GEMCITABINE CISPLATIN

INDICATION (ICD10) C11

1. Advanced nasopharyngeal carcinoma
PS 0, 1, 2

REGIMEN

Day 1	GEMCITABINE	1000mg/m^2 in #ml sodium chloride 0.9% IV infusion over 30 minutes
	Prehydration	
	CISPLATIN	80mg/m^2 in 1000ml sodium chloride 0.9% IV infusion over 2 hours
	Posthydration	
Day 8	GEMCITABINE	1000mg/m^2 in #ml sodium chloride 0.9% IV infusion over 30 minutes

diluent volume for dose prescribed as per national standardised product specification or licensed dose

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 21 days for 3 cycles neoadjuvant, 6 cycles metastatic

ANTI-EMETICS

High risk day 1
Low risk day 8

CONCURRENT MEDICATION REQUIRED

Cisplatin	Ensure adequate pre and post hydration. If urine output is <100ml/hour or if patient gains >2kg in weight during IV administration post cisplatin give 20-40mg furosemide PO/IV.

EXTRAVASATION AND TYPE OF LINE / FILTERS

Cisplatin - exfoliant
Gemcitabine – neutral

No filters required
Peripheral line

INVESTIGATIONS

Blood results required before SACT administration
FBC every dose, U&E, LFTs and creatinine every cycle
Neutrophils x 10^9/L ≥1.5 on day 1 or ≥1.0 on day 8
Platelets x 10^9/L ≥100
GFR assessed using EDTA result or calculated creatinine clearance at the Consultant's discretion.
Baseline weight and every cycle

MAIN TOXICITES AND ADVERSE REACTIONS

Cisplatin	Nephrotoxicity – ensure adequate pre and post hydration is prescribed. Ototoxicity – assess patient for tinnitus or hearing abnormalities.
Gemcitabine	Diarrhoea – see dose modifications, treat with loperamide or codeine Mucositis – see dose modifications, use routine mouthcare

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS
(not exhaustive list check SPC/BNF/Stockleys)

Cisplatin	Aminoglycosides increased risk of nephrotoxicity and ototoxicity. Renal function should be well monitored and audiometric tests as required. Cisplatin can cause a decrease in phenytoin serum levels. This may lead to reappearance of seizures and may require an increase of phenytoin dosages.

DOSE MODIFICATIONS
Haematological
Gemcitabine

Neutrophils >1.5x10^9/L and platelets >100x10^9/L day 1	give 100% dose
Neutrophils >1.0x10^9/L and platelets >100x10^9/L day 8	give 100% dose
Neutrophils 0.5-1.0x10^9/L or platelets 50-100x10^9/L day 8	give 75% dose
Neutrophils <0.5x10^9/L or platelets <50x10^9/L day 8	omit treatment

In subsequent cycles the gemcitabine dose should be reduced to 75% of the original cycle initiation dose, in the case of the following haematological toxicities:
- Absolute granulocyte count <0.5x10^9/l for more than 5 days
- Absolute granulocyte count <0.1x10^9/l for more than 3 days
- Febrile neutropaenia
- Platelets <25x10^9/l
- Cycle delay of more than 1 week due to toxicity

Non-haematological
If patient complains of tinnitus, tingling of fingers and/or toes, discuss with SpR or Consultant before administration.

Gemcitabine

Diarrhoea and/or mucositis grade 2	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

Omit if treatment is delayed for more than 4 weeks but continue with cisplatin

Hepatic impairment
Gemcitabine

Bilirubin >27µmol/L	initiate treatment with 80% dose

Renal impairment

Cisplatin

CrCl >60ml/min	give 100% dose
CrCl 50-59ml/min	give 75% dose
CrCl 40-49ml/min	give 50% dose (curative intent) not recommended (palliative intent)
CrCl <45ml/min	not recommended

REFERENCES

1. bfco221_rcr_head_neck_consensus_2022.pdf