

Rational Use of Stress Ulcer Prophylaxis(SUP) in ICU

- ▶ A QUALITY IMPROVEMENT PROJECT
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- ▶ DATE: JULY 2025
- ▶ VENUE: CLINICAL GOVERNANCE MEETING

Introduction

- ▶ Stress ulcers: Risk in critically ill patients.
- ▶ SUP important to prevent GI bleeding.
- ▶ Risks of PPI overuse: C. difficile, pneumonia, electrolyte imbalance and costs.
- ▶ NICE and ASHP guidelines recommend selective, risk-based SUP.
- ▶ Needs regular auditing for checking awareness and compliance.

Background

- ▶ Criteria: SUP should be initiated only in critically ill adults with one or more of the following risk factors:
- ▶ Coagulopathy, shock eg septic shock
- ▶ Chronic liver or renal disease, concurrent steroid use
- ▶ Patients NBM/on TPN with additional risk factors eg mechanical ventilation, coagulopathy, TBI, major burns, prolonged ICU stay, Minor risk factors considered cautiously.
- ▶ H2RA or PPI selection depending on context.

Audit Objectives

- ▶ Primary: Assess current prescribing patterns of SUP in ICU.
- ▶ Secondary:
 - ❖ Awareness of guidelines.
 - ❖ Knowledge of risks.
 - ❖ Practices around initiation and discontinuation.

Methodology

- ▶ Survey among ICU doctors (various grades and years of ICU experience).
- ▶ Anonymous responses evaluated against Trust standards and NICE, SCCM, ASHP guidelines.

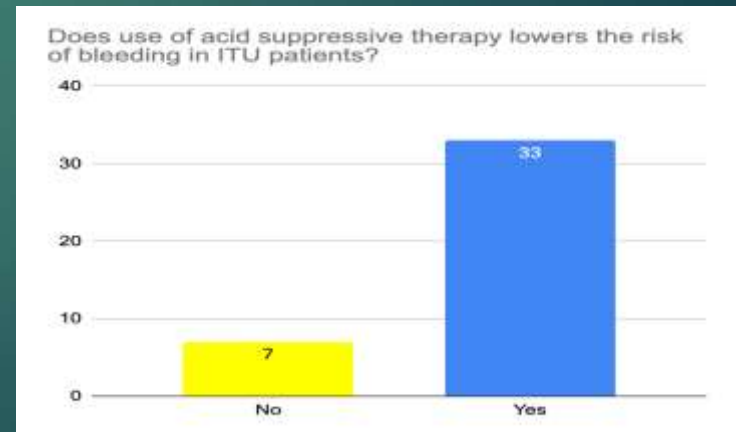
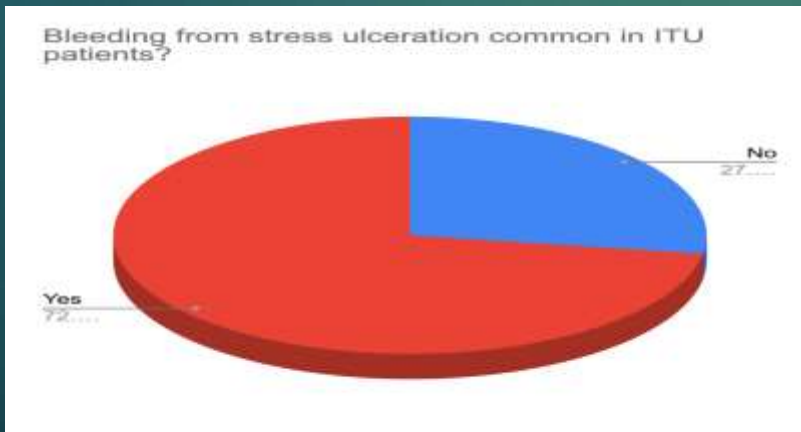
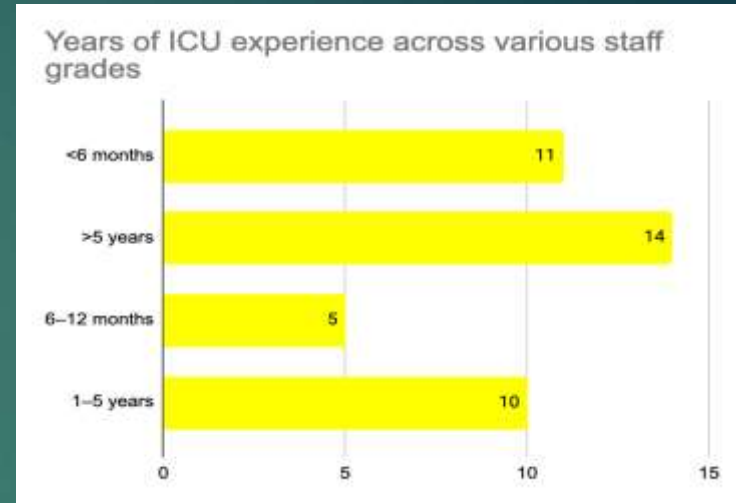
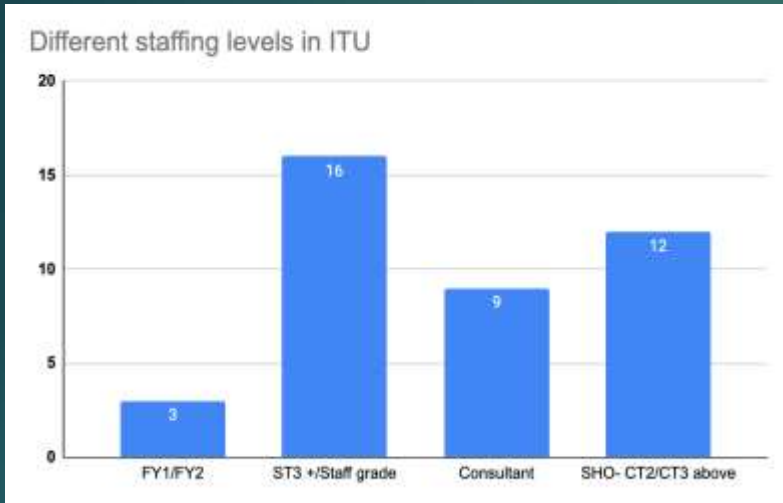
Current Practices

- ▶ Timing of initiation: on ICU admission vs indication-based
- ▶ Preferred agent: PPI > H2RA or sucralfate
- ▶ Route: IV vs enteral
- ▶ Preferred: enteral over IV if no contraindications
- ▶ PPI available- Dispersible lansoprazole 30 mg or IV omeprazole 40 mg

Awareness of Guidelines & Risks

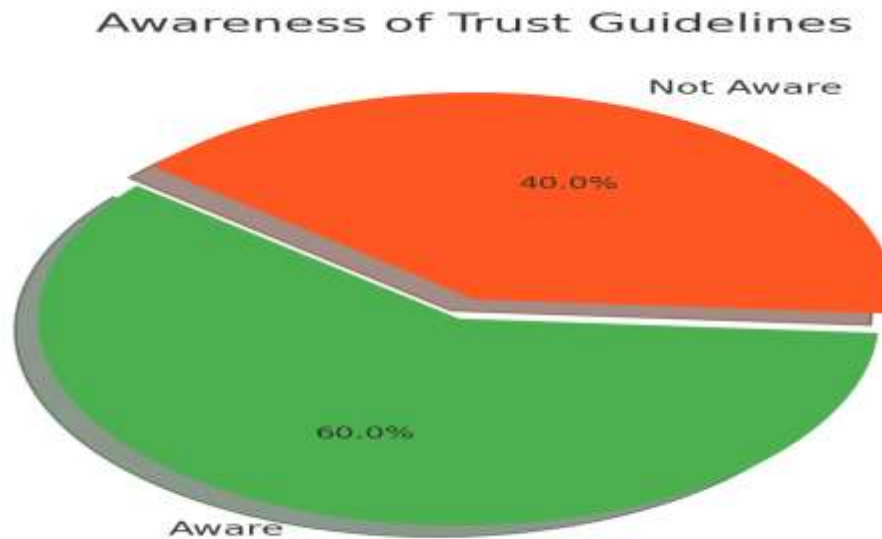
- ▶ % aware of SUP guidelines
- ▶ % correctly identifying PPI complications
- ▶ Misconception: all ICU patients need SUP

Results



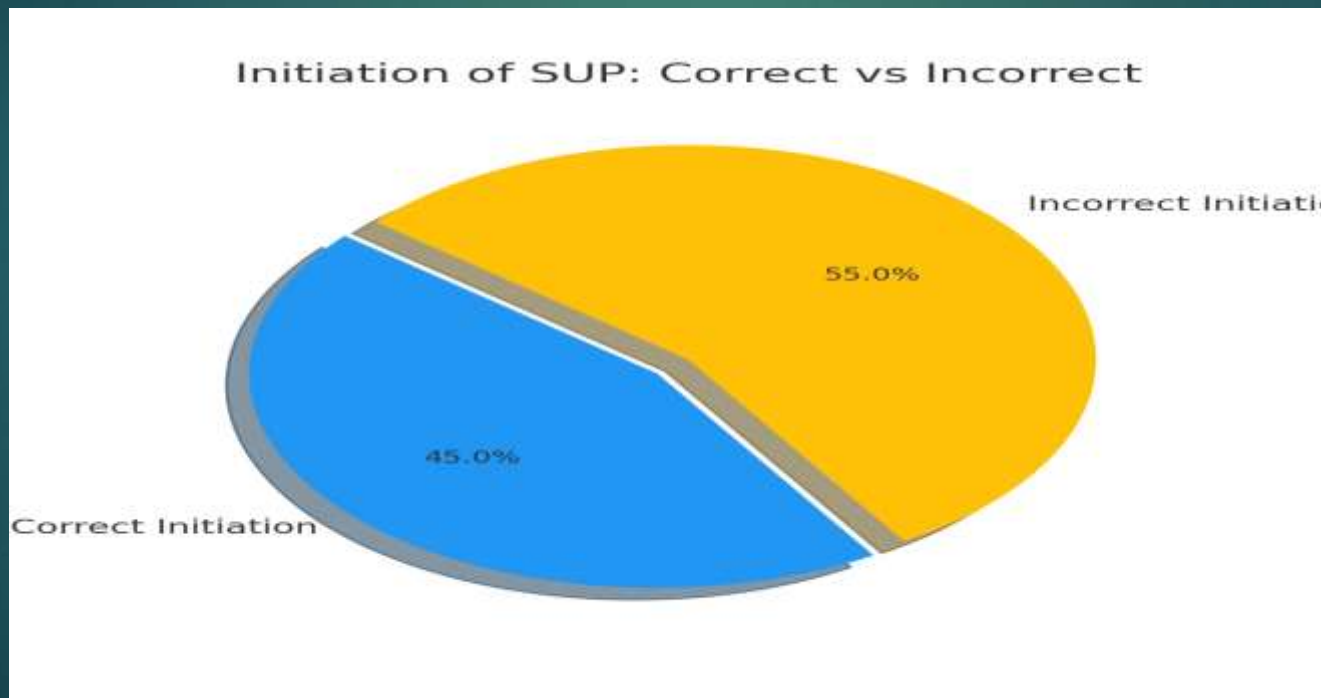
Results: Awareness of Guidelines

- ▶ 60% knew Trust guideline.



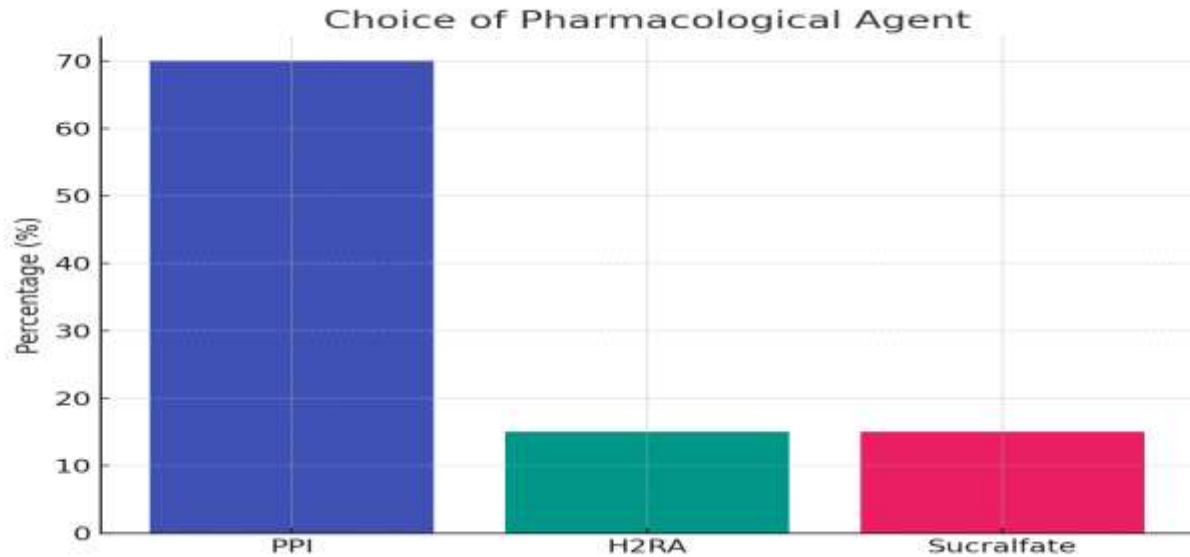
Results: Initiation of SUP

- ▶ 45% correct initiation (major risk factors).
- ▶ 30% initiated unnecessarily for minor risks.



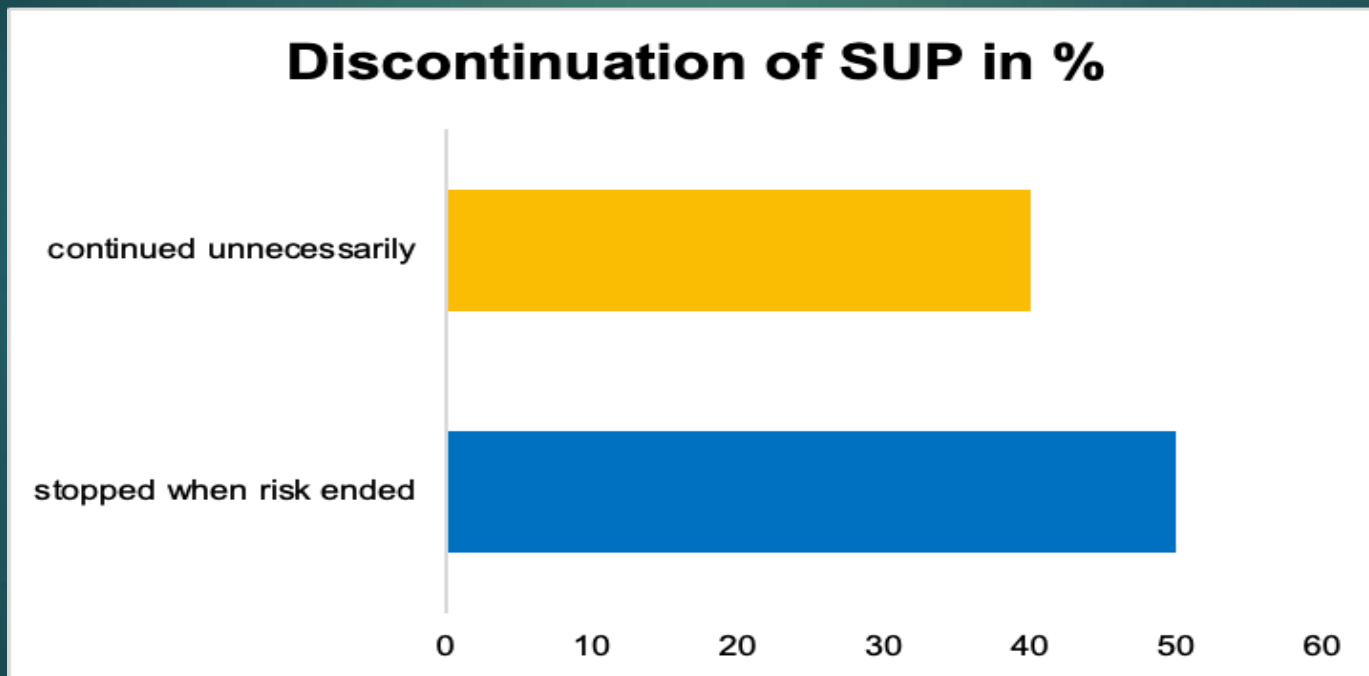
Results: Choice of Pharmacological Agent

- ▶ 70% used PPI.
- ▶ 15% H2RA, 15% sucralfate.



Results: Discontinuation of SUP

- ▶ 50% stopped when risk ended.
- ▶ 40% continued unnecessarily.



Strengths Identified



- ▶ Good knowledge of enteral feeding benefits.
- ▶ Correct SUP initiation times.
- ▶ Awareness of infection risks.

Areas for Improvement



- ▶ Knowledge gaps in risk-based initiation
- ▶ Rationalize pharmacological choices.
- ▶ Overuse of PPI without strong indication
- ▶ Lack of review protocols

Recommendations

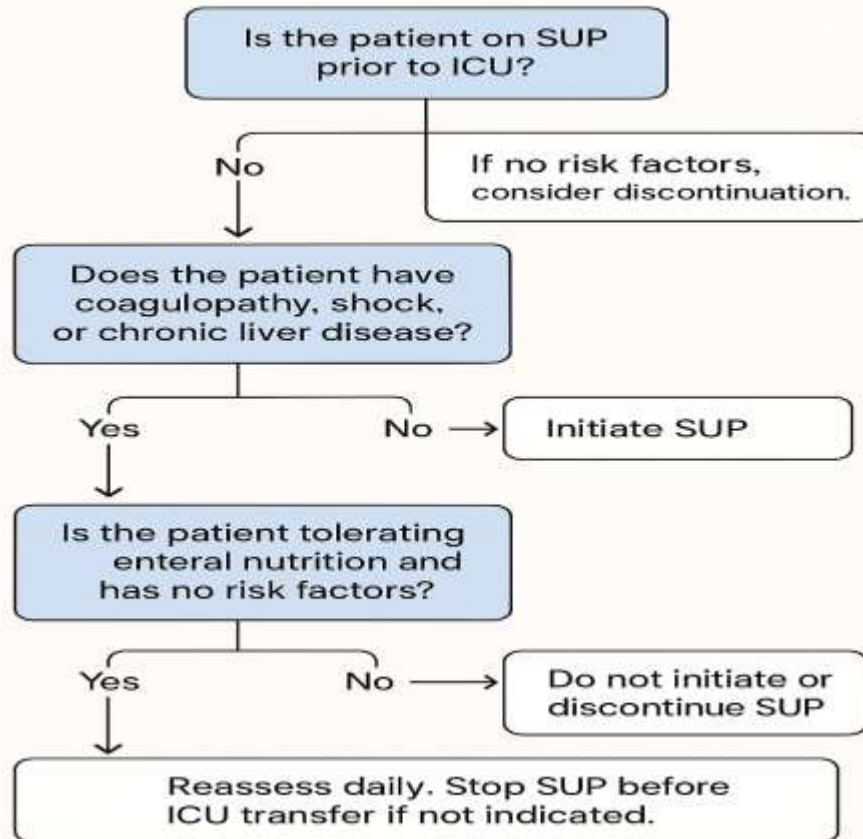
- ▶ Targeted education sessions
- ▶ Posters in staff areas.
- ▶ Daily ICU checklist updates.
- ▶ SOP for SUP in ICU
- ▶ Promote de-prescribing and stewardship
- ▶ Re-audit in 6 months.

Proposed SOP Flowchart

- ▶ Assess risk (coagulopathy shock, or chronic liver disease, MV >48h)
- ▶ Enteral nutrition within 48h?
- ▶ Review daily; discontinue if no longer indicated

Proposed SOP Flowchart

SUP Decision-Making



Conclusion

- ▶ Appropriate SUP practice = Better patient safety.
- ▶ Reduces infection and cost burden.
- ▶ Action plan underway.

References

- ▶ SCCM and ASHP 2024 Guideline for Prevention of Stress-Related Gastrointestinal Bleeding in Critically Ill Adults
- ▶ NICE CG141 & CG184
- ▶ MacLaren R et al. *Critical Care Medicine*. 2024; 52(8):e421–e430.