

An update for GPs on modern radiation therapy & hormones for prostate cancer

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Disclaimer – who am I?

- I am a radiation oncologist (24 years GU cancers)
- I work in public sector - no financial conflict of interest
- I am the Clinical Lead for the RANZCR Faculty of Radiation Oncology Targeting Cancer Campaign raising awareness of, and better knowledge around, modern radiation therapy
- I believe that men deserve to be fully informed about all their treatment options
- I believe GPs are critical in helping achieve this



Take home messages

- Modern radiation therapy (RT) is as effective as **prostatectomy** in curing prostate cancer
- **GPs can help ensure men know treatment options**
- Advances in RT have significantly reduced serious side effects & improved the patient experience
- Treatment for prostate cancer is rarely urgent
- Hormone therapy (ADT) is often used with RT in the curative setting & **GPs have a key role in managing potential ADT morbidity**



Session plan

This session will cover:

- modern radiation therapy (RT) advances
- case study – localised prostate cancer
- treatment options –GP's role
- the patient experience
- hormone therapy – GP's role
- RT in palliation of bone metastases
- resources

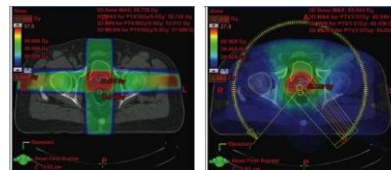


Advances in radiation therapy

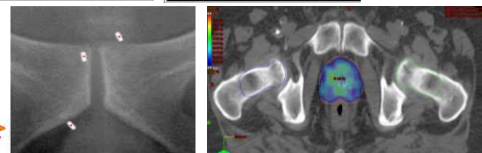
- Increased targeting of cancer/area to be treated (more 'conformal')
- Avoidance of adjacent organs
 - reduced side effects
 - higher doses given safely -> better cure rates
- Imaging of cancer/organ on daily basis
 - image-guided RT (IGRT)
- Faster daily treatments



Increasing Sophistication



Gorayski P et al.
Advances in radiotherapy technology for prostate cancer: What every GP should know.
Aus Fam Phys: 44:663–67, 2015



Types of radiation therapy

- External beam radiation therapy (EBRT)
 - photon (Xray) beams directed from outside the body
 - IMRT, VMAT = tightly targeted modern radiation therapy
- OR
- Brachytherapy – high/low dose rate
 - internally placed radiation sources
 - (go to targetingcancer.com.au)



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Case Study – Intermediate Risk PrCa

- 67 year old man
- otherwise fit and well
- mild - mod. LUTS increasing over 2 years
- first (only) PSA 12ng/ml
- DRE – normal feeling prostate gland (T1c)
- referred to a urologist
 - TRUS biopsies– Gleason 4+3=7 adenocarcinoma in 6 of 12 biopsies (+MRI)
- what are his treatment options?



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What happens now?
As his GP, what is your experience?



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Management options

	Low risk	Intermediate risk	High risk
PSA	0 to 10 ng/ml	10 to 20 ng/ml	>20 ng/ml
T-stage	T1 – T2a	T1-T2b	T2c – T4
Gleason	6 or lower	Gleason 7	8 or higher
Management options	<ul style="list-style-type: none"> Active surveillance Radical prostatectomy External beam RT LDR brachytherapy 	<ul style="list-style-type: none"> Radical prostatectomy External beam RT +/- ADT LDR brachytherapy (selected cases) 	<ul style="list-style-type: none"> External Beam RT + ADT Radical prostatectomy + adjuvant EBRT EBRT/HDR brachytherapy + ADT



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Treatment Outcomes

- No evidence for superiority of surgical treatments over radiation therapy (+/- hormones)
- There is growing evidence that RT and hormones offer better control for high risk prostate cancer – adjuvant/salvage RT required post-op in $\geq 40\%$
- No good evidence that planned ‘multi-modal therapy’ improves cancer outcomes – definitely worsens side effects and costs



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Decision-making in PrCa

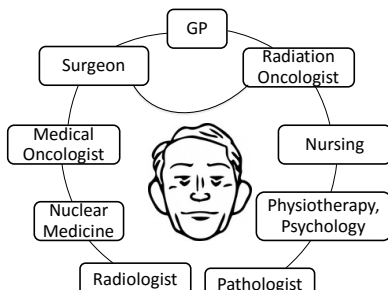
- Men may miss out on having full information about options before surgery
- Many studies show this leads to psychological morbidity = ‘decisional regret’*
 - especially if toxicity, options and costs are inadequately discussed
- Referral pathway differs from other cancers
- **There usually \geq one ‘good’ option – therefore often comes down to patient preference**



* Christie D et al, Psycho-Oncology, 2015

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Ideal prostate cancer team



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MDT model in cancer care

- Patient assessment & decision-making requires multidisciplinary panel of experts
- Prostate cancer has lowest rate of MDT meeting discussions for all major cancers (Vic Data)
- Many MDT discussions occur *after* surgery
- Radical prostatectomy rates are increasing
 - the Da Vinci robot
- GPs can play a key role helping men get expert opinions & in their decision-making



Go-rayski P et al. Advances in radiotherapy: Ensuring balance in the discussion. *AFP*: 44; 11; Nov 2015

Your patient

What you might do if there is a suspicion of PrCa (as well as referring to a urologist):

- encourage him to explore all treatment options with equal cure rates (suggest he returns for discussion & communicate this to urologist)
- if biopsies +ve, make a referral to a radiation oncologist
- reassure him that there is likely *no urgency* to decide on treatment



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The patient pathway

- Discussion & decision regarding treatment
- If having radiation therapy:
 - ADT commenced if required (4-6 months before RT starts; + 18 mo after RT if high risk)
 - Planning for radiation – fiducials, ?MRI *then* CT planning scan (non-contrast)
 - Tailored radiation plan developed on CT scan (man not present)
 - Treatment delivered – patient reviewed on RT
 - Follow up



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Overall management pathway- intermediate risk prostate cancer

6 months ADT

Radiation
therapy (8w)

Recovery of
testosterone/
resolution of
side effects

PSA
monitoring
q3-6 mo ->
annual



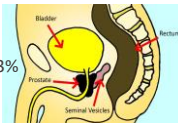
The patient experience

- Outpatient treatment program
- Treatment sessions (fractions) every work day (or 9/fortnight)
- Takes only minutes to deliver
- Approx. 30 - 40 mins in department
- Usually 39 - 40 treatments over 8w
- Men can work, drive & do their usual activities through treatment
- Soon: 1- 4 week options for some men



Side effects of RT to prostate

- Acute
 - short-term, usually mild & settle 2-8w after RT
 - highly variable between men
 - usually start 3-4 w & build towards end
 - fatigue, urinary (frequency, nocturia, dysuria), rectal (discomfort, tenesmus, mucus)
 - >80% men have acute symptoms
- Late
 - urinary incontinence <1%, strictures 2-3%
 - rectal: bleeding, urgency, mucus ~5-7%
 - not always permanent
 - sexual dysfunction



Radiation therapy – costs

- Around 60% of radiation therapy is given in the public setting; 40% private
- Centres in Australia well-equipped for EBRT
- Waiting lists are rarely a problem
- Public hospitals: most bulk bill
- Private: out of pocket costs range from \$0 - \$7000 total, typically few \$K for curative course of prostate RT



How to refer?



- GPs can refer direct to radiation oncologists
- Radiation oncology centres have a nurse or a RO can advise you about your patient



Androgen Deprivation Therapy: Indications

- **In combination with RT (higher cure rates for intermediate and high risk PrCa)**
 - 6 months – 2 years
- First-line therapy for PSA-relapse with or without metastatic disease on imaging
 - Continuously or intermittently
- Indicated alone for men not well enough for, or able to have, other therapy (uncommon)



More on ADT

- (neo)adjuvant with curative RT, usually LHRH alone eg Zoladex, Lucrin, Dipheraline, Eligard
- 1, 3, 6 month SC or IM implant/injection
- Recovery of testosterone 3 months – years
- Non-steroidal anti-androgens eg Cosudex 50mg daily used for PSA relapse on LHRH = '2nd line' therapy or to prevent testosterone spike and pain flare (metastatic disease) or if severe obstructive symptoms prior to LHRH



Potential morbidity of ADT

- Short term
 - Hot flushes, loss of libido and erections, lethargy
 - Testosterone typically recovers 6 – 12 mo
- Longer term
 - Weight gain, loss of muscle mass, loss of bone density, mood & cognitive changes, non-fatal cardiac events, reduced glucose tolerance, 'metabolic syndrome'
- Highly variable impact on quality of life



Managing ADT-related morbidity

- Short term ADT
 - regular exercise, prevention of weight gain
- Longer term ADT >6 months
 - monitor cardiac risk factors/?cardiology review
 - BSL, cholesterol, lipids
 - bone health – annual DEXA scan, ?bisphosphonates/endocrinologist review
 - resistance exercise and healthy weight key (physio/exercise physiologist)



Teleni L et al. Exercise improves QoL in ADT-treated prostate cancer. *Endocr Relat Cancer* Feb 1, 2016;101-112



Recommended Resources from Healthed seminars

Exercise Medicine Research Institute

Established in 2010, the Exercise Medicine Research Institute is an initiative that builds collaboration between researchers, educators, industry and government to optimise health and improve quality of life for people of all ages, within differing social, cultural, political and environmental contexts.

EDM Covers University's Exercise Medicine Research Institute in WA is the first institute of its kind at an Australian University bringing together an expert team of researchers committed to improving community health and wellbeing.

- The Institute examines the role of exercise in:
- Men Requiring Therapy for Prostate Cancer;
 - Promoting Lifestyle Changes in Prostate Cancer Survivors;
 - Neoadjuvant Chemotherapy in Patients with Breast Cancer;
 - Breast Cancer Related Lymphedema;
 - Cancer Patients with Advanced Bone Metastatic Disease;

GENERAL PRACTICE

Adelaide, 17 September
8.30am-4.30pm
Adelaide Convention Centre
[Learn more to register](#)
[Register now](#)

Melbourne, 15 October
8.30am-4.30pm
Melbourne Convention & Exhibition Centre, South Wharf
[Register now](#)
Book Early Bird ends this Friday!
[Book now](#)

Sydney, 29 October
8.30am-4.30pm
US Centre, University of QLD
[Register now](#)
Perth, 5 November
8.30am-4.30pm
Perth Convention & Exhibition Centre
[Register now](#)



Radiation therapy for palliation

- Bone mets are common
- RT effective in palliation
- 1 – 5 treatments (fractions)
- 75 - 80% pain response
- Reduction in opioids
- Side effects minimal
- Can be repeated



Morris L et al. Back Pain in a Cancer Patient: A Case Study. *AFR* : 43; 8, Aug 2014



Prostate cancer Treatment options

There are a number of treatment options available for men with prostate cancer which is localized to the prostate or to the immediate area around the prostate.

You may be anxious for your treatment to be as effective, but it's important that you also take the time to fully understand all of the options available to you.

Physical removal of the prostate gland (prostatectomy) is not always the only option. There are now treatments you should think of as disease management or a complete 'fix' if you can get your confidence back from a treatment you choose that is right for you. Often this comes down to personal preference and understanding of the consequences.

Treatment options

Active surveillance

This aims to control your prostate cancer closely and further treatment is reserved for if the cancer starts to grow again. Some of the tests you may have include PSA testing, digital rectal exams (DRE) and biopsy. Biopsy results are used to determine if you need further treatment.

Surgery

This aims to remove the entire prostate and some of the surrounding tissues. It can be done using open surgery, laparoscopic or robotic surgery. Each approach has its own advantages and disadvantages. Your urologist will discuss the options with you.

Radiation Therapy (RT)

This treatment delivers cancer cells with multiple and potentially devastating side effects. High energy beams are used to target the prostate gland. Some of the tests you may have include PSA testing, digital rectal exams (DRE) and biopsy. Biopsy results are used to determine if you need further treatment.

Hormonal therapy

This treatment changes your body from being testosterone and androgen sensitive. It may be given as tablets or injections. It can have some side effects such as hot flashes, weight gain, loss of muscle mass, and changes in cholesterol. Your urologist will discuss the options with you.

Make the choice that's right for you

Other questions to ask your doctors
IDF radiation oncologist & urologist

- What treatment options would be suitable for me, and are there any characteristics of my prostate cancer which may affect my treatment choices?
- Can you tell me the benefits and risks of the treatment you have recommended?
- What are the side effects of the treatment, how likely are they to happen, and how can they be treated?
- What is the chance I may need to have more than one of the treatments listed above?
- How soon do I need to make a choice about which treatment I prefer?
- Where and how do I get a second opinion?
- When can I have treatment, and how much is it likely to cost?
- Are there any clinical trials I might be suitable for, and how can I find out about these?
- What tests and follow up care will I have?

There are several options. Ask which treatment is suitable for you.

You are strongly encouraged to get more than one specialist opinion about the management of your prostate cancer. The recommended you speak to your IDF radiation oncologist and urologist before you make any treatment decisions. It is important that you take time to get all the up-to-date and accurate information from the relevant experts so you can make the choice that's right for you.

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More resources for patients & GPs

www.targetingcancer.com.au

For GPs



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