

GEMCITABINE CARBOPLATIN

INDICATION (ICD10) C50

1. Triple negative or BRCA mutated metastatic breast cancer. PS 0, 1, 2

REGIMEN

Day 1 GEMCITABINE 1000mg/m² infusion in 250ml sodium chloride 0.9% (or licensed dose volume) IV infusion over 30 minutes
 CARBOPLATIN AUC 4 (if CrCl used maximum 630mg) in 500ml glucose 5% IV infusion over 30 minutes. Dose calculated by EDTA GFR or calculated (CrCl + 25) x AUC.
 Day 8 GEMCITABINE 1000mg/m² infusion in 250ml sodium chloride 0.9% (or licensed dose volume) IV infusion over 30 minutes

NB In heavily pretreated or elderly patients consider reducing gemcitabine doses to 750mg/m².

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days for 6 cycles

ANTI-EMETICS

Moderate risk day 1

Low risk day 8

CONCURRENT MEDICATION REQUIRED

Carboplatin	Anaphylaxis treatment should be prescribed if the patient has had an anaphylactic episode previously. Dexamethasone 20mg IV bolus Chlorphenamine 10mg IV bolus H ₂ antagonist Carboplatin should be given at a slower rate e.g. 2-4 hours.
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EXTRAVASATION AND TYPE OF LINE / FILTERS

Carboplatin - irritant

Gemcitabine – neutral

No filters required

Central or peripheral line

INVESTIGATIONS

Blood results required before SACT administration

FBC every dose, U&E, LFTs and creatinine every cycle

Neutrophils x 10⁹/L ≥1.5

Platelets x 10⁹/L ≥100

GFR assessed using EDTA result or calculated creatinine clearance at the Consultant's discretion.

Baseline weight and every cycle

MAIN TOXICITIES AND ADVERSE REACTIONS

Carboplatin	Ototoxicity – monitor Neurotoxicity - monitor
Gemcitabine	Diarrhoea – see dose modifications, treat with loperamide or codeine Mucositis – see dose modifications, use routine mouthcare

DOSE MODIFICATIONS

Haematological

Gemcitabine

Neutrophils $>1.5 \times 10^9/L$ and platelets $>100 \times 10^9/L$	give 100% dose
Neutrophils $<1.5 \times 10^9/L$ or platelets $<100 \times 10^9/L$	delay treatment (Day 1) or omit treatment (Day 8)

Non-haematological

Gemcitabine

Diarrhoea and/or mucositis grade 2 toxicity	omit until toxicity resolved then restart at 100% dose
Diarrhoea and/or mucositis grade 3	omit until toxicity resolved then restart at 75% dose
Diarrhoea and/or mucositis grade 4	omit until toxicity resolved then restart at 50% dose

Hepatic impairment

Gemcitabine

Bilirubin $>27 \mu\text{mol/L}$	initiate treatment with 80% dose
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Renal impairment

Carboplatin

GFR/ calculated CrCl $\leq 20 \text{ml/min}$ or $\leq 30 \text{ml/min}$ with pre-existing severe renal impairment	contraindicated
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REFERENCES