



AB108. 206. Blood management in hip and knee joint replacements

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Background: Patients undergoing hip and knee joint replacements account for a significant proportion of all incidences of allogenic blood transfusion (ABT). National audits have shown significant variation in transfusion practice across different hospitals. Recent large scale studies have shown no difference in outcomes for hip fracture patients undergoing surgery when a liberal transfusion practice is adopted over a restrictive approach. There is therefore a growing emphasis on the adoption of a restrictive transfusion practice and avoiding exposing patients to the potential complications associated with unnecessary blood transfusions. The aims of this quality improvement project were to reduce the rate of ABT to <6% amongst all patients undergoing major joint replacement surgery in Letterkenny General Hospital, through the formal implementation of a patient blood management programme.

Methods: A multimodal approach was undertaken, with specific interventions including pre-operative management of anaemia, implementation of a tranexamic acid protocol, adoption of a single unit transfusion policy with transfusion haemoglobin triggers, and continuous measurement of transfusion rates.

Results: A total of 1,762 patients who underwent hip or knee replacements from 2010–2016 were included. The percentage of patients receiving ABT fell from 21% in 2010 to 4.8% in 2016. The average number of units of red cell concentrate transfused per procedure was reduced by 84% over the same time period. An estimated potential 583 unnecessary transfusions were avoided.

Conclusions: A significant sustained decrease in both the proportion of patients receiving ABT and the overall number of individual transfusions was achieved following implementation of this quality improvement project, thus reducing patient exposure to excessive transfusion.

Keywords: Transfusion; blood management; joint replacement; quality improvement

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