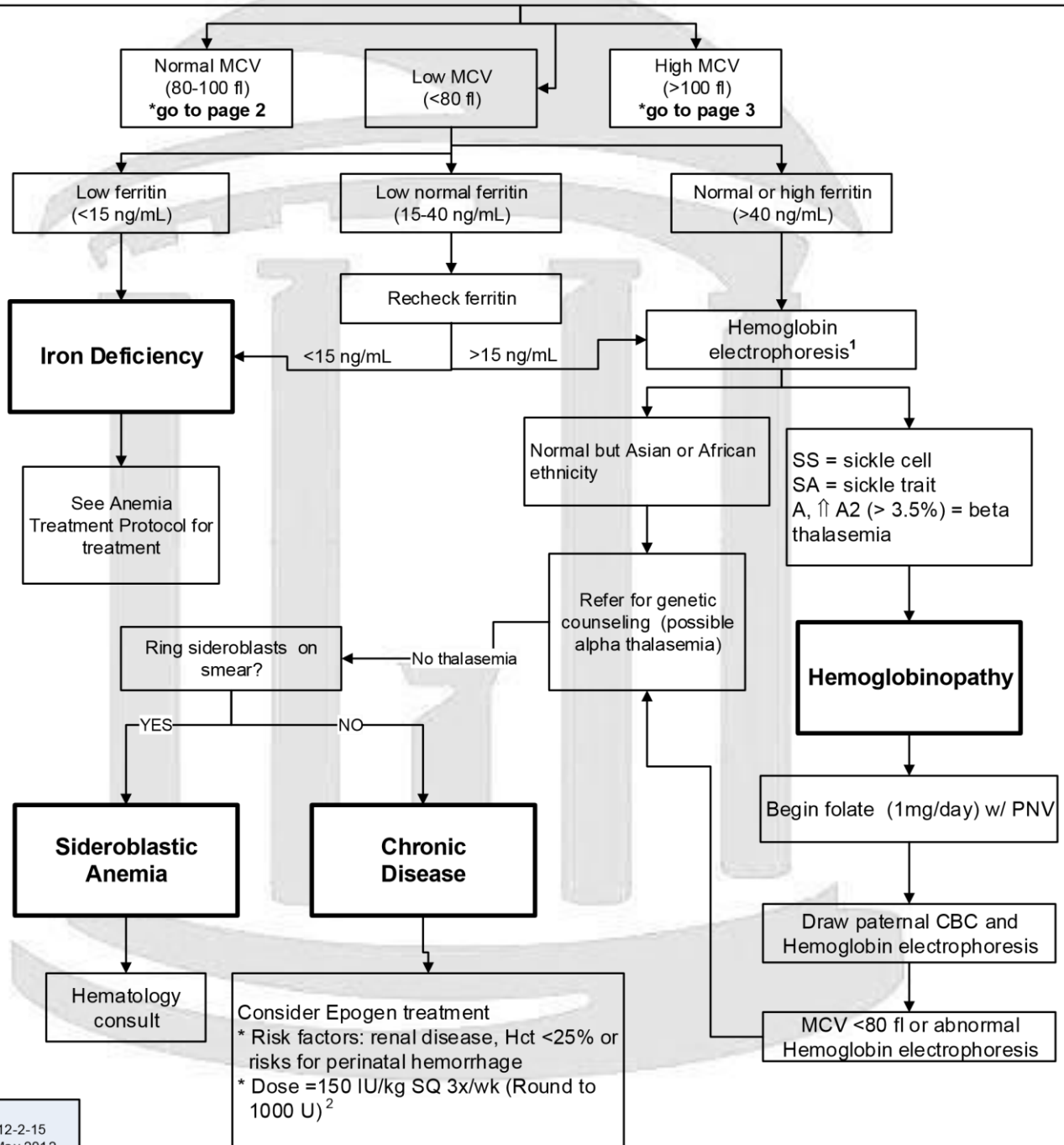


Anemia: Laboratory Diagnosis (1)

Algorithms for diagnosing anemia generally fail in the presence of more than one cause.

Definitions¹:

- * First and third trimesters- hematocrit < 33% OR hemoglobin <11.0 g/dl
- * Second trimester- hematocrit < 32% OR Hgb <10.5 g/dl
- * For African-Americans, recommend lowering cut-off levels for Hgb and Hct by 0.8 g/dL and 2%, respectively
- * Choose algorithm based on the MCV (located in the CBC result)



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Anemia: Laboratory Diagnosis (2)

Algorithms for diagnosing anemia generally fail in the presence of more than one cause.

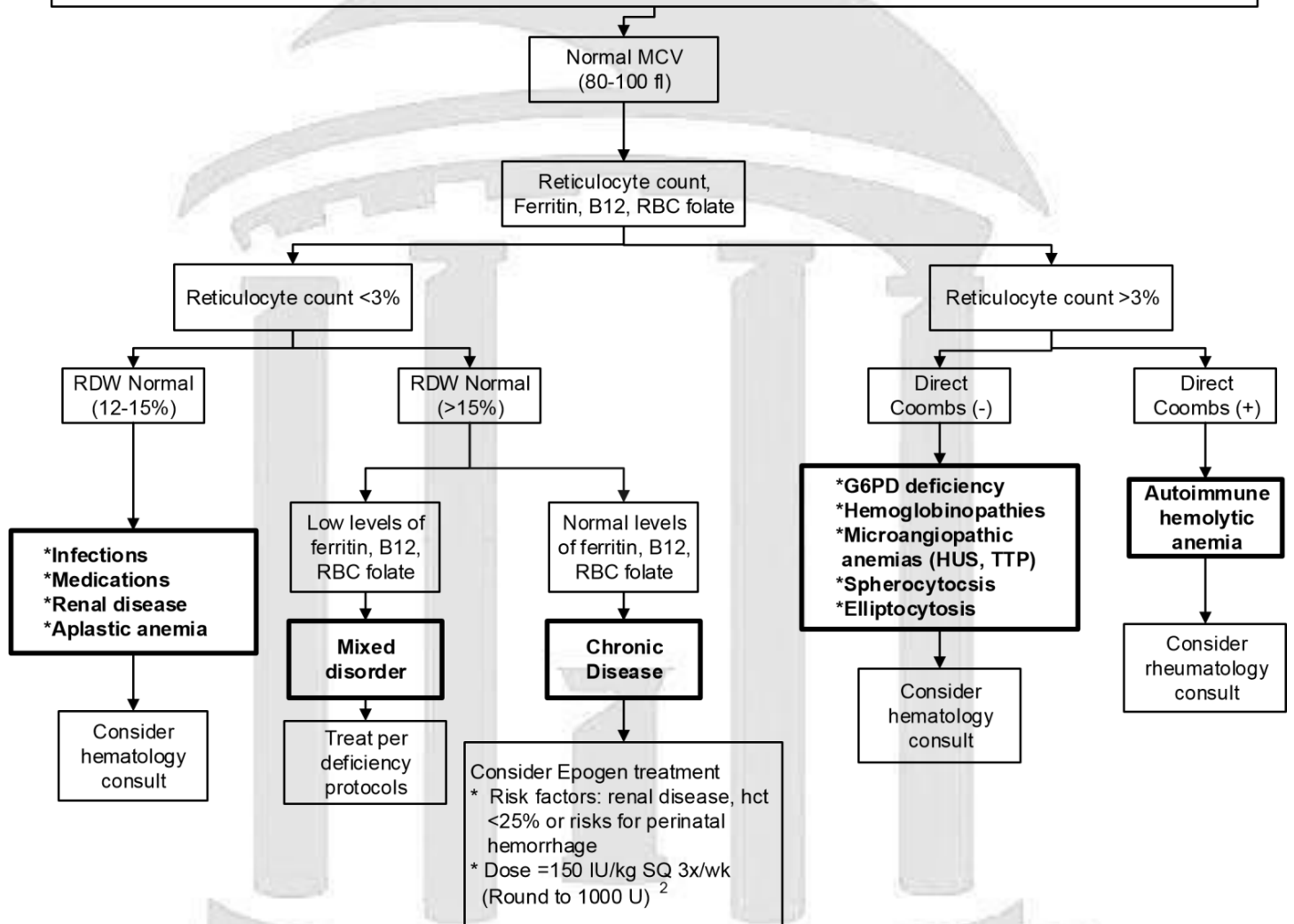
Definitions¹:

* First and third trimesters- hematocrit < 33% OR hemoglobin <11.0 g/dl

* Second trimester- hematocrit < 32% OR Hgb <10.5 g/dl

* For African-Americans, recommend lowering cut-off levels for Hgb and Hct by 0.8 g/dL and 2%, respectively

* Choose algorithm based on the MCV (located in the CBC result)



Anemia: Laboratory Diagnosis (3)

Algorithms for diagnosing anemia generally fail in the presence of more than one cause.

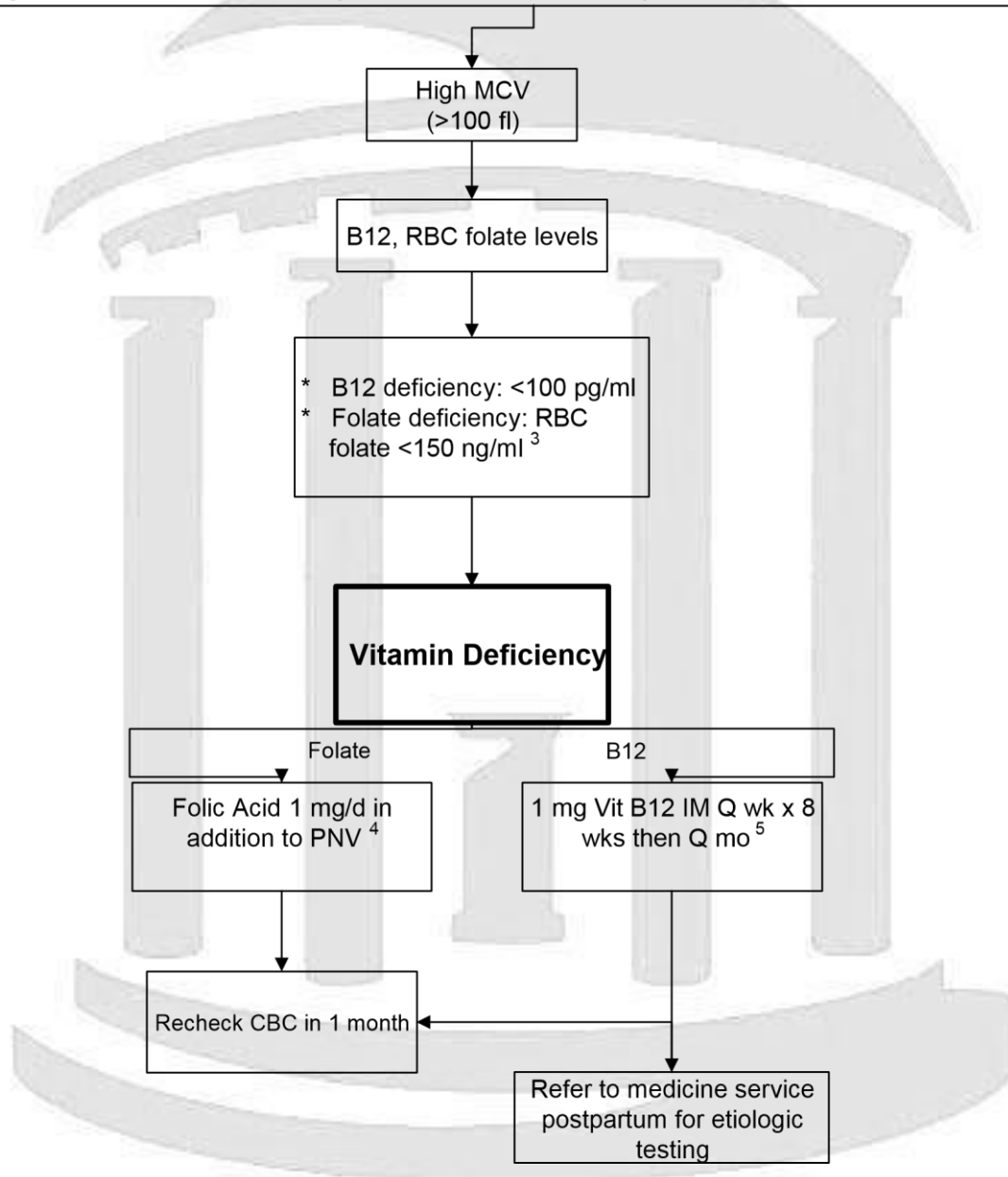
Definitions¹:

* First and third trimesters- hematocrit < 33% OR hemoglobin <11.0 g/dl

* Second trimester- hematocrit < 32% OR Hgb <10.5 g/dl

* For African-Americans, recommend lowering cut-off levels for Hgb and Hct by 0.8 g/dL and 2%, respectively

* Choose algorithm based on the MCV (located in the CBC result)



Anemia References:

- 1) American College of Obstetricians and Gynecologists. *ACOG Practice Bulletin No. 95: Hemoglobinopathies in Pregnancy*. **Obstet Gynecol**; 2008 July; 112(1):210-7.
- 2) Sifakis S, Angelakis E, Vardaki E, Koumantaki Y, Matalliotakis I, Koumantakis E. Erythropoietin in the treatment of iron deficiency anemia during pregnancy” **Gynecol Obstet Invest** 2001; 51; 150-6. rHuEPO combined with parental iron is an effective treatment for moderate and severe anemia during pregnancy, with minimal adverse side effects.
- 3) Braunwald E, Fauci AS, Isselbacher KJ, Kasper DL, Hauser SL, Longo DL, Jameson JL, editors. Ch 107: Megaloblastic anemia IN: Harrison’s Online. The McGraw Hill Publishers; 2001-2004. Available from: <http://accessmedicine.com/resourceTOC.aspx?resourceID=4>. Measurement of the RBC folate level provides useful information because it is not subject to short-term fluctuations in folate intake and is better than serum folate as an index of folate stores.
- 4) Campbell BA. Megaloblastic anemia in pregnancy. **Clin Obstet Gynecol** 1995; 38: 460. If folate deficiency is determined to be the cause of the megaloblastic anemia, then oral replacement is generally sufficient with 1 mg per day.
- 5) Campbell BA. Megaloblastic anemia in pregnancy. **Clin Obstet Gynecol** 1995; 38: 460. If vitamin B12 deficiency is confirmed, parenteral therapy should begin with 1000 ug cyanocobalamin given once a week for 8 weeks followed by monthly injections.
- 6) Evaluation of Anemia and the Bleeding Patient, in Emergency Medicine: A Comprehensive Study Guide. Editors: Tintinalli, JE; Kelen, GD; Stapczynski, JS. 7TH Edition, McGraw-Hill, 2011.
- 7) Schrier, SL. Approach to the adult patient with anemia, in UptoDate® January, 2012.

Notification to Users

These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur during pregnancy. They should not be interpreted as a standard of care, but instead represent guidelines for management. Variation in practices should take into account such factors as characteristics of the individual patient, health resources, and regional experience with diagnostic and therapeutic modalities. The algorithms remain the intellectual property of the University of North Carolina at Chapel Hill School of Medicine. They cannot be reproduced in whole or in part without the expressed written permission of the school.

Revised December 2, 2015

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