Indication	Relapsed or refractory multiple myeloma in patients who are ineligible for stem cell transplant and have received two or more prior lines of therapy
Treatment Intent	Disease modification
Frequency and number of cycles	Repeat every 28 days Continue until disease progression, unacceptable toxicity or patient choice. A formal medical review must be scheduled to occur by the end of the first 8 weeks of treatment.
Monitoring Parameters pre-treatment	• **The conditions of the Pregnancy Prevention Programme must be fulfilled and the Lenalidomide Prescription Authorisation Form must be completed at time of prescribing and at each cycle.** • **Virology status should be checked prior to treatment, cases of viral reactivation have been reported.** • FBC, U&Es and LFTs at Day 1 of each cycle. • Thyroid function must be assessed at baseline then periodically throughout treatment. • Thromboprophylaxis should be based upon individual and myeloma related risks in accordance with IMWG and according to local guidelines. Concomitant administration of erythropoietic agents or previous history of DVT may enhance the risk of thrombotic events. • Cardiac risks / Congestive Heart Failure (CHF): Patients with known risk should be closely monitored, and action should be taken to try to minimize all modifiable risk factors (e.g. smoking, hypertension, and hyperlipidaemia). • **Renal Impairment:** o Lenalidomide - If CrCl 30-50ml/min, give 10mg OD; CrCl <30ml/min, give 15mg on alternate days. If eGFR <30ml/min requiring dialysis 5mg OD. NB an alternative dosing schedule which may be considered, but is not within the licence, is: CrCl 30-50ml/min, give 25mg on alternate days; CrCl <30ml/min, give 25mg twice a week. o Cyclophosphamide: Clinical decision, If GFR > 20 ml/min give 100% dose, if GFR 10 - 20 ml/min give 75% dose and if GFR < 10 ml/min give 50% dose. o Allopurinol: Ensure renal function is normal before prescribing Allopurinol (usual dose is 300 mg od). Reduce Allopurinol dose to 100mg od if CrCl is 10-20ml/min and 100mg on alternate days if CrCl is < 10ml/min. • **Hepatic Impairment:** o **Lenalidomide:** Lenalidomide has not formally been studied in patients with impaired hepatic function and there are no specific dose recommendations. • **Dose modification and toxicity:** o **Haematological** - Treat when neutrophils > 1.0 x 10^9/L and platelets > 75 x 10^9/L. Treatment may be given for platelets as low as 30 x 10^9/L dependant on marrow involvement – clinical decision. Neutrophils: if neutrophils fall below 0.5 x 10^9/L interrupt treatment and resume at original dose once resolved. For each subsequent episode of neutropenia decrease the dose of Lenalidomide to the next dose level (refer to SPC). Thrombocytopenia: if platelets fall below 30 x 10^9/L interrupt treatment and resume at 15mg od once resolved. For each subsequent episode of thrombocytopenia decrease the dose of Lenalidomide to the next dose level (refer to SPC). Do not dose < 5mg daily. o **Non-haematological** - Lenalidomide is to be permanently discontinued in the event of desquamating/blistering rash of any grade, erythema multiforme =/> grade 3, any rash of grade 4 severity or if Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN) or Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) is suspected.

	Lenalidomide should be discontinued for grade 4 neuropathy or hypersensitivity, and grade 3 or higher bradycardia or cardiac arrhythmia. ○ Lenalidomide interruption or discontinuation should be considered for Grade 2 or 3 skin rash. ⊖ For other Grade 3 or 4 toxicities judged to be related to lenalidomide, treatment should be stopped and only restarted at next lower dose level when toxicity has resolved to </=grade 2 depending on the physicians' discretion. ○ If PML is suspected, further dosing must be suspended until PML has been excluded. If PML is confirmed, lenalidomide must be permanently discontinued. ○ **Dose Modification guidance for lenalidomide:** The first recommended dose reduction is to 15mg once daily, second dose reduction is to 10mg once daily and the third dose reduction is to 5mg once daily. If a patient is unable to tolerate 5mg day treatment should be discontinued. • *****Dexamethasone dose may be reduced to 20mg at clinician discretion. • **Common drug interactions (for comprehensive list refer to BNF/SPC):** **Lenalidomide:** ○ Lenalidomide may increase digoxin concentration, monitor digoxin levels during treatment. Increased risk of rhabdomyolysis when administered with statins. Combined hormonal contraceptives are predicted to increase the risk of venous thromboembolism when given with Lenalidomide. Manufacturer advises avoid. • **Missed Dose:** If a patient misses a dose of lenalidomide the patient can take the dose if it is less than 12hours delayed, if longer than 12 hours the dose should not be taken and the next dose should be taken as per the dosing schedule. • Ensure patient is informed of requirement for strict contraception precautions during treatment with Lenalidomide. Follow Lenalidomide risk management programme. • Pregnancy test – if patient is of child-bearing potential (every 4 weeks). • For oral self-administration: refer to local Trust policy on oral anti-cancer medicines and supply Patient Information Leaflet and Cancerbackup information sheet. • Lenalidomide can have an effect on patients' ability to drive and operate machinery; patients should be advised to avoid driving or operating machinery if affected.
References	KMCC proforma HAEM-MYEL-031 V3 SPC accessed online 31.03.2022 CDF list accessed online 31.03.2022

NB For funding information, refer to CDF and NICE Drugs Funding List

Repeat every 28 days.

TTO	Drug	Dose	Route	Directions
Day 1	**LENALIDOMIDE**	**25mg**	PO	ON for 21 days then a 7-day break. Swallow whole with water with or without food. Available 5mg, 10mg, 15mg and 25mg capsules.
	DEXAMETHASONE * see prescribing note	**40mg**	PO	OM on days 1, 8, 15, 22 Take with or after food.
	CYCLOPHOSPHAMIDE	**500mg**	PO	OD day 1 and day 8.
	Omeprazole	20mg	PO	OD
	Allopurinol	300mg	PO	OD Cycle 1 only
	Metoclopramide	10mg	PO	TDS PRN Do not take for more than 5 days continuously.
	Aciclovir	400mg	PO	BD
	Consider prophylactic anticoagulation.			