Chemotherapy Protocol

LUNG CANCER – NON-SMALL CELL (NSCLC)

DOCETAXEL (75)

Regimen

- NSCLC – Docetaxel (75)

Indication

- Second line therapy of stage IIIB or IV NSCLC
- WHO Performance status 0, 1
- Palliative intent

Toxicity

Drug	Adverse Effect
Docetaxel	Hypersensitivity, fluid retention, neuropathy, joint pains, nail changes, fatigue

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

Monitoring

Disease

- A baseline chest x-ray should be performed before starting treatment and up to date (ideally within 1 month) cross section imaging should also be performed

Regimen

- FBC, LFTs and U&Es prior to each cycle
- A chest x-ray should be performed before each cycle

Dose Modifications

The dose modifications listed are for haematological, liver and renal function 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. The following is a general guide only.

Haematology

Prior to prescribing the following criteria must be met;

Criteria	Eligible Level
Neutrophils	$1.5x10^9$/L or greater
Platelets	$100x10^9$/L or greater

Consider blood transfusion if the patient is symptomatic of anaemia or if the haemoglobin is less than 8g/dL

If the neutrophils are less than 1.5 $x10^9$/, then in the first instance delay treatment for 7 days. If counts recover at this point continue at the initial dose. If counts remain low continue with treatment at a dose of 60mg/m^2. If the myelosuppression recurs despite this dose reduction stop treatment.

If the platelets are less than $100x10^9$/L then in the first instance delay treatment for 7 days. If the counts recover at this point continue at the initial dose. If counts remain low continue with treatment at a dose of 60mg/m^2. If the platelet level falls below 50 x 10^9/L stop treatment.

Hepatic Impairment

Drug	Bilirubin (µmol/L)		AST/ALT (units)		Alk Phos (units)	Dose (% of original dose)
Docetaxel	N/A		1.5xULN or greater	and	2.5xULN or greater	Give 75%
	Greater than ULN	and/or	3.5xULN or greater	and	6xULN or greater	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/m^2 or discontinued as appropriate.

Peripheral Neuropathy

Peripheral neuropathy at NCI-CTC grade 3 should result in a dose reduction from 75mg/m^2 to 60mg/m^2 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/m^2 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/m^2.

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/m^2 to 60mg/m^2. If it occurs with a dose of 60mg/m^2 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/m^2. Treatment should be stopped in relation to a NCI-CTC grade 4 stomatitis.

Regimen

21 day cycle for 4 cycles

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.

Drug	Dose	Days	Administration
Docetaxel	75mg/m^2	1	Intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes

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)

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.

Extravasation

- Docetaxel - exfoliant

Additional Therapy

- Antiemetics

  15-30 minutes prior to chemotherapy;

  - metoclopramide 10mg oral or intravenous

  As take home medication;

  - metoclopramide 10mg three times a day oral when required

- To prevent fluid retention and hypersensitivity reactions prescribe dexamethasone 8mg twice daily oral for three days starting 24 hours before docetaxel administration. On the occasions where individuals attend for treatment and have forgotten to take the dexamethasone pre-medication administer dexamethasone 20mg intravenous

- Gastric protection with a proton pump inhibitor or a H_2 antagonist may be considered in patients considered at high risk of GI ulceration or bleed

- Prophylactic antibiotics can be considered if required

- Growth factors may be considered according to local policy.

Coding

- Procurement – X71.1

- Delivery – X72.3

References
1.National Institute of Clinical Excellence (2005). CG24. The Diagnosis and Treatment of Lung Cancer. Methods, Evidence and Guidance. DOH: London.

2.Fossella FV, DeVore R, Kerr RN et al. Randomised phase III trial of docetaxel versus vinorelbine or ifosfamide in patients with advanced non-small cell lung cancer previously treated with platinum containing chemotherapy regimens. The TAX 320 study non-small cell lung cancer study group. J Clin Oncol; 2000: 18 (12): 2354-2362.
3.Shepherd FA, Dancey J, Ramlau R et al. Prospective randomised trial of docetaxel versus best supportive care in patients with non-small cell lung cancer previously treated with platinum based chermotherapy. J Clin Oncol 2000; 18 (10): 2095-2103.

REGIMEN SUMMARY

Docetaxel (75)

Cycle 1, 2, 3

Day Minus One

1. Dexamethasone 8mg twice a day oral*

Day One

2. Dexamethsone 8mg twice a day oral (from TTO)*

3. Metoclopramide 10mg oral or intravenous

4. Docetaxel 75mg/m^2 intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes

Take Home Medicines

5. Dexamethasone 8mg twice a day oral for 3 days starting the day before the docetaxel infusion*

6. Metoclopramide 10mg three times a day when required oral

Cycle 4

Day Minus One

7. Dexamethasone 8mg twice a day oral*

Day One

8. Dexamethsone 8mg twice a day oral (from TTO)*

9. Metoclopramide 10mg oral or intravenous

10. Docetaxel 75mg/m^2 intravenous infusion in 250ml sodium chloride 0.9% over 60 minutes

Take Home Medicines

11. Metoclopramide 10mg three times a day when required oral

* In Aria Planner the dexamethasone 8mg twice daily will appear on days 1, 2, 3 of treatment. This is the supply for the next cycle. The patient should have been given the supply for cycle one in the pre-assessment or consent clinic. The administration instructions reflect this.

Document Control

Version	Date	Amendment	Written By	Approved By
1.2	Jan 2014	Header and footer changed Name changed to Docetaxel (75) Toxicity removed and tabulated < and > written in full Haematological criteria tabulated Renal and hepatic recommendations updated and tabulated Other toxicities added as per prostate regimens Regimen tabulated and recommendations on starting dose added Dosing information extended Hypersensitivity recommendations added Administartion routes written in full, bolus and stat removed Metoclopramide dose changed Name added under summary Cycle four added to exclude dexamethasone TTO. Document control tabulated Hospitals and disclaimer added	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician
1.1	23rd Sept 2010	Font changed to Arial Header altered to include "Strength through Partnership" Drug names given capitals in regimen Extravasation moved to under Administration Information Footer changed to include regimen name and review date removed Standard paragraph added to introduction in dose modifications Dose modifications format (not information) changed Coding added Summary page added Document control added	Dr Deborah Wright Pharmacist	Donna Kimber Pharmacy Technician

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 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.