Prostate Cancer Diagnosis Pathway
Version 2018.03

Disclaimer
The pathway is intended to be used for informational purposes only. The pathway is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathways are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway. The information in the pathway does not create a physician-patient relationship between Cancer Care Ontario (CCO) and the reader.
Prostate Cancer Diagnosis Pathway

Target Population

- Patients who present with signs or symptoms suspicious of prostate cancer.

Pathway Map Considerations

- Primary care providers play an important role in the cancer journey and should be informed of relevant tests and consultations. Ongoing care with a primary care provider is assumed to be part of the pathway. For patients who do not have a primary care provider, Health Care Connect, a government resource that helps patients find a doctor or nurse practitioner.
- Throughout the pathway, a shared decision-making model should be implemented to enable and encourage patients to play an active role in the management of their care. For more information see Person-Centered Care Guideline and EBS #19-2 Provider-Patient Communication.
- Hyperlinks are used throughout the pathway to provide information about relevant CCO tools, resources and guidance documents.
- The term ‘health care provider’, used throughout the pathway, includes primary care providers and specialists, nurse practitioners, and emergency physicians.
- For more information on Organized Diagnostic Assessment refer to the Organizational Standards.
- Psychosocial oncology (PSO) is the interprofessional specialty concerned with understanding and treating the social, practical, psychological, emotional, spiritual and functional needs and quality-of-life impact that cancer has on patients and their families. Psychosocial care should be considered an integral and standardized part of cancer care for patients and their families at all stages of the illness trajectory. For more information, visit EBS #19-3.
- Counseling and treatment for smoking cessation should be initiated early on in the pathway and continued by care providers throughout the pathway as necessary. For more information, see Program Training & Consultation Centre – Hospital Based Resources.

* Note. EBS #19-2 and EBS #19-3 is older than 3 years and is currently listed as ‘For Education and Information Purposes’. This means that the recommendations will no longer be maintained but may still be useful for academic or other information purposes.

Pathway Disclaimer

This pathway is a resource that provides an overview of the treatment that an individual in the Ontario cancer system may receive.

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**Prostate Cancer Diagnosis Pathway**

**Visit to Healthcare Provider**

**Patients ≥ 40 years old presenting with symptoms of metastatic prostate cancer which include any unexplained:**
- Suspicious lower back pain with reproducible percussion tenderness
- Severe bone pain
- Weight loss, especially in the elderly

**EBS #24-3**

**Digital Rectal Exam (DRE)**

**Prostate Specific Antigen (PSA) Test**

**Results**

**Prostate hard or irregular on DRE and/or PSA >20 ng/mL**

**Urgent**

**Urologist**

**Consider other metastatic cancers**

**Semi-Urgent**

**Organized Diagnostic Assessment**

**Normal DRE PSA 10 ng/mL to 20 ng/mL**

**Consider other metastatic cancers**

**Non-Urgent**

**Normal DRE PSA <10 ng/mL**

**Patient presenting with Lower Urinary Tract Symptoms (LUTS) (ex. irritative and obstructive voiding symptoms)**

**EBS #24-3**

**Urologist**

**Consider other metastatic cancers**

**Non-Urgent**

**Repeat PSA Test ~6-8 weeks**

**Prostate hard or irregular on DRE and age-based PSA elevated but <10 ng/mL**

**Urgent**

**Urologist**

**Assessment of likelihood of prostate cancer**

**Risk <5%**

**Risk 5%-20%**

**Risk >20%**

**Discuss management options with patient**

**Annual Monitoring**

**Digital Rectal Exam (DRE)**

**PSA Test**

**Patient preference**

**Patient returns to referring primary care provider**

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1. Age-based PSA values (upper limit of normal): 40-50 years: 2.5 ng/mL, 50-60 years: 3.5 ng/mL, 60-70 years: 4.5 ng/mL, 70 years and over: 6.5 ng/mL

2. Discussion about benefits and risks of prostate specific antigen (PSA) testing should occur with the patient, refer to CCO Position Statement on Prostate Cancer Screening and Supporting Documents

3. There is no evidence to support the use of TRUS in prostate cancer diagnosis

4. Risk Calculators: Refer to EBS #24-3 Nomograms

5. Refer to EBS #24-3 for details on urgency of referral.
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### Prostate Cancer Diagnosis Pathway

**Follow-Up**

**As instructed by the urologist**

**Pathology**

**Prostate Core Needle Biopsy Aided by Transrectal Ultrasound (TRUS)**

<table>
<thead>
<tr>
<th>Low suspicion or biopsy contraindicated (e.g., if medically unfit for biopsy, limited life expectancy, or other possible causes for elevated prostate specific antigen PSA, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High suspicion and patient medically fit for biopsy</td>
</tr>
</tbody>
</table>

**CCO Recommendation Report**

**Digital Rectal Exam (DRE)**

**PSA Test**

| Atypical Small Acinar Proliferation (ASAP) or High volume of high grade Prostatic Intraepithelial Neoplasia |

**Multiparametric MRI**

**Follow-up by Urologist or Primary Care Provider**

**Repeat Biopsy (plus Targeted Biopsy)**

**At discretion of urologist and with patient consultation**

**Patient returns to referring primary care provider**

**Follow-Up**

**As instructed by the urologist**

**CCO Recommendation Report**

**Follow-up by Urologist or Primary Care Provider**

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6 Consider uropathologist specimen review
7 Bilateral and/or more than 2 cores
8 If biopsy repeatedly inconclusive or negative consider additional tests: biopsy, MRI or other imaging.
Risk Assessment and Staging

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Prostate Cancer Diagnosis Pathway

Recommended Imaging Tests

- Bone Scan and X-Ray of suspicious areas
- CT Pelvis/Abdomen

Positive for prostate cancer
- Prostate Cancer Risk Stratification (D’Amico)
  - Low Risk, if all of:
    - PSA < 10ng/mL
    - Gleason score ≤ 6
    - T1-T2a
    - Asymptomatic for metastases
  - Intermediate Risk, if any of:
    - PSA 10ng/mL – 20ng/mL
    - Gleason score 7
    - T2b-C
    - Asymptomatic for metastases
  - Consider Prostate Cancer Staging Tests

High Risk, if any of:
- PSA >20ng/mL
- Gleason score ≥ 8
- T3a
- Symptomatic for metastases

Positive Bone Scans and CT
- Prostate MRI (if suspicion of T3)

Metastatic prostate cancer?
- Yes
  - Proceed to Treatment Pathway Map Page 5
- No

Proceed to Treatment Pathway Page 3

C

From Page 4

Symptomatic for metastases

T3?
- Yes
  - Proceed to Treatment Pathway Map Page 5
- No

Proceed to Treatment Pathway Map Page 8

B

Positive for prostate cancer
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  - Intermediate Risk, if any of:
    - PSA 10ng/mL – 20ng/mL
    - Gleason score 7
    - T2b-C
    - Asymptomatic for metastases
  - Consider Prostate Cancer Staging Tests

High Risk, if any of:
- PSA >20ng/mL
- Gleason score ≥ 8
- T3a
- Symptomatic for metastases

Positive Bone Scans and/or CT
- Prostate MRI (if suspicion of T3)

Metastatic prostate cancer?
- Yes
  - Proceed to Treatment Pathway Map Page 5
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Proceed to Treatment Pathway Map Page 8

B

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Proceed to Treatment Pathway Map Page 8