

CYCLOPHOSPHAMIDE METHOTREXATE

INDICATION (ICD10) C50

1. Metastatic breast cancer, heavily pre-treated patients

REGIMEN

Days 1 to 7 CYCLOPHOSPHAMIDE 50mg PO once daily
Day 1 METHOTREXATE 10mg PO once weekly

CYCLE FREQUENCY AND NUMBER OF CYCLES

Every 7 days continuously

ADMINISTRATION

Cyclophosphamide is available as 50mg tablets.
Methotrexate is available as 2.5 and 10mg tablets.

ANTI-EMETICS

Minimal risk days 1 to 7

CONCURRENT MEDICATION REQUIRED

None required

EXTRAVASATION AND TYPE OF LINE / FILTERS

Not applicable

INVESTIGATIONS

Blood results required before SACT administration
FBC, U&E and LFTs days 1 and 14, then monthly
Neutrophils x 10⁹/L ≥1.5
Platelets x 10⁹/L ≥100

MAIN TOXICITIES AND ADVERSE REACTIONS

Cyclophosphamide	may irritate bladder, drink copious volumes of water.
Methotrexate	Methotrexate induced mucositis - folinic acid (calcium folinate) rescue Caution with pleural effusions or ascites

INTERACTIONS WHICH MAY REQUIRE DOSE MODIFICATIONS

(not exhaustive list check SPC/BNF/Stockleys)

Cyclophosphamide	Cytochrome P450 enzyme inducers (e.g. rifampicin, carbamazepine, phenytoin, St Johns Wort, corticosteroids): may increase active cyclophosphamide metabolites. Allopurinol, Cimetidine and protease inhibitors: may increase active metabolites. Aprepitant, Ciprofloxacin, Fluconazole, Itraconazole: may reduce activation of cyclophosphamide and alter the effectiveness of treatment. Grapefruit juice: decreased or delayed activation of cyclophosphamide. Patients should be advised to avoid grapefruit juice.
Methotrexate	NSAIDs, antibiotics: may reduce renal excretion

DOSE MODIFICATIONS

Hepatic impairment

Methotrexate

Bilirubin >85micromol/L	omit
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Renal impairment

Cyclophosphamide

CrCl 10-29ml/min	Consider giving 75% dose
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Methotrexate

CrCl 20-50ml/min	give 50% dose
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CrCl <20ml/min	omit dose
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REFERENCES