Challenge TDT

Transfusion Therapy

Lifelong transfusions address anemia and enable survival, but do not correct the genetics of transfusion-dependent beta-thalassemia (TDT)[1]

KEY POINTS

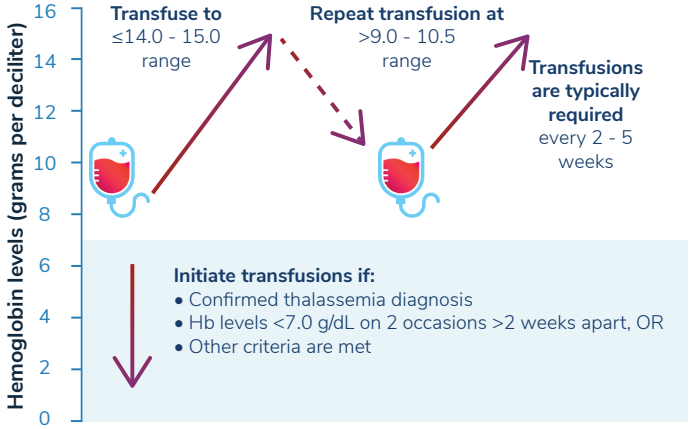
Thalassaemia International Federation (TIF) guidelines recommend that red blood cell transfusions be given every 2 to 5 weeks to correct anemia and suppress ineffective erythropoiesis in patients with transfusion-dependent beta-thalassemia (TDT).[1,2]

Red blood cell transfusions are the main driver for iron overload, which can subsequently lead to multi-organ damage.[1,3]

While effective iron chelation therapy has dramatically improved survival and quality of life in patients with beta-thalassemia, complications can still occur, including in the cardiovascular, hepatobiliary, and endocrine systems.[4,5]

By addressing the genetic cause, there's potential to eliminate the need for chronic transfusions and reduce the risk of long-term complications.[1,3,6]

TIF GUIDELINES FOR TRANSFUSION: Maintaining a Pre-transfusion Level of 9-10.5 g/dL[1]



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1. Guidelines for the Management of Transfusion Dependent Thalassaemia (TDT). 3rd ed. *Thalassaemia International Federation.* 2014. ISBN-13:978-9963-717-06-4 **2.** Cao A, Galanello R. Beta-thalassemia. *Genet Med.* 2010;12(2):61-76. **3.** Tubman V, Fung E, Vogiatzi M, et al. Guidelines for the Standard Monitoring of Patients with Thalassemia: Report of the Thalassemia Longitudinal Cohort. *Journal Pediatr Hematol Oncol.* 2015;37(3):e162-e169. **4.** Taher AT, Cappellini MD. How I manage medical complications of beta-thalassemia in adults. *Blood.* 2018; doi: 10.1182/blood-2018-06-818187. Accessed September 17, 2018. **5.** Bayanzay K, Alzoebie L. Reducing the iron burden and improving survival in transfusion-dependent thalassemia patients: current perspectives. *J Blood Med.* 2016;7:159-69. **6.** Ladis V, Chouliaras G, Berdoukas V, et al. Survival in a large cohort of Greek patients with transfusion-dependent beta Thalassemia and mortality ratios compared to the general population. *Eur J Haematol.* 2011;86(4):332-8.