Iron Management - monitoring iron status post infusion

Repeat Iron Studies and Hb 2 weeks post infusion or when bloods are next due

- Ferritin < 300 ug/L or TSAT < 20%
 - Investigate for blood loss or infection
 - Book second dose of iron
- Ferritin 300 800 ug/L and TSAT 20 50%
 - No further iron infusions
 - If Hb > 120 g/L decrease ESA
 - If Hb < 100 g/L increase ESA
- Ferritin > 300 ug/L and TSAT < 20%
 - No further action
 - Check Iron Studies when bloods next due

Iron overload:

[Ferritin > 800 ug/L or TSAT > 50%]

- Withhold iron for 3 months
- Recheck Iron Studies when bloods next due
- Investigate for other causes:
 - Infection
 - o Blood transfusions
 - o Recent iron infusions

References:

- 1. McMahon L. Haemoglobin. Nephrology. 2008; 13:s44-s47
- CARI: Caring for australiasians with renal impairment: Guideline summary; 2009 [cited 2010 July 14]. Available from: <u>http:// www.cari.org.au/ DIALYSIS_bht_published/ Iron.</u> pdf
- Macdougall I, Eckardt K. Chapter 72: Anaemia in chronic kidney disease. In Feehally J, Floege J, Johnson R J. Comprehensive clinical nephrology. 3rd ed. Philadelphia: Mosby, 2007. p. 853-860
- Singh A K, Hertello P. The benefits of IV iron therapy in treating anemia in patients with renal disease and comorbid cardiovascular disease. Nephrol Nurs J. 2005; 32(2):199-206
- 5. Goldsmith D, Covic A. Time to reconsider evidence for anaemia treatment (TREAT) = Essential safety arguments (ESA). Nephrol Dial Transplant. 2010; 25:1734-1737
- FDA Information for Healthcare Professionals: Erythropoiesis Stimulating Agents (ESA): FDA ALERT [11/16/2006, Updated 2/16/2007 and 3/09/2007]. Available: <u>http://www.fda.gov.au</u>
- 7. Unger E F, Thompson A M, Blank M J, Temple R. Erythropoiesis-stimulating agents Time for a reevaluation; 2010 [cited 2010 January 1]. Available from: <u>www.nejm.org</u>
- 8. Anker S D, Toto R. Future perspectives on treatment with erythropoiesis-stimulating agents in high-risk patients. NDT Plus. 2009; 2(Suppl 1):i3-i8
- Eason A. Correcting iron-restricted erythropoiesis and improving anemia in patients on hemodialysis: practical tips that can make a difference. Nephrol Nurs J. 2009; 36(5):529-534
- De Francisco A L M, Stenvinkel P, Vaulont S. Inflammation and its impact on anaemia in chronic kidney disease: from haemoglobin variability to hyporesponsiveness. NDT Plus. 2009; 2(Suppl 1):i18-i26
- 11. Burrows LaV, Muller R. Chronic kidney disease and cardiovascular disease: pathophysiologic links. Nephrol Nurs J. 2007; 34(1):55-63
- 12. Daugirdas J T, Blake P G, Ing T S. Handbook of dialysis. 3rd ed. Philadelphia: Lippincott Williams & Wilkins; 2001. p. 159-162, 477-489
- KDOQI (Kidney Disease Outcomes Quality Initiative). Clinical practice recommendation for anaemia in chronic kidney disease in adults. 2006 [cited 2009 September 15]. Available from: <u>file:///F:/Anaemia%20identifying% 20patients.htm</u>
- 14. Enders H M. Evaluating iron status in hemodialysis patients. Nephrol Nurs J. 2002; 29(4):366–369

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- 15. Strippoli G F M, Navaneethan S D, Craig J C, Palmer S C. Haemoglobin and haematocrit targets for the anaemia of chronic kidney disease. Cochrane database of systematic reviews. 2006, Issue 4 [cited 2010 May 5]. Available from: http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles
- 16. Hayat A, Haria D, Salifu M. Erythropoietin stimulating agents in the management of anemia of chronic kidney disease. Patient Prefer Adherence. 2008; 2:195-200
- Locatelli F, Covic A, Eckardt E-U, Wiecek A, Vanholder R. Anaemia management in patients in chronic kidney disease: a position statement by the Anaemia Working Group of European Renal Best Practice (ERBP). Nephrol Dial Transplant. 2009; 24:348-354