Rituximab (monotherapy and maintenance)

Indication

Monotherapy in relapsed/refractory stage III or IV CD20 positive follicular Non Hodgkins Lymphoma (NHL) where there is resistance to or intolerance of chemotherapy.

Maintenance therapy for:

- previously untreated, or relapsed, Stage III or IV CD20 positive follicular NHL which has responded to rituximab-containing induction chemotherapy.
- relapsed, Stage III or IV CD20 positive follicular NHL which has responded to rituximab-containing induction chemotherapy in patients who have not received rituximab maintenance previously.
- mantle cell lymphoma in patients who respond to standard first line chemotherapy.
- marginal zone lymphoma in patients who respond to standard first line chemotherapy.

(NICE TA226)

ICD-10 codes

Codes with a prefix C82

Regimen details

IV dosing

Day	Drug	Dose	Route
1 (see dose intervals below)	Rituximab	375mg/m^2	IV infusion

SC dosing

For maintenance therapy rituximab may be given by subcutaneous injection:

Day	Drug	Dose	Route
1 (see dose intervals below)	Rituximab	1400mg	SC injection

Cycle frequency

Monotherapy (IV infusion):

Weekly for 4 doses (may be repeated if good response)

Maintenance (IV infusion or SC injection):

Previously untreated: one dose every 2 months (starting 2 months after last dose of induction chemotherapy) until relapse (maximum 2 years or 12 doses)

(May alternatively be given 3 monthly as below, at the consultants' discretion. Note – this is unlicensed)

Relapsed: one dose every 3 months (starting 3 months after last dose of induction chemotherapy) until relapse (maximum 2 years or 8 doses)

Number of cycles

As above

Administration

Intravenous

Rituximab is administered in 500mL sodium chloride 0.9%. The first infusion should be initiated at 50mg/hour and if tolerated the rate can be increased by 50mg/hour every 30 minutes to a maximum of 400mg/hour. Subsequent

infusions should be initiated at 100 mg/hour and if tolerated increased by 100mg/hour increments every 30 minutes to a maximum of 400 mg/hour.

Subcutaneous
Rituximab subcutaneous should be injected by slow subcutaneous injection over approximately 5 minutes into the abdominal wall (never into areas where the skin is red, bruised, tender or hard, or where there are moles or scars). The needle must only be attached to the syringe immediately prior to administration to avoid potential needle clogging.
If an injection is interrupted it can be resumed at the same site, or another location may be used, as appropriate.
Observe for at least 15 minutes after subcutaneous injection.

Pre-medication

Rituximab premedication:

- Paracetamol 1g PO 60 minutes prior to rituximab
- Chlorphenamine 10mg IV bolus (or 4mg PO) 15 minutes prior to rituximab
- Dexamethasone 8mg IV bolus or hydrocortisone 100mg IV bolus (or prednisolone 25mg PO) 15 minutes prior to rituximab

Emetogenicity

This regimen has low emetic potential

Additional supportive medication

Monotherapy: Allopurinol 300mg OD (or 100mg OD if creatinine clearance <20mL/min) to start prior to therapy and continued for the first 2 infusions.

Extravasation

Rituximab is neutral (Group 1)

Investigations – pre first dose

Investigation	Validity period
FBC (with film)	14 days
U+E (including creatinine)	14 days
LFTs	14 days
LDH	14 days

Additional investigations:
Hepatitis B and C serology – results **must** be reviewed before administration.

Monotherapy: only baseline results required, unless abnormal or clinical reason to repeat.

Investigations – pre subsequent doses

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFTs	14 days

Standard limits for administration to go ahead

If blood results not within range, authorisation to administer **must** be given by prescriber/ consultant

Investigation	Limit
Neutrophils	≥ 1.5 x 10^9/L
Platelets	≥ 75 x 10^9/L

Dose modifications

- **Haematological toxicity**

If counts low, discuss with consultant, may be due to bone marrow infiltration.

- **Renal impairment**

No dose modification required.

- **Hepatic impairment**

No dose modification required.

- **Other toxicities**

N/A

Adverse effects - for full details consult product literature/ reference texts

- **Serious side effects**

Myelosuppression
Tumour lysis syndrome
Hypotension and bronchospasm (infusion related and usually transient)
Cardiac disorders

- **Frequently occurring side effects**

Angiodema
Pruritus, rash
Headache
Nausea
Local site reactions (SC only)

- **Other side effects**

Significant drug interactions – for full details consult product literature/ reference texts

Nil significant, although data is limited.

Additional comments

References

- Summary of Product Characteristics Rituximab (Roche) Intravenous accessed 8 July 2015 via www.medicines.org.uk
- Summary of Product Characteristics Rituximab (Roche) SC accessed 8 July 2015 via www.medicines.org.uk
- NICE TA266 (Rituximab maintenance) accessed 8 July 2015 via www.nice.org.uk
- McLaughlin, P et al; Rituximab chimeric anti-CD20 monoclonal antibody therapy for relapsed indolent lymphoma JCO 1998; 16: 2825 – 2833
- Van Oers et al; Rituximab maintenance treatment of relapsed/resistant follicular non-Hodgkin's lymphoma JCO 2010; 28 (17): 2853 - 2858

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