Anemia

PRESENTING SITUATIONS

Acute bleed - unanticipated

Acute bleed - tumor related

Acute bleed - anticipated (intraoperative)

Related to cancer without any treatment

See Page 2 for chemotherapy and/or radiation, and other or unknown causes

Hemoglobin less than or equal to 7 grams/dL

Hemoglobin between 7 and 9 grams/dL

Hemoglobin greater than or equal to 9 and less than 10 grams/dL

Is patient symptomatic?

Yes

Transfuse patient to eliminate symptoms
Take into account any hemoglobinopathy
Laboratory tests to evaluate for nutritional deficiencies or hemolysis if indicated:
  - MCV less than 82 - serum iron, transferrin with TIBC, ferritin
  - MCV greater than 98 - serum vitamin B₁₂, folate and homocysteine levels

No

Monitor as clinically indicated
Laboratory tests to evaluate iron, vitamin B₁₂, and folate nutritional deficiencies (replacement recommendations as indicated)
  - MCV less than 82 - serum iron, transferrin with TIBC, ferritin
  - MCV greater than 98 - serum vitamin B₁₂, folate and homocysteine levels

Continue monitoring

MCV, Mean Corpuscular Volume; TIBC, Total Iron Binding Capacity

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Anemia

Hemoglobin greater than or equal to 9 and less than 10 grams/dL

- Transfuse patient to bring hemoglobin to approximately 10 grams/dL
- Take into account any hemoglobinopathy
- Laboratory tests to evaluate for nutritional deficiencies or hemolysis if indicated:
  - MCV less than 82 - serum iron, transferrin with TIBC, ferritin
  - MCV greater than 98 - serum vitamin B₁₂, folate and homocysteine levels

Is patient receiving myelosuppressive chemotherapy for curative intent?

- Yes: Use of ESA are contraindicated according to FDA guidelines
- No: The use of ESA are contraindicated according to FDA guidelines

Is patient symptomatic?

- Yes: The use of ESA are contraindicated for patients receiving radiation treatment alone
- No: Continue laboratory monitoring

Hemoglobin greater than or equal to 9 and less than 10 grams/dL

- Monitor as clinically indicated
- Laboratory tests to evaluate for nutritional deficiencies or hemolysis if indicated:
  - MCV less than 82 - serum iron, transferrin with TIBC, ferritin
  - MCV greater than 98 - serum vitamin B₁₂, folate and homocysteine levels

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Related to chemotherapy and/or radiation

Hemoglobin between 7 and 9 grams/dL

Is patient symptomatic?

- Yes: Continue monitoring
- No: Continue laboratory monitoring

Hemoglobin less than or equal to 7 grams/dL

Related to chemotherapy and/or radiation

Other or unknown cause

Recommended evaluation:
- Stool guiac – obtain Gastroenterology consult if positive
- Nutritional deficiencies – consider Nutrition consult
- Hemolysis, premalignancy, or other suspected etiologies – obtain Hematology consult

Follow care path “A” (on Page 1) depending on hemoglobin level

ESA= erythropoietin stimulating agents
1 ESAs may be considered for patients who refuse blood transfusions after discussing the risks
2 See CMS guidelines and FDA guidelines
3 Consider providing patient with information sheet

Approved by The Executive Committee of Medical Staff on 01/30/2018

Department of Clinical Effectiveness V6
Anemia

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SUGGESTED READINGS


U.S. Department of Health

& Human Services

2008

Medicare National Coverage Determinations: A CMS Manual System (CMS Publication No. 100-03)

This practice consensus statement is based on majority opinion of the Anemia experts at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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