## Prostate Cancer Management

### Disclaimer

This pathway includes treatment options and management provided by specialised urology and radiation oncology services. General practitioners may be involved in the follow-up of some of these treatments.

### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>2</td>
</tr>
<tr>
<td>Patient factors</td>
<td>2</td>
</tr>
<tr>
<td>Disease factors</td>
<td>2</td>
</tr>
<tr>
<td>Active surveillance and monitoring</td>
<td>3</td>
</tr>
<tr>
<td><strong>Requirements for active surveillance</strong></td>
<td>3</td>
</tr>
<tr>
<td>Surgery</td>
<td>3</td>
</tr>
<tr>
<td><strong>Minimal invasive surgery</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Laparoscopic radical prostatectomy</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Benefits of minimally invasive option</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Complications of surgery</strong></td>
<td>4</td>
</tr>
<tr>
<td>Radiation therapy</td>
<td>4</td>
</tr>
<tr>
<td><strong>External beam radiation therapy</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Complications</strong></td>
<td>4</td>
</tr>
<tr>
<td>Brachytherapy</td>
<td>4</td>
</tr>
<tr>
<td>- <strong>Low-dose rate seed brachytherapy</strong></td>
<td>4</td>
</tr>
<tr>
<td>- <strong>High-dose rate brachytherapy</strong></td>
<td>4</td>
</tr>
<tr>
<td>- <strong>Complications</strong></td>
<td>5</td>
</tr>
<tr>
<td>Treatment of advanced disease</td>
<td>5</td>
</tr>
<tr>
<td><strong>LHRH agonist</strong></td>
<td>5</td>
</tr>
<tr>
<td>Local prostate cancer services</td>
<td>5</td>
</tr>
<tr>
<td>Treatment options</td>
<td>5</td>
</tr>
<tr>
<td><strong>Referral</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>6</td>
</tr>
<tr>
<td>For health professionals</td>
<td>6</td>
</tr>
<tr>
<td>For patients</td>
<td>6</td>
</tr>
</tbody>
</table>
Management

Patients see their urologist following their biopsies to have their results explained, and to discuss whether or not active treatment is required.

1. Discuss the need for treatment. In 40% of cases, being low volume, low grade disease, active treatment is not indicated. In cases where treatment is required, the best treatment option is determined jointly with the patient, after considering:

- **Patient factors**

  - **Life expectancy**
  - **Age**
  - **Comorbidities**
  - **Lower urinary tract symptoms**
  - **Bowel symptoms or diseases e.g., inflammatory bowel disease**
  - **Previous radiation therapy or pelvic surgery**

- **Disease factors**

  - **Consider pathological grading of tumour using the:**
    - **new International Society of Urological Pathology (ISUP) grading system**
      - 1 – low grade disease
      - 2 – intermediate disease
      - 3, 4, 5 – high grade disease
    - or the older **Gleason grading system**, which is due to be phased out of use.
      - 6 – low grade disease
      - 7 – intermediate disease
      - 8, 9, 10 – high grade disease

  - **Tumour, nodes, and metastasis (TNM) stage.** See Cancer Council Australia – [TNM System](#) for the classification of malignant tumours.
  - **Prostate-specific antigen (PSA).**
  - **Prostate volume may be considered.**

- **Patient preference**
2. If decision is made to treat prostate cancer, jointly discuss the best treatment option with the patient. Generally, patients with significant comorbidities or limited life expectancy are not suitable for effective intervention.

- **Active surveillance and monitoring**

  **Active surveillance and monitoring**

  - If requirements for active surveillance are met, no treatment is required.

  **Requirements for active surveillance**
  - Low ISUP grading system score (grade 1) or low Gleason score disease (grade 6, low volume disease)
  - Low stage (≤ T2)
  - Low PSA (≤ 10)

  - Inform patient that:
    - low-grade and stage disease does not have the capacity to harm the patient.
    - intervention occurs if patient goes on to develop high grade disease.
    - 40% of men with prostate cancer undergo active surveillance.

  - 12-monthly magnetic resonance imaging (MRI) checks are available. MBS rebate available if ordered by a urologist, radiation oncologist, or oncologist.

  - Monitor low grade and stage disease 12 monthly – arrange PSA and digital rectal examination (DRE) with repeat biopsies.

- **surgery**

  **Minimal invasive surgery**

  **Laparoscopic radical prostatectomy**
  - Disease control outcomes similar to open surgery.
  - Prostate and seminal vesicles (with or without pelvic lymph nodes) are excised.
  - 1 to 2 night stay in hospital. Urethral catheter in for 2 weeks.
  - Recovery – back to work and normal activities at approximately 2 to 3 weeks.

  **Benefits of minimally invasive option**
  - Decreased blood loss and transfusion rates
  - Decreased postoperative pain
  - Quicker return to normal activities
  - Decreased hospital stay

  **Open radical prostatectomy**
  - Intention is curative. There are similar disease control outcomes to radiation therapies.
  - Also used as a palliative procedure.
  - Prostate and seminal vesicles (with or without pelvic lymph nodes) are excised.
  - 3 to 4 night stay in hospital. Urethral catheter in for 2 weeks.
  - Recovery – back to work and normal activities at approximately 6 weeks.
Complications of surgery
- Erectile dysfunction rates of 50%*
- Urinary incontinence 10%
- Infection
- Bladder neck stricture (scar)
- Rectal injury
- Deep vein thrombosis (DVT) or pulmonary embolism (PE)

* 50% of men aged ≥ 60 years already have erectile dysfunction

- Radiation therapy

Radiation therapy

External beam radiation therapy
- Similar outcomes to surgery.
- Treatment delivered Monday to Friday over 4 to 8 weeks as an outpatient.
- 50% cases of radiation treatment preceded by 6 months hormone therapy with LHRH agonist.
- Recovery – usually able to continue working and normal activities during and after treatment.

Complications
Acute, short-term complications – usually resolve within weeks of completion of therapy:
- Fatigue
- Bladder – urinary frequency, dysuria, haematuria
- Bowel – loose bowel motions, faecal urgency, rectal bleeding, mucus discharge

Late complications – may occur years after therapy completed:
- Bladder – urinary frequency, haematuria
- Bowel – permanent change in bowel habit, rectal bleeding, mucus discharge
- Impotence
- Second malignancy (very rare)

- Brachytherapy

Brachytherapy

- Low-dose rate seed brachytherapy:
  - Seeds are placed into the prostate permanently via perineum.
  - Suited to low to intermediate risk disease.
  - Requires only few days off work, and back to normal activities by one week.

- High-dose rate brachytherapy:
  - Radioactive source placed temporarily into prostate trans-perineally under general anaesthetic. Source is removed at end of procedure once radiation dose is delivered.
  - 2 to 3 sessions two weeks apart usually required.
  - Suited to intermediate to high risk disease.
  - Seeds are placed into the prostate permanently via perineum.
- **Complications**
  - Bruising in the perineum
  - Lower urinary tracts symptoms, particularly frequency and urgency
  - Acute urinary retention requiring catheter (rare)
  - Infection
  - Long-term – impotence, lower urinary tract symptoms

- **Treatment of advanced disease**

  **Treatment of advanced disease**
  
  - The intention is not to cure the disease, but to delay disease progression usually with **LHRH agonist** (palliative therapy). If the disease becomes symptomatic, radiation or chemotherapy can be used.

  **LHRH agonist**
  These are luteinising hormone releasing hormone agonists, such as goserelin (Zoladex) and leuprorelin (Lucrin), which are given as injections.

  - Follow-up is with a PSA and clinical review, usually every 6 to 12 months.
  - If bone pain, consider referral to an oncologist or radiation oncologist.
  - If significant urinary symptoms, consider referral to a urologist.

3. Consider referral for **pelvic floor physiotherapy**.

4. Consider referral to **local prostate cancer service** for psychological support.

**Local prostate cancer services**

Local prostate cancer services that provide psychological support and counselling include:

- Australian Prostate Centre
- Peter MacCallum Cancer Centre

5. If metastatic disease and palliative care required:
   - inform patient about **treatment options**.

  **Treatment options**

  - Medications and surgery can control disease for many years.
  - Initial treatment involves hormonal therapy, such as use of an LHRH agonist (usually) or LHRH antagonist.
  - Treatment may progress to newer hormone agents and chemotherapy.
  - Palliative radiation treatment is often useful for bone metastases.
  - **Palliative care options.**
  - **Advance Care Plan.**

  - discuss the patient’s wishes for treatment.
  - provide patient information.

6. Follow-up as outlined in **active surveillance**.
Referral

- Arrange immediate urology referral or admission if:
  - significant bleeding.
  - urinary retention.
  - renal failure.

- Request urgent immediate urology referral or admission if:
  - any complications resulting from the above procedures or treatments.
  - symptoms of progressive prostate cancer e.g., increasing PSA, significant urinary symptoms, weight loss.
  - any catheter problems immediately after surgery. Seek phone advice as the catheter should not be removed without a discussion first.

- If bone pain, consider referral to an oncologist or radiation oncologist
- Consider referral to local prostate cancer service for psychological support.

Information

For health professionals

Cancer Council Victoria:

- Management of Locally Advanced and Metastatic Prostate Cancer
- Optimal Care Pathway for Men with Prostate Cancer
- Optimal Care Pathway for Men with Prostate Cancer: Quick Reference Guide

For patients

- Cancer Council Australia – After a Diagnosis of Prostate Cancer (Prostate Health Information)
- Cancer Council Victoria:
  - Management or Treatment of Prostate Cancer
  - Prostate Cancer: What to Expect
- Health Male Andrology Australia – Prostate Cancer Treatment
- Urological Society of Australia and New Zealand – Prostate Cancer

Last Reviewed: July 2019

Disclaimer