

# Red cell transfusion for iron-deficiency anaemia: a retrospective audit at a tertiary hospital

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**BACKGROUND AND OBJECTIVES:** The role of red cell transfusion in the management of iron-deficiency anaemia is controversial. This audit was undertaken to monitor the overall transfusion practices of patients admitted to a 600-bed acute tertiary hospital with confirmed severe iron deficiency.

**MATERIALS AND METHODS:** Data from 615 consecutive patients with iron deficiency and no evidence of iron therapy during the period from 1 March 2001 to 30 September 2005 were retrospectively reviewed.

**RESULTS:** Of the 615 iron-deficient patients, 39.2% were transfused. Overall transfused patients were significantly older (mean 73 years old vs. 53 years old;  $P < 0.0001$ ) with more comorbidities than those not transfused. The pretransfusion haemoglobin (Hb) was  $< 90$  g/l in 92.5% compared to 15.4% of patients not transfused. The post-transfusion Hb was  $\geq 100$  g/l in 75.0% of patients and  $\geq 110$  g/l in 44.2%. Although currently rare (2.5% patients) our speculative data suggest that single red cell transfusions may be appropriate in  $\leq 29\%$  of patients if restrictive thresholds were adopted. **CONCLUSION:** Red cell transfusions are commonly administered to elderly patients with severe iron deficiency anaemia. They may be necessary to alleviate severe morbidity until the time at which iron therapy becomes clinically effective. However, greater emphasis should be given to restrictive transfusion strategies and dosing. Transfusion of single red cell units followed by clinical assessment will determine the need for subsequent units and ensure that this valuable resource is appropriately used.