Reduce Pleural Effusion Patient Length of Stay

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AIM Statement: By March 20th, 2023, implement a performance reporting mechanism with a focus on reducing average length of stay by 2 days for urgent pleural effusion patients.

PROBLEM DEFINITION

Patients and hospital staff are dissatisfied by the length of stay experienced by urgent pleural effusion patients.

Currently, 15% of urgent patients stay in hospital longer than the necessary 3-5 days of recovery.

ROOT CAUSE ANALYSIS

Patients are staying in LHSC for an inoptimal period of time after their pleural effusion surgeries. Due to the high variance in individual patient's needs, the hospital does not have a system to predict and reduce length of stay.
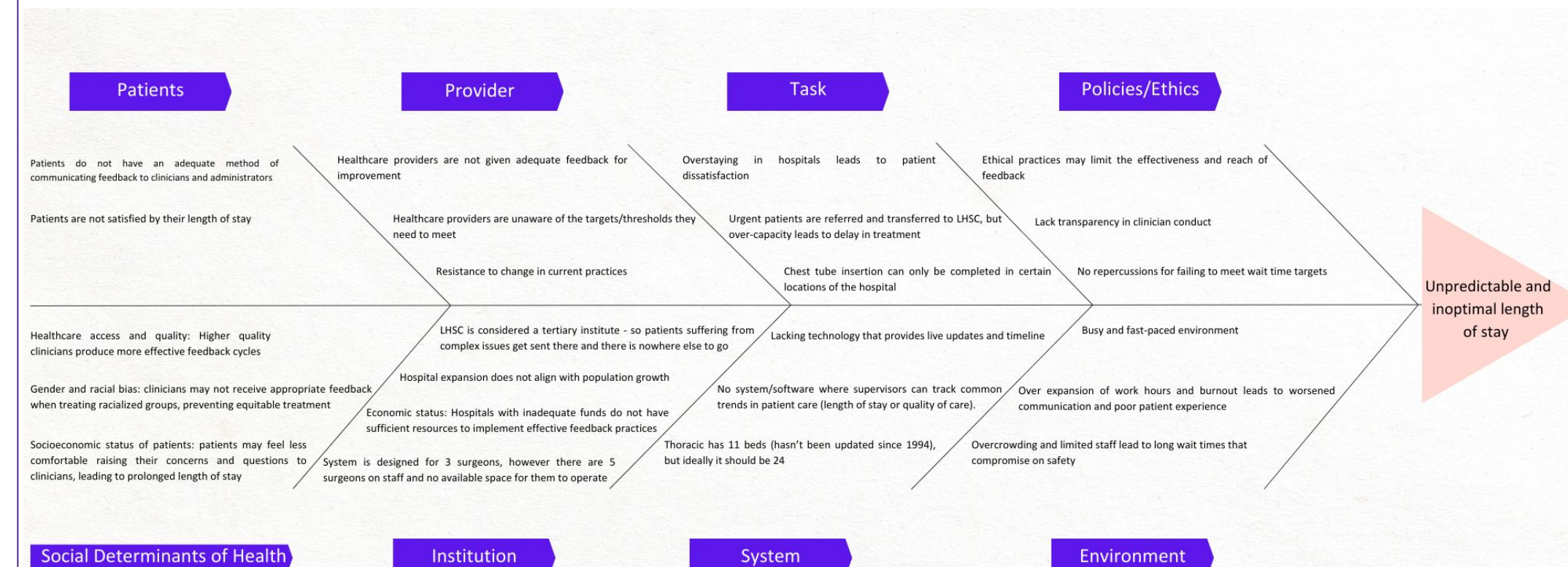

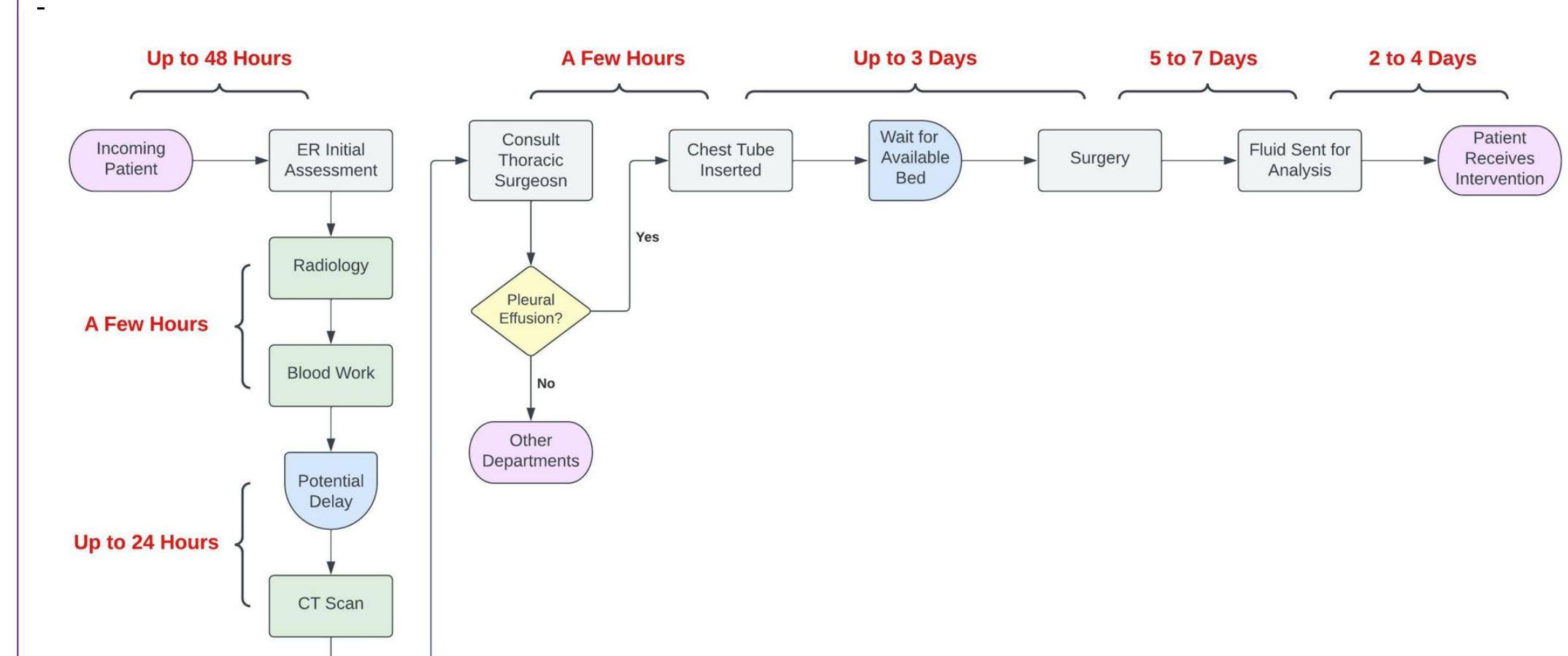**Figure 1.** Cause and Effect Diagram

Figure 2. Process Flow Diagram

After speaking with the physicians and nurses, we realized the importance to facilitate more effective communication and create predictive tracking systems.

Since the Pandemic, hospitals have been overwhelmed with the overflow of patients, healthcare workers burnt out from working extra shifts, and concerns regarding the quality of care have risen.

We want to improve efficiency by reducing patients' overall length of stay. We chose to start small by focusing on pleural effusion surgical patients.


IMPLEMENTATION

P - Planned to change patient's length of stay
D - Measured length of stay in Oct. & Nov. and ran some analysis, we hypothesized some lag time
S - People's adaptability to change has increased
A - Interventions on a larger scale might be needed to facilitate a more effective change

Challenges to implementation included long wait time for project approvals, complications associated with privacy laws, and difficulty altering existing systems.

MEASUREMENT & RESULTS

Figure 3. Run Chart
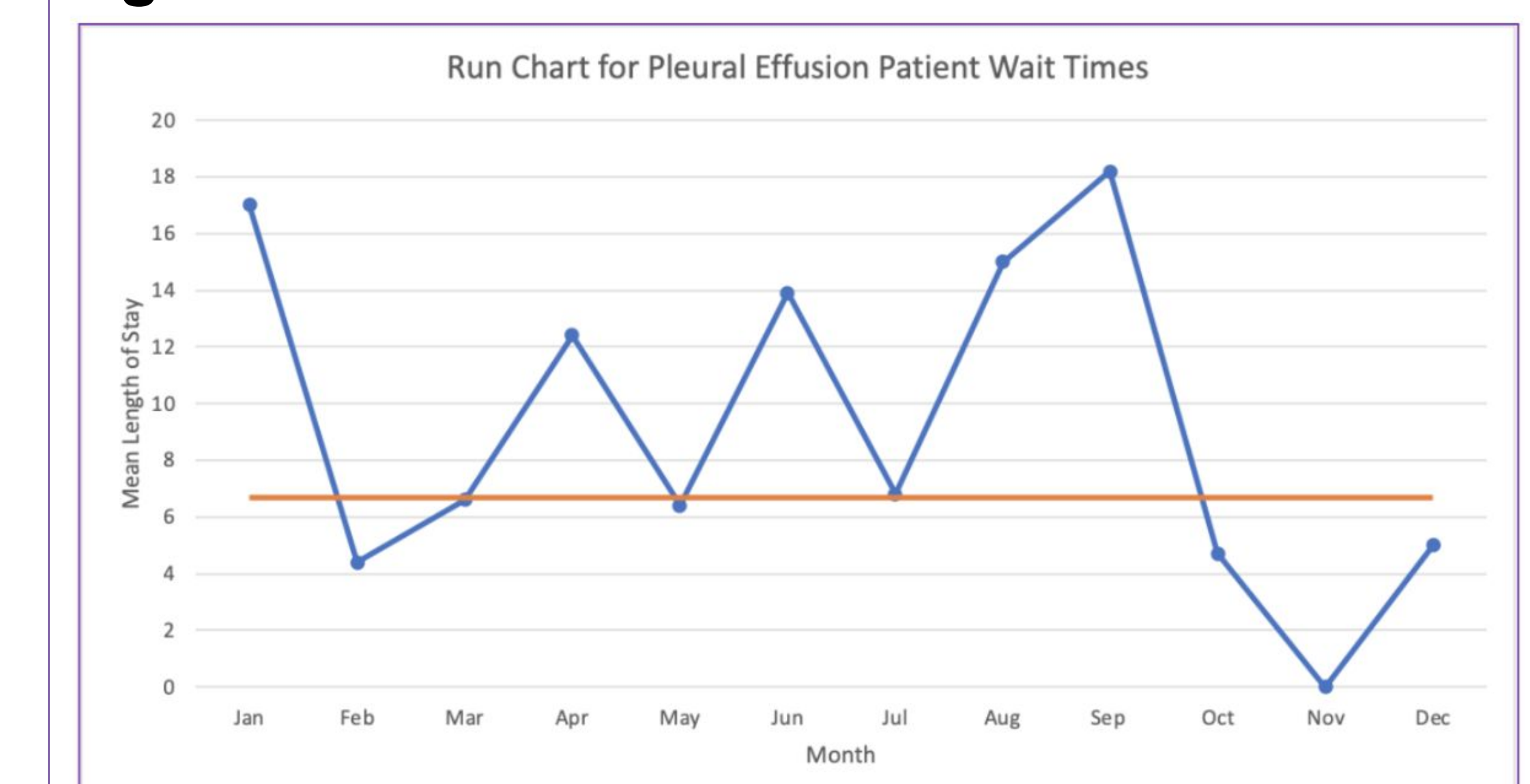
Due to the data's high variability and unpredictability, no clear trends were observed. Chance is influencing the process and causing data points to fluctuate around the median,

SUSTAINABILITY

As a team, we plan to carry on the project with the guidance of Dr. Rahul as its implementation time was longer than expected. We predict a lag time in seeing true results, and look forward to formulate a long-term plan.