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Using Safety reporting to drive process improvement and safety culture
ICU transition of care project

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Background/Introduction: ICU to floor transition of care

- Transitioning patients from the Medical ICU (including Medical, Cardiac, and Neuro units) to a general or intermediate care floor is a complex and high-stakes process. This process involves multiple steps to ensure patient safety, continuity of care, and smooth coordination among various healthcare teams.

The ICU team determines the patient's readiness for transfer and places a transfer order and ICU team continues to manage the patient until transfer to floor.

Wait for an appropriate bed to open

Can take few hours to days depending on capacity and throughput

Bed opens; bed placement assigns floor bed.

Automated page goes to floor charge RN, ICU charge RN. ICU charge RN tells bedside RN→ Bedside RN tells ICU provider of bed assignment→ ICU provider calls the accepting team of impending move out of ICU and makes a note in chart that accepting team is made aware.

Problem:

Accepting teams were not consistently notified when a patient had a bed outside the ICU and was ready to move, leading to the patient not being seen by the accepting team.

Root Cause:

Multiple handoffs and shift changes

Lack of standardized workflow for notifications between teams

Staff turnover and competing priorities

A longstanding culture of informal practices: "That's just how things work around here."

AIM:

To improve the safety and quality of ICU-to-floor transitions by implementing a Lean-based Quality Improvement model, eliminating waste, and standardizing workflows to ensure timely and consistent communication between teams.

Methods: Establishing that there is an issue using Safety reporting

- **How was this issue brought to our attention?**

The issue was flagged during morning safety reports, where residents consistently identified communication breakdowns in ICU-to-floor transfers. Residents who logged these events were recognized and celebrated for their contributions.

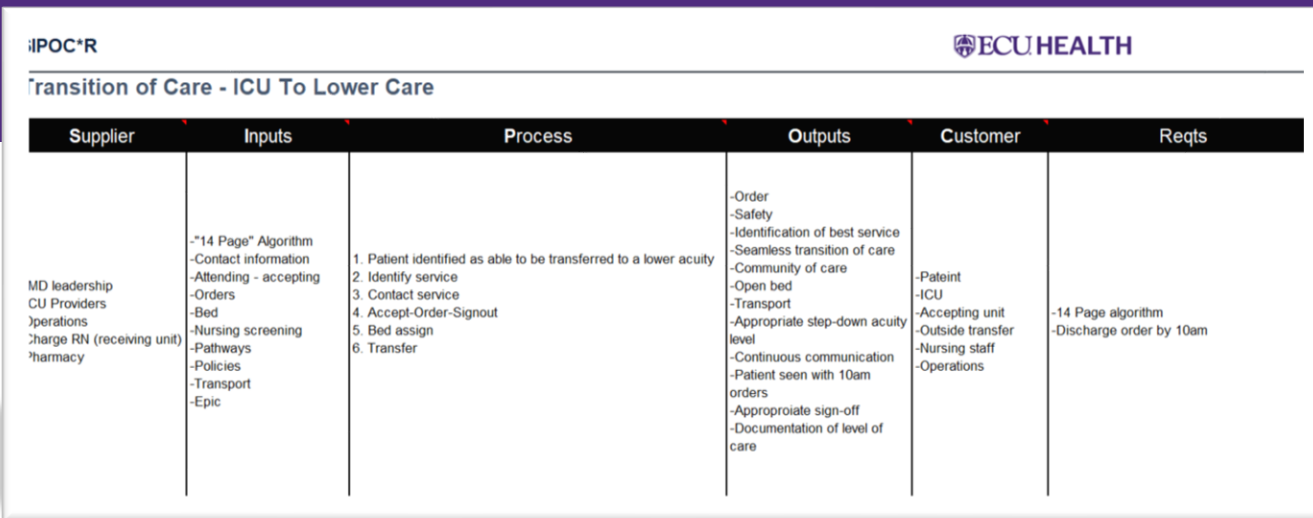
- **How did we know the magnitude of the issue across the system?**

We collaborated with the weekly safety event review committee to search the Safety Intelligence (SafeNow) database for keywords related to communication failures, care coordination, delays in treatment, and access to care. From February 2021 to December 2022, we identified 34 reported events that highlighted this issue.

- **What did we do with the Safety Intelligence information?**

This data was escalated to leadership, leading to the formation of a charter and collaboration with stakeholders to apply Lean principles for improvement with operational excellence team as project managers .

Lean Model of QI



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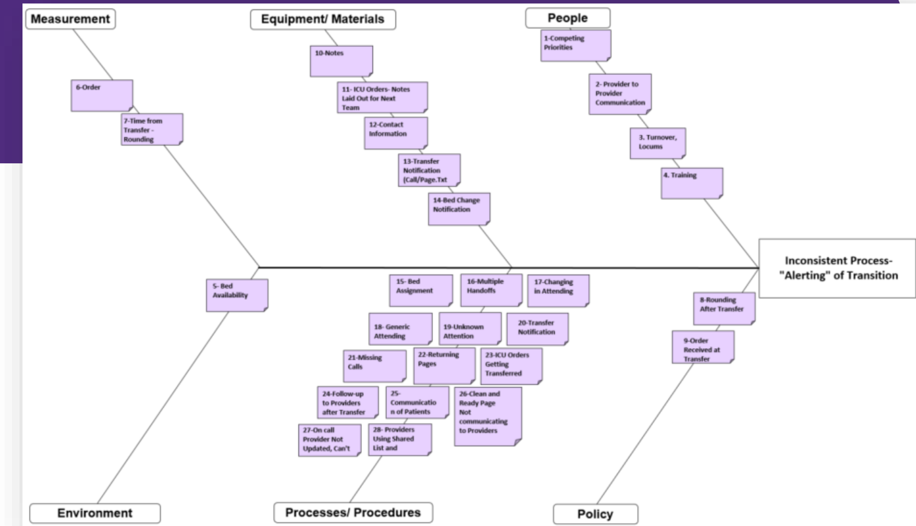
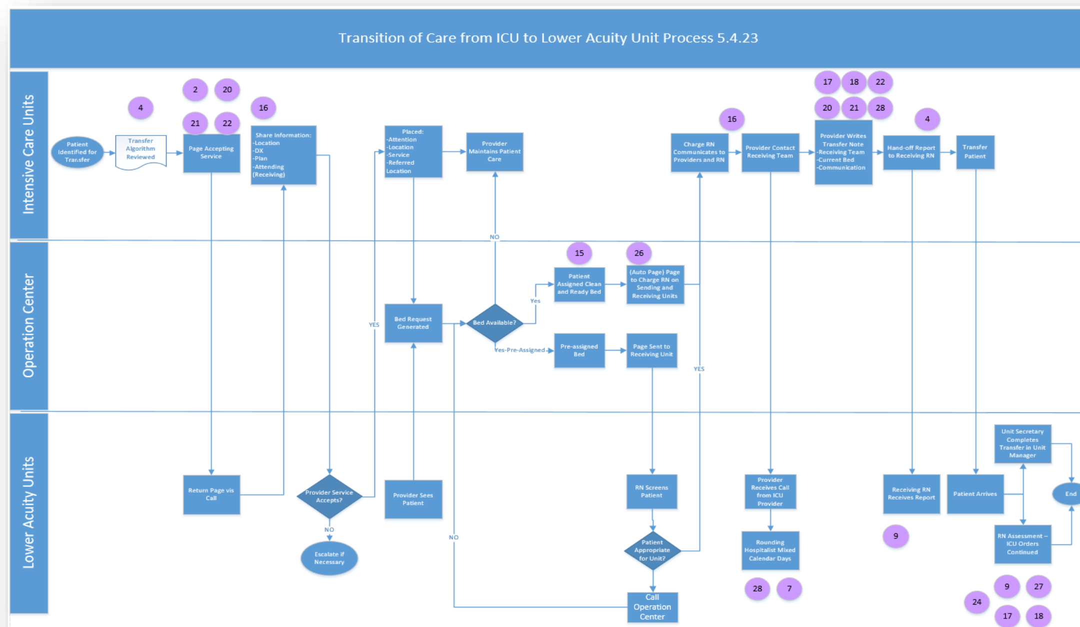
Transition of Care - ICU To Lower Care

Supplier	Inputs	Process	Outputs	Customer	Reqts
MD leadership CU Providers Operations Charge RN (receiving unit) Pharmacy	-"14 Page" Algorithm -Contact information -Attending - accepting -Orders -Bed -Nursing screening -Pathways -Policies -Transport -Epic	1. Patient identified as able to be transferred to a lower acuity 2. Identify service 3. Contact service 4. Accept-Order-Signout 5. Bed assign 6. Transfer	-Order -Safety -Identification of best service -Seamless transition of care -Community of care -Open bed -Transport -Appropriate step-down acuity level -Continuous communication -Patient seen with 10am orders -Approproiate sign-off -Documentation of level of care	-Pateint -ICU -Accepting unit -Outside transfer -Nursing staff -Operations	-14 Page algorithm -Discharge order by 10am





The team identified 28 inconsistencies and contributing factors. Stakeholders prioritized these factors, and the team agreed to focus on the following improvements:

- Implementing automated pager notifications of bed assignments to the accepting team.
- Standardizing the timeline for when the accepting team sees the patient after ICU transfer.
- Standardizing the use of the "on-call provider" box for documenting the accepting team contact information once the ICU patient is accepted for step down.

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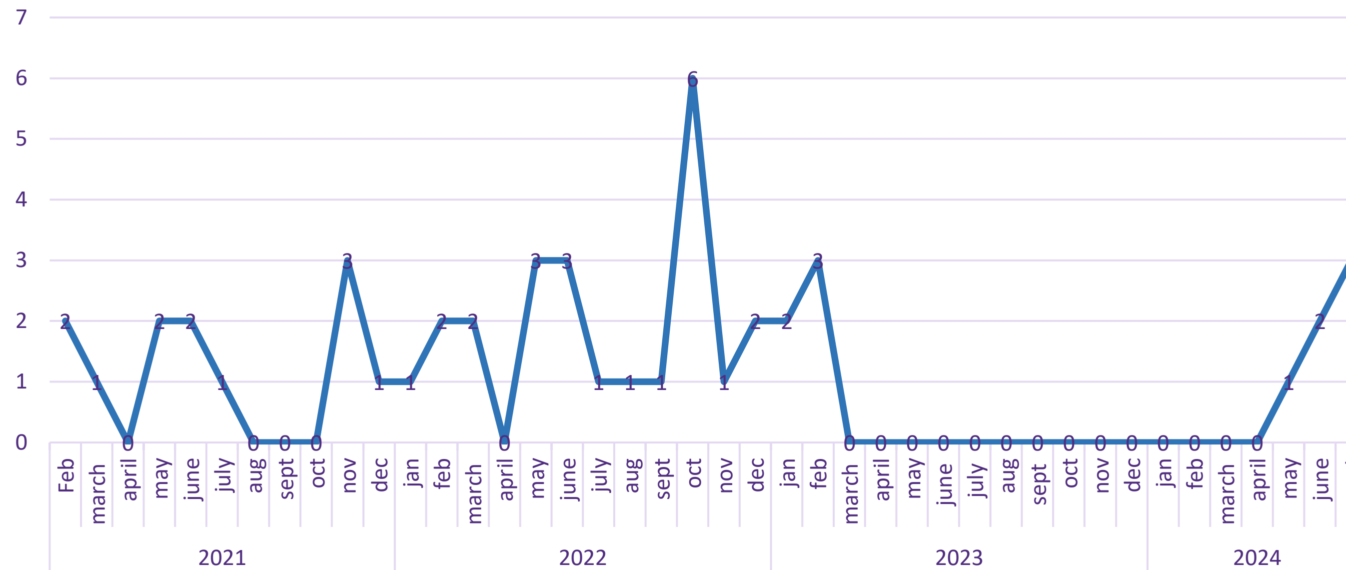
Results

Pre-Intervention (31 months):

Total Events: 35 incidents

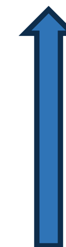
- **NSICU**: 16
- **MICU**: 7
- **NICU**: 5
- **Peds ENT admits**: 3
- **CICU**: 2
- **CVICU**: 1
- **PICU**: 1
- **Others**:
  - Palliative Care: 1
  - One-call confusion: 1
  - OSH (Outside Hospital): 1
  - ASC to IM: 1
  - BHU (Behavioral Health Unit): 1



Post-Intervention (11 months):

Total Events: 6 incidents

- **Direct Admit**: 1
- **Surgery Team Notification**: 1
- **OSH**: 1
- **OBG**: 1



Automated page went live

Charter formation , stake holder meetings started

Limitations:

1.Reported events represent only tip of the iceberg

2. Platform for safety reporting changed in

This data demonstrates a significant reduction in the number of events post-intervention, indicating improved communication and process standardization.

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Summary/Conclusion

- Transitioning care between hospitals and levels of care is complex and prone to errors. Standardizing processes and leveraging technology can reduce these risks.
- Fostering a safety culture, encouraging consistent reporting of near misses, and creating forums for front-line staff to discuss safety concerns help identify trends and improve inefficient processes.
- Engaging stakeholders ensures solutions are practical and effective for staff.
- Regular departmental meetings to discuss safety issues and following up n reported events to “close the loop,” tying safety reports to process improvements, celebrating successes enhances staff engagement in the safety culture.
- Future initiatives could standardize processes across other ICU types (surgical, pediatric), direct admits, and outside transfers.

“errors virtually always involve competent, caring people in hard jobs, trying to do their best with imperfect data and under various pressures, felled by glitchy pieces of technology, poor communication, and really bad karma. And there’s nearly always a cultural mindset that contributes to the whole mess, one that had existed for years and been tolerated because, well, “that’s just how things work around here.”

Bob Wachter