Managing Prostate Cancer Beyond the Acute Phase of COVID-19
### Program Faculty

<table>
<thead>
<tr>
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<th>Position and Affiliations</th>
<th>Disclosures</th>
</tr>
</thead>
</table>
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• Clinical trials – Astellas, AstraZeneca, Bayer, Janssen, Sanofi, Tersera                                                                                   |
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All Faculty have adhered to the:

- CMA Code of Ethics and Professionalism (Update 2004, last reviewed March 2018)
- CMA Guidelines for Physician Interactions with Industry (2007)
Disclosure of Commercial Support

Potential for conflict(s) of interest:

• This program has received funding from Bayer Inc. and Sanofi Canada in the form of an educational grant.

• Bayer and Sanofi manufacture products in therapeutic categories that will be discussed in this program; specific product mentions include: cabazitaxel (Sanofi), darolutamide (Bayer), and radium-223 (Bayer).
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### Agenda

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<td>Sources of Guidance</td>
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<td>Considerations for Developing Local Cancer Management Plans</td>
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<tr>
<td>Considerations for Prostate Cancer Management</td>
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<td>Localized, Prostate Cancer</td>
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<tr>
<td>Locally Advanced Prostate Cancer</td>
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<td>Metastatic Hormone-Sensitive Prostate Cancer (mHSPC)</td>
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<tr>
<td>Castration-resistant prostate cancer (CRPC)</td>
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<tr>
<td>Closing Discussion</td>
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</table>
Learning Objectives

Participants will examine and discuss guidance regarding prostate cancer management in the environment of COVID-19 infection.

By the end of this program, participants will be able to:

– Contribute to formulating management plans for patients with prostate cancer in their local practices appropriate to a chronic phase of the COVID-19 pandemic

– Manage patients with prostate cancer with consideration for increasing or decreasing access to local resources resulting from an evolving COVID-19 environment
# Sources of Guidance

<table>
<thead>
<tr>
<th>Source</th>
<th>Title and Details</th>
</tr>
</thead>
</table>
Considerations for Developing Local COVID-19 Cancer Management Plans
Providing Cancer Care During an Evolving COVID-19 Environment: General Principles

• Treatment prioritization must take into account regional differences in infection rates, resource capacity, and mitigation efforts\(^1\)

• The risk of serious morbidity resulting from SARS-CoV-2 infection may outweigh the competing risk of prostate cancer in many men\(^1\)

• Appropriate patient counselling and shared decision-making is strongly encouraged\(^1\)

• Prioritization must be given to limiting exposures of patients and healthcare workers to SARS-CoV-2

<table>
<thead>
<tr>
<th>COVID-19 in Canada (June 7, 2020)(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospitalized cases</strong></td>
</tr>
<tr>
<td><strong>Deaths</strong></td>
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<tr>
<td><strong>Age Group</strong></td>
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<tr>
<td><strong>Proportion of Cases</strong></td>
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<tr>
<td><strong>Proportion of Deaths</strong></td>
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<tr>
<td>40-59</td>
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<td>60-79</td>
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<tr>
<td>80+</td>
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<tr>
<td><strong>Gender</strong></td>
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<td><strong>Male</strong></td>
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Planning in an Evolving COVID-19 Environment

• The source guidance documents provide recommendations for cancer patient management during the acute phase of a pandemic

• Hanna and colleagues propose a conceptual framework for prioritizing cancer treatment focusing on 3 scenarios:\(^1\)
  1. Preparedness (no confirmed cases)
  2. Moderate healthcare resource limitations
  3. Severe healthcare resource limitations

• Limited guidance exists currently for the chronic phase

Treatment Goals During COVID-19 Phases

• Do not delay cancer treatment if at all possible, but if resources limit availability of care, prioritization is necessary
• The goal is to make sure that everyone can receive the most adequate treatment possible despite the crisis¹
• When the pandemic is over and activities resume a normal rhythm, the priorities of patients waiting for treatment should be respected in the interest of fairness¹

Multidisciplinary case conferences remain important venues to prioritize the care of complex patients and to continuously review policies in a rapidly changing context.²

1. Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 – Volet Cancers urologiques. Apr.15, 2020
Considerations for Prostate Cancer Management in a COVID-19 Environment
**Surgery Considerations: Risks and Resource Utilization**

<table>
<thead>
<tr>
<th>Consider surgery-related risks</th>
<th>Assess hospital resource utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Serious complications</td>
<td>• Access to operating theatre</td>
</tr>
<tr>
<td>• Increased risk of SARS-CoV-2</td>
<td>• Anaesthesiology services</td>
</tr>
<tr>
<td>exposure to patients and</td>
<td>• Hospital equipment</td>
</tr>
<tr>
<td>healthcare professionals</td>
<td>• Hospital/intensive care beds</td>
</tr>
<tr>
<td>• Robotic-assisted laparoscopic</td>
<td></td>
</tr>
<tr>
<td>prostatectomy or laparoscopic</td>
<td></td>
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<tr>
<td>RP may increase exposure to</td>
<td></td>
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<tr>
<td>aerosolized virus</td>
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<tr>
<td>• Precautions necessary with</td>
<td></td>
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<tr>
<td>minimally invasive surgery,</td>
<td></td>
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<tr>
<td>eg, use of filter devices</td>
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</tbody>
</table>

RP = radical prostatectomy

Recommendations Regarding Risk of COVID-19 Transmission During Minimally Invasive Surgery (MIS)

• Concern regarding risk of exposure from CO2 created during MIS procedures
• Lack of definitive data demonstrating active COVID-19 virus present in CO2 aerosol
• Efforts to protect operating room staff should be implemented to decrease exposure to surgical smoke, including:
  – Pre-operative testing in all patients scheduled for MIS surgery
  – Comprehensive personal protective equipment for staff
  – Reducing the production of surgical plume and filtration of CO2 through approved filters

Radiation Therapy (RT) Considerations: Risks and Resource Utilization

• Treatment-related risks:
  – Brachytherapy carries risk of serious complications
  – Increased risk of SARS-CoV-2 exposure to patients and healthcare professionals
  – External beam RT mitigates some risk, but requires multiple hospital visits

• Hospital resource utilization
  – Anaesthesiology services
  – Hospital equipment
  – Hospital beds

Many RT groups have instituted short-course interim policies leaning on SBRT techniques

# Systemic Therapy Considerations: Risks and Resource Utilization

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| **Chemotherapy** | • Frequent hospital resource utilization\(^1\)  
• Toxicities eg, neutropenia risk\(^1,2\) – consider G-CSF support  
• Higher risk for severe illness\(^3\)  
• Consider reducing number of cycles or lengthening intervals\(^2\) |
| **ARAT** | • Use home monitoring programs to avoid unnecessary hospital/clinic visits\(^*3\)  
• For patients progressing on abiraterone, consider switch from prednisone to dexamethasone to delay time to chemotherapy (Ph 2 SWITCH study)\(^3\) |
| **ADT** | • Consider longer-acting depots, eg, q 3-6 monthly LHRH analogs\(^{†+3,4}\)  
• Home injection programs\(^3\) |


\(^{2}\)Degarelix may still be indicated in men with contraindications to GNRH depot injections and/or who require rapid testosterone suppression because of symptomatic disease burden.  
\#6-month formulations available in Canada include leuprolide acetate and triptorelin injectable suspensions.

\(^{3}\)ADT = Androgen deprivation therapy; ARAT = androgen receptor axis therapy; GNRH = gonadotropin-releasing hormone; LHRH = luteinizing hormone-releasing hormone.

Systemic Therapy Considerations: Risks and Resource Utilization *cont.*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Bone-targeted supportive therapies       | • Encourage self-injection where possible<sup>1</sup>  
• Consider frequency of laboratory monitoring<sup>1</sup>  
• Temporarily discontinue therapy if laboratory monitoring is not possible<sup>1</sup>  
• Consider longer treatment intervals<sup>1</sup>; eg, extending q 4 weekly denosumab to q 12 weekly<sup>2</sup>  
• Consider denosumab over zoledronic acid<sup>2</sup>, or deferring therapies such as zoledronic acid<sup>3</sup>                                                                                                                                                                                                 |

**Other considerations:**
• Drug access via private insurance / occupational instability<sup>3</sup>  
• Use standard of care protocols vs. compassionate access program<sup>4</sup>

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Systemic Therapy Considerations: Risks and Resource Utilization *cont.*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Corticosteroids | • Consider avoiding or delaying treatments requiring corticosteroids, and discontinuing those in progress\(^1\)  
                    • Glucocorticoids should be minimized as an adjunct to systemic therapies; use lowest effective dose\(^2\)                                                                                       |

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• Advice from WHO and CDC to avoid corticosteroids is based on concerns that viral replication might be prolonged and clearance delayed (largely extrapolated from data on MERS-CoV and influenza)\(^3\)

• Currently no evidence that corticosteroid therapy in cancer patients increases the risk of COVID-19 infection or leads to worse clinical outcomes in confirmed cases\(^3\)

• Benefit or detriment of corticosteroid use may be influenced by intended use, timing of use relative to viral infection, dose, duration, and comorbidities

• The risk of viral infections at physiological steroid doses would appear low for patients with progressive prostate cancer\(^3\)

**Take Home Message:**
• A risk-benefit analysis should be performed for each patient on the use of steroids in cancer care\(^3\)

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# Imaging Guidance: Prioritization of Oncology Patients

- Conduct “timed” imaging examinations during active phase of treatment (eg, assessment of response)
- Consider deferring surveillance imaging for recurrence

<table>
<thead>
<tr>
<th>Modality</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| CT and MRI                | • Book per existing scheduling  
• Patients with neo/adjuvant indications with modest survival benefits could be considered for deferral |
| PET                       | • Perform imaging if new therapy is being considered  
• Consider deferring in patients with relatively indolent malignancies that will not be treated or therapy will not be altered during pandemic |
| BMD                       | • To be deferred unless expressly requested by oncology                         |
| Ultrasound                | • Proceed as required for ongoing clinical management of cancer patients according to planning priority |
| Interventional Radiology  | • Proceed as required for ongoing clinical management of cancer patients according to planning priority  
• Consider deferring prostate biopsy for non-high-risk patients |

Priority levels: A – deemed critical; B – cancer patients requiring systemic/radiation treatment; C – generally healthy, non-life-threatening condition).
Discussion: What resource limitations are anticipated locally over the next 6 months?

- Surgery
- Radiation therapy
- Systemic therapy
- Imaging
Localized Prostate Cancer
# Localized Low-Risk PC
(very-low, low- and favorable-intermediate risk [FIR])

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020)</td>
<td><strong>General</strong>&lt;br&gt;• <em>In-person consult not recommended</em>&lt;br&gt;• <em>Diagnostic investigations (imaging, biopsy) not recommended</em>&lt;br&gt;&lt;br&gt;<strong>Patients on or choosing active surveillance</strong>&lt;br&gt;• <em>Short-term suspension of active surveillance where appropriate, including in-person clinic visits, DRE, PSA, imaging, repeat biopsy</em>&lt;br&gt;&lt;br&gt;<strong>Patients choosing RP or RT</strong>&lt;br&gt;• <em>Consider delay of RP/RT</em>&lt;br&gt;• <em>Do not use NADT to bridge the COVID-19</em>&lt;br&gt;&lt;br&gt;<strong>Patients on ongoing surveillance following definitive therapy</strong>&lt;br&gt;• <em>Consider decreasing frequency of PSA testing and deferring in-office appointments, particularly for patients &gt;1 year since surgery or RT</em></td>
</tr>
</tbody>
</table>

ADT = androgen deprivation therapy; DRE = digital rectal exam; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; PSA = prostate-specific antigen; RP = radical prostatectomy; RT = radiation therapy.
## Localized High-Risk PC

(unfavorable-intermediate risk [UIR], high-risk [HR], very high-risk [VHR])

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020)</td>
<td><strong>New consults</strong>&lt;br&gt;• Proceed with diagnostic interventions and staging investigations pending resource availability</td>
</tr>
<tr>
<td></td>
<td><strong>Patients choosing RT</strong>&lt;br&gt;• <strong>Begin NADT</strong> per current best practice; 4-6 months of ADT is appropriate for UIR patients&lt;br&gt;• Consider hypofractionated protocols to minimize centre visits</td>
</tr>
<tr>
<td></td>
<td><strong>Patients proceeding with RP</strong>&lt;br&gt;• UIR, HR, and VHR patients require special consideration in centres deferring non-emergent surgical cases due to COVID-19; a delay of 3 months may be considered&lt;br&gt;• <strong>NADT</strong> prior to RP not recommended outside of a clinical trial&lt;br&gt;  – If prolonged surgical delays are expected for a patient with UIR, HR, or VHR, NADT may be considered</td>
</tr>
</tbody>
</table>

NADT = neoadjuvant androgen deprivation therapy; PSA = prostate-specific antigen; RP = radical prostatectomy; RT = radiation therapy.
## Localized High-Risk PC
(unfavorable-intermediate risk [UIR], high-risk [HR], very high-risk [VHR])

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020)</td>
<td>Patients on surveillance following definitive therapy</td>
</tr>
<tr>
<td></td>
<td>• Conduct ongoing PSA testing and imaging if needed to assess for recurrence</td>
</tr>
<tr>
<td></td>
<td>• Consider decreased frequency of testing in men who have been disease-free ≥2 yrs</td>
</tr>
<tr>
<td></td>
<td>• Transition to telehealth</td>
</tr>
</tbody>
</table>

NADT = neoadjuvant androgen deprivation therapy; PSA = prostate-specific antigen; RP = radical prostatectomy; RT = radiation therapy.
Discussion: Managing localized prostate cancer in the chronic phase of COVID-19

• What will we continue to implement from the acute phase?

• How should deferred treatments be managed/prioritized?
Locally-Advanced Prostate Cancer
# Locally-Advanced PC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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</thead>
</table>
| CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020) | Newly diagnosed advanced PC  
• In-person clinic consultations recommended  
• Full staging evaluation, including lab testing and imaging recommended  

Patients with high-risk features post-RP  
• Early salvage RT is recommended over upfront adjuvant RT  
• Consider hypofractionated RT protocols  
• Men with biochemical recurrence (BCR) and no evidence of metastases should have ongoing PSA testing and imaging; frequency dictated by disease-risk and PSADT  

Newly diagnosed node-positive PC (without evidence of further metastasis)  
• Prescribe ADT and consider EBRT per best practice  
• Consider hypofractionated RT protocols  
• Abiraterone has shown benefit; consider requirement for lab monitoring and physical examination – recommend delay of abiraterone up to 6 months from diagnosis  

ADT = androgen deprivation therapy; ARAT = androgen receptor axis therapy; BCR = biochemical recurrence; EBRT = external beam radiation therapy; PC = prostate cancer; PSA = prostate-specific antigen; RT = radiation therapy.
Discussion: Managing locally advanced prostate cancer in the chronic phase of COVID-19

- What will we continue to implement from the acute phase?

- Which treatment modifications are still required?

- How are/should deferred treatments being managed/prioritized?
Metastatic Hormone-Sensitive Prostate Cancer (mHSPC)
### mHSPC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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</thead>
</table>
| CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020) | **Newly diagnosed mHSPC**  
- Recommend ARAT over docetaxel chemotherapy in addition to ADT  
- Concerns with chemotherapy: higher risk for severe illness, more intense resource use and risk exposure  

**Oligometastatic HSPC**  
- Require ADT and may benefit from EBRT to prostate (with or without an ARAT)  
- Recommend delaying RT  
- If RT is administered, consider a hypofractionated course |
| Canadian GU Recommendations (Lalani et al. Can Urol Assoc J. 2020) | **mHSPC**  
- [per recommendations for newly diagnosed mHSPC above]  
- ARAT initiation can be delayed up to 6 months post-initiation of ADT (assuming castration resistance has not emerged) |

ADT = androgen deprivation therapy; ARAT = androgen receptor axis therapy; EBRT = external beam radiation therapy; RT = radiation therapy.
Discussion: Managing mHSPC in the chronic phase of COVID-19

• What will we continue to implement from the acute phase?

• How are/should deferred treatments being managed/prioritized?
Castration-Resistant Prostate Cancer (CRPC)
Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC)

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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</thead>
</table>
| CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020) | Newly diagnosed high-risk (PSADT <10 mo) nmCRPC  
• Consider apalutamide, enzalutamide, darolutamide per current SOC*  
nmCRPC with prolonged PSADT  
• Consider decreasing the frequency of imaging |

PSADT = prostate-specific antigen doubling time; SOC = standard of care.
<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| **CUOG-CUA** (Kokorovic et al. Can Urol Assoc J. 2020) | Patients with mCRPC not previously treated with an ARAT  
• Recommend ARAT over chemotherapy  
• Consider radium-223 in men with bony metastases  
**Patients with painful bone metastases or bone metastases at high risk of fracture (eg, vertebra/pelvis/femur)**  
• Refer to radiation oncology for short course of palliative RT |
| **Canadian GU Recommendations** (Lalani et al. Can Urol Assoc J. 2020) | First-line mCRPC  
• Recommend ARAT when not used previously  
• If ARAT used for nmCRPC or HSPC and chemotherapy would be treatment choice, consider: 1) whether chemotherapy can be safely delayed; 2) individual risks of COVID-19; 3) hospital resource constraints  
• Consider radium-223 over chemotherapy in patients with bone-only mCRPC |

Radium-223 supply from the manufacturer has not been impacted during the pandemic.

ARAT = androgen receptor axis therapy; HSPC = hormone-sensitive prostate cancer; nmCRPC = non-metastatic castration-resistant prostate cancer; RT = radiation therapy.
## mCRPC – Second Line

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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<tbody>
<tr>
<td>Canadian GU Recommendations (Lalani et al. Can Urol Assoc J. 2020)</td>
<td><strong>Second-line mCRPC</strong></td>
</tr>
<tr>
<td></td>
<td>• Recommend ARAT when not used previously</td>
</tr>
<tr>
<td></td>
<td>• If ARAT used previously and chemotherapy would be treatment choice,</td>
</tr>
<tr>
<td></td>
<td>consider:</td>
</tr>
<tr>
<td></td>
<td>– whether chemotherapy can be safely delayed</td>
</tr>
<tr>
<td></td>
<td>– individual risks of COVID-19</td>
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<tr>
<td></td>
<td>– hospital resource constraints</td>
</tr>
<tr>
<td></td>
<td>• Consider radium-223 over chemotherapy in patients with bone-only mCRPC</td>
</tr>
</tbody>
</table>

Radium-223 supply from the manufacturer has not been impacted the pandemic.

ARAT = androgen receptor axis therapy; mCRPC = metastatic castration-resistant prostate cancer.
# mCRPC – Third Line

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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<tbody>
<tr>
<td><strong>Canadian GU Recommendations (Lalani et al. Can Urol Assoc J. 2020)</strong></td>
<td><strong>Third-line mCRPC</strong>&lt;br&gt;• Recommend alternate ARATs over alternate chemotherapy&lt;br&gt;  – Level 1 data support alternate chemotherapy, however hospital constraints may preclude IV chemotherapy and adverse event management&lt;br&gt;• If ARAT used previously and chemotherapy would be treatment choice, consider:&lt;br&gt;  1. whether chemotherapy can be safely delayed;&lt;br&gt;  2. individual risks of COVID-19;&lt;br&gt;  3. hospital resource constraints&lt;br&gt;• Consider radium-223 over chemotherapy in patients with bone-only mCRPC</td>
</tr>
</tbody>
</table>

ARAT = androgen receptor axis therapy; mCRPC = metastatic castration-resistant prostate cancer.
Discussion: Managing CRPC in the chronic phase of COVID-19

- What will we continue to implement from the acute phase?
- What treatment preferences/modifications are still required?
- How are/should deferred treatments being managed/prioritized?
Final Discussion: Managing prostate cancer in the chronic phase of COVID-19

• What will we continue to implement from the acute phase?
  – Telehealth
  – Patient support services (eg, home injection, bloodwork, blood pressure) where local home care providers are able to maintain a high level of COVID-19 safety
  – More thoughtful reasoning of optimal timing and choice of anticancer therapy to maximize risk/benefit ratio

• What treatment preferences/modifications are still required?

• How are/should deferred treatments being managed/prioritized?
  – In consultation with patient and family
  – In a multidisciplinary fashion
  – By taking into account the likelihood of progression and the impact of deferral, delay or sub-optimal therapy on patient prognosis
  – By prioritizing patients at highest risk of being negatively impacted by delay/deferral of treatment
Managing Prostate Cancer Beyond the Acute Phase of COVID-19

- **Key insights and takeaways from the acute phase:**
  - Telehealth can be used effectively in many circumstances
  - Treatment options with lower risk of complications should be considered during periods of increased risk/resource limitations

- **Considerations for the chronic phase:**
  - Maintain capacity in the system
  - Routinely review local policies
  - Discuss implications of COVID-19 environment on prostate cancer management with patients and family
End
APPENDIX

• EAU guidelines
• BC Cancer guidelines
• OH-CCO guidance
• MSSS recommendations
EAU Guidelines
## Localized Low-Risk PC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| EAU Guidelines (Ribal et al. 2020 uroweb.org) | **Low risk – active surveillance**  
- Postpone confirmatory rebiopsy as well as DRE  
- PSA can be postponed for up to 6 months  
**Low risk – active treatment**  
- Postpone and encourage patients to have treatment deferred for 6-12 months |

DRE = digital rectal examination; PC = prostate cancer; PSA = prostate-specific antigen.
## Localized Intermediate-Risk PC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
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</table>
| EAU Guidelines (Ribal et al. 2020 uroweb.org) | **Intermediate risk – active surveillance (G3+4)**  
- DRE and repeated biopsy when medical resources allow  
**Intermediate risk – RP**  
- RP can be postponed until after pandemic  
- Do not use NADT  
**Intermediate risk – EBRT**  
- For EBRT, use moderate hypofractionation (20x3 Gy) starting with NADT that might be prolonged for up to 6 months  
- Avoid invasive procedures such as fiducial insertion and/or rectal spacers  
**Intermediate risk – brachytherapy**  
- Postpone or consider an alternative modality (invasive procedures carry higher risk of COVID-19 transfer |

DRE = digital rectal examination; EBRT = external beam radiation therapy; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; PSA = prostate-specific antigen; RP = radical prostatectomy.
### Localized High-Risk PC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| EAU Guidelines (Ribal et al. 2020 uroweb.org) | **RP**  
  • Postpone until after pandemic  
  • If patient anxious, consider ADT + EBRT  
**EBRT**  
  • Use immediate NADT for up to 6 months followed by EBRT and long-term ADT  
  • Do not use fiducials or spacers |

ADT = androgen deprivation therapy; EBRT = external beam radiation therapy; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer. RP = radical prostatectomy.
# Locally-Advanced PC

<table>
<thead>
<tr>
<th>Source</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EAU Guidelines (Ribal et al. 2020 uroweb.org)</td>
<td>Locally-Advanced PC (including cN1)</td>
</tr>
<tr>
<td></td>
<td><strong>RP</strong></td>
</tr>
<tr>
<td></td>
<td>• Do not use NADT to postpone RP</td>
</tr>
<tr>
<td></td>
<td>• Consider long term ADT + EBRT as an alternative to surgery</td>
</tr>
<tr>
<td></td>
<td><strong>EBRT</strong></td>
</tr>
<tr>
<td></td>
<td>• Start immediate NADT if symptomatic, followed by EBRT 6-12 months later</td>
</tr>
<tr>
<td></td>
<td>• Avoid invasive procedures (eg, fiducial insertion, rectal spacers)</td>
</tr>
</tbody>
</table>

ADT = androgen deprivation therapy; EBRT = external beam radiation therapy; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; RP = radical prostatectomy.
# Follow-up After Treatment with Curative Intent

## Source

| EAU Guidelines (Ribal et al. 2020 uroweb.org) |

## Guidance

### General
- Offer telemedicine as often as possible
- Only patients in absolute need of clinical exam should have it

### Persistently elevated PSA
- Postpone PET imaging
- If treatment deemed necessary, start ADT and postpone further work-up and potential EBRT later

### PSA relapse after local treatment
- Defer imaging
- After RP: Offer salvage EBRT for patients with EAU high-risk BCR if available; if not consider ADT with EBRT after pandemic
- After EBRT: If salvage needed, offer ADT initially if PSADT <12 months

---

ADT = androgen deprivation therapy; BCR = biochemical recurrence; EAU = European Association of Urology; EBRT = external beam radiation therapy; PC = prostate cancer; PET = positron emission tomography; PSADT = prostate-specific antigen doubling time.
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| EAU Guidelines (Ribal et al. 2020 uroweb.org) | Low-volume mHSPC – if clinical harm unlikely if postponed 6 months  
• When ADT + prostate EBRT is considered, postpone EBRT  

mHSPC – if clinical harm is very likely if postponed >6 weeks  
• Offer immediate treatment with ADT plus (alphabetically) abiraterone acetate + prednisone (consider 5 mg QD) OR apalutamide OR enzalutamide  
• Avoid ADT with docetaxel based on risk for neutropenia and frequent hospital visits |

ADT = androgen deprivation therapy; EBRT = external beam radiation therapy.
### mCRPC

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| **EAU Guidelines** (Ribal et al. 2020 uroweb.org) | • Treat patients with life-prolonging agents  
• Base the choice of first-line treatment on:  
  – PS  
  – Symptoms  
  – Comorbidities  
  – Location and extent of disease  
  – Patient preference  
  – Previous treatment for HSPC  
  – Use of medical resources  
  – Specific risk during COVID-19 pandemic  
• Avoid chemotherapy as much as possible; if absolutely needed: use docetaxel 75 mg/m² q 3 weekly with G-CSF to avoid a higher number of visits or 50 mg/m² q 2 weekly  
• Give cabazitaxel 20 mg/m² with G-CSF if indicated and no other treatment option is available  
• Abiraterone + prednisone 10 mg daily might be reconsidered (steroid use) |

G-CSF = granulocyte-colony stimulating factor; HSPC = hormone-sensitive prostate cancer; mCRPC = metastatic castration-resistant prostate cancer; PS = performance status.
## Localized Low-Risk PC
(low-risk or favorable-intermediate risk disease)

<table>
<thead>
<tr>
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<th>Guidance</th>
</tr>
</thead>
</table>
| BC Cancer April 20, 2020 (bccancer.bc.ca) | General  
- Most low-risk and intermediate-risk PC patients can be deferred or converted to EBRT during a prioritization phase |

EBRT = external beam radiation therapy; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; RT = radiation therapy.
### Localized High-Risk PC
(unfavourable-intermediate risk or high-risk disease)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>BC Cancer April 20, 2020 (bccancer.bc.ca)</td>
<td>RT</td>
</tr>
<tr>
<td></td>
<td>• Consider EBRT as alternative for patients already on RT if long delay to brachytherapy is anticipated</td>
</tr>
<tr>
<td></td>
<td>• If patient has completed/due to complete EBRT component of brachytherapy boost protocol, boost should occur within 10 days of EBRT for HDR, and within 5 weeks of EBRT for LDR if capacity allows and patient is infection category 1 (asymptomatic, not in isolation)</td>
</tr>
<tr>
<td></td>
<td>• For patient pending an HDR boost, consider switch to LDR boost to minimize operating room and anesthesia time</td>
</tr>
</tbody>
</table>

ADT = androgen deprivation therapy; EBRT = external beam radiation therapy; IMRT = Intensity-modulated radiation therapy; LDR = low-dose rate; HDR = high-dose rate; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; RP = radical prostatectomy; RT = radiation therapy; SBRT = stereotactic body radiation therapy; VMAT = Volumetric modulated arc therapy.
Patients considered for radium-223 should be assessed for their goals relative to the state of the pandemic, and alternate methods of symptom control may be appropriate.

Patients on a course of radium-223 should be evaluated by phone for symptoms and progression; there should be a lower threshold than usual for deferring or cancelling treatment.

Radium-223 supply from the manufacturer has not been impacted during the pandemic.

**Source** | **Guidance**
--- | ---
BC Cancer April 20, 2020 (bccancer.bc.ca) | • Patients considered for radium-223 should be assessed for their goals relative to the state of the pandemic, and alternate methods of symptom control may be appropriate.

• Patients on a course of radium-223 should be evaluated by phone for symptoms and progression; there should be a lower threshold than usual for deferring or cancelling treatment.

**ARAT** = androgen receptor axis therapy; **mCRPC** = metastatic castration-resistant prostate cancer.
OH-CCO Guidance
**mHSPC**

<table>
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</table>
| Ontario Health – Cancer Care Ontario March 29, 2020 (ontariohealth.ca) | mHSPC  
  - Continue ADT  
  - ARATs are preferred over docetaxel but currently not funded; abiraterone and apalutamide may be obtained through manufacturer compassionate supply |
Localized High-Risk PC  
(unfavourable-intermediate risk or high-risk disease)

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<th>Guidance</th>
</tr>
</thead>
</table>
| Ontario Health – Cancer Care Ontario  
March 29, 2020  
(ontariohealth.ca) | • If decision is to treat rather than delay therapy using ADT, consider  
  • a 5 fraction SBRT approach (PACE study) or  
  • a 7 fraction IMRT/VMAT strategy (HYPO-RT-PC trial) |

ADT = androgen deprivation therapy; EBRT = external beam radiation therapy; IMRT = Intensity-modulated radiation therapy; LDR = low-dose rate; HDR = high-dose rate; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer. RP = radical prostatectomy; RT = radiation therapy; SBRT = stereotactic body radiation therapy; VMAT = Volumetric modulated arc therapy.
Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC)

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</table>
| 🇨🇦 Ontario Health – Cancer Care Ontario March 29, 2020 (ontariohealth.ca) | nmCRPC  
  • Apalutamide (funded) or enzalutamide are options*  

*Darolutamide received Health Canada approval (Feb. 20, 2020) for the treatment of patients with nmCRPC.

PSADT = prostate-specific antigen doubling time; SOC = standard of care.
# mCRPC

<table>
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</table>
| Ontario Health – Cancer Care Ontario March 29, 2020 (ontariohealth.ca) | • Goal is to avoid taxane or chemotherapy  
• Treat with an ARAT if no prior use  
• If good response to a prior ARAT, recommend another ARAT over chemotherapy  
• Radium-223 should be given precedence over chemotherapy (less immunosuppressive); consider nuclear medicine resource availability |

Radium-223 supply from the manufacturer has not been impacted during the pandemic.

ARAT = androgen receptor axis therapy; mCRPC = metastatic castration-resistant prostate cancer.
MSSS Recommendations
Localized Low-Risk PC
(low-risk or favorable-intermediate risk disease)

<table>
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<tbody>
<tr>
<td>MSSS Recommendations April 15, 2020 (msss.gouv.qc.ca)</td>
<td>General</td>
</tr>
<tr>
<td></td>
<td>• All treatments can be postponed for a period of 3 to 6 months with follow-up appropriate</td>
</tr>
</tbody>
</table>
| | • Recommended therapeutic alternatives (taking into account resource availability):
| | – Active surveillance - favoured approach |
| | – RT - if RT is necessary, use a hypofractionated or ultra-hypofractionated regimen, provided this approach is safe for the patient; without NADT |

EBRT = external beam radiation therapy; NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; RT = radiation therapy.
## Localized High-Risk PC
**(unfavourable-intermediate risk or high-risk disease)**

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<tr>
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<th>Guidance</th>
</tr>
</thead>
</table>
| MSSS Recommendations April 15, 2020 (msss.gouv.qc.ca) | **RP**
  - Perform only if very high-risk disease  
**General**
  - All other treatments should be postponed for a period of 3 months if possible  
  - Recommended therapeutic alternatives (taking into account resource availability):
    - **RT**: when necessary, use a hypofractionated regimen, provided this approach is safe for the patient  
    - Begin NADT while awaiting definitive treatment  

NADT = neoadjuvant androgen deprivation therapy; PC = prostate cancer; RP = radical prostatectomy; RT = radiation therapy.
Managing Recurrent Disease

<table>
<thead>
<tr>
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<th>Guidance</th>
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</thead>
</table>
| MSSS Recommendations April 15, 2020 (msss.gouv.qc.ca) | Recurrent disease post-prostatectomy  
- Delay salvage RT  
- If recurrent disease is high risk, start hormone therapy while waiting to administer RT |

RT = radiation therapy.
### Metastatic Prostate Cancer

<table>
<thead>
<tr>
<th>Source</th>
<th>Guidance</th>
</tr>
</thead>
</table>
| MSSS Recommendations April 15, 2020 (msss.gouv.qc.ca) | **Metastatic Prostate Cancer**  
- Begin first-line treatment as soon as possible  
- Give preference to ADT plus ARAT over chemotherapy (according to the clinical situation)  
- Avoid or limit use of corticosteroids  
- Delay or avoid radiotherapy for oligometastatic disease  
- Treatment considerations  
  - When chemotherapy is necessary, limit the number of cycles and consider dose reduction *(and/or use of G-CSF)*  
  - Give preference to apalutamide- and enzalutamide-based treatment  
  - Give preference to radium-based treatment over chemotherapy for second-line or later treatment  
- Consider more frequent *(virtual)* follow-up to avoid unplanned hospitalization and emergency department visits |

ADT = androgen deprivation therapy; ARAT = androgen receptor axis therapy.