#### **ESMO Clinical Practice Guidelines**

# Prostate Cancer Clinical Case Presentation

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#### Disclosures

Alan Horwich has declared no potential conflicts of interest



#### Introduction

- A 73 year old retired architect asked his family doctor for a general check-up.
- He was well apart from mild Lower Urinary Tract Symptoms.
- Rectal exam revealed an indurated right lobe of the prostate
- A subsequent PSA was 220
- Trans-rectal needle biopsies revealed Gleason 4+3 cancer in 5 out of 12 cores

## Q1: What staging scans are required?

- 1. CT scan of the pelvis
- 2. MRI of the pelvis
- 3. Choline PET scan
- 4. Isotope bone scan
- 5. MRI of the spine

#### Answer 1

4. Isotope bone scan



#### Prostate Case Months 1-4

- He was treated by androgen deprivation using an LHRH agonist (Leuprolide) by 3-monthly injection.
   For the initial month he also took Bicalutamide 150mg per day.
- PSA had fallen to 0.5 when measured 3 months later.

# Q2: What general health screens should be undertaken in patients starting androgen deprivation?

- 1. Psychological support
- 2. Orthopaedic review
- 3. Endoscopy
- 4. Cardiovascular screen
- 5. Endocrine review

## Q2: Answer 2

#### 4. Cardiovascular screen

N=37443 diagnosis 2001-4; 14,597 had ADT. Mean observation 2.6 yrs.

Rate of event/1000 patient years and adjusted Hazard Ratio

	Diabetes		Incident CHD		MI		Sudden Cardiac Death	
No ADT	87	-	81	-	7.3	-	12	-
LHRHa	160	1.3	144	1.2	12.8	1.3	22	1.3
Orchidectomy	190	1.2	210	1.4	24.3	2.1	23	1.3
Antiandrogen	130	1.0	143	1.1	11.2	1.0	19	1.1

Q3: Which of the following should routinely be added to Androgen Deprivation Therapy in the treatment of hormone-naïve metastatic prostate cancer?

- 1. Celecoxib
- 2. Combined androgen blockade
- 3. Zoledronic acid
- 4. Denusomab
- 5. None of the above



#### Q2: Answer 3

#### 5. None of the above

STAMPEDE trial of celecoxib, Lancet Oncology 2012

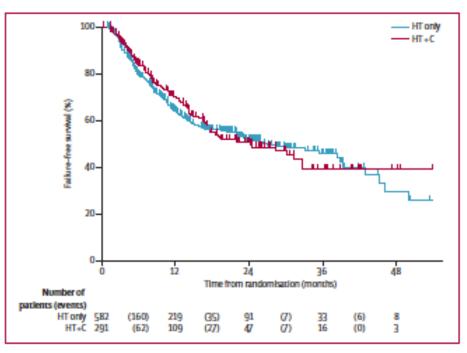


Figure 3: Kaplan-Meier curve of failure-free survival in arm A (hormone therapy alone) versus arm D (hormone therapy plus celecoxib)

UT-hormone therms: C-celecoville

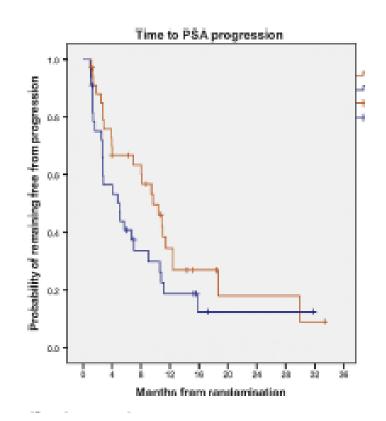


- 12 months after commencing androgen deprivation his PSA rose on 3 successive months, to 1.5, 4.0 and 9.2.
- He remained asymptomatic but was anxious
- Bicalutamide 50mg po od was added
- There was no response and Bicalutamide was withdrawn at month 16; PSA rose to 32 by month 18; bone scan was unchanged.
- Dexamethasone 0.5 mg po od was added

## Phase 2 trial Prednisolone vs Dexamethasone

PSA response in 42% Dex

versus 22% Pred



Venkitaramen et al 2015



#### Month 24

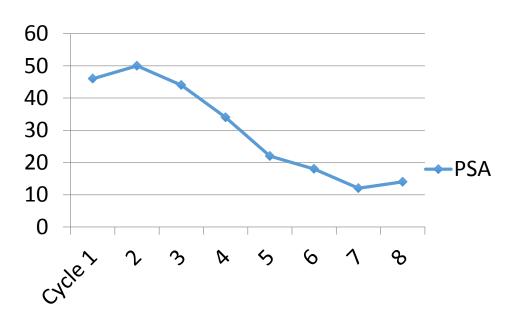
- He responded to daily oral dexamethasone for 3 months but then his PSA started to rise.
- At 24 months after ADT he complained of rib pain and needed mild analgesics.
- PSA had risen to 46.
- He commenced Docetaxel



#### Docetaxel months 24-30

Pain relief after 2 cycles

 Neuropathy at 6 cycles , worse after 8, so Docetaxel was stopped



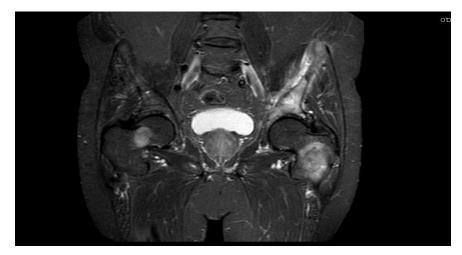
#### Month 34

- Back pain
- Impending spinal cord compression on MR
- Radiotherapy 20 Gy in 5 F.
- Then commenced Abiraterone with Prednisolone



#### Month 40

- Good symptomatic response to Abiraterone
- Improved performance for 4 months then hip and low back pain requiring narcotic analgesics.
- PSA 110 Alk P'tase 300, PS 2/3





# Q4: What further management options should be discussed?

- 1. Cabazitaxel
- 2. Radium-223
- 3. Palliative care
- 4. Enzalutamide
- 5. Any of the above

#### Q4: Answer

To be addressed by Dr Kim N. Chi, Professor of Medicine, University of British Columbia, Case Discussant

Our patient was planned for Radium-223 but developed pneumonia in the community and died 41 months after commencing androgen deprivation.

