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## Wait and Hurry Up: Radiation Therapy for Prostate Cancer During the COVID-19 Pandemic



1. *Taking into consideration your hospital policies and regional COVID-19 considerations, would you have done anything differently in March 2020?*<sup>1</sup>

In March 2020, SARS-CoV-2 cases were increasing in Houston, Texas, and a “Stay Home Work Safe” order was in place. We intentionally decreased on-treatment patient volume to minimize risk of exposure for our patients with cancer and health care teams and to ensure we could sustain operations if staff were out due to illness or quarantine.<sup>2</sup> We deferred radiation treatment start for most patients with prostate cancer because it is safe to do so and not expected to affect cancer control. Like the case presented here, our patients with high-risk and unfavorable intermediate-risk (UIR) disease were maintained on androgen deprivation therapy (ADT) until they could safely initiate radiation treatment and were comfortable returning for daily treatments. For patients with high-risk disease, this has not affected overall ADT duration (generally 18-24 months). However, it has extended ADT duration by a few months for some men with UIR disease because they usually receive 4 months. One thing I was doing differently in March 2020 from this case was avoiding 1-month injections and instead using longer-duration ADT injections because of the uncertainty regarding when patients would return to clinic.

- a. *What is your recommended fractionation for UIR patients?* (addressed in question 3 below)
2. *How would you approach management of this patient after he re-presents with high-risk disease?*
    - a. *Are you irradiating elective lymph nodes for high-risk cases during this time? What if the patient has baseline lymphopenia? (Both pelvic lymph node radiation therapy and baseline lymphopenia are predictors of radiation-induced lymphopenia per Schad MD, *Adv Radiat Oncol*, 2019, and lymphopenia is a maker for poor prognosis in COVID-19 patients).*

Because he returns in the midst of a severe COVID-19 surge, I would reinstate ADT with a 6-month leuprolide injection for his now high-risk disease and defer radiation treatment until the surge abates. Once past the surge, I would deliver moderately hypofractionated external beam radiation (60 Gy in 20 fractions), which is supported by randomized trials that included more than 1200 patients with high-risk disease.<sup>3</sup> I would not target the lymph nodes

for this 72-year-old patient with cardiac history and recent progression to high-risk disease. To date, the pandemic has not affected my use of elective nodal irradiation for high-risk patients; I reserve it for the youngest patients with the most aggressive disease.

- b. *Would you test this patient for SARS-CoV-2 infection? When and how often?*

This patient, like all of our patients at this time (July 1, 2020), will be tested for SARS-CoV-2 infection before initiation of radiation therapy. He will be monitored daily upon entry to campus for symptoms and exposure to individuals with known SARS-CoV-2 infection and will undergo temperature check. All patients and staff wear masks on campus. He will be retested during treatment if he has known exposure to an individual with SARS-CoV-2 or develops symptoms associated with SARS-CoV-2 infection.

3. *Has anything permanently changed about your management of UIR or high-risk cases as a result of the pandemic?*

The pandemic has accelerated the adoption of evidence-based moderate hypofractionation for patients with UIR and high-risk disease, and this is now the preferred radiation fractionation regimen for these patients. It has also increased consideration of ultrahypofractionated stereotactic body radiation therapy for these patients.

Karen E. Hoffman, MD, MHSc, MPH  
 Department of Radiation Oncology  
 The University of Texas MD Anderson Cancer Center  
 Houston, Texas

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