

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

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## 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
- Role of GPs in helping men access options
- The patient experience with RT
- Hormone therapy – GPs' role



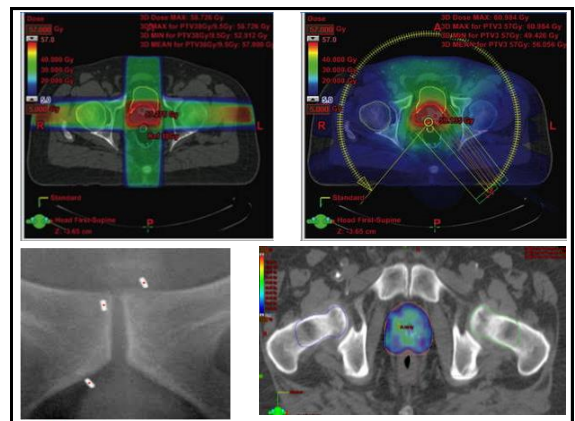
## Types of radiation therapy

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



## 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



### 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?



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



**Prostate cancer Treatment options**

Make the choice that's right for you!

**Active surveillance**

**Radical prostatectomy (RP)**

**External beam RT**

**LDR brachytherapy**

**Optimal care pathway for men with prostate cancer**

**Guidelines on Prostate Cancer**

EBU

**NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)**

**Prostate Cancer**

Version 1.2016  
NCCN.org

### Management options

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



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## Treatment Outcomes

THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

### 10-Year Outcomes after Monitoring, Surgery, or Radiotherapy for Localized Prostate Cancer

F.C. Hamdy, J.L. Donovan, J.A. Lane, M. Mason, C. Metcalfe, P. Holding, M. Davis, T.J. Peters, E.L. Turner, R.M. Martin, J. Oxley, M. Robinson, J. Staffurth, E. Walsh, P. Bollina, J. Catto, A. Doble, A. Doherty, D. Gillatt, R. Kockelbergh, H. Kynaston, A. Paul, P. Powell, S. Prescott, D.J. Rosario, E. Rowe, and D.E. Neal, for the ProtecT Study Group\*

## 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 >40%
- No good evidence that planned ‘multi-modal therapy’ improves cancer outcomes – definitely worsens side effects and costs

## Decision-making in PrCa

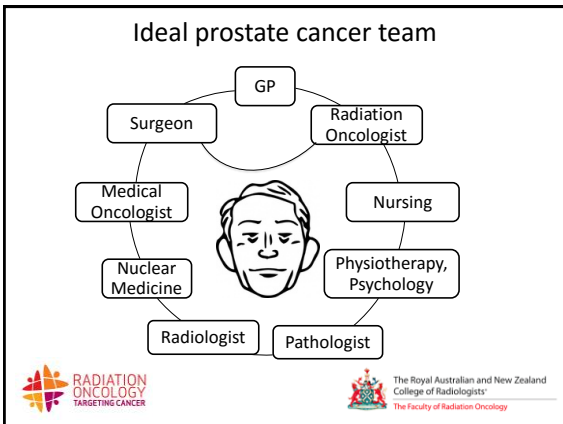
- Men may miss out on having full information about options before surgery
- Many studies show this leads to psychological morbidity = ‘decisional regret’
  - especially if toxicity, options and costs are inadequately discussed
- Referral pathway differs from other cancers
- **There usually ≥ one ‘good’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

**Prostate cancer Treatment options**

*Make the choice that's right for you*

You may be anxious to start treatment as soon as possible, but it's important that you take the time to fully understand all the options, benefits, risks and cost

There are two specialists you should talk to - a radiation oncologist and a urologist. Your GP can give you referrals to both of these and help you make a decision that is right for you



## 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

Gorayski 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



## The patient pathway

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



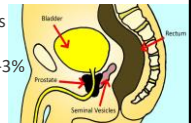
## The patient experience

- Outpatient treatment program
- Treatment sessions (fractions) every work day (or 9/fortnight)
- Takes only minutes to deliver
- Approx. 30 - 40 mins in department
- Usually 37 - 40 treatments over 8w
- Men can work, drive & do their usual activities through treatment
- Soon: 1- 4 week options for some men
- Follow-up with PSA & clinical review



## Side effects of RT to prostate

- Acute
  - short-term, usually mild & settle 2-6w 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 notice some acute symptoms
- Late
  - urinary incontinence <1%, strictures 2-3%
  - rectal: bleeding, urgency, mucus ~5%
  - sexual dysfunction



## Radiation therapy – costs

- Around 60% of radiation therapy is given in the public setting; 40% private
- All centres in Australia are well-equipped
- 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 you can get advice from for your patient

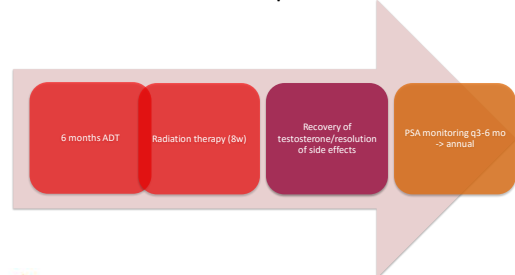


## Androgen deprivation therapy: Indications

- In combination with RT (higher cure rates for intermediate and high risk PrCa)
  - 6 months – 2 years; LHRH analogues
- Given to men with 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)



## Overall management plan- intermediate risk prostate cancer



## 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)



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More resources for patients & GPs

[www.targetingcancer.com.au](http://www.targetingcancer.com.au)

For GPs

