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Introduction & Objectives: Patients undergoing RARP commonly require 2 group and screen samples pre-operatively. This practice dates from the period when open prostatectomy was the norm. Overall transfusion rate in 2018 from 9747 cases was 0.15%; open 0.78%, laparoscopic 0.49% and robotic 0.08%. Furthermore, day 1 post-operative blood tests are routinely undertaken in urology centres around the world, in order to check blood count and renal function. This also dates from the era of open surgery, when blood loss was higher, and anastomotic urine leak more common. We aim to assess the need for 2 group and screen samples pre-operatively and the need for routine post-operative blood tests. Furthermore, we aim to suggest new guidelines for requesting post-operative blood tests.

Materials & Methods: We retrospectively reviewed 1039 patients who underwent a primary or salvage RARP operation in two large UK centres over a 2 year period.

Results: Pre-Operative: The median age of our patients was 64 (IQR: 59-68), median BMI of 28 (IQR: 25-30) and ASA of 2. 27% of patients had Charlson Co-Morbidities.

Intra-Operative: 1.5% (N=15) of our series had intra-operative complications. 0.3% (N=3) of patients received an intra-operative blood transfusion.

Post-Operative: 6% (N=162) of patients had clinical concerns that were flagged by the clinician on overnight or day 1 assessment. 4% (N=42) of patients had a diagnosed post-operative complication. 0.6% (N=6) of patients received a post-operative blood transfusion. 6% (N=60) of patients had a delayed discharge of 1 day or more due to delayed or incomplete routine blood test results.

Re-Audit

Guidelines for requesting post-operative bloods:

- Requirement for higher dependency bed,
- Intra-op: difficult dissection / adhesions, EBL > 500mls, Urinary leakage, Bowel, bladder, port injury, Salvage cases and Abnormal coagulation
- Post-op: Cardiovascular dysfunction, Raised NEWS / pyrexia, Increasing Abdominal Pain Abdominal Tenderness / Guarding, Nausea / Vomiting, High Drain Output, Low Urine Output / Haematuria, Wound Concern

After implementation of these guidelines, post-op blood tests reduced from 100% to 36% (N=133), discharge delays reduced to 0% and no complications were missed.

Conclusions: Intra-op or post-op clinical judgement flagged post-op complications in 99.9% (1038/1039) of patients. Routine blood tests, without an indication, did not flag any (0%) post-operative complications that were not flagged by clinical judgement. Intra-op and post-op blood transfusion is rare. Re-audit results proved that setting out specific guidelines, removing routine blood tests, could reduce blood tests required to 36% and reduce discharge delays to 0% whilst maintaining the same level of patient safety and care.