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**GSTFT Clinical Practice Guideline**

**MRI Guidelines for Iron Overload in Children with  
Sickle Cell Disease**

**Date:** 1 Feb 2009  
**Review date:** 1 Feb 2011  
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**Pages:** 2

### Assessment and monitoring of iron overload

	Serum ferritin	R2 MRI (Ferriscan)	Myocardial T2* MRI	Liver biopsy and iron quantitation
<b>HbSS on regular top-up or exchange transfusion</b>	Before starting, and 3 monthly during transfusion programme	From age 8 or 1 year after starting transfusion. Annually thereafter	Every 5 years from starting transfusion.	Only if indicated for histology or if having laparotomy
<b>Beta-thalassemia major, and transfusion-dependent anaemias</b>	3 monthly after starting transfusion	From age 8. Annually thereafter	From age 8. Every 2 years if T2*>20 msec, every year if T2* 10-20 msec, every 6 months if T2*<10 msec	Only if indicated for histology or if having laparotomy
<b>Thalassemia intermedia and iron loading anaemias, including HbH, HbE thalassemia, (&lt;4 transfusions per year)</b>	6 monthly	Annually from age 10	Every 5 years from age 10	Only if indicated for histology or if having laparotomy

12 Feb 2009. P. Telfer and B. Inusa