



Selective Pre-Operative Blood Ordering for Total Laparoscopic Hysterectomy (TLH)

A Retrospective Audit at King Edward Memorial Hospital, Perth, Australia

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225

patients (TLH)

Jan–Dec 2024

study period

BACKGROUND

Routine pre-operative Group & Hold (G&H) at KEMH reflects historical bleeding risk from open, not laparoscopic, hysterectomy. TLH is associated with international transfusion rates of 2–4%. UK MSBOS and PBM guidance classify low-risk hysterectomy as needing at most a Group & Screen – not routine crossmatch.

AIM

To determine the rate of inpatient blood transfusion and estimated blood loss (EBL) in women undergoing TLH at KEMH, to evaluate whether routine pre-operative G&H remains necessary.

METHODS

Retrospective audit of all TLH procedures at KEMH, Jan–Dec 2024 (n = 225). Demographics, Hb/iron studies, transfusion rate, EBL, complications and length of stay analysed (Fisher's exact, Spearman, multivariable logistic regression). Local pathology pricing compared universal vs selective testing.

Outcome comparisons: anaemic (n=37) vs non-anaemic (n=188) patients.

RESULTS

0.4%

transfusion rate

148 mL

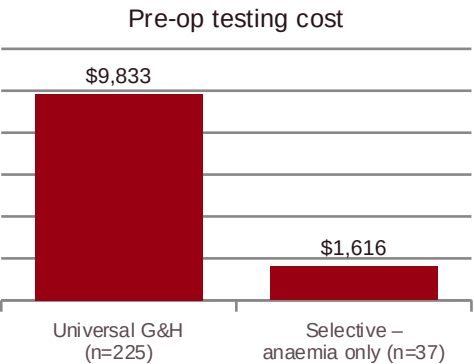
mean EBL

16.4%

pre-op anaemia

83%

cost reduction
(selective)



No significant difference in outcomes between anaemic and non-anaemic patients. Independent predictors of stay >2 days: BMI (OR 1.06, p=0.003), age (OR 1.03, p=0.005), malignancy (OR 0.33, p=0.001).

Proposed selective testing triggers

Pre-op anaemia (Hb<120g/L) • large uterine size • significant adhesions • anticipated complex/concurrent surgery. Otherwise: omit routine pre-op blood order — same-day electronic issue covers unexpected need.

Outcome	Anaemic (n=37)	Non-anaemic (n=188)	p
Post-op complications	29.7%	27.1%	0.841
30-day readmission	5.4%	6.4%	1.000
EBL ≥ 200 mL	29.7%	32.4%	0.848
LOS > 2 days	48.6%	50.0%	1.000

DISCUSSION

Principal finding: 0.4% transfusion rate sits well under the 5% MSBOS threshold – routine G&H is difficult to justify.

The anaemia gap: 16.4% of patients were anaemic pre-op, yet only 17.8% had iron studies.

Limitations: single-centre, retrospective; very low event rate limits power to confirm predictors of transfusion.

PROPOSED SOLUTION

- Move to selective, risk-based G&S protocol
- Anaemia screening & iron optimisation ahead of surgery
- Restrictive transfusion thresholds; tranexamic acid where indicated
- Re-audit post-implementation to confirm safety & sustainability

CONCLUSION

Routine G&H for TLH at KEMH is not supported by current evidence. A selective, risk-based Group & Screen protocol – aligned with PBM and ERAS principles – can maintain safety while cutting unnecessary testing and cost by ~83%.