

BACKGROUND

- Stress ulcer prophylaxis (SUP) may be being inappropriately prescribed in non-critically ill patients
- Multiple significant risk factors are required for SUP to be appropriate in most patients, and non-critically ill patients may not frequently meet these criteria
- SUP-associated agents might be overprescribed by physicians for fear of worsened outcomes without prophylaxis
- This may be a potential area for medication stewardship

OBJECTIVES

- Analyze the inpatient use of stress ulcer prophylaxis agents to determine if non-critically ill patients who are receiving therapy are indicated to do so per clinical recommendations
- Ensure that these agents are not being continued after discharge without a listed indication
- Draw preliminary conclusions to indicate whether further research or interventions would be necessary

METHODS

Study Design

- Observational, retrospective cohort study
- Performed manual retrospective chart reviews on patients who met criteria to collect information such as demographics, reason for hospitalization, additional comorbidities, complications of stay, prescribed therapy for SUP, other inpatient medications, and the discharge medication list
- Information was compiled and individual risk factors were scored using spreadsheets to assess appropriateness of therapy

Data Source

- Electronic health record (EHR) data from non-ICU patients admitted to SSM Health – St. Mary’s Hospital in St. Louis, MO from October 1, 2019 to December 31, 2019

Study Sample

- Inclusion criteria:** Patients over the age of 18 who were initiated on new acid suppression therapy
- Exclusion criteria:** Patients over 90 years of age, prior use of acid suppression therapy, or known contraindications

METHODS

Primary Outcome Studied: Appropriateness of SUP Therapy

- Targeted medications included proton pump inhibitors, histamine-2 receptor antagonists, and sucralfate
- Each patient scored based on risk factors – Score of 2 required
- Major risk factor = 2 points
 - Mechanical ventilation, coagulopathy, GI bleed, traumatic burn, head trauma, stroke
- Minor risk factor = 1 point
 - Sepsis or septic shock, renal or hepatic failure, corticosteroid or NSAID use, recent major surgery, age >65

Additional Outcome Studied: Appropriate Discontinuation

- Determined by absence of targeted medication from discharge medication list without indication for therapy

Statistical Analysis:

- Descriptive statistics and simple analyses were used to describe all background information and study outcomes

RESULTS

Table 1. Compiled Data – 100 patients screened, 65 included

Patient Demographics		
Median Age (Avg.)	62 (58.6)	
Male = n (%)	23 (35.4)	
Outcomes Data		
	Appropriate	Inappropriate
n =	35 (53.8%)	30 (46.2%)
Major Risk Factors		
Mechanical Ventilation	0	-
Coagulopathy	0	-
Recent GI Bleed	7 (20.0%)	-
Traumatic Burn	0	-
Head Trauma	2 (5.7%)	-
Recent Stroke	1 (2.9%)	-
Minor Risk Factors		
Sepsis	1 (2.9%)	3 (10.0%)
Kidney Failure	3 (8.6%)	3 (10.0%)
Liver Failure	0	1 (3.3%)
Corticosteroid Use	5 (14.3%)	1 (3.3%)
NSAID Use	19 (54.3%)	4 (13.3%)
Major Surgery	23 (65.7%)	7 (23.3%)
Age >65	20 (57.1%)	4 (13.3%)
No Risk Factors	-	7 (23.3%)
Continued on D/C n = 4 (6.2%)	1 (2.9%)	3 (10.0%)

RESULTS

Chart 1. % Incidence of Minor Risk Factors

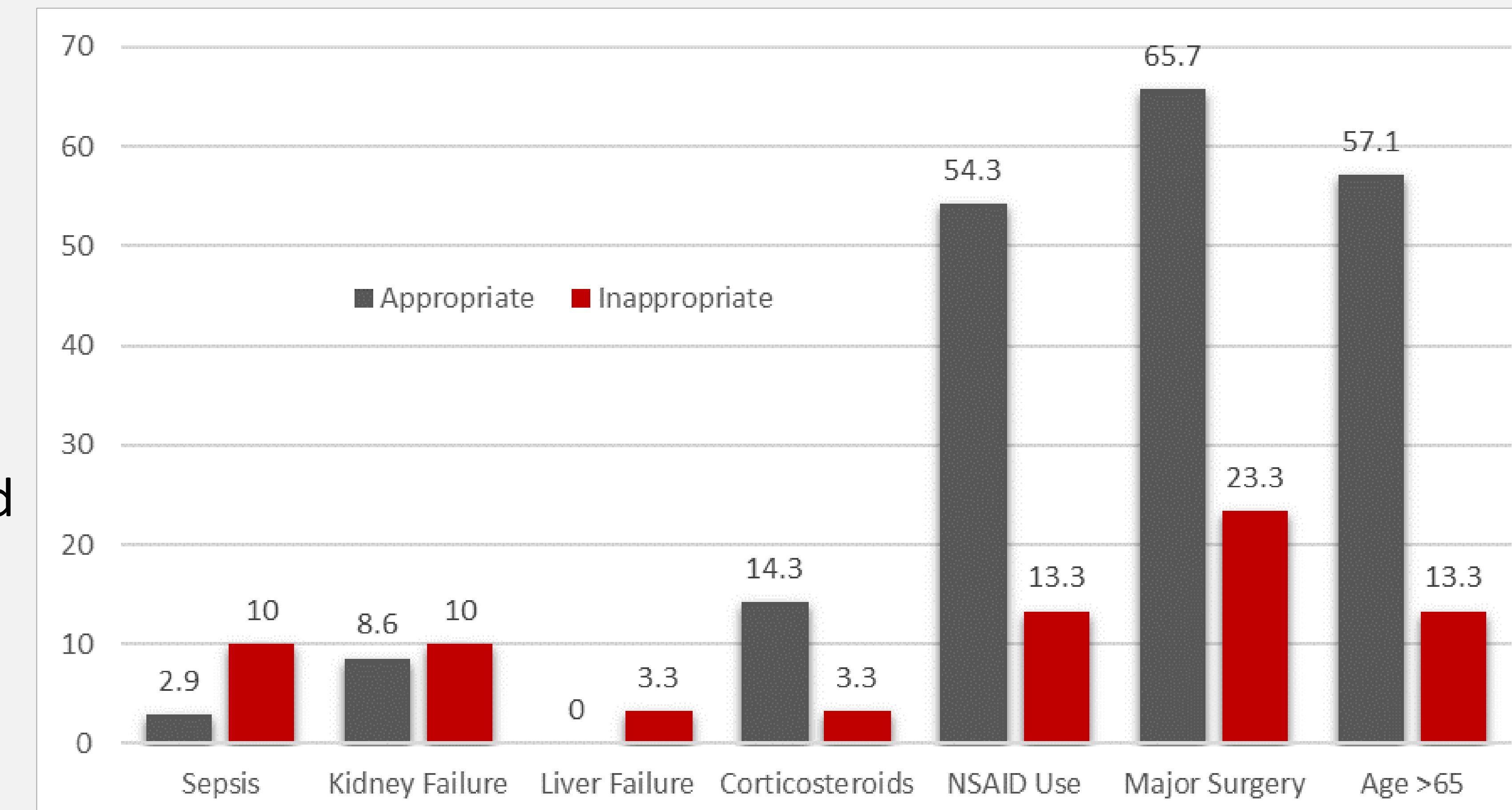


Table 2. Results Data by Exam Number

Further Analysis of Appropriate Use		
Had both major and minor risk factors	n = 9	25.7%
% of total cohort		13.8%
3 or more minor risk factors	n = 10	28.6%
% of total cohort		15.4%
4 or more minor risk factors	n = 2	5.7%
% of total cohort		3.1%

- A significant number of patients were deemed to be on appropriate therapy based on this study’s criteria
 - Much more than the 3.6% seen in a previous study
- Further analysis of potentially using more selective criteria to determine appropriate use suggested that the criteria used in this study may have been too easy to meet (Table 2)
- Lack of randomization in patient selection for the cohort likely contributed to a non-diverse study sample
- Some patients were discharged on targeted agents

CONCLUSION

Further assessment of prescribing practices related to the use of SUP in non-critically ill patients is needed as it appears that a significant number of patients are receiving therapy inappropriately. Criteria needed to meet appropriate indication for therapy should be more stringent to more accurately reflect recommended practices.