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Seminars Article

# Assessing patient risk from cancer and COVID-19: Managing patient distress

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## Abstract

The rapid spread of coronavirus disease 2019 (COVID-19) beginning in Spring 2020 necessitated significant changes to day-to-day interactions in society, as well as to the practice of medicine. Particularly in patients with cancer, these changes can exacerbate the pre-existing psychological stress associated with cancer diagnosis and treatment. We performed a narrative review, encompassing changes to cancer care as a result of COVID-19, the psychological effects of treatment delays, and strategies to mitigate these effects. A number of review articles and guideline bodies have provided guidance on patients for whom treatment may be safely delayed, including low-risk bladder, prostate and kidney tumors, as well as intermediate and high-risk prostate cancer. Mental health diagnoses are prevalent in patients with genitourinary malignancies. Evidence regarding psychologic effects of deferred treatment is limited to those with low risk of disease related morbidity. In this population, psychologic distress attenuated with time. However, in the COVID-19 context, patients with advanced disease are particularly prone to psychologic distress, as are women and younger patients. Strategies to mitigate this distress are emerging and center on recognition from the treating oncologist with appropriate referral as necessary to psycho-oncology providers and engagement of peer-supports. The COVID-19 pandemic has reshaped social structures and health care delivery. For patients with genitourinary malignancies, this may be associated with significant distress, particularly among those with advanced disease and those undergoing active treatment. Physicians treating these patients need to be aware of the psychologic stress the combined effects of the COVID-19 pandemic, cancer diagnosis, and cancer treatment can have and make appropriate referrals to support the holistic care of their patients. © 2021 Elsevier Inc. All rights reserved.

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## 1. Introduction

Since March 2020, life in nearly every Western nation has been transformed by the rapid spread of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and the societal changes necessary to manage its spread. This has resulted in significant effects on patients, physicians, and health care systems, cumulatively changing how we approach the delivery of high-level urologic oncology care. Patients with COVID-19 and a history of cancer have a

significantly increased risk of poor outcomes [1], with a severe COVID-19 phenotype seen more often in men with advanced age and comorbid conditions: a reflection of a large proportion of patients with genitourinary malignancies [2,3].

In response to the first wave of the pandemic, health care systems rationed ventilators, operative time, and personal protective equipment, among other changes, in order to decrease the likelihood of hospital systems being overwhelmed by a potential influx of COVID-19 patients. As the pandemic has progressed, jurisdictions have attempted to return to “pre-pandemic oncology treatment” of patients; however, the impact of delays in diagnosis and treatment of urologic oncology malignancies from the pandemic is

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essentially unknown. Importantly, the impact of these delays in treatment has led to increased patient distress, which we have all experienced first-hand in our patient interactions. As such, this narrative review will discuss delays in urologic oncology care secondary to the COVID-19 pandemic, with a specific focus on the impact of patient distress. Additionally, we will discuss several opportunities and strategies for urologic oncologists to address these issues with our patients.

## 2. Delays in urologic oncology care: triaging operations

On March 13, 2020, the American College of Surgeons (ACS) recommended that hospitals and surgeons should attempt to minimize, postpone, or cancel electively scheduled operations. Four days later, the ACS provided further recommendations on the triage of nonemergent surgeries, including an assessment of the risk incurred from surgical delays of 6 to 8 weeks or more versus risk to the patient and the health care system of proceeding with the operation during the pandemic.

Most governing bodies have recommended continuing with most oncology operations, however this placed urologic oncologists in a situation of (1) deciding which operations may be safely delayed versus those that should proceed, (2) making difficult treatment decisions in a time of rationing resources (often varying by state/jurisdiction), and (3) balancing the risk of disease progression versus risk of COVID-19 infection (to the surgeon, the patient, and the health care system). In an effort to assist urologic oncology decision making, several collaborative reviews emerged early in the pandemic. Based on the available literature, Wallis et al. concluded that the following patients would be unlikely to suffer from a treatment delay: (1) low-grade non-muscle invasive bladder cancer (3–6 months), (2) active surveillance of low-risk prostate cancer, (3) intermediate- and high-risk prostate cancer (3–6 months), (4) T1 renal masses, and (5) low-grade upper tract urothelial carcinoma [4]. Katims et al. came to similar conclusions, noting that muscle-invasive bladder cancer and testicular cancer can be initially treated with chemotherapy, whereas surgical management of  $\geq$ T3 renal masses, high-grade upper tract urothelial carcinoma, and penile cancer should take the highest precedence for surgical intervention [5].

## 3. Patient distress secondary to treatment delays

It is well established that patients with urologic malignancies suffer from depression, distress, and anxiety. Using the Surveillance, Epidemiology, and End Results (SEER)-Medicare database, Ravi et al. noted that 20.4% of men with localized prostate cancer suffered from a mental illness [6]. This included 29.7% of patients undergoing watchful waiting, 29.0% of patients receiving radiotherapy, and 22.6% of men undergoing radical prostatectomy. With regards to bladder cancer, data from SEER-Medicare

suggests that 50.4% of patients diagnosed with bladder cancer were also diagnosed with a post-treatment psychiatric disorder [7]. Furthermore, patients undergoing radical cystectomy were 19% more likely to be diagnosed with a psychiatric disorder compared to those receiving chemoradiation treatment.

The most robust data in the urologic oncology literature assessing patient distress is among those managed with expectant or surveillance strategies (i.e., low-grade, low-risk prostate cancer, cT1a renal masses). For some patients, forgoing formal treatment for their cancer may be associated with increased psychological distress; outcomes for prostate cancer patients managed with active surveillance are mixed. Among 313 men in the United Kingdom, Watts et al. reported that the prevalence of clinical anxiety was 23% and for depression was 12.5%, associated with a 2- to 3-fold increase compared to the general population [8]. Contrarily, a Dutch study of 150 patients on active surveillance noted that fear of disease progression and general anxiety decreased over time, leading to a limited number of men discontinuing active surveillance because of distress or anxiety [9]. Recent work from the Princess Margaret Cancer Centre has provided insight into patient distress while being managed with active surveillance for a small renal mass. Among 217 patients less than 70 years of age on surveillance, those with biopsy proven malignancy had significantly worse psychological distress in multivariable models [10]. When this cohort was stratified by gender, psychological distress was significantly higher for women after diagnosis and after renal mass biopsy, but diminished over time with no gender differences at the date of last follow-up [11].

Social distancing during the pandemic is contributing to mental health distress, loss of motivation, and loss of self-worth [12]. A recent meta-analysis suggests that the prevalence of post-traumatic stress symptoms is 23.9% in the general population, as well as 24.8% of individuals suffering from psychological stress [13]. Not surprisingly, these disparities are exacerbated in patients with cancer. Work from China noted that among 6,213 cancer patients, 23.4% had depression, 17.7% had anxiety, 9.3% had post-traumatic stress disorder, and 13.5% had hostility [14]. Factors associated with having mental health issues in cancer patients in this study included a previous mental health disorder, excessive alcohol consumption, worrying about cancer management during COVID-19, feeling overwhelmed by COVID-19, and those suffering from fatigue and pain. To compound this difficult situation, only 1.6% of patients were seeking psychiatric or psycho-oncology care.

While it may be reasonable for appropriately selected patients with low-risk prostate cancer, low-risk bladder cancer, and small renal masses to be managed with surveillance strategies, there is a paucity of urologic oncology data assessing patient distress amongst individuals where surgical management is recommended, particularly during the

pandemic. However, there is a growing body of literature among oncology patients in general with regards to patient distress during COVID-19. In 77 patients with lymphoma continuing chemotherapy during the first phase of lockdown in Italy, 36% of patients had anxiety, 31% depression, 36% had post-traumatic stress disorder based on Hospital Anxiety and Depression Scale (HADS) scores [15]. In this population, women and younger patients were more prone anxiety and post-traumatic stress disorder. Lou et al. performed a cross-sectional comparison between cancer patients undergoing active treatment ( $n = 139$ ), those with a history of cancer ( $n = 162$ ), and healthy controls ( $n = 242$ ) in the United States, with a primary outcome of concerns regarding COVID-19 [16]. Patients actively receiving cancer treatment had a greater concern about contracting the coronavirus, had higher levels of family distress caused by the pandemic, and had greater concern regarding the general public not adequately understanding the seriousness of COVID-19. Importantly, patients with metastatic disease were more likely to indicate that COVID-19 had negatively affected their cancer care compared to those with nonmetastatic cancer (50.8% vs. 31.0%;  $P = 0.02$ ). Finally, Ng et al. conducted telephone surveys of 260 cancer survivors and 98 healthy controls to assess psychological distress during COVID-19 [17]. They found that 1 in 8 individuals reported clinical anxiety in both cohorts, whereas more cancer survivors reported depressive symptoms (1 in 7 vs. 1 in 9 healthy controls). Furthermore, cancer survivors reported more catastrophizing about the COVID-19 pandemic but experienced less general anxiety about COVID-19 compared to healthy controls.

Early literature emerging from the COVID-19 pandemic suggests that 1 in 3 cancer patients is suffering from psychologic distress, which suggests higher rates compared to nonpandemic studies. This includes distress from the pandemic in general, their cancer diagnosis, as well as distress about receiving adequate treatment, particularly for patients with metastatic disease.

#### 4. Strategies for alleviating patient distress during COVID-19

Literature over the past decade has continued to bring to light the interaction of mental health illness and genitourinary malignancies. However, the current COVID-19 pandemic provides a platform and opportunity to make meaningful changes to the treatment of mental health illness in our patients that hopefully is sustainable beyond the pandemic.

Above and beyond being astute oncologists and recognizing distress in our cancer patients (and subsequently making appropriate referrals to psychiatric and psycho-oncology colleagues), unique initiatives have emerged during the pandemic. Clinicians in Alberta, Canada are providing psychological support to cancer patients during COVID-19 through the use of text messaging, providing

cost-effective, population-level mental health intervention [18]. Patients can self-subscribe to Text4Hope-Cancer Care by texting “CancerCare” to a dedicated number, and subsequently receive self-administered, anonymous, online questionnaires to assess anxiety and depressive symptoms using the HADS tool. This program was launched in May 2020 and data collection is ongoing. Patient support groups have historically been well received by patients to share their experiences among cancer patient peers and thus receive nondiscriminative moral support. However, secondary to social distancing, there has been an increase in virtual (i.e., Zoom, Skype, etc.) social support group meetings, initiatives that we should be encouraging our patients to explore [19].

As urologic oncologists, we need to be cognizant that our patients may be lacking the support system they have previously relied upon secondary to social distancing and home quarantine isolation. These challenges may increase patient distress, which may manifest as exacerbation of physical symptoms [19]. We must extend ourselves and become comfortable with screening patients for distress, anxiety, and depression (particularly in a telehealth or videoconference setting) taking advantage of a number of available tools, including the National Comprehensive Cancer Network’s distress thermometer (<https://www.nccn.org/about/permissions/thermometer.aspx>), Self-Reporting Questionnaire 20-Item (SRQ-20), and Patient Health Questionnaire (PHQ-2/PHQ-9). Although a focus on patient distress is paramount, it should not exacerbate health-related social disparities. Patients may have lost their health insurance during the pandemic or may lack telehealth services in rural communities, which may lead to additional barriers to receiving adequate support.

The stressors of the current pandemic, which are often exacerbated among patients with cancer, highlight the importance empathy on the part of treating physicians. Social cues may be harder to pick up on, and empathy more difficult to convey, during telehealth visits than in-person clinic visits. As such, we must learn to recognize socio-emotional cues during these virtual encounters. Patient distress has increased during the COVID-19 pandemic and may continue to do so as the pandemic is ongoing. While treatment of our patients’ mental health illness or distress may be beyond the scope of urologic oncologists, it behooves us to be appropriately attuned to the distress our patients are experiencing as a result of the pandemic, their cancer diagnosis, and cancer treatment, and provide appropriate triage and referral to resources including psycho-oncology providers.

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