

## Portec-3: Cisplatin and Radiotherapy (endometrium)

Chemoradiotherapy (two cycles of cisplatin 50 mg/m<sup>2</sup> given intravenously during radiotherapy, followed by four cycles of carboplatin AUC5 and paclitaxel 175 mg/m<sup>2</sup> given intravenously). Radiotherapy 48.6 Gy in 1.8 Gy fractions given on 5 days per week. In cases of cervical involvement, a brachytherapy boost is advised.

### Indication

Endometrial cancer:

Stage III endometrioid cancer

Stage IB–III disease with serous or clear cell histology

### Regimen details

DRUG	FLUID	TIME
20mmol potassium chloride + 10mmol magnesium sulphate	1 litre 0.9% sodium chloride	2 hours
Cisplatin 50mg/m <sup>2</sup>	500ml 0.9% sodium chloride	1 hour
20mmol potassium chloride + 10mmol magnesium sulphate	1 litre 0.9% sodium chloride	2 hours

### Cycle frequency

Given with week 1 and week 4 of radiotherapy

### Number of cycles

2 cycles administered in the first and fourth week of external-beam radiotherapy

### Administration

See above

### Pre-medication

Antiemetics:

Ondansetron IV 8mg

Dexamethasone IV 8mg

Olanzapine oral 5mg

Aprepitant oral 125mg

### Emetogenicity

Moderately emetogenic

### Additional supportive medication

Antiemetics:

Aprepitant oral 80mg days 2 & 3

Ondansetron oral 8mg twice daily for 2 days, starting in the evening on the day of chemotherapy

Dexamethasone 8mg once daily for 2 days, starting in the morning, the day after chemotherapy

Metoclopramide 10mg three times daily when required

Omeprazole oral 20mg once daily

Filgrastim 5mcg/kg subcutaneously daily x 2 days immediately after external beam radiotherapy is completed

### Extravasation

Exfoliant

Lancashire & South Cumbria Cancer Network

Systemic Anticancer Treatment Protocol

## Investigations – pre first cycle

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFT (including AST)	14 days
Calcium and Phosphate	14 days
Magnesium	14 days

## Investigations –pre subsequent cycles

FBC, U+E (including creatinine), LFT (including AST), Bone, magnesium

## Standard limits for administration to go ahead

FBC and U+Es to be checked weekly by Radiotherapy /Chemo Team

Following bloods to be checked prior to week 4 chemotherapy. If these are not within range, authorisation to administer **must** be given by prescriber/ consultant.

Investigation	Limit
Neutrophil count	$\geq 1.5 \times 10^9/L$
Platelet count	$\geq 100 \times 10^9/L$
Creatinine clearance	$\geq 60$ mL/min
Bilirubin	$\leq 1.5 \times$ ULN
Magnesium	$\geq 0.6$ mmol/L

### Haemaglobin:

Hb must be maintained at 12.0g/dl. If Hb below 10 g/dl proceed with chemotherapy but arrange for transfusion within 3 working days

## Dose modifications

Renal Impairment:

Calculated Creatinine Clearance	
>60	Give full dose cisplatin
50-59	Dose as per clearance e.g. if CrCl = 53, give 53mg cisplatin
<50	Change to carboplatin AUC2

## Adverse effects –

for full details consult product literature/ reference texts

### • Serious side effects

Myelosuppression

Nephrotoxicity

Ototoxicity

Allergic reactions

### • Frequently occurring side effects

Nausea/vomiting

Myelosuppression

Diarrhoea

Constipation

Peripheral neuropathy

Alopecia

Fatigue

Electrolyte disturbances

Taste disturbance

## Significant drug interactions

– for full details consult product literature/ reference texts

**Allopurinol, colchicine, probenecid, sulfinpyrazone:** increase serum uric acid concentration.

**Cephalosporins, aminoglycosides, amphotericin B:** increase nephrotoxic and ototoxic effects of cisplatin when administered simultaneously or 1-2 weeks after treatment with cisplatin.

**Ciclosporin:** excessive immunosuppression, with risk of lymphoproliferation.

**Cyclizine, phenothiazines:** may mask ototoxicity symptoms.

**Furosemide, hydralazine, diazoxide, propranolol:** intensify nephrotoxicity.

**Oral anticoagulants:** require an increased frequency of the INR monitoring.

**Penicillamine:** may diminish the effectiveness of cisplatin.

**Phenytoin:** reduced serum levels of phenytoin (due to reduced absorption and/or increased metabolism) can reduce epilepsy control. Monitor phenytoin levels

## Additional comments

## References

SWAG cancer alliance protocols: <https://www.swagcanceralliance.nhs.uk/wp-content/uploads/2020/09/Cisplatin-Radiotherapygynae.pdf>

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**THIS PROTOCOL HAS BEEN DIRECTED BY DR YIANNAKIS, DESIGNATED LEAD CLINICIAN FOR GYNAE CANCER**

**RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE**

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