

Project Template: Increasing Hemoglobin Levels in Chronic Dialysis Patients

First, look at the data from your most recent monthly labs, annual Lab Data Collection (ELAB) , and Dialysis Facility Report which is prepared by the University of Michigan Kidney Epidemiology and Cost Center Report (KECC report). Review the lab data to determine if hemoglobin levels at your facility are trending downward over the past few months or year. How do you compare to others in your geographic area? Look at your infection and albumin rates since these can be associated with lower hemoglobins. Review you policy and procedure for maintaining Hgb between 10-12 g/dL.

Next, choose team members for your anemia Quality Assessment and Performance Improvement program. Typically the team will include: the medical director, clinical manager, nurse, dietician, social worker and the patient. Each of these team members play a significant role in identifying and treating anemia

Now, review the patient's history, physical exam and laboratory results. Hemoglobin levels are effected by numerous factors: inflammation, infection, erythropoietin , iron, serum ferritin levels, folic acid and vitamin B12, to name a few. Trending hemoglobin and iron can help the clinicians identify issues that may be causing anemia.

To get you started, these are a few **barriers** that have been identified as potential causes of anemia:

- Failure to track hemoglobin rates
- Malnutrition
- Patients lack knowledge regarding which foods are high in protein
- Lack of funds to purchase a healthy diet and/or additional supplements
- GI bleeding
- Secondary parathyroidism
- Infections or inflammation
- Hospitalization
- Complication of diabetes
- Inadequate dialysis
- Acidosis

Root cause: Your CQI team should determine the root cause of anemia at your facility.

Example: **High infection rate for patients with CVCs.**

See attached root cause document for more examples.

Decide on an “AIM” Statement; what are you trying to accomplish?

- 70% of patients will attain the CMS goal for Hgb, 10-12 g/dL, by January 31, 2011.
- If already meeting the CMS goal, set a six month goal to increase the number of patients attaining the CMS goal for hemoglobin by 10%



How will you measure improvement?

Monthly measurement as QA monitor

Example of potential measurement (if above goal is used):

Numerator: # of HD patients meeting CMS Hgb goals (70% of patients have a Hgb \geq 11.0.)

Denominator: total # HD of patients in your facility

Numerator: # of HD patients meeting CMS Hgb goals (10-12 g/dL)

Denominator: total # of HD patients in your facility

Brainstorm potential solutions based on barriers / root cause prioritized by your QI team.

Begin PDSA cycles and document your improvement

