Aim: Post-operative anaemia in hip fracture patients is associated with increased risk of blood transfusion, poorer outcomes, increased morbidity, and mortality. Our aim is to measure the drop in haemoglobin (Hb) post-operatively in hip fracture surgery and its impact on length of stay, morbidity and 30-day mortality.

Method: A retrospective study of neck-of-femur patients looking at pre-op and discharge haemoglobin levels, taking into consideration conditions that could affect Hb, and adverse effects peri-operatively. Data collected from Medway, Clinic letters, ICE and NHFD database.

Results: 257 patients were included in the study. Mean age was 82 (range 43–100). Pre-operatively 60 (23%) had normal Hb, 34 (13%) had borderline, and 163 (64%) had severe anaemia. 131 (51%) had hemi-arthroplasty, 61 (24%) had DHS, 45 (18%) had IM nail and 20 (7%) had THR. Normal Hb found in 62 patients (24%), 33 (13%) had borderline and 162 (63%) had severe anaemia at discharge. 30 patients (11.7%) had post-op transfusions and 7 were prescribed oral iron. Readmission rate was 4.3% (11 patients) of which 8 (73%) had severe anaemia. Average length of stay in patients with severe anaemia was 21 days. Overall 30-day mortality was 17% (43 patients); in patients with severe anaemia, mortality was 50% (21 patients).

Conclusions: Most patients (63%) had severe anaemia at discharge. There was a significant drop of Hb post-operatively especially THR and hemi-arthroplasty. Our study demonstrates pre-surgical anaemia in hip fracture patients is associated with increased hospital morbidity and mortality. Identification of anaemia at admission and discharge provides an opportunity for treatment to avoid transfusions and improve patient outcomes.