NHS
North West Coast
Strategic Clinical Networks

Chemotherapy protocol

Drug regimen
Docetaxel, carboplatin and trastuzumab (subcutaneous)

Indication for use
As adjuvant therapy in Her 2 positive breast cancer when an anthracycline is contra-indicated

Regimen

Drug	Route	Fluid	Time
Trastuzumab 600mg	s/c		2 minutes
Docetaxel 75mg/m^2	IV	0.9% sodium chloride 250ml	1hr
Carboplatin AUC6	IV	5% dextrose 500ml	1hr

Given every 21 days; give docetaxel and carboplatin for 6 cycles, trastuzumab for 18 cycles

Investigation prior to initiating treatment
Primary surgery for the breast cancer
Staging investigations according to the Network guidelines
Determination of cardiac function (MUGA or ECHO)
U&Es, LFTs

Cautions
Uncontrolled hypertension or angina
Known allergies to animal proteins
Symptomatic heart failure
Previous exposure to anthracycline chemotherapy
Levels (see below)

The Calvert formula is not considered reliable if the creatinine clearance is <40 ml/min. However, prescribing according to surface area leads to excessive doses. Therefore, even in those patients with renal impairment the Calvert formula will be used and doses modified subsequently up or down depending on blood counts.

Investigations and consultations prior to each cycle
FBC (every 3 weeks whilst on docetaxel and carboplatin;
Consultation – Each cycle
U&Es and LFTs

The liver function test may be retrospectively looked at (i.e. after the chemotherapy treatment) **unless** they are known to be abnormal then they need to be repeated the day before so that the results are available pre-chemotherapy.

If serum creatinine raises>20% repeat creatinine clearance before the next cycle

MUGA Scan every 3 months (or if patient has asymptomatic cardiac dysfunction every 6 or 8 weeks)

Acceptable levels for treatment to proceed
(if outside these levels defer one week or contact consultant)
If Neutrophils 1.2 – 1.5 contact **consultant**
Neuts >1.5
Platelets >100
Bilirubin within normal limits
AST/ALT < 2.5 X ULN

Side Effects

Docetaxel:
Hair loss
Allergic reactions,
Prolonged neutropenia
Diarrhoea

Carboplatin:
Hypersensitivity reactions (usually after > 6 cycles)
Alopecia (very occasionally)
Nausea and vomiting
Bone marrow suppression
Flushing effects

Trastuzumab**:**
Chills and rigor, tumour site pain, nausea and vomiting, asthenia, headache, cardiotoxicity.
Dyspnoea, hypotension, urticaria/angioedema, anaphylaxis

Dose Modification Criteria

Consider 25% dose reduction of carboplatin and docetaxel:

- Febrile neutropenia
- Severe / prolonged neutropenia
- Grade 3 diarrhoea
- Grade 2 neuropathy
- Rising ALT / AST

Discontinue treatment:

- Life threatening sepsis
- Grade 4 toxicity

Do not reduce dose of trastuzumab.

Specific Information on Administration
Pre-med: Paracetamol 1g 30-60 minutes before treatment, and regularly for 24 hours after treatment

The 600mg dose should be administered as a subcutaneous injection only over 2-5 minutes. The injection site should be alternated between the left and right thigh. New injections should be given at least 2.5 cm from the old site and never into areas where the skin is red, bruised, tender, or hard. During the treatment course with Herceptin subcutaneous formulation other medicinal products for subcutaneous administration should preferably be injected at different sites.

Patients should be observed for two hours after the first injection and for 30 minutes after subsequent injections for signs or symptoms of administration-related reactions. The observation time in subsequent doses may be reduced at local clinician's discretion

Patients must be prescribed a pre-medication of Dexamethasone 8mg bd po to be started 24 hours before treatment with docetaxel and continued for a total of 72 hours. This is to reduce the incidence of allergic reaction.

Treatment of administration related side effects:

Mild – Stop administration. Give 10mg IV chlorphenamine and 100 mg IV hydrocortisone. Re start infusion slowly after 30 minutes. If further problems discontinue infusion and seek senior advice.

Severe – Stop administration. Give 100 mg Hydrocortisone and 10 mg Piriton stat. Get HELP. May need further resuscitation.

THIS PROTOCOL HAS BEEN DIRECTED BY DR. HOGG DESIGNATED LEAD CLINICIAN FOR BREAST CANCER
RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE

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