

BloodAware: Improving Validity of Type and Screen for Patients Undergoing Major Obstetric and Gynaecological Surgery Through Implementation of A Workflow for Preoperative Type and Screen

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Aim

Major obstetric and gynaecological surgeries may be associated with significant blood loss. Hence, patients undergoing such surgeries should have a valid type and screen available for crossmatch in case blood transfusion is required. Invalid or missing type and screen may delay operating lists due to the additional time needed for venepuncture on the day of surgery. If there is inadequate workup for abnormal type and screen results, patient safety may also be compromised.

Methodology

We conducted a before-after observational study to see the effects of the implementation of a standardized workflow for pre-operative type and screen from May 2020 to June 2021.

A root cause analysis was performed with a multidisciplinary panel involving anaesthetists, haematologists, surgeons and nurses from operating theatre services and blood bank services. We found communication gaps and human omission errors in our workflow. We implemented a standardized workflow for preoperative type and screen to address the issues identified.

The effectiveness of our intervention was measured by comparing the number of cases of patients undergoing major O&G surgery who did not have a valid type and screen before and after intervention

Results

From May to Jun 2020, prior to intervention, out of 357 surgeries performed, 8 of them had no valid type and screen. Seven cases did not have prior approval for blood products and 1 did not have any sample sent for type and screen.

Post-intervention, the number of invalid type and screen samples were assessed from January to February 2021. Out of 470 surgeries performed, all had a valid type and screen for surgery. Approval for blood products was also obtained for all cases that required blood on standby.

Conclusion

Our implementation led to significant improvement in validity of preoperative type and screen, increased efficiency through clear communication and improved patient safety and experience.