Weekly Cyclophosphamide for Autoimmune Haemolytic Anaemia

Indication
Autoimmune haemolytic anaemia

Regimen details
Cyclophosphamide 1-2mg/kg orally daily for 28 days

Cycle frequency
Every 28 days

Number of cycles
4 cycles

Administration
Cyclophosphamide tablets should be taken daily with plenty of water

Pre-medication
None

Emetogenicity
Mild/moderate – use prn metoclopramide. Patients may report a "churning" sensation in the stomach. This may be a manifestation of gastritis which may respond better to H_2 antagonists or PPIs than antiemetics.

Additional supportive medication
None

Extravasation
Neutral

Investigations – pre first cycle

Investigation	Validity period
FBC	7 days
U+E (including creatinine)	7 days
LFT (including AST)	7 days

Investigations –pre subsequent cycles
FBC, U+E (including creatinine), LFT (including AST)

Standard limits for administration to go ahead
If blood results not within range, authorisation to administer **must** be given by prescriber/ consultant.

Investigation	Limit
Neutrophil count	≥ 1.0 x 10^9/L
Platelet count	≥ 75 x 10^9/L
Creatinine clearance	≥ 60 mL/min
Bilirubin	≤ 1.5 x ULN
AST	< 1.5 x ULN

Dose modifications

Haematological
If no recovery in blood count after 2-3 weeks, consider continuing with 50-75% dose reduction

Renal
Consider dose reduction of 50-75% in patients with eGFR <30ml/min

Adverse effects –

for full details consult product literature/ reference texts

- **Serious side effects**

Infections
Second malignancy
Febrile neutropenia
Haemorrhagic cystitis
Pulmonary toxicity
Cardiotoxicity
Veno-occlusive liver disease

- **Frequently occurring side effects**

Nausea
Immunosuppression
Mucosal inflammation
Hepatotoxicity
Asthenia
Infertility

- **Other side effects**

Alopecia

Significant drug interactions

– for full details consult product literature/ reference texts

Cyclophosphamide is inactive but is metabolised in the liver into active metabolites mainly by CYP2A6, 2B6, 2C9, 2C19 and 3A4.

Any drugs which inhibit these enzymes may cause a decrease in the activation of cyclophosphamide and thus a decrease in efficacy. Conversely, any drug which induces these enzymes may cause an increase in toxicity

Additional comments

References

Cyclophosphamide SPC - https://www.medicines.org.uk/emc/product/3525/smpc

THIS PROTOCOL HAS BEEN DIRECTED BY DR GHARIB, CONSULTANT HAEMATOLOGIST

RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE

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