South West Strategic Clinical Network

Docetaxel (Breast)

Indication

Treatment of advanced breast cancer where initial chemotherapy (including an anthracycline) has failed or is inappropriate.

(NICE CG 81)

ICD-10 codes

Codes with a prefix C50

Regimen details

Day	Drug	Dose	Route
1	Docetaxel	*100mg/m ²	IV infusion

*consider starting dose of 75mg/m² if patients are heavily pre-treated, have extensive bone metastases, significant co-morbidities or impaired LFTs.

Cycle frequency

21 days

Number of cycles

6 cycles (if well tolerated and patient has ongoing response, further cycles may be administered – consultant decision)

Administration

Docetaxel is administered as an IV infusion in 250mL or 500mL (concentration dependent) PVC free sodium chloride 0.9% over 60 minutes.

Patients should be observed closely for hypersensitivity reactions, particularly during the first and second infusions.

Hypersensitivity reactions may occur within a few minutes following the initiation of the infusion of docetaxel and therefore facilities for the treatment of hypotension and bronchospasm must be available.

If hypersensitivity reactions occur, minor symptoms such as flushing or localised cutaneous reactions do not require discontinuation of therapy. The infusion may be temporarily interrupted and when symptoms improve restarted at a slower infusion rate. Severe reactions, such as hypotension, bronchospasm or generalised rash/erythema require immediate discontinuation of docetaxel and appropriate therapy.

Patients who have developed severe hypersensitivity reactions should not be re-challenged with docetaxel.

Pre-medication

Dexamethasone 8 mg BD (morning and lunchtime) for 3 days starting 24 hours prior to chemotherapy. (Note: Patients must receive 3 doses of dexamethasone prior to treatment).

In the case where 3 doses have not been taken, dexamethasone 16-20mg IV should be administered 30-60 minutes prior to chemotherapy and the remaining 3 oral doses should be taken as normal.

Emetogenicity

This regimen has mild - moderate emetic potential

Additional supportive medication

Mouthwashes as per local policy H₂ antagonist or proton-pump inhibitor if required Loperamide if required. Scalp cooling may be offered.

Extravasation

Docetaxel is an exfoliant (Group 4)

Investigations – pre first cycle

Investigation	Validity period (or as per local policy)
FBC	14 days
U+E (including creatinine)	14 days
LFTs	14 days

Investigations - pre subsequent cycles

Investigation	Validity period (or as per local policy)
FBC	96 hours
U+E (including creatinine)	7 days
LFTs	7 days

Standard limits for administration to go ahead

If blood results not within range, authorisation to administer must be given by prescriber/ consultant

Investigation	Limit
Neutrophils	$\geq 1.0 \times 10^{9}/L$
Platelets	$\geq 100 \times 10^9 / L$
Bilirubin	≤ 1.5 ULN
AST/ALT	≤ 1.5 x ULN
Alkaline Phosphatase*	≤ 2.5 x ULN

*unless due to bone metastases only

Dose modifications

• Haematological toxicity

If neutrophils $<1.0 \times 10^9$ /L and/or platelets $<100 \times 10^9$ /L delay 1 week or until recovery.

If febrile neutropenia or neutrophils $< 0.5 \times 10^9$ /L for more than 1 week reduce dose to 75% for all subsequent cycles. If a second occurrence reduce dose to 60% for future cycles.

If nadir platelets $<25 \times 10^9$ /L consider dose reduction to 60mg/m² after recovery (discuss with consultant)

• Renal impairment

There is no data available on the use of docetaxel in severe renal impairment. No modifications required.



South West Strategic Clinical Network

Hepatic impairment

AST/ALT (X ULN)		Alkaline phosphatase* (x ULN)	Docetaxel dose
≤ 1.5	and	< 2.5	100%
> 1.5	or	≥ 2.5- ≥ 5	75%
> 3.5	or	≥ 5	60% or discontinue (discuss with consultant)

*unless due to bone metastases only. If bilirubin > 1.5 x ULN withhold dose (or consultant decision to treat)

• Other toxicities

Toxicity	Definition	Docetaxel dose
Peripheral neuropathy	Grade 2	75%
	Grade 3 or 4	Discuss with consultant
Diarrhoea	Grade 3 or 4	1 st occurrence – 75%
		2 nd occurrence – 60%
Stomatitis	Grade 3 or 4	1 st occurrence – 75%
		2 nd occurrence – 60%

Any other grade 3 or 4 toxicity- discuss with consultant.

Adverse effects - for full details consult product literature/ reference texts

• Serious side effects

Secondary malignancy Myelosuppression Infusion related reactions Anaphylaxis Interstitial pneumonitis Teratogenicity Infertility Cardiotoxicity

• Frequently occurring side effects

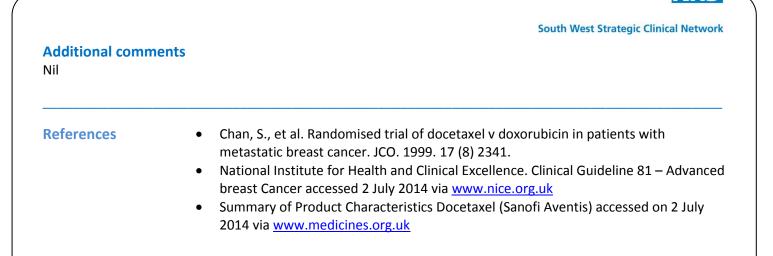
Diarrhoea Constipation Fatigue Nausea and vomiting Myelosuppression Stomatitis and mucositis Peripheral neuropathy Arthralgia and myalgia

• Other side effects

Alopecia Fluid retention Deranged liver function Phlebitis Skin toxicity Nail changes

Significant drug interactions - for full details consult product literature/ reference texts

CYP3A4 Enzyme inducers/inhibitors: in vitro studies suggest that CYP3A inhibitors (such as ketoconazole, ritonavir, clarithromycin and erythromycin) may raise docetaxel levels, whereas CYP3A inducers (such as rifampicin and barbiturates) may reduce docetaxel levels.



Written/reviewed by: Dr M Beresford (Consultant Oncologist, Royal United Hospital, Bath)

Checked by: Sarah Murdoch (Senior Oncology Pharmacist, SW Strategic Clinical Network)

Authorised by: Dr J Braybrooke (Consultant Oncologist, UHBristol NHS Trust, SW Strategic Clinical Network)

Date: 14 January 2015