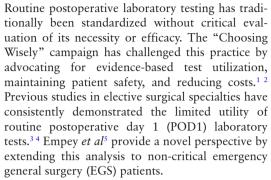
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Trauma Surgery & Acute Care Open

Rethinking routine: selective postoperative laboratory testing is safe in emergency surgery patients

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To cite: Nation RJ, Topper GV, Egodage T. Rethinking routine: selective postoperative laboratory testing is safe in emergency surgery patients. *Trauma Surg Acute Care Open* 2025; **10**:e001714. doi:10.1136/tsaco-2024-001714



This retrospective analysis of 502 non-critically ill EGS patients at a single center assessed the prevalence of abnormal POD1 laboratory values and determined the correlative frequency of subsequent clinical interventions. Despite a relatively high incidence of abnormal laboratory values, interventions for those were rare. Independent predictors of abnormal laboratory results requiring interventions included advanced age (≥65 years), longer operative duration (>400 minutes), blood loss (>200 mL), and specific comorbidities. This demonstrates that targeted postoperative testing may be both feasible and beneficial for certain EGS populations.

The study's findings have important clinical implications. With routine POD1 laboratories correlating to a few actionable abnormalities, surgeons should consider selective laboratory testing based on risk stratification to optimize resource utilization, reduce unnecessary interventions, and decrease healthcare costs with the preservation of patient safety.

The study also highlights distinct areas warranting additional investigation. For example, is chronological age truly the most reliable marker of postoperative vulnerability or might frailty index or functionality measures offer more accurate predictive value? Variables such as intraoperative vasopressor use, preoperative laboratory abnormalities, and immediate postoperative laboratory results (not included in this study) may represent critical indicators of patient vulnerability as well. Additionally, models for procedure-specific cohorts may lead to more accurate predictions. Future studies should

have prospective designs that consider these variables. Validated results may even be considered for enhanced recovery pathways following EGS cases.

Overall, this study offers convincing evidence to support the targeted use of POD1 laboratory testing in non-critically ill emergent surgical care. By identifying high-risk patient populations, it establishes a necessary framework for more targeted and cost-effective approaches to postoperative management.

Contributors Concept design and literature review: RJN, TE; drafting and writing of manuscript: RJN, TE; critical revisions: RJN, GVT, TE.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed

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► http://dx.doi.org/10.1136/ tsaco-2024-001568

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