Scottish Paediatric & Adult Haemoglobinopathy Network

Paediatric guideline for Chronic Transfusion in Thalassaemia

Decision to start regular transfusion
Transfusion should be started when there is clinical evidence of severe anaemia, FTT and/or thalassaemic bone deformity.

Aims of Transfusion
- Trough Hb levels should be maintained at 90-105 g/l
- A period of hypertransfusion (trough >130 g/l) may be considered prior to SCT.

Pre transfusion Issues
- Extended RBC phenotyping (or genotyping) should be undertaken before starting regular transfusion and should include typing for : D, C, c, E, e, K, Fy^a, Fy^b, JK^a, JK^b, M, N, S and s)
- Vaccinate against hepatitis B.
- Consent for long term transfusion should be recorded.

Red cell selection & transfusion
Red cell requirements:
- ABO compatible
- Fully matched for Rh antigens and Kell
- Negative for current and previously detected significant antibodies
- Units should be <2 weeks old.

A transfusion volume of 15-20ml/kg every 3-5 weeks should achieve the required target.

Monitoring
- Regular height & weight (3 monthly)
- Regular assessment of spleen size (3-4 monthly)
- Record transfusion requirements – volume, frequency and target/actual pre transfusion Hb (at each transfusion)
- Monitoring for evidence of iron overload (see section on iron chelation)
- Transfusion reactions should be investigated and managed according to the BCSH guideline on the investigation and management of acute transfusion reactions.

General points
Pre-arranged transfusion should be started within 30 minutes of arrival.

References:

1. **UKT Standards**
2. **BSH Transfusion guidelines**

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