



Comprehensive and Multidisciplinary Approach to ICU Liberation

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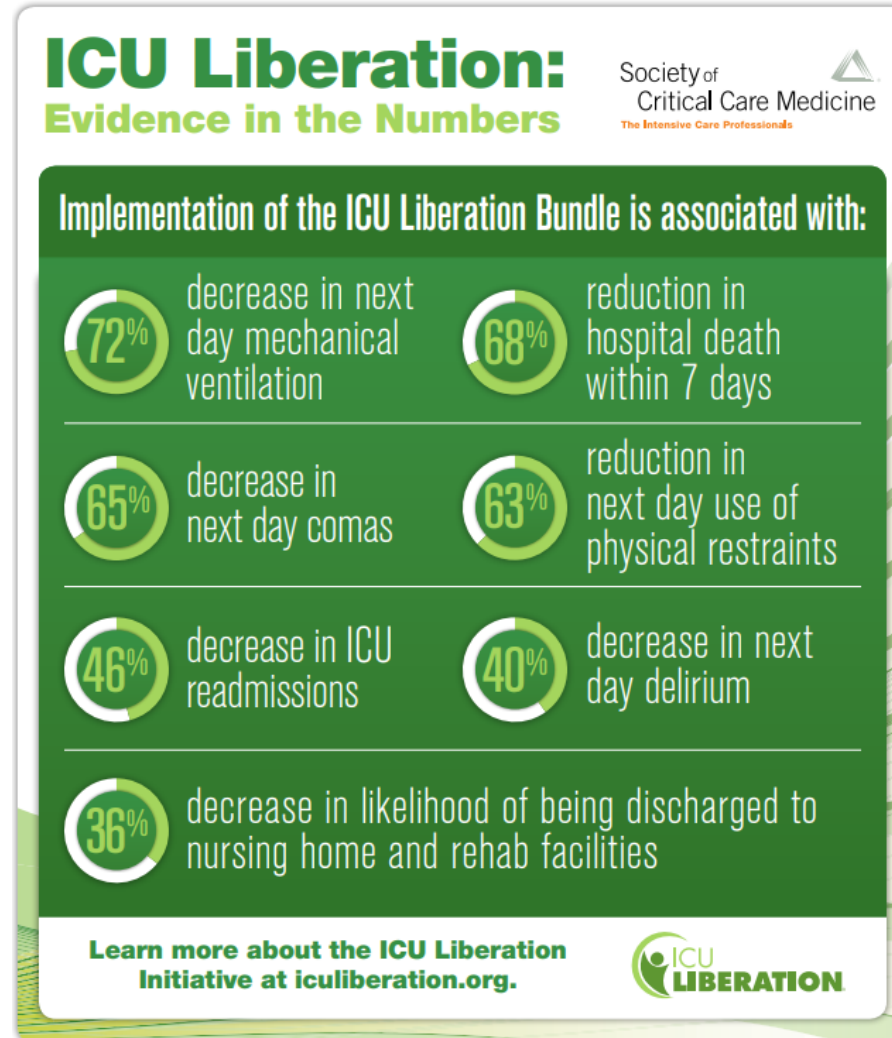
Objectives

- Describe a comprehensive and multidisciplinary approach to an ICU Liberation quality improvement project
- Discuss the results of the quality improvement project
- Identify ways to further improve patient outcomes in the future

Background

- ICU Liberation is a campaign that was started by the Society of Critical Care Medicine (SCCM) to provide evidence-based strategies that come from the 2018 PADIS Guidelines
- These strategies, known as the ABCDEF (A-F) Bundle, individually and collectively work to reduce delirium, prevent and manage pain, achieve early mobilization, and reduce long-term consequences for adult ICU patients
- Santa Rosa Memorial Hospital (SRMH) developed an ICU Liberation Taskforce to assess how to best implement this bundle into practice

Literature Review



Source: Caring for Critically Ill Patients with the ABCDEF Bundle: Results of the ICU Liberation Collaborative in Over 15,000 Adults. Pun, *Crit Care Med*, 2019;47:3-14.

Purpose/Aim

- To evaluate how the SRMH ICU Liberation Taskforce can improve adherence to the A-F Bundle to ultimately improve outcomes for adult ICU patients

Methods/Approach

- **Design:** Quality improvement project
- **Sample:** Adult patients admitted into the ICU at SRMH
- **Time frame:** April 2022 to October 2022
- **Interventions:**
 - Developed a comprehensive, multidisciplinary ICU Liberation Clinical Practice Guideline
 - Obtained support from nursing leadership to approve a four hour mandatory ICU Liberation education and ongoing education
 - Optimized the multidisciplinary ICU rounding sheet
 - Validated nurses' use of validated scoring systems
 - Optimized analgesia and sedation order sets in the EMR
 - Collected and shared data related to A-F Bundle adherence and subsequent follow up with staff to address reasons for non-adherence

Methods/Approach

- **Data:**
 - Data was collected by retrospective chart review and EMR-generated reports
 - 5 to 6 patients were randomly selected each month with 1 of these patients being non-intubated to reach a total of 20 patient-days per month for data analysis
 - Data collected included % of documented pain assessments, % of SAT documented, % of SBT documented, % of RASS assessments documented, % of CAM-ICU assessments documented, overall ABCDE Bundle compliance, % of patients with intermittent PRN bolus versus a continuous infusion of opioid analgesia used while intubated
 - For all ICU patients per month, % of early mobility performed in intubated patients if the patient passed the safety screen, ICU length of stay, and average intubation days were collected
- **Analysis:** Descriptive analysis was performed on the above data collected

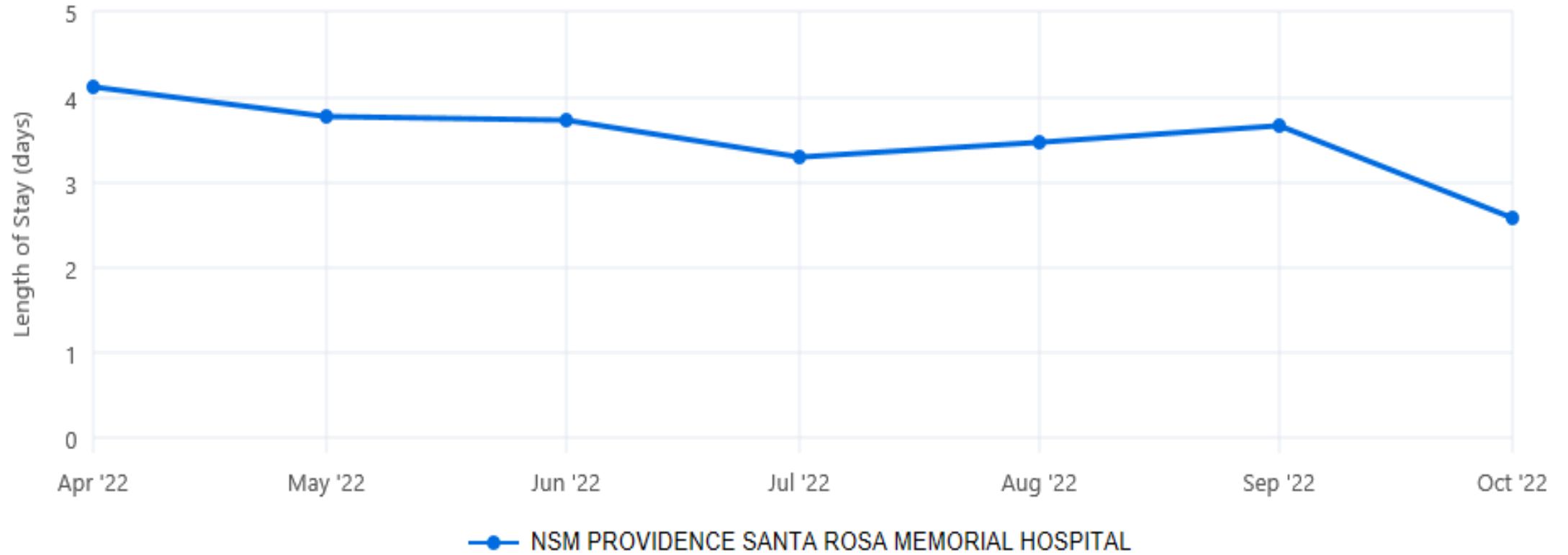
Results

- The absolute difference between the end and beginning of the study period were as follows:
 - **-15%** of documented pain assessments
 - **+30%** of SAT documented
 - **+45%** of SBT documented
 - **No change** in % RASS assessments documented
 - **+20%** of CAM-ICU assessments documented
 - **+22%** of early mobility performed in intubated patients if the patient passed the safety screen
 - **+17%** for overall ABCDE Bundle compliance

Results

- The absolute difference between the end and beginning of the study period were as follows:
 - **+49%** of patients with intermittent PRN bolus versus a continuous infusion of opioid analgesia used while intubated
 - **1.5 day** reduction in ICU length of stay
 - **2.4 day** reduction in average intubation days

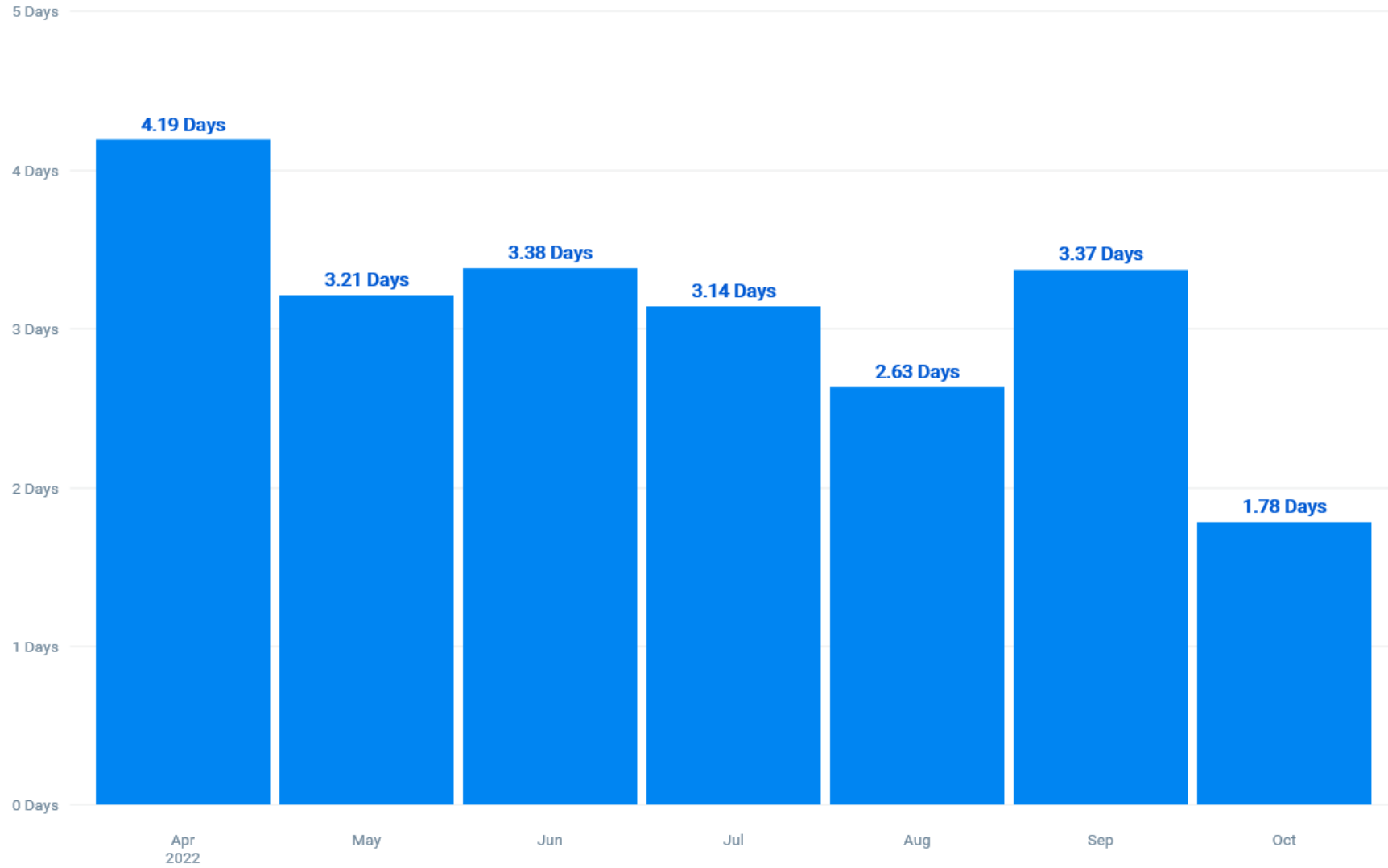
ICU Actual Length of Stay



	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22
NSM PROVIDENCE SANTA ROSA MEMORIAL HOSPITAL	4.13	3.78	3.74	3.29	3.47	3.66	2.59

Average Ventilator Days

Between 4/1/2022 and 10/31/2022 by month



Conclusion

The ICU Liberation Taskforce's comprehensive, multidisciplinary approach to improve adherence to the A-F Bundle was associated with:



- **Reduction in continuous infusion of opioids**
- **Reduction in ICU length of stay**
- **Reduction in intubation days**

Implication for Practice

- Clinical Practice Guidelines provided comprehensive and consistent source of information for bedside nurses
- Mandatory Education promoted understanding and competence of ICU Liberation principles
- Multidisciplinary rounding sheet emphasized the goals and plans related to A-F bundles
- Validating bedside nurse use of validated scoring systems ensured accurate use
- Optimization of order sets promoted appropriate use of intermittent bolus approach versus continuous infusion of opioids
- Collection and sharing of data provided areas of opportunity to improve and address barriers to overcome

Where Do We Go from Here?

- Sustain and improve our adherence to A-F Bundle
 - Early Mobility for non-intubated patients
 - Family engagement
 - Good sleep
- Identify other levels of care that can benefit from A-F bundle
 - Emergency Department
- Sharing our comprehensive and multidisciplinary approach to ICU Liberation to other ministries

References

Devlin JW, Skrobik Y, Gélinas C, et al. Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. *Crit Care Med*. 2018;46(9):e825-e873.

Caring for Critically Ill Patients with the ABCDEF Bundle: Results of the ICU Liberation Collaborative in Over 15,000 Adults. Pun, *Crit Care Med*, 2019;47:3-14.

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SRMH ICU Liberation Task Force

SRMH ICU Education Team

SRMH ICU Team



Questions?



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