

A Retrospective Audit of Per Rectal Bleeding Admissions at Dunedin Hospital from 2013-2020

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Background

- Acute lower GI bleeding (LGIB) represents 3% of acute admissions
- Majority are self-limiting
 - Can we predict which patients these are?



Oakland Score

Derivation and validation of a novel risk score for safe discharge after acute lower gastrointestinal bleeding: a modelling study

Kathryn Oakland, Vipul Jairath*, Raman Uberoi, Richard Guy, Lakshmana Ayaru, Neil Mortensen, Mike F Murphy, Gary S Collins*

Lancet Gastroenterol Hepatol 2017; 2: 635-43

Oakland Score

Score component value	
Age (years)	
<40	0
40–69	1
>70	2
Sex	
Female	0
Male	1
Previous lower gastrointestinal bleeding admission	
No	0
Yes	1
DRE findings	
No blood	0
Blood	1

Total = OAKLAND SCORE (0-35)

Low Risk = 10 or less

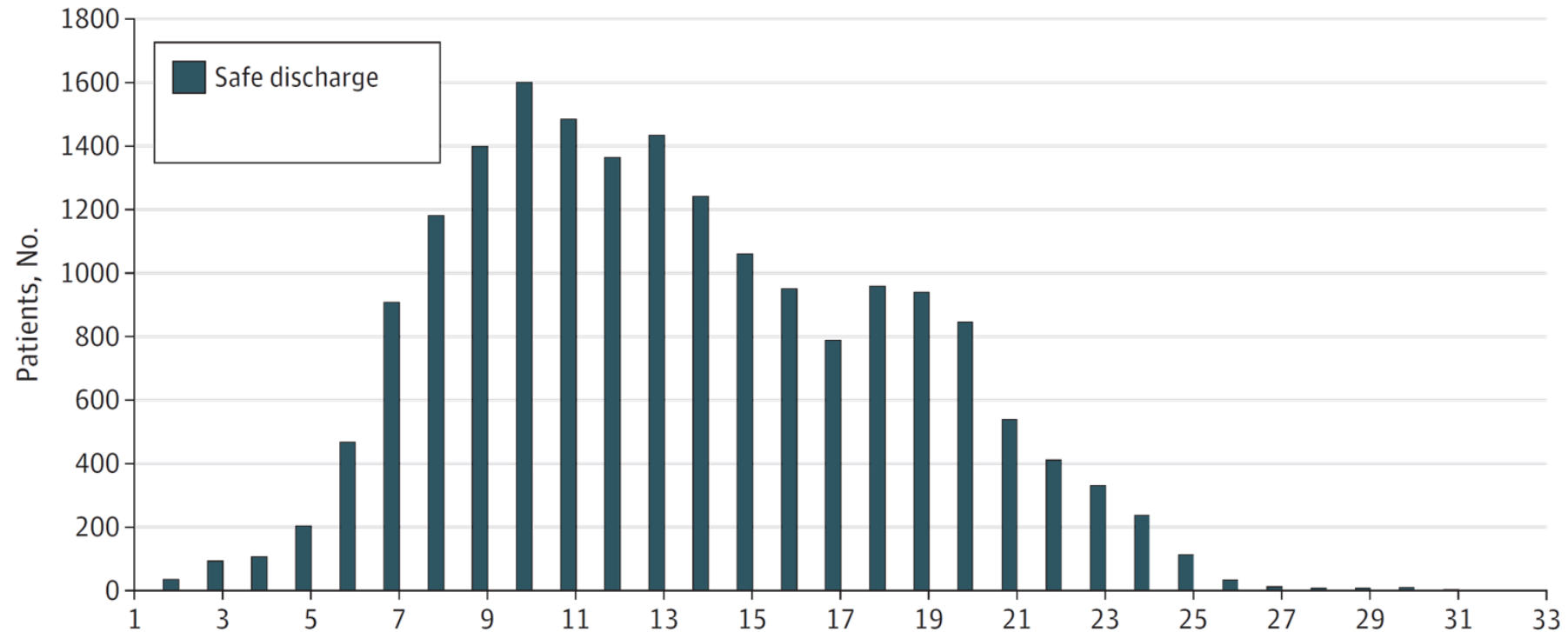
Heart rate (bpm)	
<70	0
70–89	1
90–109	2
>110	3
Systolic blood pressure (mm Hg)	
50–89	5
90–119	4
120–129	3
130–159	2
>160	0
Haemoglobin (g/dL)	
36–69	22
70–89	17
90–109	13
110–129	8
130–159	4
>160	0

Oakland Score External Validation

External Validation of the Oakland Score to Assess Safe Hospital Discharge Among Adult Patients With Acute Lower Gastrointestinal Bleeding in the US

Kathryn Oakland, MD; Sandeepkumar Kothiwale, PhD; Tyler Forehand; Edmund Jackson, PhD; Cliff Bucknall, MD; Michael S. L. Sey, MD, MPH; Siddharth Singh, MD, MS; Vipul Jairath, MD, PhD; Jonathan Perlin, MD

JAMA Network Open. 2020;3(7):e209630

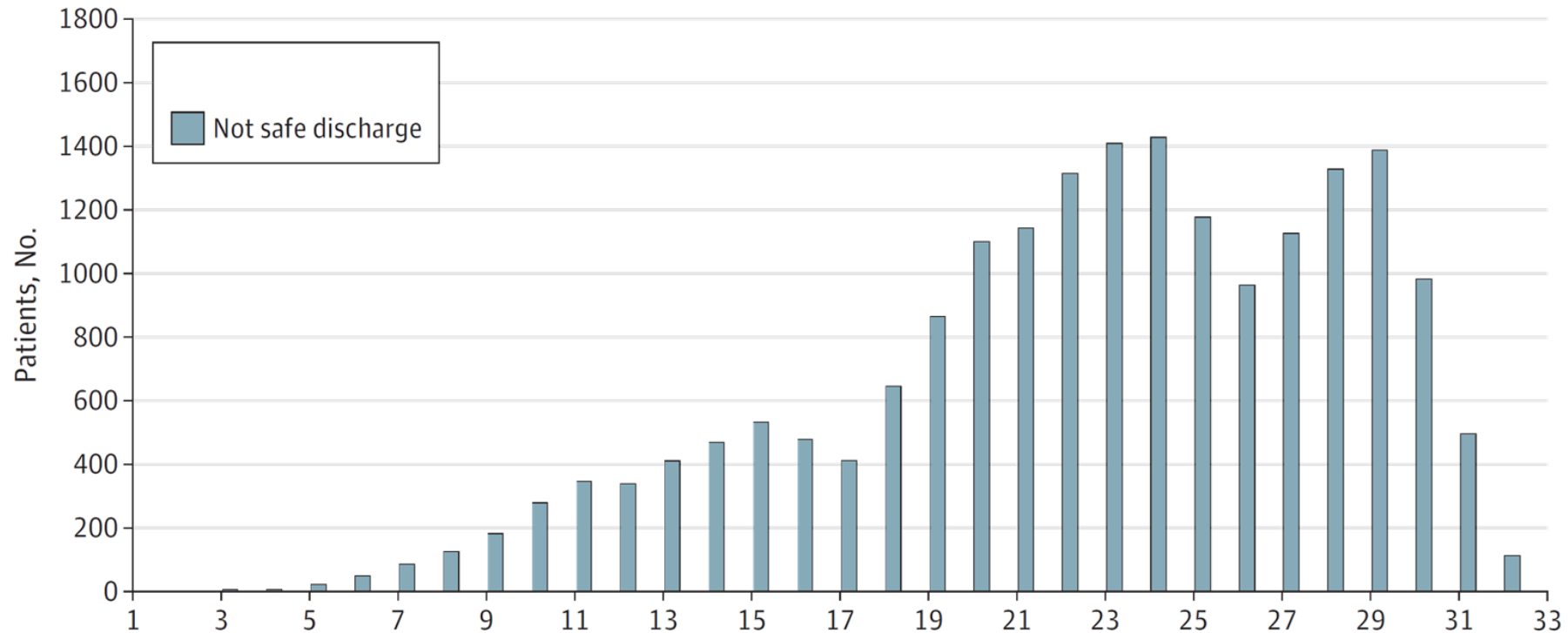


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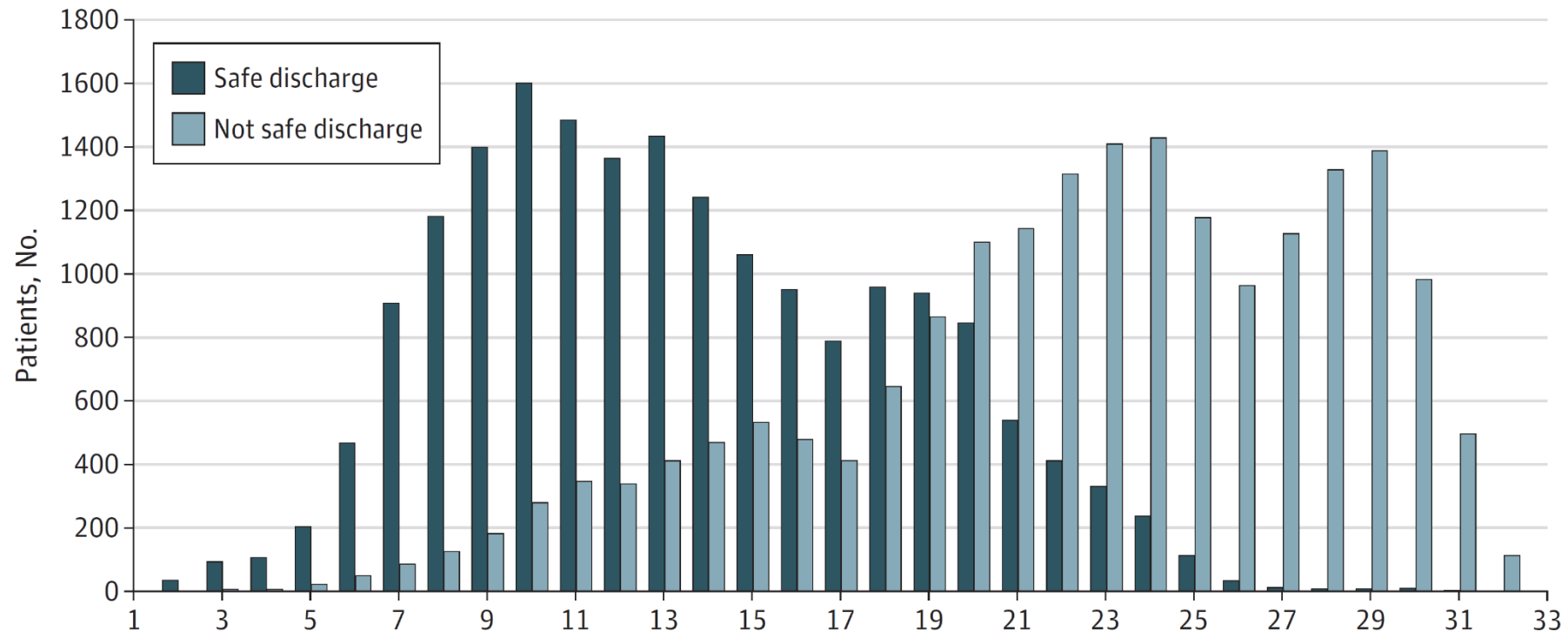


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Aims

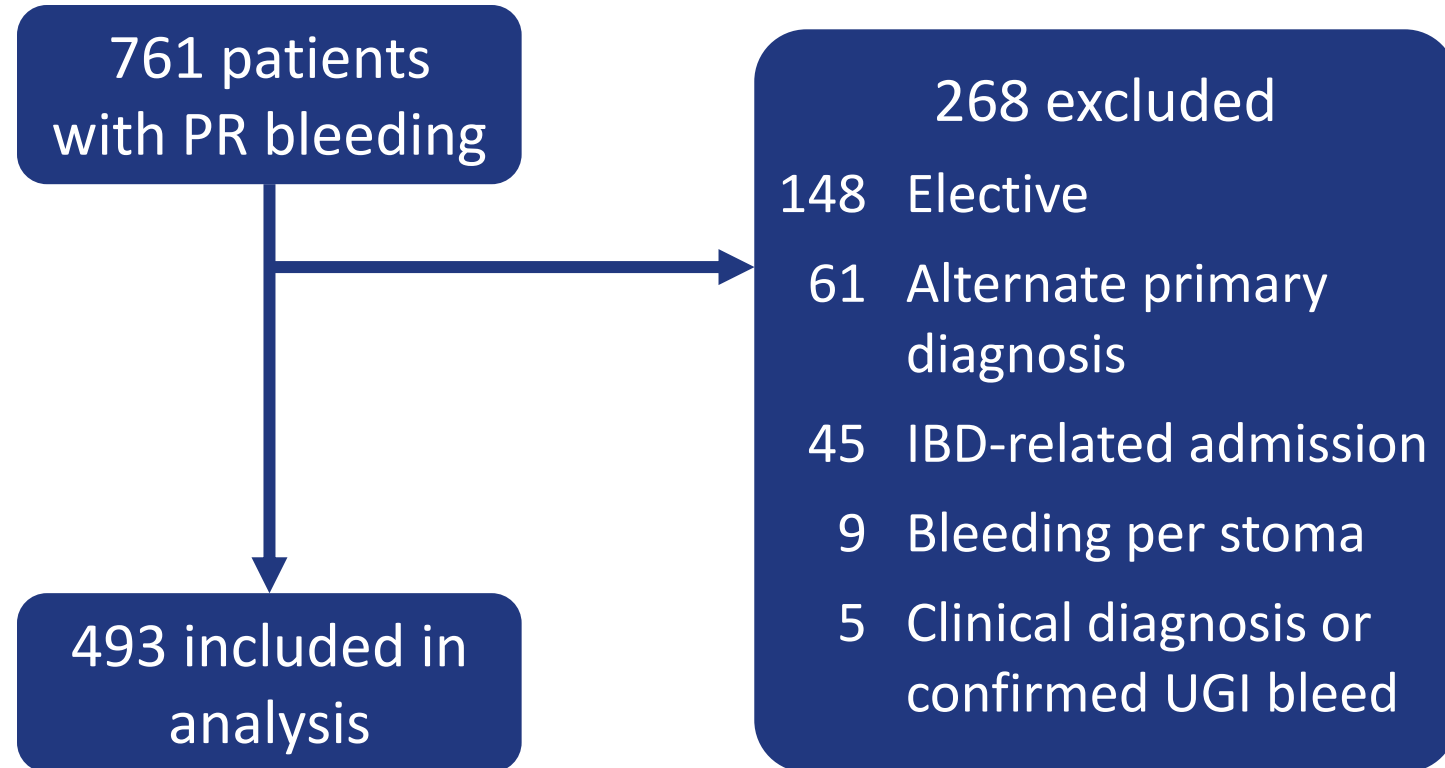
1. Determine the epidemiology and aetiology of acute LGIB admissions
2. Estimate how many admissions could have been avoided using the Oakland score

Methods

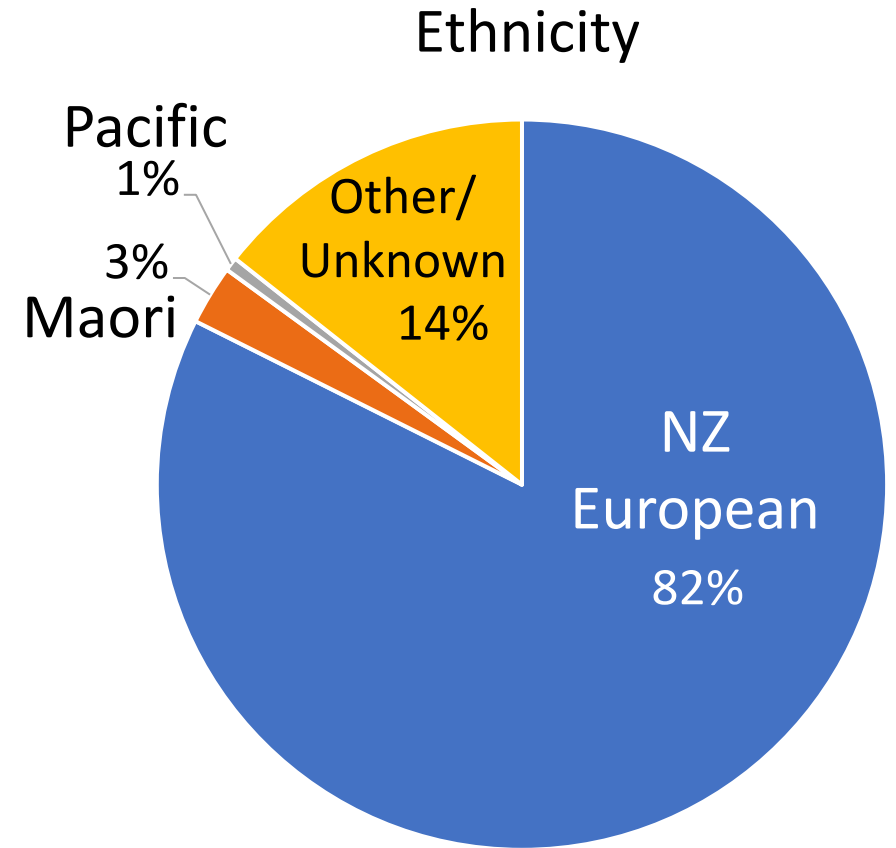
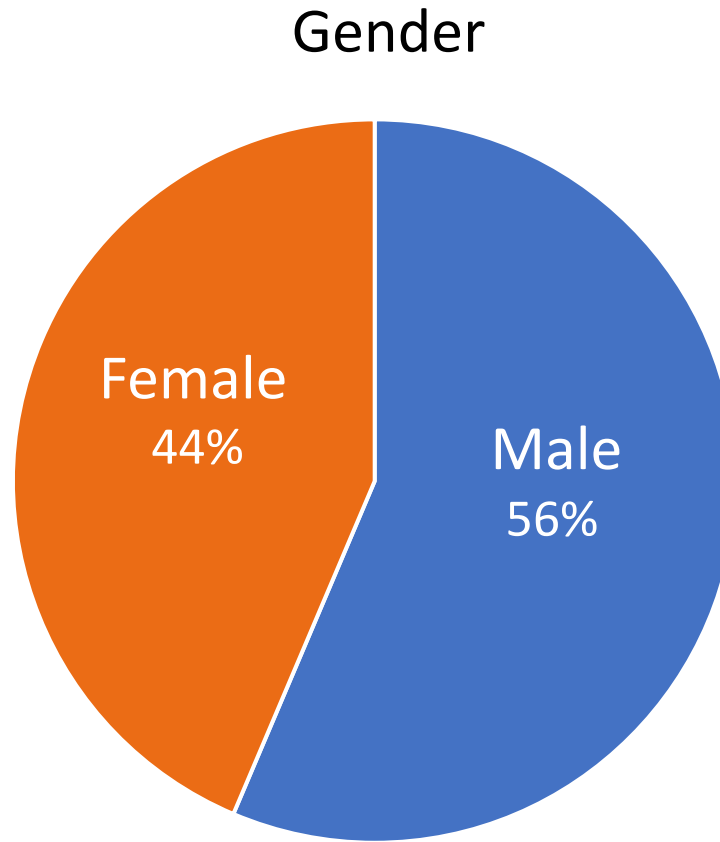
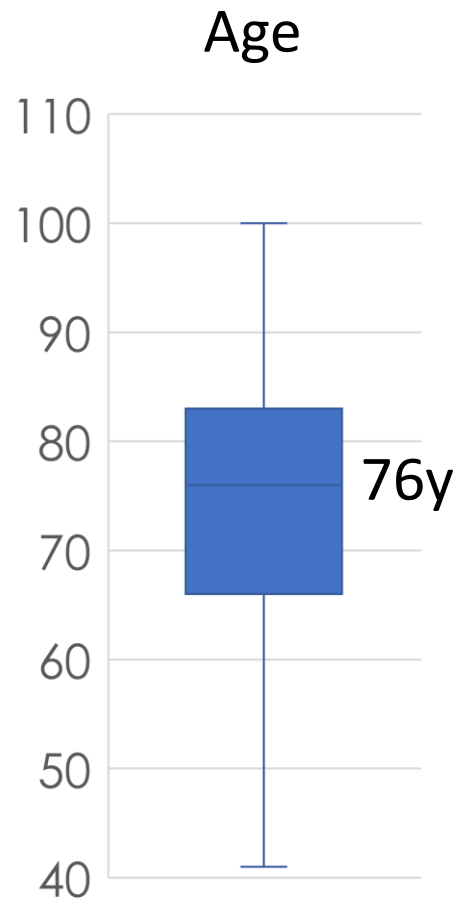
Design	Inclusion Criteria	Exclusion Criteria
Retrospective cohort (Prospective database)	PR bleeding	Elective admission
	Adults	Alternate primary diagnosis
	Dunedin Hospital	IBD-related admission
	2013 – 2020	Bleeding per stoma
		Clinical diagnosis or confirmed UGI bleed



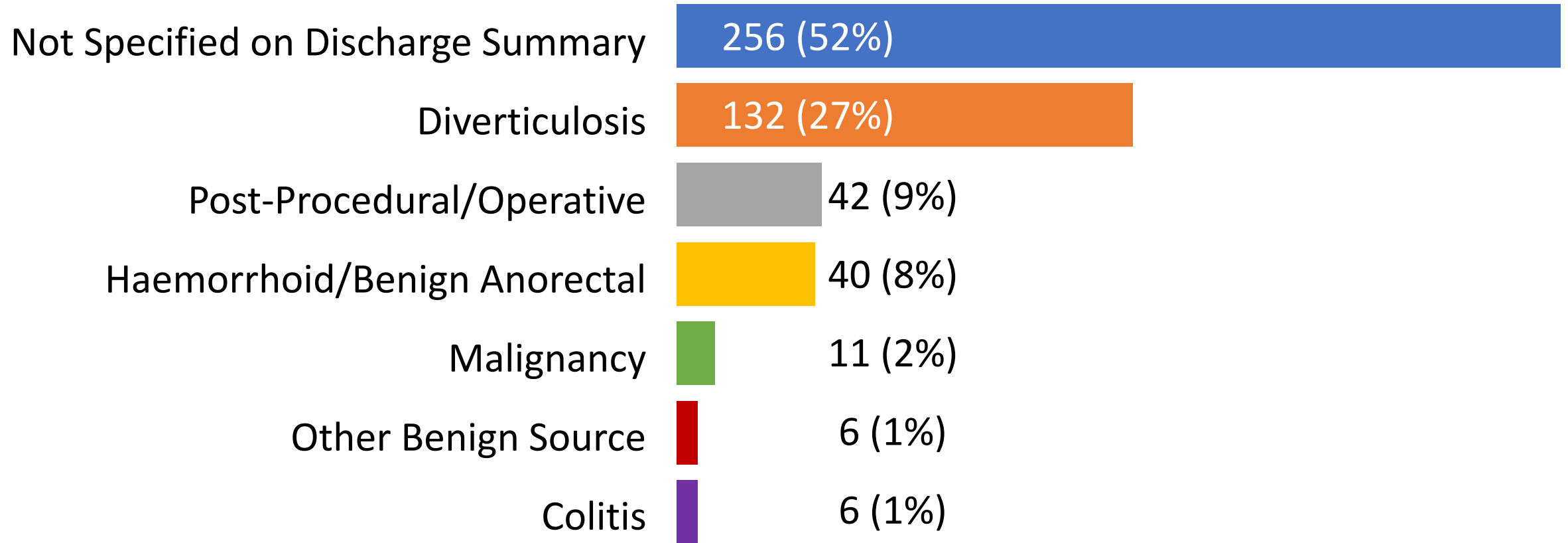
Results



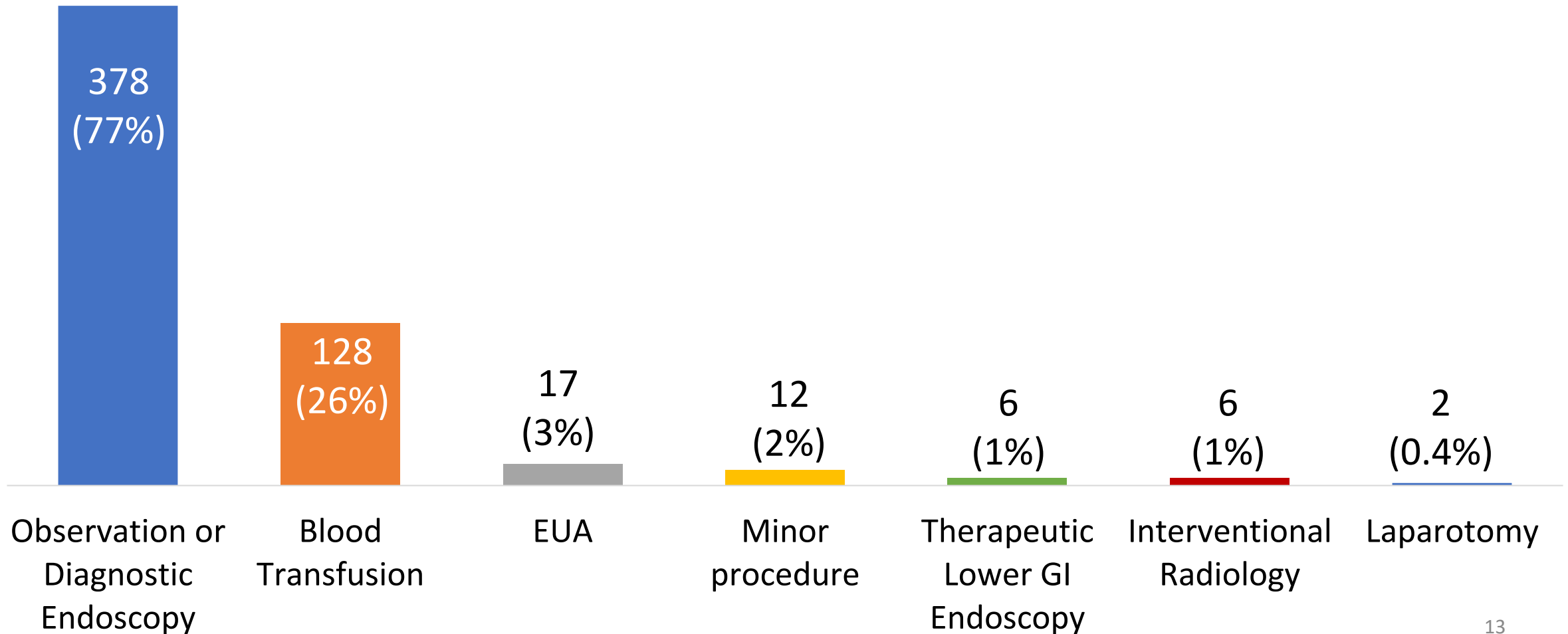
Demographics



Cause of Bleeding



Management



Outcomes



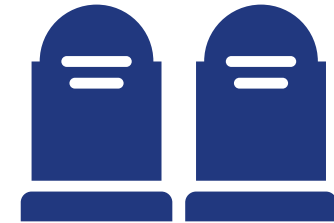
2 days

Median
Length of Stay



6%

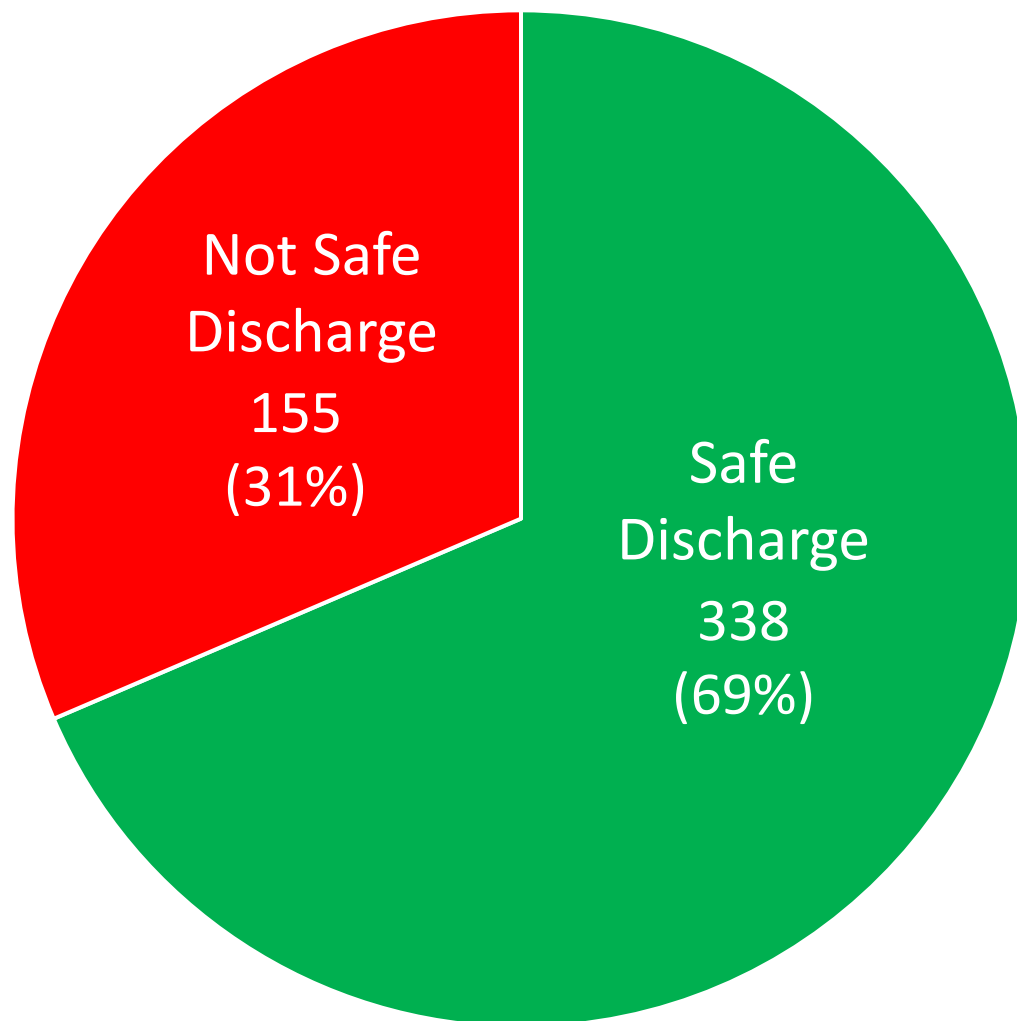
28-day
Readmission



2

Deaths

Oakland Classification – Dunedin



Definition of Safe Discharge

Absence of:

Blood transfusion

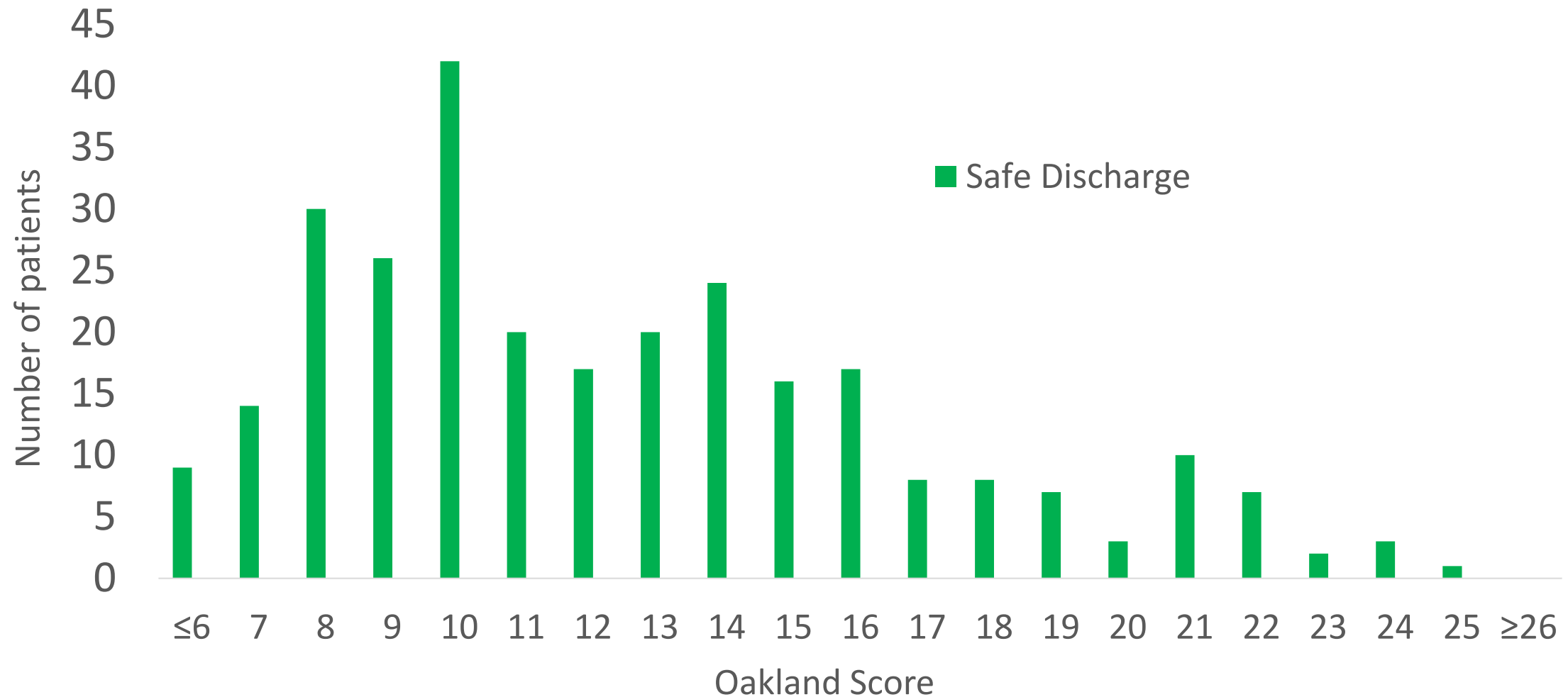
Rebleeding

Haemostatic Intervention

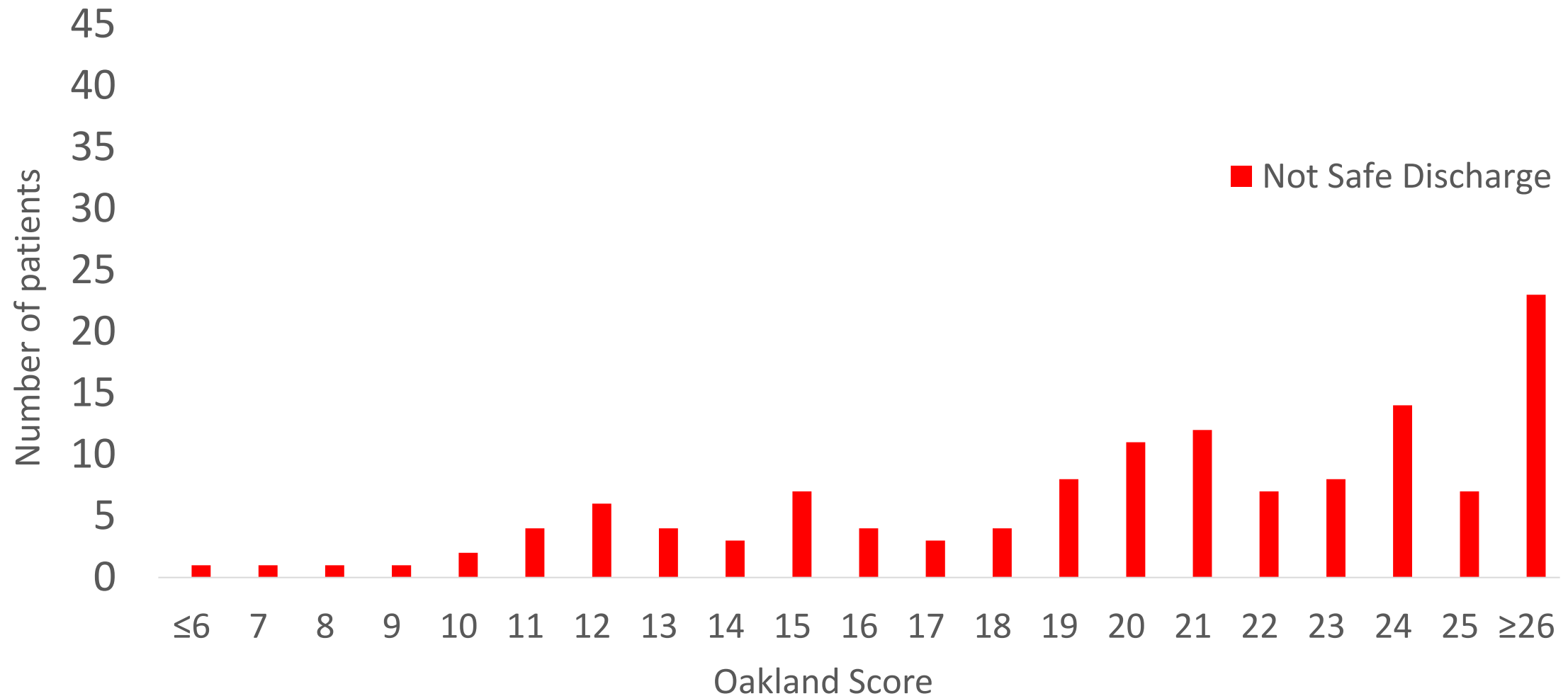
Readmission within 28 days

Inpatient death

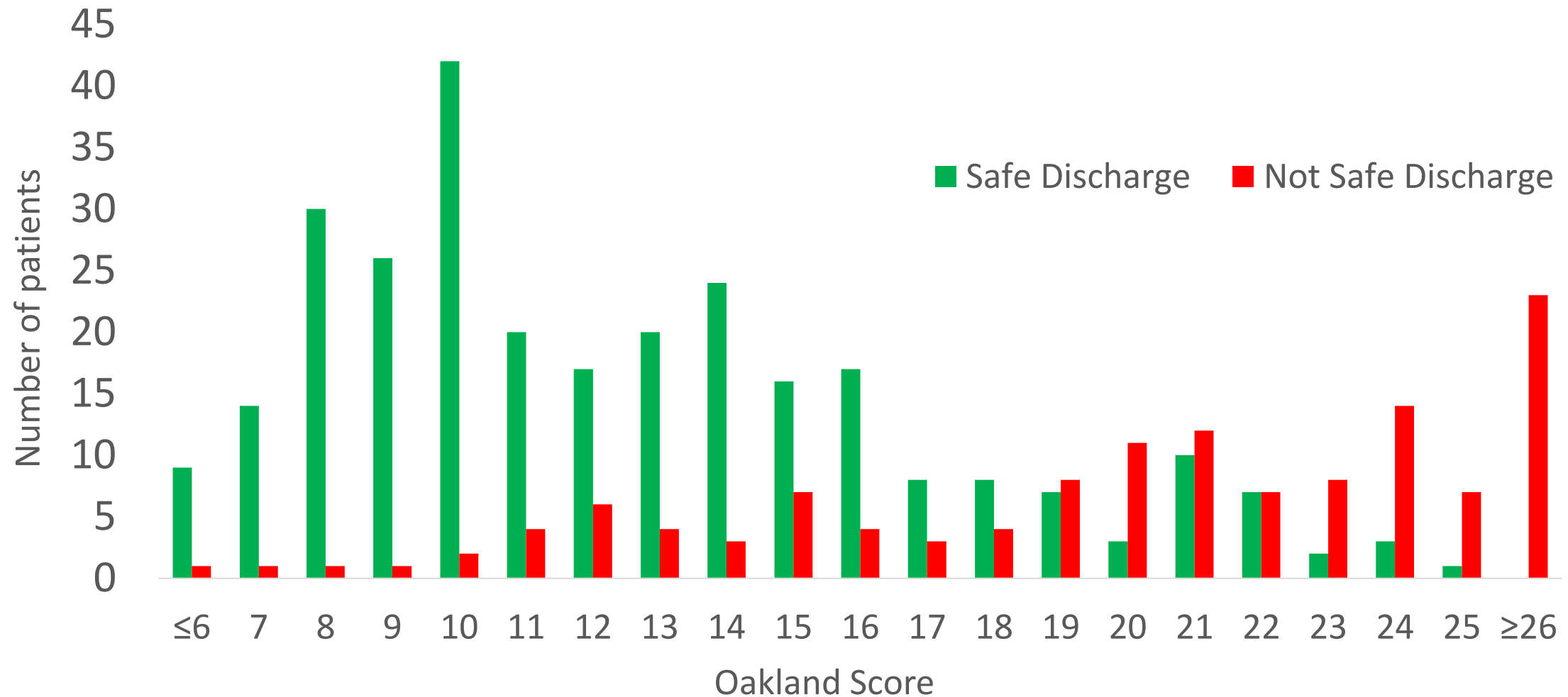
Oakland Score Distribution – Dunedin



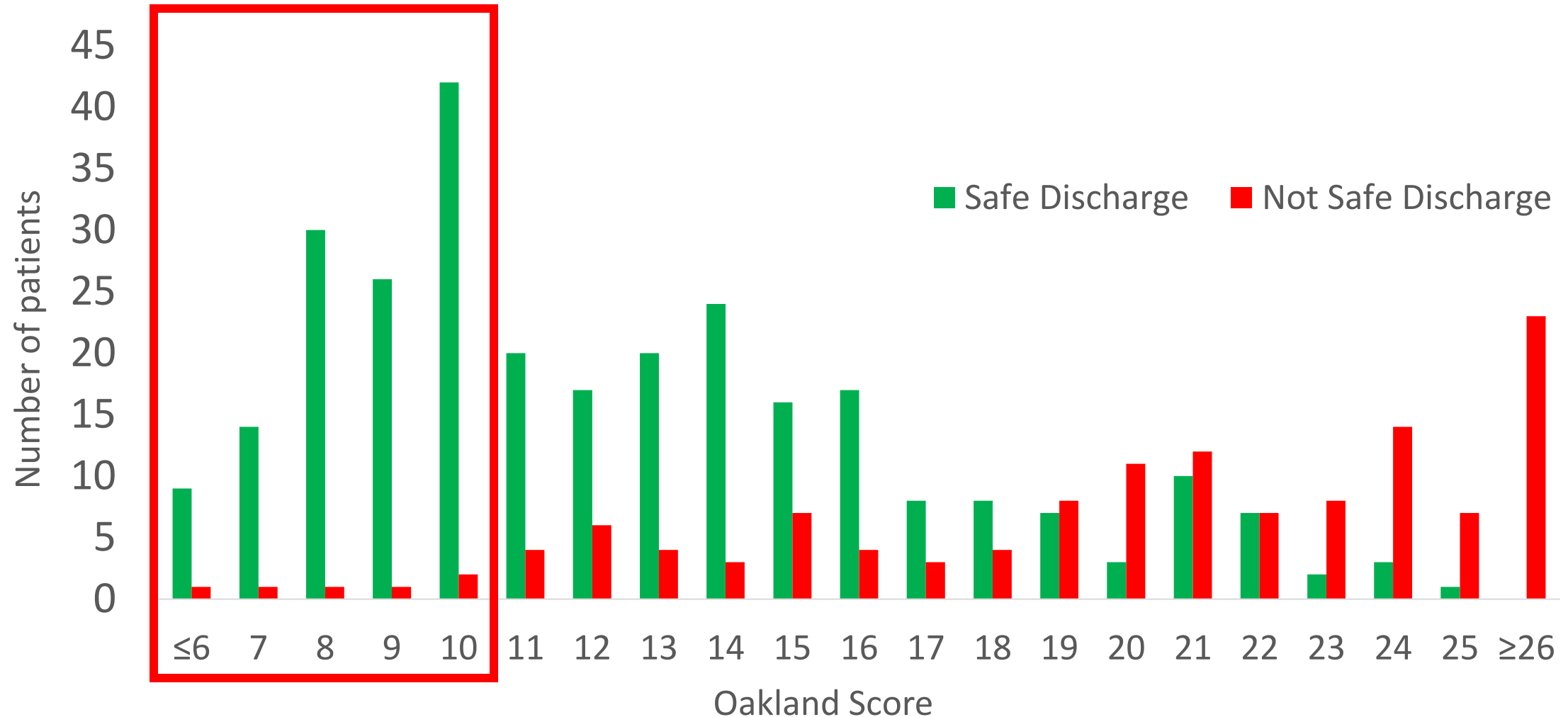
Oakland Score Distribution – Dunedin



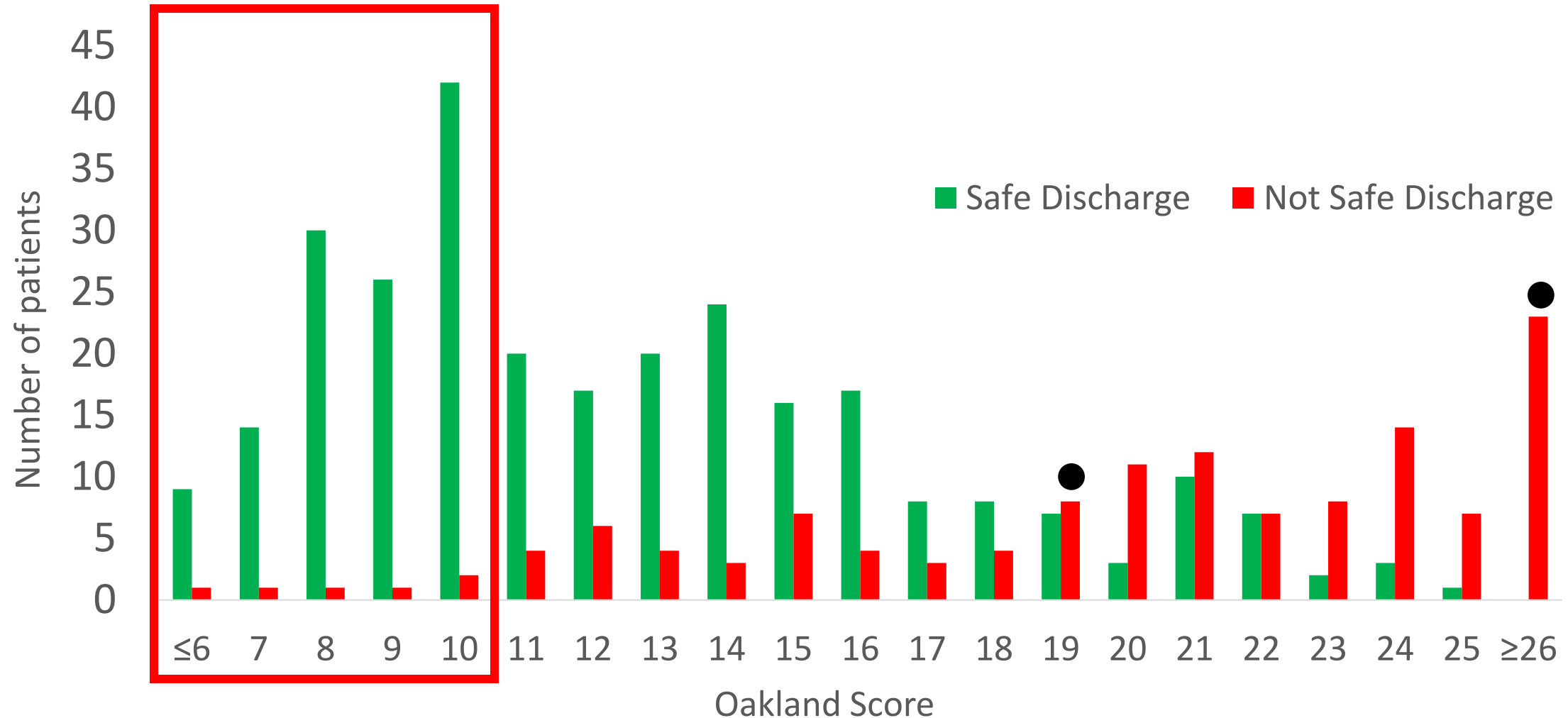
Oakland Score Distribution – Dunedin



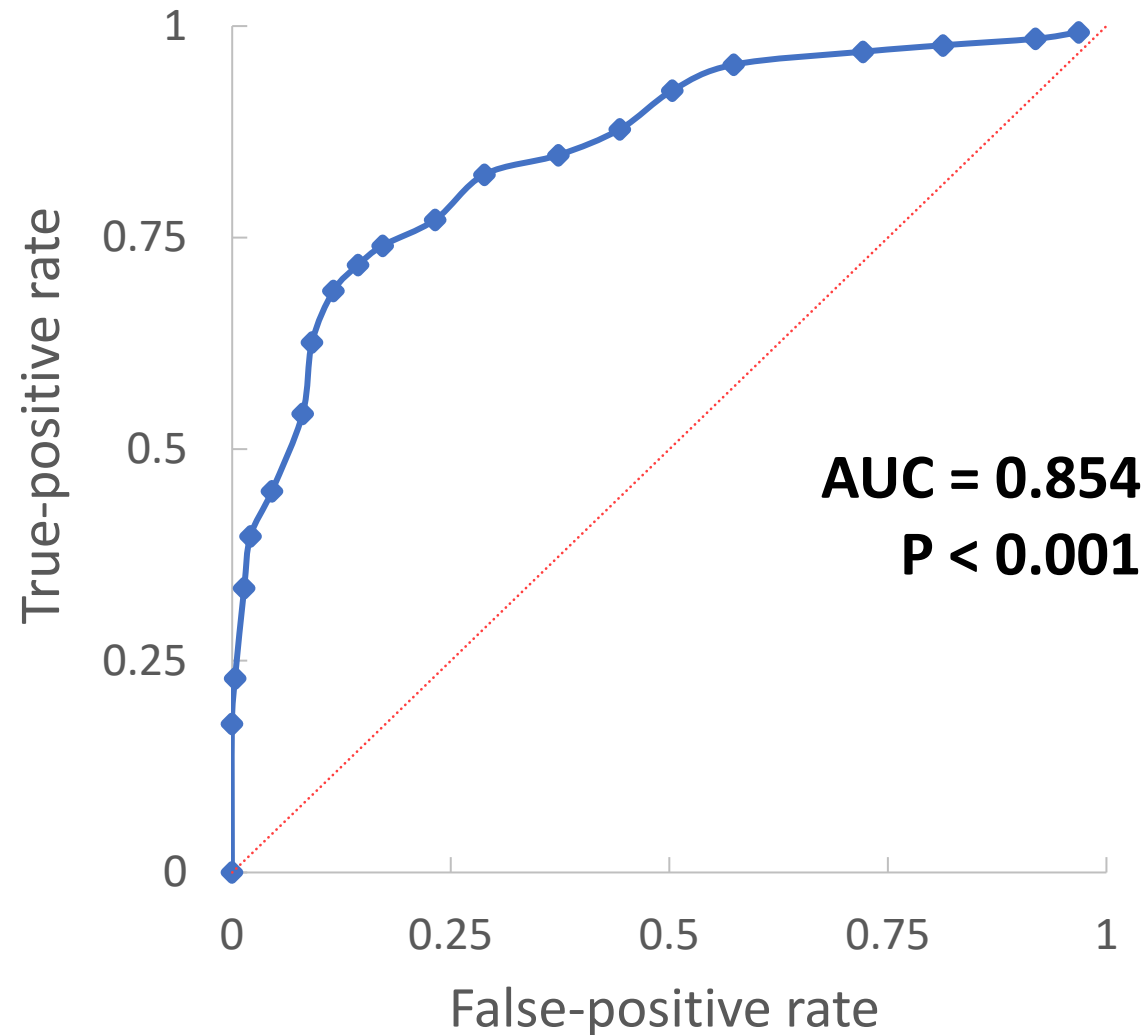
Oakland Score Distribution – Dunedin



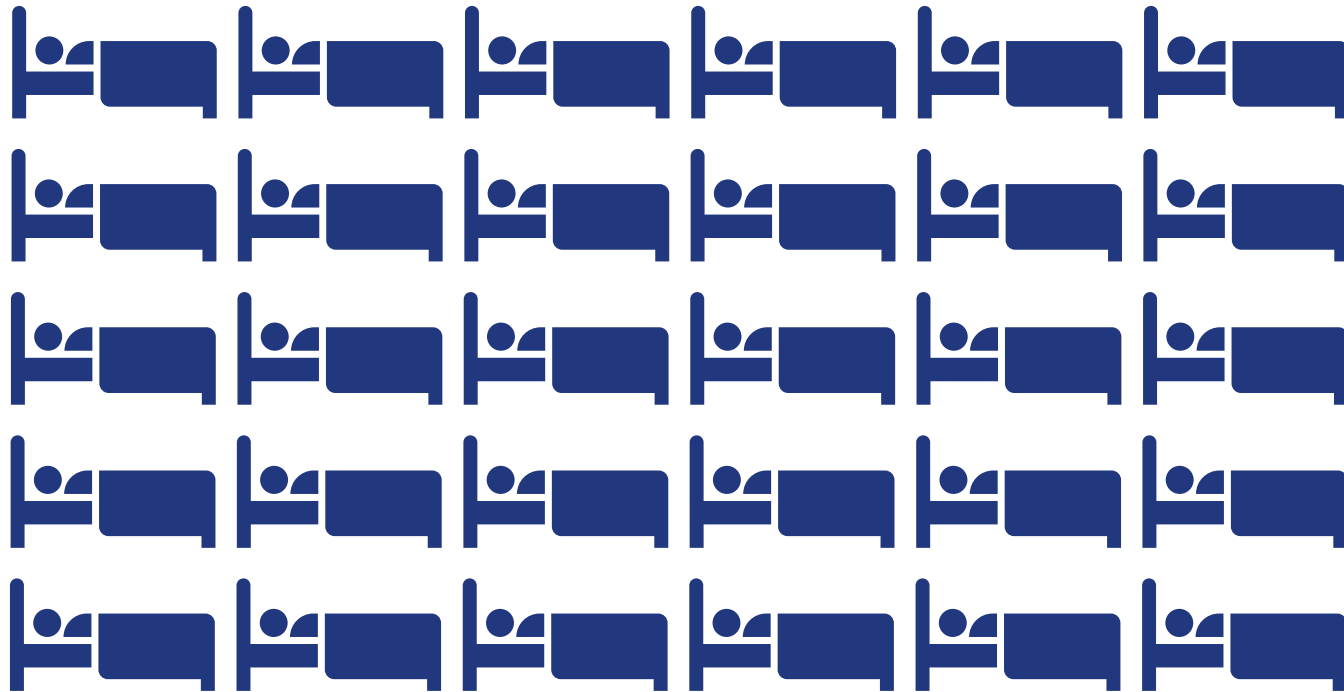
Oakland Score Distribution – Dunedin



Correlation between Oakland Score & Safe Discharge – Dunedin



Potential Benefit of Implementing Oakland Score in Dunedin



**30 bed-days
saved per year**

Conclusions

- Majority of patients admitted with acute LGIB are managed conservatively
- Most common treatment is blood transfusion
- The Oakland score appears to perform well in our cohort
- Use of the Oakland score with a threshold of 10 or less could be used to safely reduce hospital admissions

References

1. Oakland, K., et al., Derivation and validation of a novel risk score for safe discharge after acute lower gastrointestinal bleeding: a modelling study. *Lancet Gastroenterol Hepatol*, 2017. **2**(9): p. 635-643.
2. Oakland, K., et al., Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology. *Gut*, 2019. **68**(5): p. 776-789.
3. Oakland, K., et al., External Validation of the Oakland Score to Assess Safe Hospital Discharge Among Adult Patients With Acute Lower Gastrointestinal Bleeding in the US. *JAMA Netw Open*, 2020. **3**(7): p. e209630.
4. Almaghrabi, M., et al., Comparison of Risk Scores for Lower Gastrointestinal Bleeding: A Systematic Review and Meta-analysis. *JAMA Netw Open*, 2022. **5**(5): p. e2214253.

Acknowledgements

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