



AB143. An audit of the clinical significance of full blood count day one post op after total joint arthroplasty

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Background: Post-operative full blood counts (FBC) after total joint arthroplasty is standard practice in our institution. Efforts to minimise intraoperative blood loss using tranexamic acid have been remarkably successful. Consequently, standard post-operative protocol of phlebotomising patients to check haemoglobin (Hb) levels in the setting of normal vital signs should be considered anachronistic. We audited our service to establish if any change in patient care resulted from routine post-operative FBC checks.

Methods: All primary and revision total hip and knee replacements performed in our unit between 21/03/19–

21/09/2019 were included. Patient data from Irish National Orthopaedic Registry (INOR) was utilised for intraoperative blood loss, and hospital records of pre and post-operative Hb levels were tabulated.

Results: We audited a total of 134 patients. Overall transfusion rate was 7.5%; 3.1% of primary hips; 5.6% of primary knees. All patients transfused had mild preoperative anaemia. No patients with a preoperative Hb within normal range required a transfusion. There was no correlation between intraoperative blood loss and transfusion rates in primary arthroplasty. No patients were transfused on the basis of post-operative asymptomatic anaemia.

Conclusions: Transfusion rates are low at our institution. Pre-operative anaemia is an independent risk factor for transfusion. Outside of specific parameters routine post-operative FBCs are unnecessary. These include cardiac issues where a Hb level of 10 g/dL may be mandated; pre-operative anaemia; excessive blood loss relative to patient weight; and symptoms of anaemia. We recommend correction of preoperative anaemia prior to surgery, and judicious post-operative phlebotomy.

Keywords: Hemoglobin; arthroplasty; blood transfusions; postoperative care

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