LENALIDOMIDE for MDS

This protocol must be used in conjunction with the Celgene Pregnancy Prevention Programme

INDICATION: Transfusion dependent anaemia due to low or intermediate-1 risk myelodysplastic syndrome (MDS), associated with a deletion 5q cytogenetic abnormality, with or without other cytogenetic abnormalities, when other therapeutic options are insufficient or inadequate.

Prior to a course of treatment

- Patient must be counseled about the risk of birth defects with fetal exposure. See Celgene Pregnancy Prevention Programme.Prescription must be accompanied by a completed prescription authorization form.
- Contraindicated in patients who are hypersensitive to lenalidomide or to thalidomide.
- Contraindicated in breast feeding women.
- Note whether lenalidomide causes infertility is unknown-offer semen cryopreservation to males**.**
- Check FBC every week for the first 8 weeks, then monthly
- Check LFTs every week for the first 8 weeks, then monthly
- Check U and Es every month
- A pregnancy test is required every month for women of child bearing potential
- Written consent for course

Prior to each dose

- Medical review of fitness for chemotherapy – exclude active infection, major changes in organ function
- Check FBC, U&Es, creat, LFTs - neuts must be >0.5 and plats > 25 – *see dose modifications*

Dose: 28 day cycle with lenalidomide 10mg daily taken on days 1-21, followed by a 7 day rest.

Treatment to be continued if tolerated and the patient is responding

Patients without at least a minor erythroid response within 4 months of therapy initiation,demonstrated by at least a 50% reduction in transfusion requirements or, if not transfused, a 1g/dl rise in haemoglobin, should discontinue lenalidomide treatment.

Prophylaxis for emesis is not required.

Other medications:	Allopurinol for the first four weeks, with the dose adjusted to renal function
	Consider thromboprophylaxis, in the absence of specific contraindication
	Laxative as required for lenalidomide induced constipation

Dose modification for haematological toxicities

Neutrophils <0.5x10^9/l and/or platelets <25x10^9/l	Interrupt lenalidomide treatment
Neutrophils return to 0.5x10^9/l **and**	
Platelets return to >25x10^9/l <50x10^9/l on at least 2 occasions for >7days	Resume lenalidomide at next lower level - see below
OR	
Platelet count recovers to >50x10^9	

Dose modification for other toxicities

Interrupt lenalidomide treatment for other grade 3 or 4 toxicities. Restart at lower dose level when toxicity has resolved to ≤ grade 2 at prescriber's discretion.

Consider interruption or discontinuation for grade 2 or 3 skin rash.

Discontinue for angioedema, exfoliative or bullous rash or if Stevens-Johnson syndrome or toxic epidermal necrolysis is suspected and do not resume.

Dose reductions steps

Starting dose	10mg once daily on days 1-21 every 28 days
Dose level -1	5mg once daily on days 1-28 of 28 day cycle
Dose level -2	2.5mg once daily on day 1-28 of 28 day cycle
Dose level -3	2.5mg on alternate days on days 1-28

Dose modification for impaired renal function

CrCl (ml/min)	Lenalidomide starting dose
30-49	5mg once daily for 21 days
<30	2.5mg once daily for 21 days

Dose modification for liver dysfunction

Limited data – clinical decision

Toxicities

Teratogenicity : Women of child bearing potential must have negative pregnancy test within 3 days prior to starting treatment, and within 3 days of each prescription. Pregnancy testing should be repeated monthly thereafter until one month after stopping lenalidomide. If a woman takes lenalidomide thinks she may be pregnant she must stop the drug immediately.

Myelosuppression

Muscle cramps

Constipation/diarrhea

Rash

Increased risk of thromboembolic events

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