

## ORAL MELPHALAN +/- PREDNISOLONE

### INDICATION

Treatment for patients who are not candidates for autologous stem cell transplantation and who are treated with a palliative intent.

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### GENERAL PRE-ADMINISTRATION

1. Ensure all the following staging investigations are done:
  - FBC & film
  - Clotting screen
  - U&Es
  - LFTs
  - Calcium
  - Albumin
  - Uric acid
  - CRP
  - Virology : HIV, Hepatitis B (including core antibody), and Hepatitis C
  - Calculated creatinine clearance (CrCl), urine protein/ creatinine ratio
  - Electrophoresis and immunofixation for quantitation of serum paraprotein and immunoglobulins.
  - Serum free light chain assay (Freelite)
  - $\beta_2$  microglobulin
  - Myeloma FISH should be performed in all patients at diagnosis, and in selected patients at relapse/progression to help guide treatment decisions Samples should be sent to Wessex Regional Genetics Laboratory (address below)
  - Urine pregnancy testing for pre-menopausal women younger than 55 before each cycle.
  - Group and save
  - Imaging as per NICE/network guidance and clinical presentation
  - Bone marrow aspirate and trephine (with immunophenotyping for kappa/lambda if appropriate)

**Wessex Regional Genetic Laboratory**  
**Salisbury NHS Foundation Trust**  
**Salisbury District Hospital**  
**Salisbury**  
**Wiltshire**  
**SP2 8BJ**

#### **Additional investigation:**

- Plasma viscosity if hyperviscosity suspected
2. Hydration - fluid intake of at least 3 litres /day should be attempted.
  3. Document patient's height and weight, dose on actual body weight.
  4. Counselling - all patients should receive verbal and written information on oral chemotherapy. Ensure pre-chemotherapy counselling in line with NPSA recommendation and chemotherapy measures

5. Consent - ensure patient has received adequate verbal and written information regarding their disease, treatment and potential side effects. Document in medical notes all the information that has been given and that patient consent has been obtained.

**DRUG REGIMEN**

<b>Melphalan</b>	7 mg/m <sup>2</sup> po daily (tablets are 2 mg in strength)	Days 1 to 4
WITH OR WITHOUT		
<b>Prednisolone</b>	20-60 mg po daily Dose reduction may be necessary in the elderly.	For 5 days

**CYCLE FREQUENCY**

Every 4-6 weeks until plateau phase (paraprotein level stable for 3 months) then stop.

**DOSE MODIFICATIONS**

- Neutrophil count should be > 1.0 x 10<sup>9</sup>/L and platelet count should be > 75 x 10<sup>9</sup>/L before starting treatment unless low counts are thought to be disease related..
- The dose should be reduced if Grade 3 or 4 myelotoxicity occurs, alternatively consider changing to cyclophosphamide.
- If the nadir neutrophil count is > 1.5 and nadir platelets > 100, consideration may be given to a cautious *increase* in dose for subsequent cycles.

**Melphalan:**

Renal		Hepatic
GFR 30 – 50 ml/min	75% dose	No recommendations. If excess toxicity, consider dose reduction on subsequent cycles
GFR < 30 ml/min	clinical decision	

**INVESTIGATIONS - First and Subsequent Cycles**

- FBC.
- U&Es, Creatinine, glucose, Ca<sup>++</sup>.
- Alternate cycles Ig's, paraprotein.
- 24 hr urine for Bence Jones protein and / or Freelite assay at alternate cycles in light chain myeloma.
- Urine pregnancy testing for pre-menopausal women younger than 55 before each cycle.
- Consider bone marrow assessment after four cycles for non-secretory myeloma.
- Random blood glucose/ blood sugar

MM.20 Melphalan +/- Prednisolone	Authorised by Myeloma lead Dr. K. Ramasamy	August2017	V. 4.4
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## CONCURRENT MEDICATIONS

- Allopurinol 300 mg daily for 7 days for cycle 1 only.
- Proton pump inhibitor or H2 antagonist at clinician's discretion.
- Consider prophylactic fluconazole if steroid related side effects.
- Bone protection as per NSSG Bone Protection protocol MM.3
- Prophylactic acyclovir 200 mg bd-tid (depending on renal function)

## EMETIC RISK

Minimal.

## REFERENCES

- 1- Bird J M, Owen R G, D'Sa S, , et all on behalf of the Haemato- oncology Task Force of the British Committee for Standards in Haematology (BCSH), UK Myeloma Forum. 2014. Internet. Guidelines for management and fdiagnosis of multiple myeloma. Online. Available at:  
[http://www.bcsguidelines.com/documents/MYELOMA\\_GUIDELINE\\_Feb\\_2014\\_for\\_BCSH.pdf](http://www.bcsguidelines.com/documents/MYELOMA_GUIDELINE_Feb_2014_for_BCSH.pdf) (last accessed on 27/6/16).
- 2- eMC UK Summary of Product Characteristics for Melphalan 2mg tabs, Aspen, March 2014
- 3- eMC UK Summary of Product Characteristics for Prednisolone 1mg and 5 mg tablets, Wockhardt UK Ltd, November 2015

## REVIEW

Name	Revision	Date	Version	Review date
Nadjoua Maouche, Pharmacist	Cycle frequency section updated, dose modifications, reference section	May 2016	4.3	May 2018
Manuela Sultanova Service Coordinator	Formatting, Standardisation of General pre-assessment section and correction of Wessex lab address	August 2017	4.4	May 2018