

Managing Prostate Cancer Beyond the Acute Phase of COVID-19



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- CMA Guidelines for Physician Interactions with Industry (2007)
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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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Learning Objectives

Sources of Guidance

Considerations for Developing Local Cancer Management Plans

Considerations for Prostate Cancer Management

Localized, Prostate Cancer

Locally Advanced Prostate Cancer

Metastatic Hormone-Sensitive Prostate Cancer (mHSPC)

Castration-resistant prostate cancer (CRPC)

Closing Discussion

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

CUOG-CUA	Kokorovic A, et al. Canadian framework for managing prostate cancer during the COVID-19 pandemic: Recommendations from the Canadian Urologic Oncology Group and the Canadian Urological Association. Can Urol Assoc J. 2020 Apr 28. doi: 10.5489/cuaj.6667.
Canadian GU Med Onc Panel	Lalani A-K A, et al. Prioritizing systemic therapies for genitourinary malignancies: Canadian recommendations during the COVID-19 pandemic. Can Urol Assoc J 2020;14(5):E154-8. <u>http://dx.doi.org/10.5489/cuaj.6595</u>
EALL	Ribal MJ, et al. EAU Guidelines Office Rapid Reaction Group:
EAU	era. <u>https://uroweb.org/guideline/covid-19-recommendations/</u>
BC Cancer	BC Cancer. Provincial Cancer Clinical Management Guidelines in Pandemic Situation (COVID-19). Apr. 20, 2020. http://www.bccancer.bc.ca/health-professionals-
	site/Documents/provincial_cancer_clinical_management_guidelines_pandemic_situation_covid19_april20_2020.pdf
он-ссо	Ontario Health - Cancer Care Ontario: COVID-19 Supplemental Clinical Guidance for Patients with Cancer. March 29, 2020. <u>https://www.ontariohealth.ca/COVID-19</u>
MSSS	Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 – Volet Cancers urologiques. April 15, 2020. <u>https://msss.gouv.qc.ca/professionnels/documents/coronavirus-</u> 2019-ncov/PJ2_Recommandations_cancers-urologiques_200415.pdf
INESSS	COVID-19 : Revue des lignes directrices et recommandations pour la prise en charge des cancers urologiques en contexte de pandémie. May 4, 2020. <u>https://www.inesss.qc.ca/fileadmin/doc/INESSS/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/COVID-19/</u>

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 efforts¹
- The risk of serious morbidity resulting from SARS-CoV-2 infection may outweigh the competing risk of prostate cancer in many men¹
- Appropriate patient counselling and shared decision-making is strongly encouraged¹
- Prioritization must be given to limiting exposures of patients and healthcare workers to SARS-CoV-2

COVID-19 in Canada (June 7, 2020)²

Hospitalized cases		16%
Deaths		8%
Age Group	Proportion of Cases	Proportion of Deaths
40-59	31%	3%
60-79	18%	25%
80+	18%	72%
Gender		
Male	43%	46%

- 1. Lalani A-K A, et al. Can Urol Assoc J 2020;14(5):E154-8. <u>http://dx.doi.org/10.5489/cuaj.6595</u>
- 2. PHAC. COVID-19 Daily Epidemiology Update. June 7, 2020. <u>https://www.canada.ca/content/dam/phac-aspc/documents/services/diseases/2019-novel-coronavirus-infection/surv-covid19-epi-update-eng.pdf</u>

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



1. Hanna TP, et al. Nat Rev Clin Oncol. 2020. <u>https://doi.org/10.1038/s41571-020-0362-6</u>

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

- Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 Volet Cancers urologiques. Apr.15, 2020
- 2. Hanna TP, et al. Nat Rev Clin Oncol. 2020. https://doi.org/10.1038/s41571-020-0362-6

Considerations for Prostate Cancer Management in a COVID-19 Environment

Surgery Considerations: Risks and Resource Utilization

Consider surgery-related risks

- Serious complications
- Increased risk of SARS-CoV-2 exposure to patients and healthcare professionals
- Robotic-assisted laparoscopic prostatectomy or laparoscopic RP may increase exposure to aerosolized virus
- Precautions necessary with minimally invasive surgery, eg, use of filter devices

Assess hospital resource utilization

- Access to operating theatre
- Anaesthesiology services
- Hospital equipment
- Hospital/intensive care beds

RP = radical prostatectomy

- 1. Kokorovic A, et al. Can Urol Assoc J. 2020 Apr 28. doi: 10.5489/cuaj.6667.
- 2. Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 Volet Cancers urologiques. 2020 Apr. 15.

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

- 1. Kokorovic A, et al. Can Urol Assoc J. 2020 Apr 28. doi: 10.5489/cuaj.6667.
- 2. Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 Volet Cancers urologiques. 2020 Apr.15.

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Systemic Therapy Considerations: Risks and Resource Utilization

Treatment	Considerations
Chemotherapy	 Frequent hospital resource utilization¹ Toxicities eg, neutropenia risk^{1,2} – consider G-CSF support Higher risk for severe illness³ Consider reducing number of cycles or lengthening intervals²
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 (<i>Ph 2 SWITCH study</i>)³
ADT	 Consider longer-acting depots, eg, q 3-6 monthly LHRH analogs^{†‡3,4} Home injection programs³

*Maintain ongoing awareness of transmission risks associated with local home care services. Canadian home care guidance can be found at: <u>https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/infection-prevention-control-covid-19-interim-guidance-home-care-settings.html</u>

[†]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.

ADT = Androgen deprivation therapy; ARAT = androgen receptor axis therapy; GNRH = gonadotropin-releasing hormone; LHRH = luteinizing hormone-releasing hormone.

- 2. Sante et Services sociaux Quebec. Recommandations pour la priorisation des patients en contexte de pandémie de COVID-19 Volet Cancers urologiques. 2020 Apr.15.
- 3. Kokorovic A, et al. Can Urol Assoc J. 2020 Apr 28. doi: 10.5489/cuaj.6667.
- 4. BC Cancer. Provincial Cancer Clinical Management Guidelines in Pandemic Situation (COVID-19). 2020 Apr.20.

^{1.} Lalani A-K A, et al. Can Urol Assoc J 2020;14(5):E154-8.

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

Treatment	Considerations
Bone-targeted	 Encourage self-injection where possible¹ Consider frequency of laboratory monitoring¹ Temporarily discontinue therapy if laboratory monitoring is not possible¹ Consider longer treatment intervals¹;
supportive therapies	eg, extending q 4 weekly denosumab to q 12 weekly ² Consider denosumab over zoledronic acid², or deferring therapies such as zoledronic acid³

Other considerations:

- Drug access via private insurance / occupational instability³
- Use standard of care protocols vs. compassionate access program⁴

- 1. Kokorovic A, et al. Can Urol Assoc J. 2020 Apr 28. doi: 10.5489/cuaj.6667.
- 2. Ontario Health Cancer Care Ontario. COVID-19 Supplemental Clinical Guidance for Patients with Cancer. March 29, 2020.
- 3. BC Cancer. Provincial Cancer Clinical Management Guidelines in Pandemic Situation (COVID-19). Apr.20, 2020.

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

Treatment	Considerations
Corticosteroids	 Consider avoiding or delaying treatments requiring corticosteroids, and discontinuing those in progress¹ Glucocorticoids should be minimized as an adjunct to systemic therapies; use lowest effective dose²

- 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 cases³
- 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 cancer³

Take Home Message:

• A risk-benefit analysis should be performed for each patient on the use of steroids in cancer care³

Lalani A-K A, et al. Can Urol Assoc J 2020;14(5):E154-8.

3. Waterhouse JV, et al. Eur Urol. 2020;78. https://www.europeanurology.com/article/S0302-2838(20)30259-1/fulltext

^{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.

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

Modality	Considerations
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])

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

Localized High-Risk PC

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

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

Localized High-Risk PC

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

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

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

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

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

Source	Guidance
CUOG-CUA	Newly diagnosed mHSPC
(Kokorovic et al.	<u>Recommend ARAT over docetaxel</u> chemotherapy in addition to ADT
Can Urol Assoc J. 2020)	 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 <u>delaying RT</u>
	If RT is administered, consider a <u>hypofractionated course</u>
Canadian GU	mHSPC
Recommendations (Lalani et al. Can Urol Assoc J. 2020)	 [per recommendations for newly diagnosed mHSPC above]
	 <u>ARAT initiation can be delayed up to 6 months post-initiation of ADT</u> (assuming castration resistance has not emerged)

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)

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

Metastatic Castration-Resistant Prostate Cancer (mCRPC)

Source	Guidance
CUOG-CUA (Kokorovic et al. Can Urol Assoc J. 2020)	 Patients with mCRPC not previously treated with an ARAT Recommend <u>ARAT over chemotherapy</u> Consider <u>radium-223</u> 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 <u>ARAT</u> 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 <u>radium-223</u> 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

Source Guida	ance
Canadian GU Recommendations (Lalani et al. Can Urol Assoc J. 2020)	 nd-line mCRPC ecommend ARAT when not used previously ARAT used previously and chemotherapy would be treatment choice, onsider: whether chemotherapy can be safely delayed individual risks of COVID-19 hospital resource constraints onsider radium-223 over chemotherapy in patients with bone-only mCRPC

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

mCRPC – Third Line

Source	Guidance
Canadian GU	Third-line mCRPC
Recommendations	Recommend alternate ARATs over alternate chemotherapy
(Lalani et al. Can Urol Assoc J. 2020)	 Level 1 data support alternate chemotherapy, however hospital constraints may preclude IV chemotherapy and adverse event management
	 If ARAT used previously 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

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 suboptimal 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-10

- 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



APPENDIX

- EAU guidelines
- BC Cancer guidelines
- OH-CCO guidance
- MSSS recommendations

EAU Guidelines

Localized Low-Risk PC

Source	Guidance
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

Localized Intermediate-Risk PC

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

Localized High-Risk PC

Source	Guidance
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

Locally-Advanced PC

Source	Guidance
EAU Guidelines	Locally-Advanced PC (including cN1)
(Ribal et al. 2020	RP
uloweb.org)	Do not use NADT to postpone RP
	Consider long term ADT + EBRT as an alternative to surgery
	EBRT
	Start immediate NADT if symptomatic, followed by EBRT 6-12 months later
	Avoid invasive procedures (eg, fiducial insertion, rectal spacers)

Follow-up After Treatment with Curative Intent

Source	Guidance
EAU Guidelines	General
(Ribal et al. 2020	Offer telemedicine as often as possible
uroweb.org)	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.

mHSPC

Source	Guidance
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 <u>ADT plus</u> (alphabetically) <u>abiraterone acetate +</u> prednisone (consider 5 mg QD) OR apalutamide OR enzalutamide
	 Avoid ADT with docetaxel based on risk for neutropenia and frequent hospital visits

mCRPC

Source	Guidance
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 Treat patients with life-prolonging agents Previous treatment for HSPC Use of medical resources
	 <u>Avoid chemotherapy</u> 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
	 <u>Abiraterone + prednisone</u> 10 mg daily might be reconsidered (steroid use)

BC Cancer Guidelines

Localized Low-Risk PC

(low-risk or favorable-intermediate risk disease)

Source	Guidance
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

Localized High-Risk PC (unfavourable-intermediate risk or high-risk disease)

Source	Guidance
BC Cancer April 20, 2020 (bccancer.bc.ca)	 RT Consider EBRT as alternative for patients already on RT if long delay to brachytherapy is anticipated
	 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)
	 For patient pending an HDR boost, consider switch to LDR boost to minimize operating room and anesthesia time

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.

mCRPC

Source	Guidance
BC Cancer April 20, 2020	 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.

OH-CCO Guidance

mHSPC

Source	Guidance
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)

Source	Guidance
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)

Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC)

Source	Guidance
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.

Acute COVID-19

Phase Guidance

mCRPC

Source	Guidance
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.

MSSS Recommendations

Localized Low-Risk PC

(low-risk or favorable-intermediate risk disease)

Source	Guidance
MSSS Recommendations April 15, 2020 (msss.gouv.qc.ca)	 General All treatments can be postponed for a period of 3 to 6 months with follow-up appropriate 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

Localized High-Risk PC (unfavourable-intermediate risk or high-risk disease)

Source	Guidance
MSSS Recommendations April 15, 2020	 RP Perform only if very high-risk disease General
(msss.gouv.qc.ca)	 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

Managing Recurrent Disease

Source	Guidance
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

Metastatic Prostate Cancer

Source	Guidance
* * MSSS	Metastatic Prostate Cancer
Recommendations April 15, 2020 (msss.gouv.qc.ca)	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