surveyed practitioners at academic centers use some form of a multidisciplinary care model for patients with MIBC. The major barriers to more integrated multidisciplinary clinics were limited time and resources rather than a lack of provider enthusiasm. Future studies should incorporate patient preferences, further evaluate practice patterns in community settings, and assess their effects on patient outcomes.

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Introduction

Globally, bladder cancer comprises approximately 450,000 new cases and 165,000 deaths every year.[1] One third of patients will present with muscle-invasive disease, for which radical cystectomy remains a cornerstone of curative treatment.[2,3] Complementing cystectomy with cisplatin-based perioperative chemotherapy can further improve outcomes by enhancing local control and eliminating micrometastatic disease.[4-8] In carefully selected patients without high-risk features, an alternative approach is bladder preservation, which often incorporates a trimodality strategy of maximal transurethral resection of bladder tumor, followed by induction and/or concurrent chemotherapy and radiation, which can result in outcomes comparable to those with radical cystectomy.[9-11]

The treatment of patients with muscle-invasive bladder cancer (MIBC) can be challenging. Providers must consider the often older age of bladder cancer patients (median age, ~73 years), with their resultant competing comorbidities. Patient preferences can have a significant influence on treatment decisions as well, especially in terms of the importance of bladder preservation. Factors that can influence patient choice include the potential morbidities of the different treatments and the effect on their quality of life, sexual function, and changes in body morphology and body image. Shared decision making that values the patient's individual priorities has become increasingly integrated into the creation of treatment plans. A multidisciplinary clinic can be instrumental in fostering open communication regarding the potential risks and benefits of the different treatment modalities and can facilitate critical informed and collaborative decision making between patients and their providers.

Previous population-based studies have shown that only one half of patients with MIBC are treated with curative modalities such as cystectomy or curative intent radiation therapy.[12] Among the patients treated with curative intent, incorporation of neoadjuvant chemotherapy has been low in the United States, with contemporary studies reporting its use in only 21% of newly diagnosed MIBC patients despite level 1 evidence of its benefit.[13,14] The lack of timely referral between specialties has been recognized as a barrier to the uptake of neoadjuvant chemotherapy in several previous studies.[15-17] The institution of a multidisciplinary clinic, in which patients are evaluated by multiple providers on the same day, can potentially mitigate the challenges involved in the referral process among different specialties, thereby increasing the usage of curative treatments, including neoadjuvant chemotherapy and the timely application of local therapies.

The optimal treatment of patients with MIBC mandates an informed discussion with the patient about the risks and benefits of the various options and clear communication between the different oncologic specialties in a multidisciplinary fashion. Achieving this goal requires well-integrated care with patients evaluated by providers from different specialties either concurrently or through sequential visits. The specific model used varies considerably across institutions. In the present study, we sought to characterize the diverse multidisciplinary care models implemented across different institutions and/or to capture their absence. Our secondary goals were to investigate the degree of physician interest in executing a multidisciplinary clinic for managing MIBC and to identify the potential barriers to delivering the preferred models of multidisciplinary care.

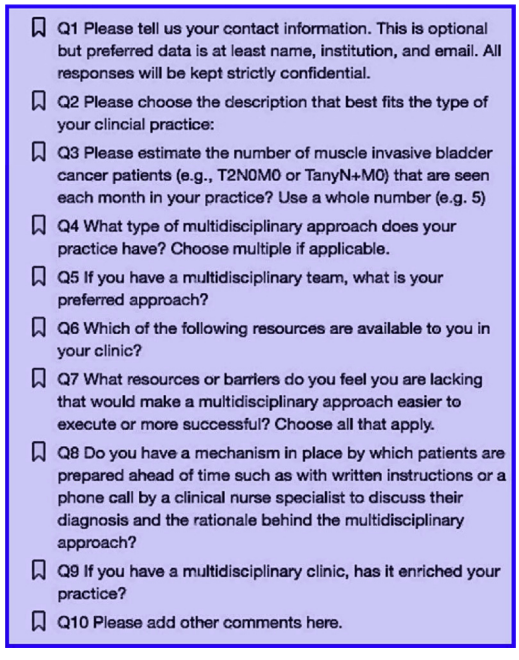
Materials and Methods

We conducted an online survey of providers treating patients with MIBC. We targeted radiation oncologists, urologists, and medical oncologists. The e-mail databases of the Bladder Cancer Advocacy Network and Genitourinary Medical Oncologists of Canada were used to reach out electronically to clinicians in both academic and community practice settings during July and August 2015. The survey consisted of 10 multiple choice questions addressing the multidisciplinary clinic models currently in place, individual provider preferences, available resources, and potential barriers to effectively implementing a multidisciplinary care model (Figure 1; the full survey has been provided in the Supplemental Material). The providers were allowed to choose multiple options when applicable. Additional free text space was provided for comments if thought necessary by the responders. The data were populated from the online survey into an Excel file, which was used for descriptive analyses. Only de-identified information was used. The response to the survey was considered implied consent, and a formal consent process was not used.

Results

The e-mail surveys were sent out to 344 providers through Bladder Cancer Advocacy Network and Genitourinary Medical Oncologists of Canada. Most were from US or Canadian academic

Figure 1 Survey Used to Capture Multidisciplinary Approaches and Physician Preferences



Abbreviation: Q = Question.