Mogamulizumab Therapy

INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	Reimbursement Status
As monotherapy for the treatment of adult patients with mycosis fungoides (MF) or Sézary syndrome (SS) who have received at least one prior systemic therapy.	C84	00761a	ODMS 01/05/2023

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patients individual clinical circumstances.

Treatment is administered weekly on days 1, 8, 15 and 22 of the first 28-day cycle, followed by administration every two weeks on Days 1 and 15 of each subsequent 28-day cycle until disease progression or unacceptable toxicity.

Facilities to treat anaphylaxis MUST be present when mogamulizumab is administered.

Day	Drug	Dose	Route	Diluent & Rate	Cycle
1, 8, 15, 22	Mogamulizumab[a]	1mg/kg	IV infusion	250ml[b] NaCl 0.9% over 60 minutes[c]	1
1, 15	Mogamulizumab[a]	1mg/kg	IV infusion	250ml[b] NaCl 0.9% over 60 minutes[c]	Cycle 2 onwards
[a]Administration should occur within 2 days of the scheduled day. If a dose is missed by more than 2 days, the next dose should be administered as soon as possible, after which the dosing schedule should be resumed with doses given based on the new scheduled days.					
[b]Mogamulizumab is diluted to a final concentration ranging from 0.1mg/ml to 3.0mg/ml.					
[c]Administer infusion solution through an intravenous line containing a sterile, low protein binding 0.22 micron (or equivalent) in-line filter.					

ELIGIBILITY:

- Indication as above
- ECOG 0-1
- Age ≥18 years
- At least one prior systemic therapy
- Adequate haematological, hepatic and renal function
- Histologically confirmed diagnosis of mycosis fungoides (MF) or Sezary Syndrome (SS)

EXCLUSIONS:

- Hypersensitivity to mogamulizumab or any of the excipients
- Large cell transformation
- Clinical evidence of central nervous system (CNS) metastases
- History of allogeneic transplant
- Active autoimmune disease or infection
- Pregnancy
- Breastfeeding

CAUTION IN USE:

- Patients with cardiac disorders

PRESCRIPTIVE AUTHORITY:

- The treatment plan must be initiated by a Consultant Haematologist working in the area of haematological malignancies

TESTS:

Baseline tests:

- FBC, U&E's, renal and liver profile
- ECG, BNP for all patients and ECHO if previous cardiac history
- Virology screen - Hepatitis B (HBsAg, HBcoreAb), Hepatitis C, HIV
  *Hepatitis B reactivation: See adverse events/Regimen specific complications

Regular tests:

- FBC, renal and liver profile prior to each cycle
- U&E's

Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Dose reductions of mogamulizumab are not permitted, however dosing maybe interrupted for the management of adverse events induced by mogamulizumab. Please refer to Tables 1 and 2 below for the management of adverse events.

Renal and Hepatic Impairment:

Table 1: Dose modification of mogamulizumab in renal and hepatic impairment

Renal Impairment	Hepatic Impairment
Based on a population pharmacokinetic analysis, no dose adjustment is recommended in patients with mild to severe renal impairment.	Based on a population pharmacokinetic analysis, no dose adjustment is recommended in patients with mild or moderate hepatic impairment. Mogamulizumab has not been studied in patients with severe hepatic impairment.

Management of adverse events:

Table 2: Dose Modification of Mogamulizumab for Adverse Events

Adverse Event	Dose Modification
Skin rash	
Grade 2 or 3	Treatment with mogamulizumab must be interrupted and the rash should be treated appropriately until rash improves to Grade 1 or less (mild severity), at which time mogamulizumab treatment may be resumed.
Grade 4	Discontinue treatment
Infusion related reactions	
Grade 1 – 3	Infusion should be temporarily disrupted and symptoms treated. The infusion rate should be reduced by at least 50% when re-starting the infusion after symptoms resolve. If reaction recurs, discontinuing the infusion should be considered.
Grade 4	Discontinue treatment

SUPPORTIVE CARE:

EMETOGENIC POTENTIAL: Low (**Refer to local policy).**

PREMEDICATIONS:

- Pre-medication with anti-pyretic and anti-histamine is recommended for the first mogamulizumab infusion. If an infusion reaction occurs, administer pre-medication for subsequent mogamulizumab infusions.

OTHER SUPPORTIVE CARE:

- Tumour lysis syndrome prophylaxis **(Refer to local policy)**

ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS:

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

- **Dermatologic reactions:** Patients receiving mogamulizumab have experienced drug rash (drug eruption), some of which were severe and/or serious. When mogamulizumab has been administered to patients with T-cell lymphomas other than MF or SS, serious skin reactions, including Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN), have been reported in less than 1% of patients during clinical trials, and also reported during the post-marketing period; some of these cases were reported with fatal outcomes. Patients should be closely monitored for symptoms or signs that suggest SJS or TEN. If they occur, POTELIGEO should be interrupted and treatment should not restart unless SJS or TEN is ruled out and cutaneous reaction has resolved to Grade 1 or less. If SJS/TEN occur, appropriate medical therapy should be administered.
- **Infusion-related reactions:** Acute infusion-related reactions (IRRs) have been observed in patients treated with mogamulizumab. The IRRs were mostly mild or moderate in severity, although there have been a few reports of severe reactions (Grade 3). The majority of IRRs occur during or shortly after the first infusion (all within 24 hours of administration), with the incidence decreasing over subsequent treatments. Patients should be carefully monitored during and after infusion. If an anaphylactic reaction occurs, administration of mogamulizumab should be immediately and permanently discontinued and appropriate medical therapy should be administered. If an IRR occurs, the infusion should be interrupted and appropriate medical management instituted. The infusion may be restarted at a slower rate after symptom resolution.
- **Infections:** Subjects with MF or SS treated with mogamulizumab are at increased risk of serious infection and/or viral reactivation. The combination of mogamulizumab with systemic immune modulating medicinal products or with other licensed therapies for MF or SS has not been studied and is, therefore, not recommended, especially in consideration of the risk of severe infections in patients treated with mogamulizumab. Topical steroids or low doses of systemic corticosteroids may be used during treatment with mogamulizumab; however, the risk of serious infection and/or viral reactivation may be higher in case of concomitant administration with systemic immunosuppressive agents. Patients should be monitored for signs and symptoms of infection and treated promptly.
- **Hepatitis B Reactivation:** Patients should be tested for both HBsAg and HBcoreAb as per local policy. If either test is positive, such patients should be treated with anti-viral therapy. **(Refer to local infectious disease policy).** These patients should be considered for assessment by hepatology.
- **Complications of allogeneic hematopoietic stem cell transplantation (HSCT) after mogamulizumab:** Complications, including severe graft versus host disease (GVHD), have been reported in patients with T-cell lymphomas other than MF or SS who received allogeneic HSCT after mogamulizumab. A higher risk of transplant complications has been reported if mogamulizumab is given within a short time frame (approximately 50 days) before HSCT. Follow patients closely for early evidence of transplant-related complications. The safety of treatment with mogamulizumab after autologous or allogeneic HSCT has not been studied.
- **Tumour lysis syndrome:** Tumour lysis syndrome (TLS) has been observed in patients receiving mogamulizumab. TLS was observed most frequently during the first month of treatment. Patients with rapidly proliferating tumour and high tumour burden are at risk of TLS. Patients should be monitored closely by appropriate laboratory and clinical tests for electrolyte status, hydration and

renal function, particularly in the first month of treatment, and managed according to best medical practice. Management of TLS may include aggressive hydration, correction of electrolyte abnormalities, anti-hyperuricaemic therapy, and supportive care.

- **Cardiac disorders:** One case of acute myocardial infarction has been observed in a clinical trial patient with MF/SS receiving mogamulizumab. In clinical trial patients with other T-cell lymphomas there have been reports of stress cardiomyopathy (one case) and acute myocardial infarction. The subjects had a medical history including various risk factors. Patients who have risk factors associated with cardiac disease should be monitored and appropriate precautions taken.
- **Large cell transformation (LCT):** There are limited data available on patients with LCT.
- **Other:** Mogamulizumab should not be administered subcutaneously or intramuscularly, by rapid intravenous administration, or as an intravenous bolus.

DRUG INTERACTIONS:

- No interaction studies have been performed

REFERENCES:

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2. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V4 2022. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf
3. Mogamulizumab (Poteligeo®) Summary of Product Characteristics. Accessed January 2023. Available at https://www.ema.europa.eu/en/documents/product-information/poteligeo-epar-product-information_en.pdf
4. NHS Clatterbridge Cancer Centre Mogamulizumab SACT Protocol https://www.clatterbridgecc.nhs.uk/application/files/7816/5364/8273/Mogamulizumab_Mycosis_Fungoides_Sezary_Syndrome.pdf

Version	Date	Amendment	Approved By
1	01/05/2023		Prof Elisabeth Vandenberghe and Lymphoid CAG

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.