Single agent Carboplatin in Advanced Breast Cancer

Indication: Third or Fourth line palliative therapy in not previously treated patients with Metastatic / Locally Advanced Breast Cancer

Regimen details: Carboplatin  AUC 6   IV   D1 (See Comments)

Administration: Carboplatin in 500mls Glucose 5% IV over 30 – 60 minutes
Any device containing aluminium that may come in contact with Carboplatin must be avoided

Frequency: 21 days, 6 cycles

Extravasation: Carboplatin: Non-vesicant

Anti- emetics: Carboplatin: Moderate emetogenic
Follow Local Antiemetic Policy

Regular investigation:  FBC   D1
LFTs   D1
U&Es   D1
CT scan Every 3 cycles
EDTA Prior to 1st cycle, if necessary (see Comments)

Comments: Carboplatin: The total dose should be calculated in milligrams, using the Calvert formula
Dose= Target AUC x (25 + GFR)
GFR should be measured before the first cycle, by EDTA clearance or using the Cockcroft & Gault equation. Subsequent doses of carboplatin should usually be based on this value of GFR.
If the calculated GFR < 60 or > 120ml/min, measure EDTA clearance or creatinine clearance before prescribing. Monitor trends in serum creatinine between treatments: if the patient’s serum creatinine changes significantly (>20% from baseline value), re-calculate GFR using the Cockcroft & Gault equation or measure EDTA clearance

DOSE MODIFICATIONS

Haematological toxicity

Day1

WBC < 3.0 x 10⁹/L Delay for 1 week.
 or Repeat FBC - If within normal parameters, resume treatment with
Neutrophils < 1.5 x 10⁹/L 100% dose
 or
Platelets < 100 x 10⁹/L
Subsequent cycles

If Neutrophils < 0.5 x 10^9/L for 1 week, OR
Febrile neutropenia is diagnosed, OR
Platelets < 50 x 10^9/L,
Carboplatin dose should be reduced by 1 x AUC from previous dose (do not escalate for subsequent cycles). If the patient continues to experience these side effects at the lower dose, consider decrease Carboplatin dose by 2 x AUC or discontinue treatment

Renal Impairment
Carboplatin: Contraindicated if CrCl < 20ml/min

Hepatic Impairment
Carboplatin: No dose adjustment required

Toxicities:
Myelosuppression; anaemia; leukopenia; neutropenia; infection; thrombocytopenia; fatigue; nausea; vomiting; mucositis; dysgeusia; hypersensitivity reactions; constipation; diarrhoea

Drug interactions:
Carboplatin:
- Aminoglycoside antibiotics: increased risk of nephrotoxicity and ototoxicity
- Clozapine: increased risk of agranulocytosis, avoid concomitant use
- Diuretics: increased risk of nephrotoxicity and ototoxicity
- Nephrotoxic drugs: increased nephrotoxicity; not recommended
- Phenytoin: reduced absorption of the antiepileptic
- Warfarin: increased anticoagulant effect of warfarin

References:
www.medicines.org.uk
GSTT guidelines for treating nausea and vomiting in adult patients. September 2007
UCLH- Dosage Adjustment for Cytotoxics in Renal Impairment. November 2003
UCLH- Dosage Adjustment for Cytotoxics in Hepatic Impairment. November 2003
CTCAE v3.0. August 2006