



Anemia in Long-Term Care Patients: What's the Best Approach?

? Question:

What is the approach to investigating anemia in long-term care? Is there a role for erythropoietin?

Response:

With a prevalence of 20% to 50%, anemia is common among long-term care residents.

While single institutional studies have suggested iron deficiency is the most common cause, a recent study using more precise methods of classification found idiopathic anemia was the most common etiology, occurring in 45% of anemic long-term care residents.

The investigations for anemia in long-term care residents do not differ from those for the elderly living in other settings.

A history is obtained looking for blood loss, complications of anemia (*i.e.*, congestive heart failure, fatigue/weakness, dizziness, depression, cognitive impairment), drugs, and contributing medical conditions.

The physical exam looks for evidence of renal or hepatic failure, hepatosplenomegaly, and adenopathies.

Lab tests would include a complete blood cell count and differential, peripheral smear, and reticulocyte count and index.

If the reticulocyte count is elevated, an adequate bone marrow response is indicated, and blood loss or red blood cell (RBC) destruction should be suspected. However, if the reticulocyte count is normal or decreased, the mean corpuscular volume

should be evaluated, and various etiologies considered. Further investigations would then include studies for iron, vitamin B₁₂, RBC folate, thyroid-stimulating hormone, liver enzymes and function tests, and creatinine, as appropriate.

A trial of the appropriate therapy can be initiated if a particular deficiency is suspected, or a bone marrow exam could be considered for cases of pancytopenia (unrelated to vitamin B₁₂ deficiency), suspected myelophthisis, or cancer.

Deciding who should be investigated is the main difficulty when evaluating anemia in long-term care residents. It has been suggested that investigations are indicated in those residents in whom a reasonable life expectancy justifies the search for reversible conditions.

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If deficiency is the etiology, the anemia is easily treated with supplementation, even though the exact source may not be found. Keep in mind that improvement in anemia may be associated with improved mood, cognition, function, and quality of life.

Recombinant human erythropoietin (rHuEPO) has been shown to be effective for treatment of anemia secondary


to renal failure, cancer, and rheumatoid arthritis.

Production of inappropriately low levels of erythropoietin in response to the degree of anemia may explain some cases of idiopathic anemia in the elderly. However, studies looking at the effect of rHuEPO on idiopathic anemia and anemia of chronic disease are lacking. [CME](#)

Answered By:
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