Siltuximab IV (SYLVANT®)

**INDICATION**

Treatment of adult patients with multicentric Castleman's disease (MCD) who are human immunodeficiency virus (HIV) negative and human herpesvirus-8 (HHV-8) negative.

Note: This drug regimen requires IFR funding approval

**TREATMENT INTENT**

Disease modification

**GENERAL PRE-ASSESSMENT**

1. Ensure histology is confirmed prior to administration of chemotherapy and MDT approval sought.
2. Rule out active infection and Haemoglobin level should be < 17g/l. Patients should receive pneumococcal vaccination and annual flu vaccination.
3. Record stage of disease - CT scan (neck, chest, abdomen and pelvis) and / or PET-CT, presence or absence of B symptoms, clinical extent of disease, bone marrow aspirate and trephine.
4. Blood tests - FBC, DAT, U&Es, LDH, ESR, urate, calcium, magnesium, creatinine, LFTs, glucose, Triglycerides, Igs, β2 microglobulin, LDH, Hep B&C, EBV, CMV, VZV, HIV 1+2 after consent, group and save.
5. Send a "group and save" sample to transfusion.
6. Urine pregnancy test - before cycle 1 of each new chemotherapy course in women aged 12 – 55 years of age unless they have been sterilised or undergone a hysterectomy.
7. ECG +/- Echo - if clinically indicated.
8. Record performance status (WHO/ECOG).
9. Record height and weight.
10. Consent - ensure patient has received adequate verbal and written information regarding their disease, treatment and potential side effects. Document in medical notes all information that has been given. Obtain written consent on the day of treatment.
11. Hydration - in patients with bulky disease pre-hydrate with sodium chloride 0.9% 1 litre over 4-6 hours. Patients at high risk of tumour lysis refer to tumour lysis protocol.
12. Treatment should be agreed in the relevant MDT.

**DRUG REGIMEN**

**Pre-medication** (30 minutes prior to Siltuximab infusion)
- Chlorphenamine 10mg IV bolus
- Paracetamol 1g PO Stat
- Hydrocortisone 100mg IV bolus

**SILTUXIMAB** 11 mg/kg in 250mL Glucose 5% iv infusion over 1 hour via an infusion set equipped with a 0.2 μm in-line filter.
**CYCLE FREQUENCY**

Repeat every 3 weeks until treatment failure. Consider decreasing frequency if disease stable  
Note: Ensure funding covers the treatment duration and number of cycles prescribed.

**RESTAGING**

Response should be monitored using a CT scan Chest/ Abdomen/ Pelvis, CRP, fibrinogen and VEGF levels after 4 cycles of treatment. Improvement in B symptoms and fall in inflammatory markers are also markers of response.

Subsequent review using blood markers (CRP, fibrinogen and VEGF levels) should be performed at least 3 monthly

**CONTRAINdications**

Hypersensitivity to the active substance or any of the excipients  
Pregnancy and lactation  
Patients less than 18 years of age

**DOSE MODIFICATIONS**

There are no dose modifications for haematological toxicity. Prior to each cycle, ensure:  
- ANC ≥ 1.0 x 10⁹/L  
- Plt ≥ 50 x 10⁹/L  
- Hb < 170 g/L *

*Note, Siltuximab may increase haemoglobin levels in MCD patients  
Consider delaying treatment until the above parameters are met.

**Infusion related reactions and hypersensitivity**

In case of mild to moderate infusion reactions, slow or stop infusion. Upon resolution of the reaction, re-initiate the infusion at a lower rate and administer chlorphenamine, paracetamol, and hydrocortisone. For patients who do not tolerate the infusion following these interventions, Siltuximab should be discontinued.

If the patient develops a severe infusion-related reaction, anaphylaxis, severe allergic reaction, or cytokine release syndrome related to the infusion, further administration of Siltuximab should be discontinued.

**Renal and/or Hepatic impairment**

No formal studies/data on dosing in renal/hepatic impairment. However, it cannot be excluded that patients with liver impairment may experience higher-grade AEs and SAEs compared with the overall population. Siltuximab-treated patients with known liver impairment as well as patients with elevated transaminase or elevated bilirubin should be monitored.

**Others:**

Withhold treatment in case of severe infection or non-haematological toxicity, and restart at same
dose once resolved.

INVESTIGATIONS
Bloods – CRP, FBC, Igs, VEGF, IL-6, Triglycerides, fibrinogen prior to every cycle of therapy
CT – Chest Abdomen, Pelvis every 4 cycles first year and then dependent on symptoms
U&Es and Creatinine
LFTs

CONCURRENT MEDICATION
Allopurinol in treatment naïve patients/bulky disease.
Consider prophylactic aciclovir 200 mg TDS (consider reducing to 200mg BD if CrCl)<10ml/min
Consider prophylactic co-trimoxazole 960mg OD on M/W/F at clinician’s discretion
Consider other prophylactic anti-bacterial in selected patients at clinician’s discretion

Extravasation risk: siltuximab-none

EMETIC RISK
Low emetic risk

SPECIAL WARNINGS / PRECAUTIONS (See SPC for details)
Concurrent active infections
Live, attenuated vaccines should not be given concurrently or within 4 weeks before initiating
Siltuximab
Patients at increased risk of GI perforation
Women of childbearing potential must use effective contraception during and up to 3 months after
treatment

ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS (See SPC for details)
Infusion-related reactions and hypersensitivity
Infections (upper respiratory tract) and nasopharyngitis
Neutropenia and thrombocytopenia
Hypertriglyceridaemia
Rise in Haemoglobin levels
Rash
Hypertension
Abdominal pain
Oedema
Weight gain
Renal impairment
TREATMENT RELATED MORTALITY
< 5%

REFERENCES


REVIEW

<table>
<thead>
<tr>
<th>Name</th>
<th>Revision</th>
<th>Date</th>
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<tbody>
<tr>
<td>Nadjoua Maouche Pharmacist</td>
<td>Formatting, concurrent medication section, drug regime, dose modification</td>
<td>May 2016</td>
<td>1.1</td>
<td>May 2018</td>
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<tr>
<td>Faouzi Djebbari (Haematology Pharmacist)</td>
<td>Updated dose modifications, adverse effects and references</td>
<td>July 2017</td>
<td>1.2</td>
<td>June 2018</td>
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<tr>
<td>Myeloma Protocol Review 2019</td>
<td>Update of general pre-assessment, restaging, investigations, concurrent medicines, extravasation risk and references</td>
<td>June 2019</td>
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