Methoxy polyethylene glycol-epoetin beta (Mircera®) Protocol

Methoxy polyethylene glycol (PEG)-epoetin beta (Mircera®)

ICD-10 code D63.1 – Anemia in chronic kidney disease

Purpose: To provide optimal management of ESRD-related anemia in dialysis patients

Hemoglobin Target Goal: 10.0-11.0 g/dL

Methoxy polyethylene glycol-epoetin beta Dosing:

Doses are based on estimated dry weight and rounded to the following steps:

Step	Dose
1	30 mcg every *four* weeks
2	50 mcg every *four* weeks
3	30 mcg every two weeks
4	50 mcg every two weeks
5	60 mcg every two weeks (30 mcg + 30 mcg)
6	75 mcg every two weeks
7	100 mcg every two weeks
8	150 mcg every two weeks
9	200 mcg every two weeks

Table 1

1. Methoxy polyethylene glycol-epoetin (Mircera®) will be increased and decreased in 1-step or 2-step increments, based on scale above.
2. Mircera® will be administered IV to in-center hemodialysis patients, and SQ to home dialysis patients.
3. Mircera® ceiling is 200 mcg every two weeks (or 3.0 mcg/kg every 2 weeks, whichever is lower). Orders above 200mcg every two weeks require facility medical director or CMO approval.
4. For in-center hemodialysis patients, if pre-dialysis systolic blood pressure is >190 mm Hg, do not administer Mircera® at the beginning of treatment. If systolic blood pressure falls to <190 mm Hg during hemodialysis, administer Mircera® during treatment. If Mircera® is held for the entire hemodialysis session due to persistent systolic blood pressure >190 mm Hg, notify nephrologist and reassess for administration of Mircera® dose at next hemodialysis session.

Initiating Mircera® for new patients or ESA naïve patients

For new patients or established patients who have not received an ESA within the last 3 months, initiate as follows:

1. Iron repletion per iron standing orders
2. AND

Patient Name_____ **NKC#** _____

a. If Hgb < 10 g/dL, then start Mircera® at 0.6 mcg/kg every 2 weeks, and round down to closest step per Table 1 but no less than 30 mcg every 2 weeks (Step 3).
b. If Hgb 10.0-10.4 g/dL, then start Mircera® at 30 mcg every 2 weeks (Step 3).
c. If Hgb >= 10.5 g/dL, then do not start Mircera® until Hgb falls to <10.5 g/dL

Mircera® Dosing Adjustment

1. Titrate Mircera® per the following table for patients who have a Mircera® order and had not been changed in the last 4 weeks:

Mircera® Dosing Adjustment	
Hgb decreased by greater than or equal to 0.5 g/dL since last dose change	
Current Hgb (g/dL)	**Step Dose Change**
Less than 10	2 step dose increase
10.0-10.9	1 step dose increase
11-11.9	No Change
Hgb increased/decreased by less than 0.5 g/dL since last dose change	
Current Hgb (g/dL)	**Step Dose Change**
Less than 9.5	2 step dose increase
9.5-9.9	1 step dose increase
10.0-10.4	If Hgb decreased, do 1 step dose increase. If Hgb increased or stayed the same do NOT change
10.5-11.4	No change
11.5-11.9	1 step dose decrease; if patient is on Step 1, do not HOLD
Hgb increased greater than or equal to 0.5 g/dL since last dose change	
Current Hgb (g/dL)	**Step Dose Change**
Less than 10	1 step dose increase
10-10.4	No Change
10.5-11.9	1 step decrease; if patient is on Step 1, do not HOLD
Current Hgb (g/dL)	**Dose Change**
Greater than or equal to 12 g/dL	Hold Mircera; check Hgb at next redraw for home dialysis patients, and every week for in-center patients.
If Hgb is increased or decreased at least 1.0 g/dl since the last Hgb level; recheck Hgb at next dialysis treatment for in-center HD and at next redraw for home patients. Follow the algorithm based on the results of the recheck, e.g., if the value remains the same as the first draw, then follow the algorithm for no change. If redraw indicates a further drop by 1.0 g/dL or greater, contact nephrologist for orders.	

Table 2

2. Do not change Mircera® dose more frequently than every 4 weeks EXCEPT:
   a. If Hgb falls from above 10 g/dL to less than 10 g/dL, increase dose after 2 weeks.
   b. If Hgb is already less than 10 g/dL and drops greater than 0.5 g/dL, increase dose after 2 weeks.

Patient Name_____**NKC#** _____

c. If Hgb >= 12 g/dL, hold Mircera® and check Hgb every week for in- center patients, and at next redraw for home dialysis patients. Resume Mircera® with 1-step decrease from previous dose as soon as Hgb is < 11.8 g/dL and last dose was administered 2 weeks ago or more. If Hgb remains >= 12 g/dL for more than 2 months, return to regular Hgb testing policy.

3. Post hospitalization: check Hgb at the first treatment after hospitalization and pre-hospitalization dose will be administered if the patient is due for Mircera. Titrate Mircera as needed per Table 2 once Hgb results are received.

Conversion from Retacrit® or Epogen® to Mircera®

1. When a patient with an Retacrit® or Epogen® order switches to Mircera®, discontinue erythropoietin order.
2. Convert Retacrit® or Epogen® to appropriate dose of Mircera®, per conversion dose chart below. Convert to Mircera® when the next ESA dose is due.
3. If ESA is on HOLD from another protocol, wait until Hgb is less than 11.8g/dl, then convert ESA as follows: See Table 3 to convert previous ESA dosing to Mircera® Step, then see Table 1 and decrease 1 Step.

Epoetin alfa (Retacrit or Epogen) to Methoxy Polyethylene Glycol Epoetin-beta (Mircera) Conversion Dose Chart		
Retacrit or Epogen Dose (U) per week - total	Mircera® Dose	
	Dose (mcg)	Frequency
< 2000	30	Every 4 weeks
2000 - < 3000	50	Every 4 weeks
3000 - < 5000	30	Every 2 weeks
5000 - < 8000	50	Every 2 weeks
8000 - < 11,000	60	Every 2 weeks
11,000 - < 18,000	75	Every 2 weeks
18,000 - < 27,000	100	Every 2 weeks
27,000 - < 42,000	150	Every 2 weeks
>= 42,000	200	Every 2 weeks

Table 3

Labs: Draw CBC per routine lab orders.

Matthew Rivara, MD

Physician Name (Please Print)

Physician Signature (***see Initial Orders***)

January 5th, 2026

Date

Patient Name_____ **NKC#** _____

MEC reviewed 12.11.25