Clinical Management Guideline for Planning and Treatment

The process to be followed when a course of chemotherapy is required to treat:

PROSTATE CANCER

Patient information given at each stage following agreed information pathway

1. DIAGNOSIS

Prostate cancer is defined as adenocarcinoma of the prostate.

2. STAGING

All patents suitable for either radical radiotherapy or prostatectomy should have imaging with MRI of pelvis before a decision is made regarding treatment. All patients with cancer > gleason score 6, or gleason score 6 with PSA > 10 should an isotope bone scan prior to definitive treatment. Patients unsuitable for MRI should have imaging with CT abdomen and pelvis for staging prior to radical treatment.

3. PATHOLOGY

Pathological reporting should include information on tumour type (adenocarcinoma), differentiation (Gleason grade), staging (TNM), presence of perineural invasion, and for post-prostatectomy specimen margins, nodal spread and periprostatic fat invasion. Pathology and radiology should be available at the multidisciplinary meeting.

4. INVESTIGATIONS

Pre-chemotherapy calculation of renal function.

- Utilise estimated GFR on biochemical medicine report.

5. RADIOTHERAPY

Radical external beam conformal radiotherapy to prostate only.

Two-phase radiotherapy to whole pelvis radiotherapy with prostate boost (node +ve disease).

Post-prostatectomy – prostatic bed only (if +ve margins or PSA > 0.4 ug/l post-operatively).

- 55Gy in 20fractions over 4 weeks to prostate & seminal vesicles (radiotherapy protocol with CT planning).
- 45Gy in 20 fractions over 4 weeks with 20Gy boost to prostate over 2 weeks (Two-phase)

6. HORMONE THERAPY

Adjuvant Hormone therapy

Adjuvant hormone therapy for a total of one year is standard management for patients with high-risk disease: locally advanced disease, high Gleason grade (8-10) adenocarcinoma or PSA > 20 ug/l (non-metastatic). Radiotherapy to start 2 months after commencing hormone therapy.

Neo-adjuvant hormone therapy with LH-RH agonist (Triptorelin or Goserelin) for a total of 3 months is considered in patients with large volume prostate (>80 ml) and lower urinary tract symptoms for whom radical treatment is still being contemplated. Radiotherapy to start 2 months after commencing hormone therapy.

Patients who have ureteric obstruction should be managed by nephrostomy placement, or ureteric stenting prior to radiotherapy.

- First line options: LH-RH agonist (covered by initial course of anti-androgen)
  Medicine/formulation: Cyproterone acetate
  Dose: 100mg B.D. for 28 days
  Frequency: 28 day course to prevent androgen flare

  Medicine/formulation: 1st line Triptorelin
  Dose: 11.25mg intra-muscular injection, 10.8mg subcutaneous implant anterior abdominal wall.
  Frequency: 1st injection to be given at the start of week 2 of Cyproterone acetate and continued every 12 weeks/three months

  Medicine/formulation: 2nd line Goserelin
  Dose: 11.25mg intra-muscular injection, 10.8mg subcutaneous implant anterior abdominal wall.
  Frequency: 1st injection to be given at the start of week 2 of Cyproterone acetate and continued every 12 weeks/three months

  First line options: Bicalutamide tablets
  Dose: 150mg p.o.
  Frequency: daily
  Duration: 12 months

Metastatic Disease

- First line options: LH-RH agonist
  Medicine/formulation: Cyproterone acetate
  Dose: 100mg tid p.o.
  Frequency: 21 day course to prevent androgen flare
  Medicine/formulation: Triptorelin 11.25mg 3 monthly preparation
  Dose: 11.25mg intra-muscular injection
  Frequency: 1st injection to be given at the start of week 2 of Cyproterone acetate and continued every three months. After 1st dose of Triptorelin 11.25mg, the patient may move to Triptorelin 22.5mg 6-monthly on advice of oncologist.

- First line options: Gn-RH antagonist (no requirement for anti-androgen cover)
  New patients presenting with severe bone pain, renal failure or spinal cord compression
  Medicine/formulation: Degarelix
  Dose: 240mg (2 x 120mg) subcutaneous injection
  Frequency: 1st injection 240mg (initiation dose) to be given in hospital, then monthly 80mg degarelix to continue until otherwise advised by oncologist (patients should not be changed to 3 monthly LHRH agonist therapy).
  Medicine/formulation: Degarelix
  Dose: 80mg subcutaneous injection
  Frequency: monthly, in community (General Practice)

- First line options: anti-androgen monotherapy (if patient refuses or is unsuitable for LHRH agonist therapy) Bicalutamide tablets
  Dose: 150mg p.o.
  Frequency: daily
  Duration: to take as alternative to LH-RH analogue. At PSA relapse add in LHRH agonist therapy and reduce dose to 50mg bicalutamide for maximum androgen blockade (MAB).

- Second line options: Anti-androgen
  Medicine/formulation: Bicalutamide
  Dose: 50mg p.o.
  Frequency: daily
  Duration: to take in addition to LH-RH analogue for maximum androgen blockade.
  Consider withdrawal of bicalutamide if no response or at PSA relapse after response to MAB.

7. CHEMOTHERAPY

To be prescribed on the standardised prescription form. (To include patient's name, date of birth, unit number, height, weight, surface area, diagnosis and histology, biochemistry.

Castrate-resistant prostate cancer, either locally advanced or Metastatic Disease

Palliative Chemotherapy
Chemotherapy should be considered for all patients with progressing and symptomatic metastatic disease which has escaped from hormone control, where general condition and renal function allow for its use.

First line option:
Docetaxel/Prednisolone (minimum 6 cycles – up to 10 cycles; can be repeated if good response and disease relapse subsequently)

Second line option:
Abiraterone acetate in combination with prednisolone. For prescription and supply solely in hospital setting under supervision of consultant oncologist. Patients require review every 2 weeks for the first 3 months and should be assessed 3-monthly for PSA, clinical and radiological response, with abiraterone being discontinued on evidence of disease progression.

For use in patients with castrate-resistant metastatic prostate cancer of good performance status (0-1) with PSA or radiological/clinical disease relapse after remission/response to docetaxel chemotherapy. Patients should remain on LHRH agonist/antagonist treatment with serum testosterone < 0.4 nmol/l.

Exclusions: patients who are progressing on docetaxel chemotherapy, those with bone marrow failure or liver metastases with abnormal liver function tests. Patients over the age of 75 years should only be considered on an individual basis according to the above criteria, as quality of life may be affected, due to fatigue associated with abiraterone, in asymptomatic patients with PSA rise.

Adjuvant Chemotherapy
Adjuvant chemotherapy should be considered for patients <65yrs age with Gleason score >7 cancer at 6-9 months after initiation of hormone therapy (prior to escape from hormone control), where general condition and renal function allow for its use.

First line option:
Docetaxel/Prednisolone (6 cycles for adjuvant chemotherapy)

8. TREATMENT DEFINITIONS

DOCETAXEL/PREDNISOLONE
Docetaxel 75mg/m² IV Infusion Day 1
Prednisolone 5mg p.o. Twice Daily Days 1 to 21
Repeated every 21 days

ABIRATERONE ACETATE
Abiraterone acetate (Zytiga) 250mg tablets, 1 gram (4 tablets) daily (30-day pack supplied)
Prednisolone 5mg p.o. twice daily during treatment
Review every 4 weeks (2 weekly for first 3 months) in nurse-led abiraterone clinic and/or advanced prostate cancer clinic at Ninewells Hospital, for weight, blood pressure, full blood count, biochemistry and PSA, with toxicity monitoring, prior to repeat prescription.

Author: …… Signature: …….. Date: ……

Chair: …… Signature: …….. Date: ……
(on behalf of OHMMG)