

## Background

An evaluation of the current practice revealed improvements are needed. The following issues were discovered:

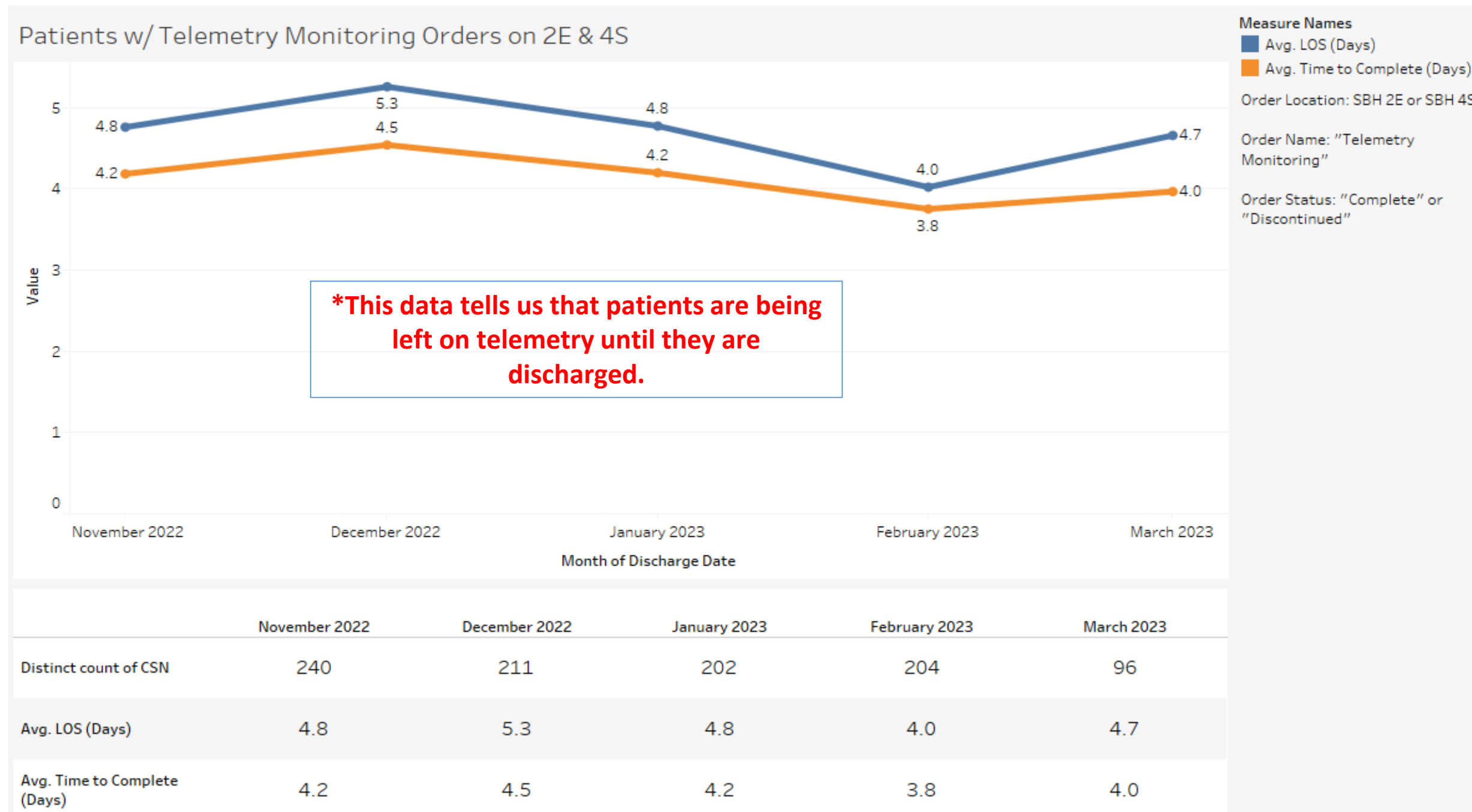
1. Telemetry orders not aligned to American Heart Association or American College of Cardiologists (AHA/ACC) criteria.
2. Fifty percent (50.89%, n= 338) of telemetry orders modified to not include an end date, allowing the order to stay active until patient is discharged.
3. Telemetry orders were not being re-evaluated for medical necessity.
4. Nurses continue telemetry monitoring despite expiration of the order.

## Aim of the Project

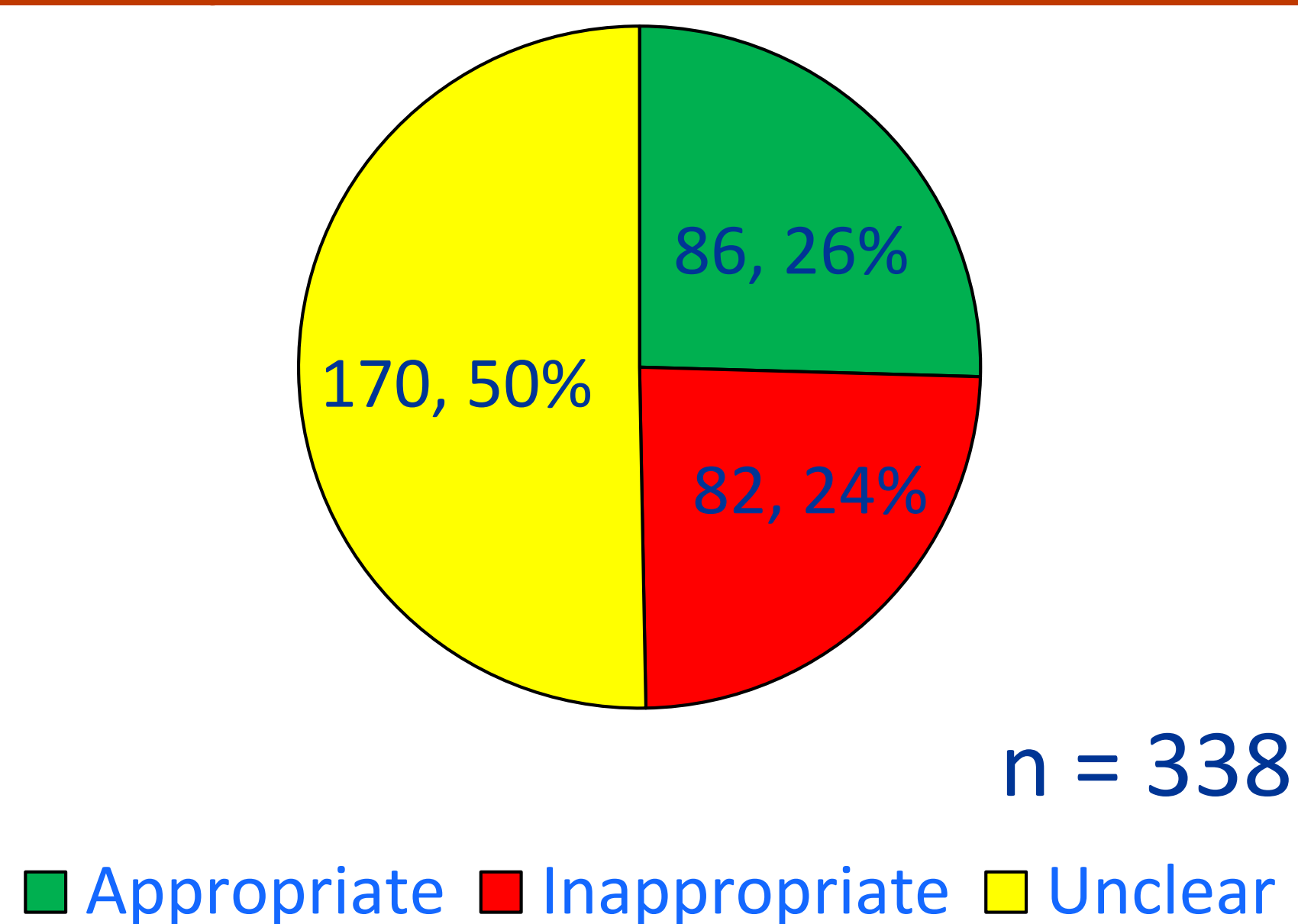
To develop a nurse-driven protocol to decrease unnecessary use of telemetry using evidence-based practice (EBP) and Lean Six Sigma methodologies.

## Baseline Data

### Telemetry order compared to length of stay:



### Telemetry order based on AHA/ACC criteria:



## Methods

Using EBP methodology to identify best practices for telemetry:

- Ensure interdisciplinary team communication.
- Develop and implement nurse driven telemetry discontinuation protocol.
- Ensure that telemetry orders follow AHA/ACC criteria.

## Outcomes/Interventions Synthesis Tables

Outcomes	1	2	3	4	5	6	7	8	9	10	Total
Total Telemetry days	↓	↓		↓	↓	↓				↓	6
RR/Code Blue activation			NC	NC	NC			NC	NC		5
Telemetry hours							↓	↓	↓	↓	4
Number of active telemetry orders	↓			↓		↓					3
Length of stay									↓	↓	2
Number of alarms						↓					1

Symbol Key: ↑↑=Increased, ↓↓=Decreased, NC=No change

Interventions	1	2	3	4	5	6	7	8	9	10	Total
Nurse driven protocol	X		X	X			X		X	X	6
Orders adjusted to AHA/ACC guidelines				X	X	X		X	X	X	6
48hr auto DC		X						X		X	3
Interdisciplinary rounding		X							X	X	3
Frequent reminders/BPA					X			X		X	3
MD Education					X					X	2
Physician driven protocol	X										1

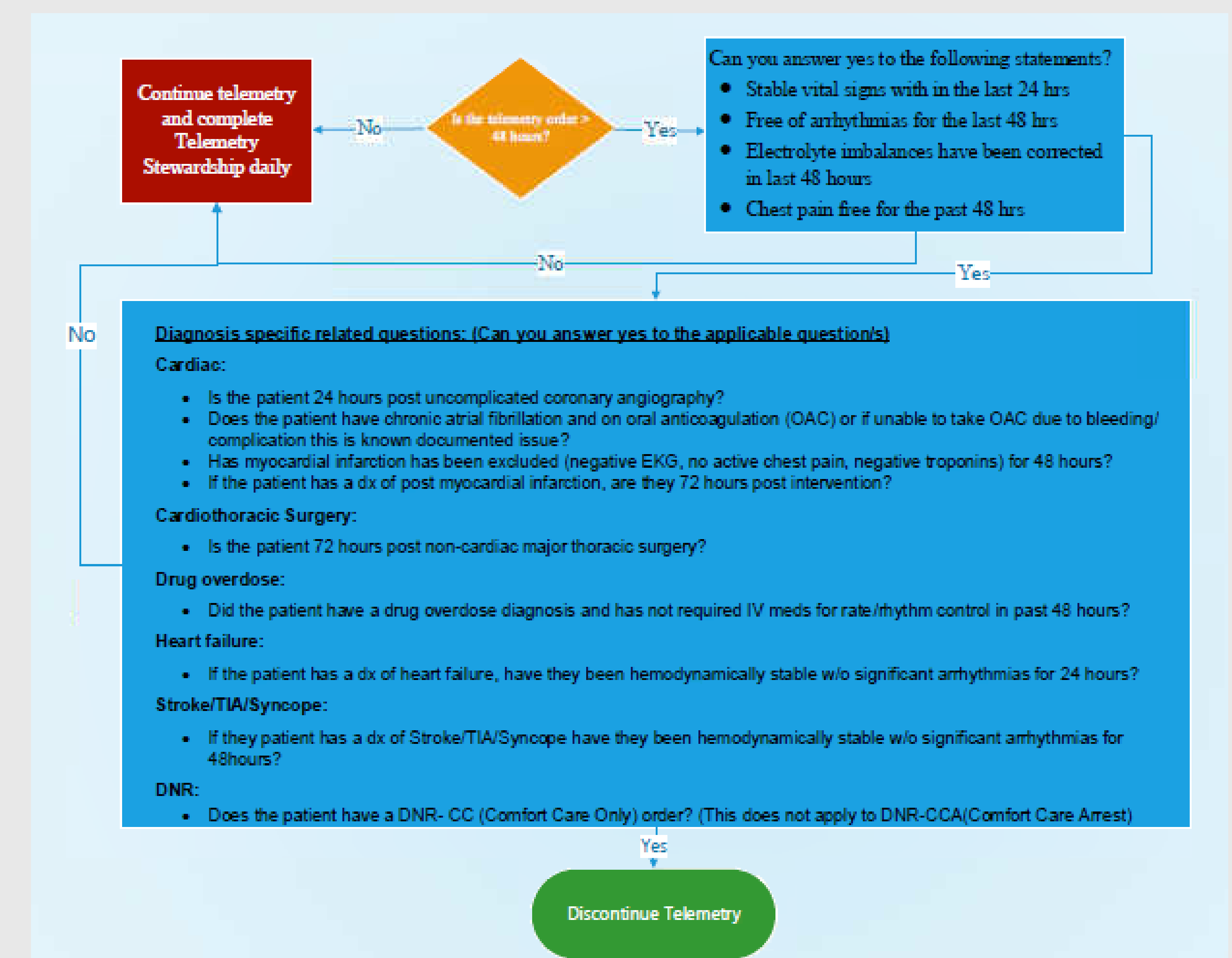
Symbol Key: v or X= applicable or present

1- Duffy et al., 2021, 2- Pendharkar et al., 2020, 3- Clapp, 2022, 4- Dressler et al., 2014, 5- Xie et al., 2019, 6- Kansara et al., 2015, 7- Gorisek, 2022, 8- Flanders & Hudson, 2020, 9- Perrin et al., 2017, 10- Yeow et al., 2018

## Implications for Practice

- Ensuring appropriate use of telemetry may be an effective method to improve length of stay and hospital throughput.
- Ensuring appropriate use of telemetry may also help to decrease nursing workload and alarm fatigue.
- Utilizing a combined approach between EBP and Lean Six Sigma ensures the best practice and process are implemented.

## Evidence-Based Nurse Driven Telemetry Discontinuation Flowchart



## Evaluation/Outcomes

- Re-alignment of orders to AHA/ACC guidelines
  - **GOAL: Increased compliance**
- Telemetry usage
  - **GOAL: Decrease in inappropriate telemetry usage and reduce alarm fatigue**
- Length of Stay
  - **GOAL: Decreased LOS as a result of increased telemetry bed availability and improved throughput**
- A ROI will be calculated based on the telemetry utilization, length of stay, and throughput metrics.

## References:

Available upon request.

## Acknowledgements:

Dr. Cindy Wilk, Dr. Karrie Boss