Leveraging Lean Methodology to Prevent Falls

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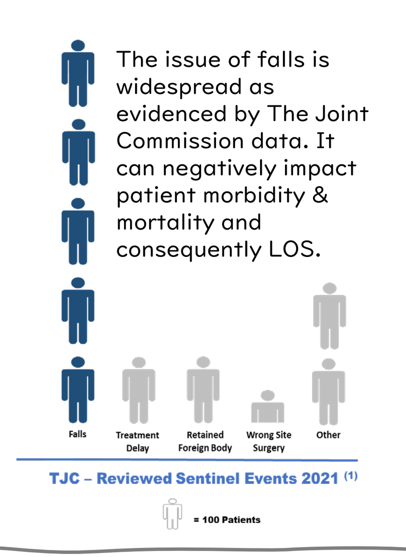
Executive Sponsor: *Julie Swann, MBA, MHA, BSN, RN, NEA-BC, V.P. Patient Care Services and Chief Nursing Officer, Emory Saint Joseph's Hospital, Atlanta, GA*

Learning Objectives:

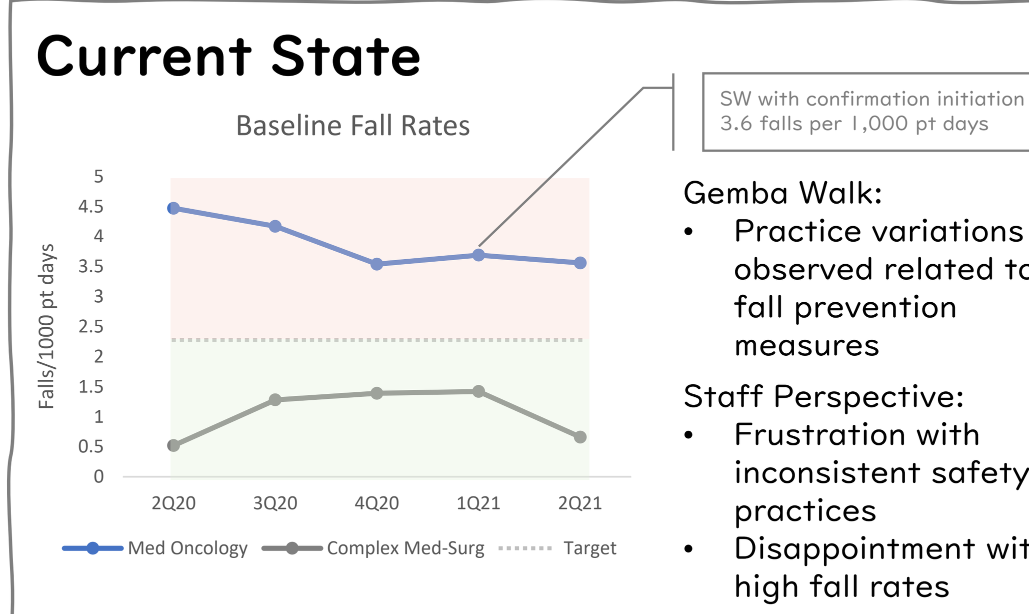
1. Explain how Lean methodology can be leveraged to address clinical challenges and hardwire standard practices by involving frontline staff and leadership in the development of standard work and confirmation practices.
2. Discuss the role of visual management in changing the culture of clinical practice.

Background

- Emory Saint Joseph's Hospital is a 410 bed Acute Care Hospital with a mission to provide efficient, effective, and excellent care.
- A cross-functional team looked at opportunities to reduce patient harm in Acute Care Nursing.
- Patient falls were identified as an opportunity for improvement on the Medical Oncology Unit.



Current State



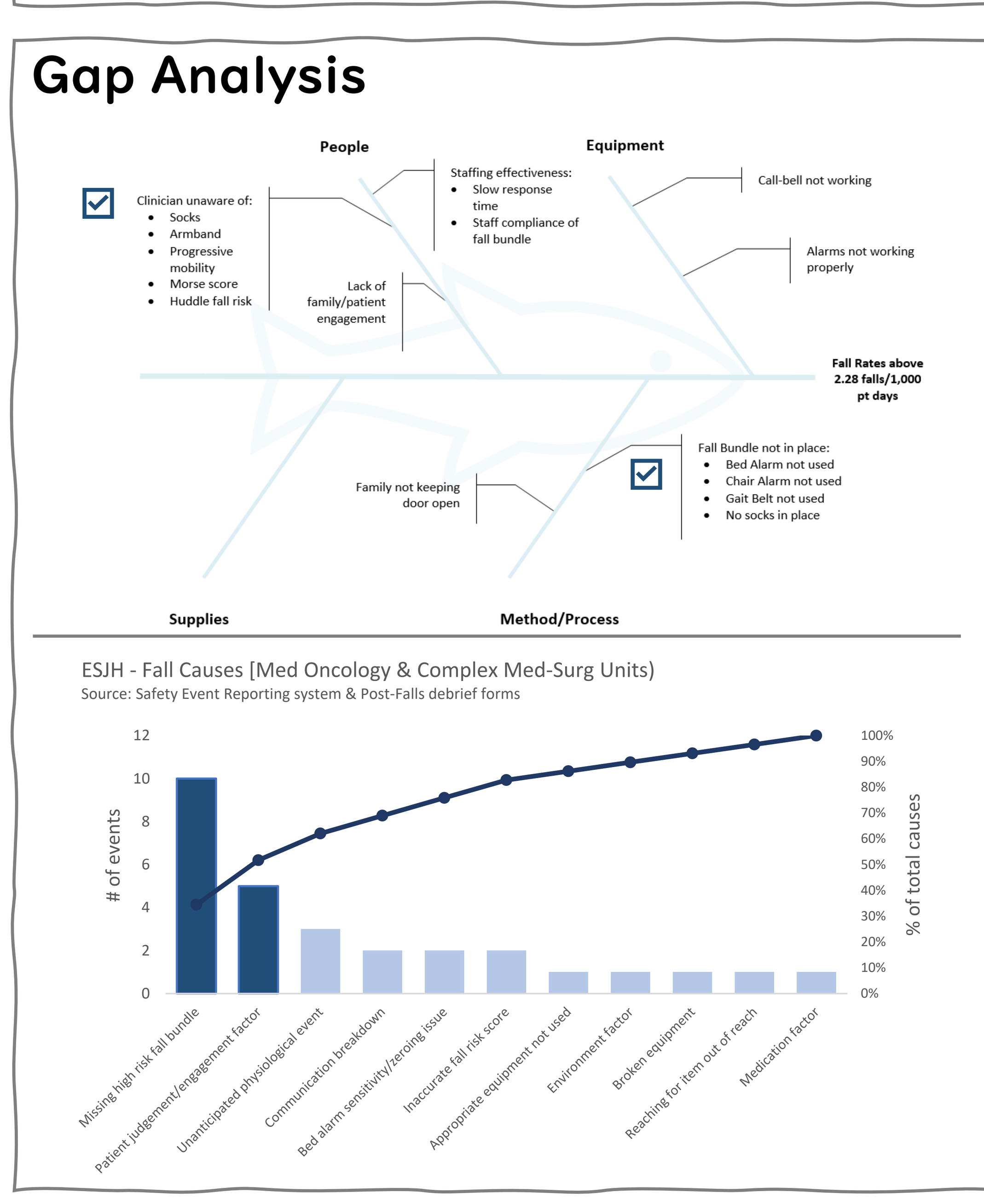
Gemba Walk:
- Practice variations observed related to fall prevention measures

Staff Perspective:
- Frustration with inconsistent safety practices
- Disappointment with high fall rates

Target State

- 2.28 falls/1,000 patient days by end of 4Q2021
- 50th%ile of like hospitals participating in the National Database of Nursing Quality Indicators (NDNQI)

Gap Analysis



Solutions Approach and Tests of Change

Standard Work

The **purpose** of the Standard Work (SW) Learning Session [8-hours] is:

1. To ensure the team has a clear understanding of the "why" behind developing and using standard work and K- cards
2. To know how to develop the standard work and its important elements
3. To summarize what needs to happen for successful implementation. This includes developing a detailed implementation plan for the module.

Kamishibai Cards (K-cards)

- Japanese story-telling mechanism
- In Lean, a visual system to communicate abnormal vs. normal conditions on adherence to standard work. Communicates to department leadership which area needs support.

Standard Work

The best-known way today to perform a task/activity by outlining the steps it takes to complete each step. It also includes key points for quality and safety, the importance of each step, and the time it takes to complete each step.

Skill Matrix

This tool can be utilized to track the staff competency level visually. In addition, it provides information to the leader of the area how to utilize the human resources based on the skill status.

Roles and Responsibilities

The key to engrave accountability across the organization. Each level of the organization plays an integral part. Roles will define whether one is responsible to follow the standard work or to support staff by providing an environment allowing them to follow the developed standard work.

Visual Management

Following the 5x5 rule to empower staff and leaders to see what is normal and what is abnormal in the area's performance within five feet distance and 5 seconds of time.

PDSA

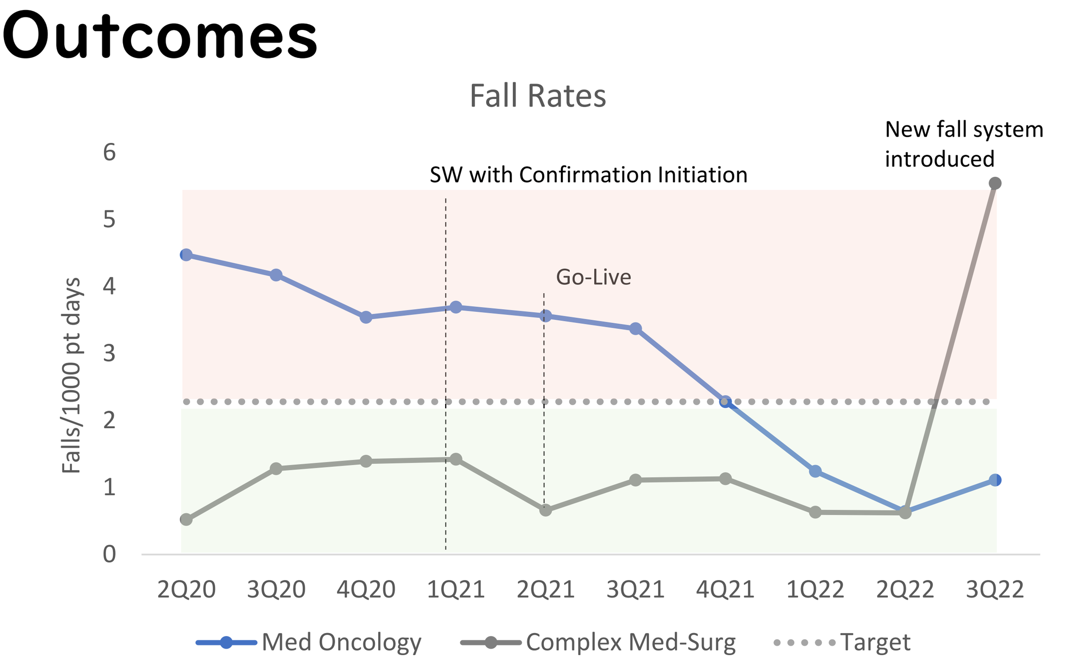
Following problem-solving methodology (Plan/Do/Study/Act) at every step of our improvement journey.

Role	Frequency	Responsibility
	Daily	Adherence to following standard work; Communicating if standard work cannot be followed
	Daily	Adherence to following standard work; Standard Work confirmation by using K-Cards
	Weekly	Confirmation of Standard Work using K-Cards; Compassionate coaching and removing barriers/obstacles
	Monthly	Ensure accountability by using "go and see" approach as one of the Lean principles; Compassionate coaching and removing barriers/obstacles

Plan — DO — Study — Act

We SEE together — We KNOW together — We ACT together

Outcomes



Achieved: 157 days between fall events

- This new system was integrated into the workflow of the unit
- Staff are proud of the care they are providing
- Improved confidence in peer accountability and addressing observed practice variations

Lessons Learned

- Implementing Lean is a journey where obstacles and frustrations are expected. If a desire to change has been planted in the system from the highest level of the organization, challenges may be overcome with greater ease.
- The purpose of standard work is to reduce practice variations, better predict outcomes, and develop a mitigation plan when the system's environment is changing. During the COVID-19 pandemic, external factors such as increased contract nursing staff changed the environment. The standard work with confirmation system helped the unit mitigate the risk of practice variations associated with that change.
- Identifying key stakeholders at the start of implementation and keeping them engaged by seeking their inputs at various stages is a key to success.
- No matter how effective a new system may be, developing standard work is critical to achieve the desired outcome.
- Embedding the process into daily workflow by leveraging Leader Standard Work is an ongoing opportunity to promote sustainability.

Main Take-Aways

- Understanding the environment in which the system has been shaped is critical for success prior to implementing anything new.
- To understand the cause of an issue, one must problem-solve using the context of the current environment.
- Learn from "how" we approached our problem of falls to gain insight on tactics to approach a problem you are experiencing in your environment.

The authors have no relevant financial relationships to disclose.

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References: The Joint Commission (2021). Sentinel Event Data Summary. Retrieved from https://www.jointcommission.org/resources/patient-safety-topics/sentinel-event/sentinel-event-data-summary/, Accessed 7/11/22

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EMORY SAINT JOSEPH'S HOSPITAL

Standard work Confirmation Board

Unit -----------

Trackers

Skill Matrix

K card Hopper

Daily
Role: Charge RN

Weekly
Role: Unit Director

Monthly
Role: Spec. Dir./CNO

Process Confirmation

RECURRING ISSUES

- Fall Risk Door Signs not displayed
- Chair alarm not set up in room
- Gait Belt not in room
- No bed alarm set
- Door not kept open

COUNTERMEASURES

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EMORY HEALTHCARE

	Standard Work
DESCRIPTION: Fall Prevention Bundle Implementation for High Fall Risk Patients	PURPOSE: FALL PREVENTION
LOCATION: 7E & 7W	DEPARTMENT: NURSING
ROLE PERFORMING ACTIVITY: RN/NURSE TECH	TOTAL CYCLE TIME: ___
REVISION: 4 DATE: 5/21/21	DOCUMENT OWNER: 7TH FLOOR NURSING STAFF
RELATED DOCUMENTS: FALL PREVENTION AND MANAGEMENT: ADULT INPATIENT POPULATION	

Symbols	Safety - steps that impact safety of the patient, team member, etc.	Quality - steps that impact quality of the outcome

Step	Description of Task (What?)	Key Point / Image (How?)	Reason (Why?)	Cycle Time
1	Gather the high fall risk bundle supplies (Newly identified high risk patient only)	1) Fall Risk Bundle Bag 2) Chair Alarm/Cords & Pad When taking a bag, assess for completeness (gait belt, arm band, yellow socks) Quantity 1 – Yellow Fall Risk Bracelet + Quantity 1 – Yellow Socks Item #: 92538 + Quantity 1 – Gait Belt Item #: 37100	Reduces nurse overburden when supplies are gathered in a bundle at one time	
2	Implement or Verify Fall Bundle Bag	• Open the components. • Place socks and arm band on the patient. • Hang gait belt on wall hook • Set-up chair alarm and pad. **JOB AID: Chair Alarm	The elements serve as a visual cue to other care members of the patient's fall risk and help the patient safely ambulate. Having the chair alarm system set-up in the room makes it readily available when it is needed.	
3	Verification of key safety points *bed alarm *stand-by-me *gait belt use *orthostatic hypotension check	Lift cover and verify bed alarm is on Remind the patient stand-by-me rules upon leaving the room **JOB AIDS: Stand-by-Me, Gait Belt, Orthostatic Hypotension checks	This ensures the bed alarm is on upon leaving the patient. The patient can fall when they are in the bathroom alone or attempting to stand.	

Emory Healthcare Standard Work
Emory Saint Joseph's Hospital Proprietary Material
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ESJH 7 East | Fall Prevention Bundle- High Fall Risk Patients | D

- ❑ Fall Risk Sign on Door
- ❑ Patient and family members are aware of patient being high fall risk and the relevant care plan
- ❑ Requirements for mobility/activity written on the board
- ❑ Bed Alarm is "on"
- ❑ Fall Bundle Bag implemented:
  - ❑ Socks
  - ❑ Arm band
  - ❑ Gait belt on the wall
  - ❑ Chair alarm has been set up
- ❑ Care team [including nurse tech] are aware of patient's fall prevention care plan.
- ❑ Fall prevention plan has been communicated in bedside shift report [BSSR]
- ❑ Room door is open & it is written on the door glass

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