

Implementing and Sustaining the Chest Pain Pathway for Patients Presenting with Chest Pain in the Emergency Department

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Implementing and Sustaining the Chest Pain Pathway for Patients Presenting with Chest Pain in the Emergency Department

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Background

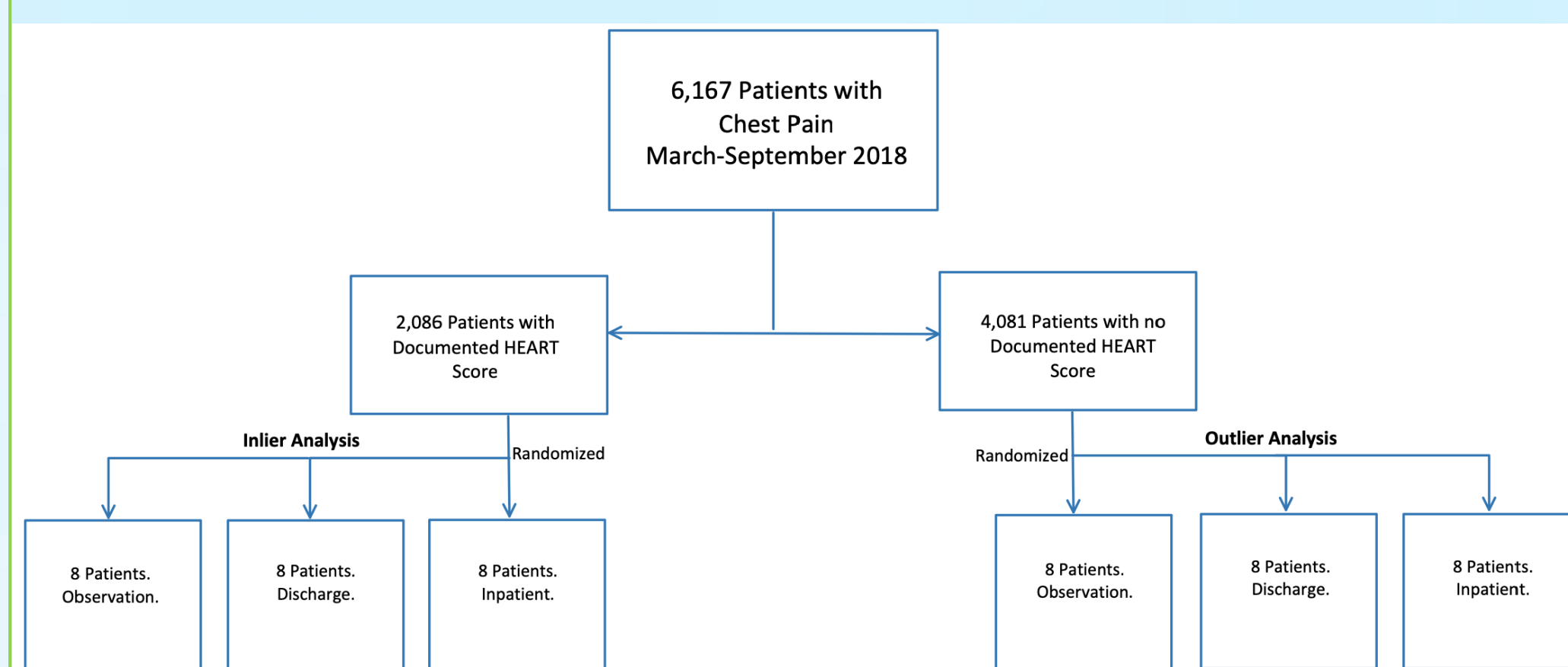
Chest pain accounts for ~10 million ED visits annually. Distinguishing non-ST-elevation myocardial infarction (NSTEMI) can be difficult at times.¹ The HEART score is a validated tool for risk stratifying chest pain patients.² The HEART score, in combination with a pathway, can be implemented at LVHN to increase ED discharges of low risk chest pain patients.

Problem Statement

The LVHN chest pain pathway is not being utilized well and needs better implementation to increase the rate of low risk chest pain patient discharge.

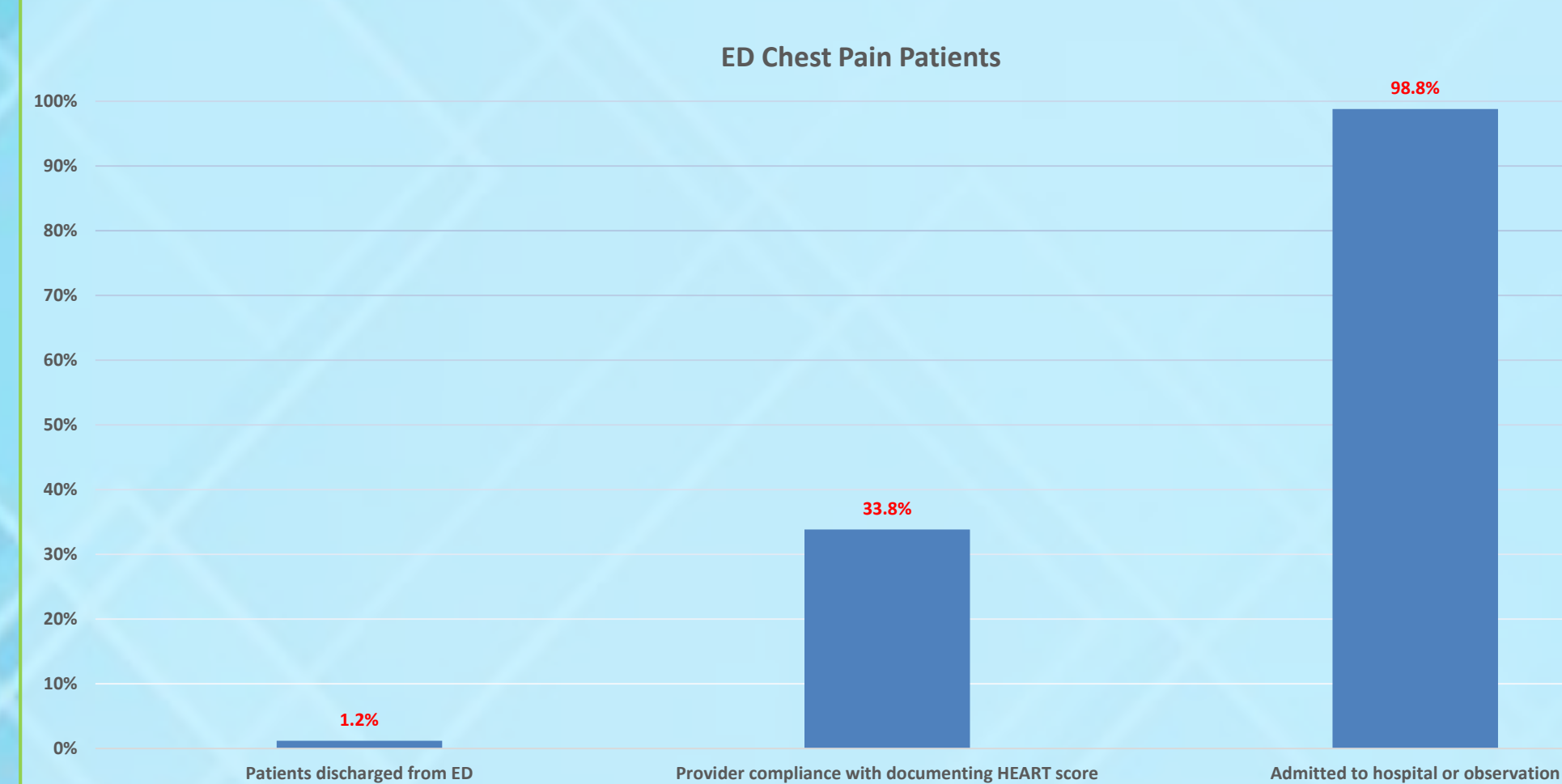
Methods

- LVHN Intranet Analytics Portal
- Retrospective Analysis of ED chest pain patients
 - March – September 2018
 - January 2019
- Survey – 10 questions
 - Addressed 3 main hypotheses
 - Lack of comfort
 - Lack of ease
 - Lack of knowledge
- Clinical Pathway Group Meeting



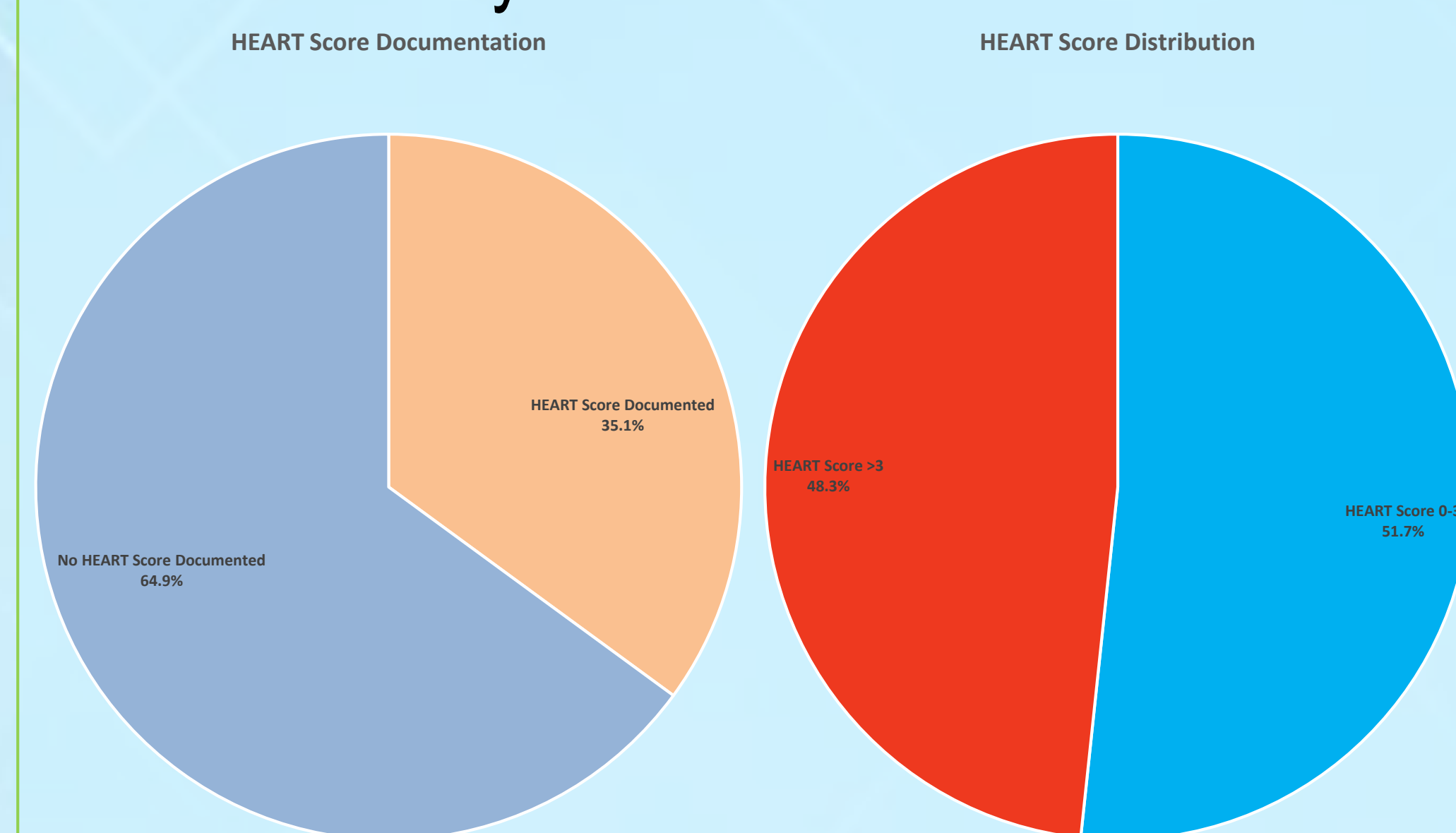
Results

- N=6,167 patients
 - March – September 2018



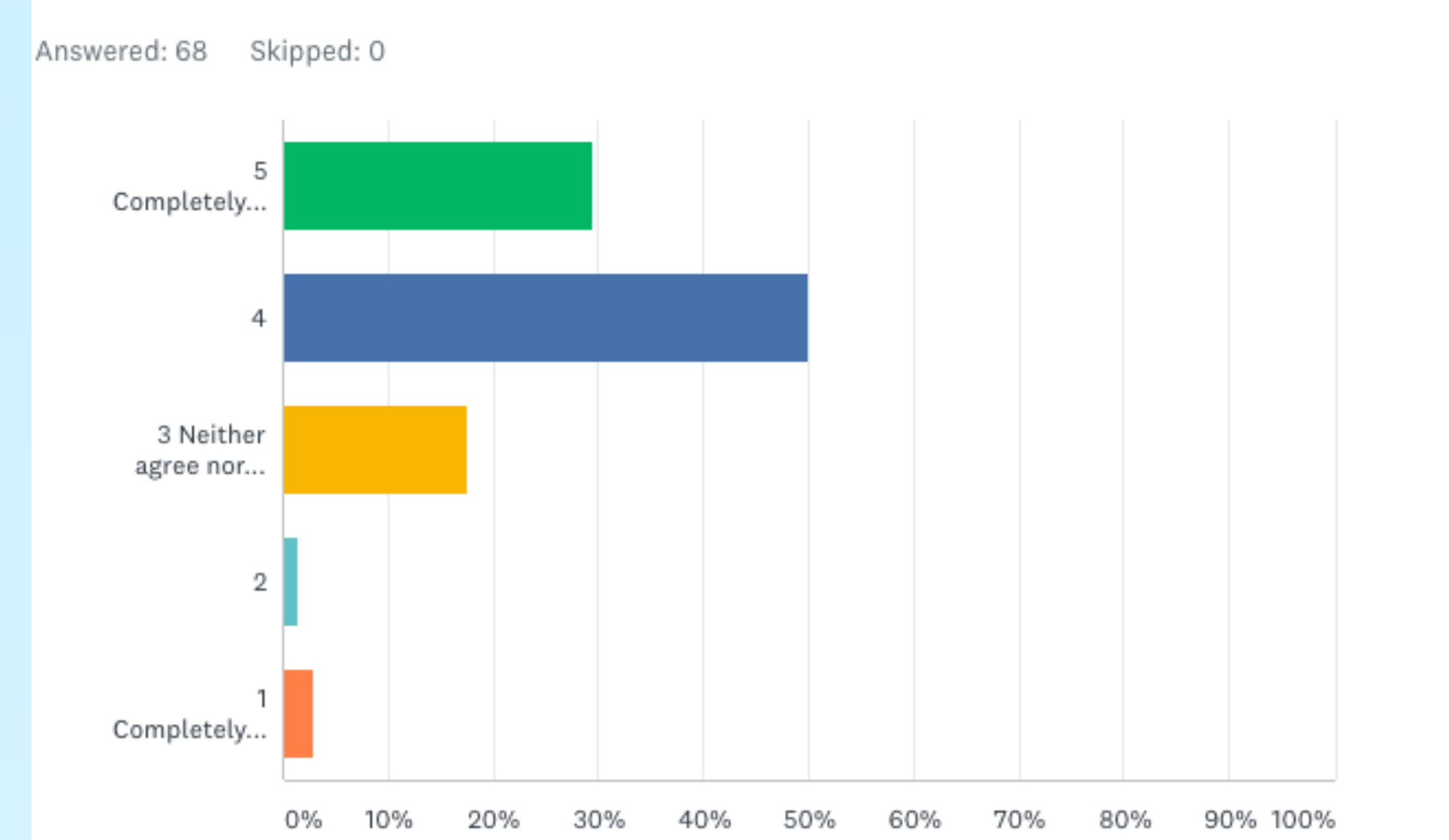
- N=48 patients. 8 patients from each cohort (refer to methods)
 - Correct Patient Disposition per HEART score and pathway – 75%.
 - For patients without “Documented HEART Score” – 16.7% of encounters had HEART score written in the note by provider.

- N= 1,275 patients.
 - January 2019



- Survey Results

When caring for a chest pain patient, I follow the pathway after calculating the HEART score.



ANSWER CHOICES	RESPONSES
5 Completely agree	29.41% 20
4	50.00% 34
3 Neither agree nor disagree	17.65% 12
2	1.47% 1
1 Completely disagree	2.94% 2

Discussion

- Provider documentation of HEART Score is low.
- Pathway utilized well in terms of correct disposition.
- Survey - concerns with comfort level.
- Next step:
 - Countermeasure: Education + Process Change
- SELECT:
 - LEAN, PDCA, Change management
 - Standard Work Forms
- Limitations:
 - Creation of new dashboard
 - QI study – no large countermeasures in effect yet

Conclusion

- Current LVHN chest pain pathway is being used to guide management of possible NSTEMI patients in the emergency department, but has room for improvement.
- Areas for improvement:
 - Increased documentation of HEART score
 - Increased utilization of pathway
 - Increased comfort with HEART score

REFERENCES

1. Yiadom MY, Baugh CW, McWade CM, et al. Performance of Emergency Department Screening Criteria for an Early ECG to Identify ST-Segment Elevation Myocardial Infarction. *J Am Heart Assoc.* 2017;6(3):e003528. Published 2017 Feb 23.
2. Backus BE, Six AJ, Kelder JC, Bosschaert MA, Mast EG, Mosterd A, Veldkamp RF, Wardeh AJ, Tio R, Braam R, et al. A prospective validation of the HEART score for chest pain patients at the emergency department. *Int J Cardiol.* 2013 Oct 3;168(3):2153-8.

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