

Chemotherapy Protocol

PROSTATE

DOCETAXEL(75)-PREDNISOLONE

Regimen

- Prostate-Docetaxel (75)-Prednisolone

Indication

- Advanced castrate resistant prostate cancer
- Performance status 0, 1, 2

Toxicity

Drug	Adverse Effect
Docetaxel	Hypersensitivity, fluid retention, neuropathy, joint pains, nail changes, fatigue
Prednisolone	Weight gain, GI disturbances, hyperglycaemia, CNS disturbances, cushingoid changes, osteoporosis

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

Monitoring

Drugs

- FBC, LFTs, PSA and U&Es prior to each cycle

Dose Modifications

The dose modifications listed are for haematological, liver and renal function and drug specific toxicities only. Dose adjustments may be necessary for other toxicities as well.

In principle all dose reductions due to adverse drug reactions should not be re-escalated in subsequent cycles without consultant approval. It is also a general rule for chemotherapy that if a third dose reduction is necessary treatment should be stopped.

Please discuss all dose reductions / delays with the relevant consultant before prescribing, if appropriate. The approach may be different depending on the clinical circumstances.

Haematological

Consider a blood transfusion if patient symptomatic of anaemia or has a haemoglobin of less than 8g/dL.

Prior to cycle one the following criteria should be met;

Criteria	Eligible Level
Neutrophils	1x10 ⁹ /L or greater
Platelets	50x10 ⁹ /L or greater

Dose modifications based on haematological parameters apply to docetaxel only.

Neutrophils (x10 ⁹ /L)	Dose Modifications (docetaxel)
1 or greater	100%
less than 1 on the day of treatment or less than 1 with fever/infection at any time or less than 0.5 for more than 7 days	1 st Occurrence Delay until recovery to 1x10 ⁹ /L or greater and then give 60mg/m ² 2 nd Occurrence Delay until recovery to 1x10 ⁹ /L or greater then give 45mg/m ²
Platelets (x10 ⁹ /L)	Dose Modifications (docetaxel)
50 or greater	100%
less than 50	1 st Occurrence Delay until recovery to 50x10 ⁹ /L or greater then give 60mg/m ² 2 nd Occurrence Delay until recovery to 50x10 ⁹ /L or greater then give 45mg/m ²

Hepatic Impairment

Consider weekly scheduling if there is a mild or moderate hepatic impairment

Drug	Bilirubin (µmol/L)		AST/ALT (units/L)		Alk Phos (units/L)	Dose (% of original dose)
Docetaxel	N/A		greater than 1.5xULN	and	greater than 2.5xULN	Give 75%
	greater than ULN	and/or	greater than 3.5xULN	and	greater than 6xULN	Not Recommended

Renal Impairment

Drug	Creatinine Clearance (ml/min)	Dose (% of original dose)
Docetaxel	N/A	No dose adjustment needed

Other

Dose reductions or interruptions in therapy are not necessary for those toxicities that are considered unlikely to be serious or life threatening. For example, alopecia, altered taste or nail changes.

For all other non-haematological NCI-CTC grade 3 and above toxicities delay treatment until the adverse effect has resolved to NCI-CTC grade 1 or below. The dose should then be reduced to 60mg/m² or discontinued as appropriate.

The following recommendations apply to docetaxel only. The prednisolone should be continued if the docetaxel is delayed. It should be stopped if the docetaxel is stopped but may require a reducing schedule.

Peripheral Neuropathy

Peripheral neuropathy at NCI-CTC grade 3 should result in a dose reduction from 75mg/m² to 60mg/m² once the neuropathy has resolved to NCI-CTC grade 2 or below. If the NCI-CTC grade 3 neuropathy occurred at doses lower than 75mg/m² or a NCI-CTC grade 4 toxicity develops consider stopping treatment.

Lacrimation

Excessive lacrimation is related to cumulative docetaxel doses and occurs after a median of 400mg/m². Symptomatic treatment with hypromellose 0.3% eye drops four times a day may help. However, if the ocular irritation continues reduce the docetaxel dose to 60mg/m².

Skin

Delay the docetaxel where a NCI-CTC grade 3 cutaneous toxicity is present on day one of the cycle until it resolves to NCI-CTC grade 1 or below. The subsequent doses of docetaxel should be reduced from 75mg/m² to 60mg/m². If it occurs with a dose of 60mg/m² or if there is no recovery after two weeks, docetaxel treatment should be stopped. Where a NCI-CTC grade 3 cutaneous toxicity occurs between cycles with recovery by day one then reduce the docetaxel dose as described. Docetaxel should be stopped in response to a NCI-CTC grade 4 cutaneous toxicity.

Stomatitis

A NCI-CTC grade 2 stomatitis should result in a delay in treatment until it has become NCI-CTC grade 1 or below. Treatment may then be re-started at the previous dose. For a NCI-CTC grade 3 stomatitis delay treatment until it has recovered to NCI-CTC grade 1 or below then reduce the dose to 60mg/m². Treatment should be stopped in relation to a NCI-CTC grade 4 stomatitis.

[Regimen](#)

Docetaxel is highly myelosuppressive and in those with poor bone marrow reserves (for example due to extensive prior treatment, bone metastasis or extensive skeletal radiation) consider a starting dose of 60mg/m² with a view to increase to 75mg/m² if well tolerated.

21 day cycle for up to 10 cycles

Drug	Dose	Days	Administration
Docetaxel	75mg/m ²	1	Intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes
Prednisolone	5mg twice a day	1-21 incl.	Oral

[Dose Information](#)

- Docetaxel will be banded as per the CSCCN agreed bands.
- Docetaxel induced fluid retention can lead to weight gain. This is not a reason to alter the doses
- Docetaxel doses of more than 200mg should be diluted in 500ml sodium chloride 0.9% (maximum concentration 0.74mg/ml)
- Prednisolone is available as 5mg (uncoated) and 2.5mg and 5mg (enteric coated) tablets.

[Administration Information](#)

- Docetaxel hypersensitivity reactions tend to occur with the first or second infusion. For minor symptoms such as flushing or localised rashes the infusion should not be interrupted. For severe reactions including profound hypotension, bronchospasm and generalised erythema discontinue the infusion immediately.
- Prednisolone should be taken with or after food.

[Extravasation](#)

- Docetaxel - exfoliant

[Additional Therapy](#)

- Premedication
 - dexamethasone 8mg oral at 12 hours, 3 hours and 1 hour prior to docetaxel
- Antiemetics
 - 15-30 minutes prior to chemotherapy
 - metoclopramide 10mg oral or intravenous

As take home medication

- metoclopramide 10mg oral three times a day for 3 days then as required

[Coding \(OPCS\)](#)

- Procurement – X71.1
- Delivery – X72.3

References

1. Tannock IF, deWit R, Berry WR et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. N Engl J Med 2004; 351 (15): 1502-1512.
2. NICE Guidance TA101. Docetaxel for the treatment of hormone refractory metastatic prostate cancer; June 2006.
3. STAMPEDE trial protocol. Version 7.1. 21st June 201

REGIMEN SUMMARY

Docetaxel (75)-Prednisolone

Cycles 1, 2, 3, 4, 5, 6, 7, 8, 9

Day minus 1

1. Dexamethasone 8mg oral at 12 hours, 3 hours and 1 hour prior to docetaxel (from TTO)*

Day 1

2. Dexamethasone from TTO (see above)*
3. Metoclopramide 10mg oral or intravenous
4. Docetaxel 75mg/m² in 250ml sodium chloride 0.9% intravenous infusion over 60 minutes
Administration Instructions
Ensure the patient has taken the dexamethasone pre-medication prior to treatment. On the occasions where individuals attend for treatment and have forgotten to take the dexamethasone premedication administer dexamethasone 20mg intravenous stat 15-30 minutes prior to chemotherapy

Take Home Medicines

5. Prednisolone 5mg twice a day oral for 21 days
Administration Instructions
Take with or after food. The dose of this medicine may need to be reduced gradually before stopping treatment.
6. Dexamethasone 8mg oral at 12 hours, 3 hours and 1 hour prior to docetaxel
7. Metoclopramide 10mg oral three times a day for 3 days then 10mg three times a day when required for nausea.

Cycle 10

Day minus 1

8. Dexamethasone 8mg oral at 12 hours, 3 hours and 1 hour prior to docetaxel (from TTO)*

Day 1

9. Dexamethasone from TTO (see above)*
10. Metoclopramide 10mg oral or intravenous
11. Docetaxel 75mg/m² in 250ml sodium chloride 0.9% intravenous infusion over 60 minutes
Administration Instructions
Ensure the patient has taken the dexamethasone pre-medication prior to treatment. On the occasions where individuals attend for treatment and have forgotten to take the dexamethasone premedication administer dexamethasone 20mg intravenous stat 15-30 minutes prior to chemotherapy

Take Home Medicines

12. Prednisolone 5mg twice a day oral for 21 days
Administration Instructions
Take with or after food. The dose of this medicine may need to be reduced gradually before stopping treatment.
13. Metoclopramide 10mg oral three times a day for 3 days then 10mg three times a day when required for nausea.

* In Aria Planner the dexamethasone TTO will appear on day 1 of treatment. This is the supply for the next cycle.

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1.2	May 2015	Header changed Metoclopramide dose changed to 10mg Bolus removed from intravenous bolus throughout text Hepatic dose modification table updated Docetaxel admin instructions added Dexamethasone TTO updated Prednisolone admin instructions updated OPCS codes updated Disclaimer added	Donna Kimber Pharmacy Technician	Rebecca Wills Pharmacist
1.1	May 2013	Dexamethasone changed to dexamethasone 8mg oral twice a day the day before, the day of and the day after docetaxel in additional therapy section and also treatment summary.	Dr Debbie Wright Pharmacist	Dr Mathew Wheeler Consultant Medical Oncologist
1	Jan 2013	None	Rebecca Wills Pharmacist Dr Debbie Wright Pharmacist	Dr Joanna Gale Consultant Medical Oncologist Dr Mathew Wheeler Consultant Medical Oncologist

This chemotherapy protocol has been developed as part of the chemotherapy electronic prescribing project. This was and remains a collaborative project that originated from the former CSCCN. These documents have been approved on behalf of the following Trusts;

Hampshire Hospitals NHS Foundation Trust
 NHS Isle of Wight
 Portsmouth Hospitals NHS Trust
 Salisbury Hospitals NHS Foundation Trust
 University Hospital Southampton NHS Foundation Trust
 Western Sussex Hospitals NHS Foundation Trust

All actions have been taken to ensure these protocols are correct. However, no responsibility can be taken for errors which occur as a result of following these guidelines.