

# IMPROVING EARLY MOBILITY IN INTENSIVE CARE PATIENTS

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## OBJECTIVE

The focus of this project was to improve early mobility in all intensive care (ICU) patients with the goal of decreasing ventilator days, length of ICU stay, and length of hospital stay.

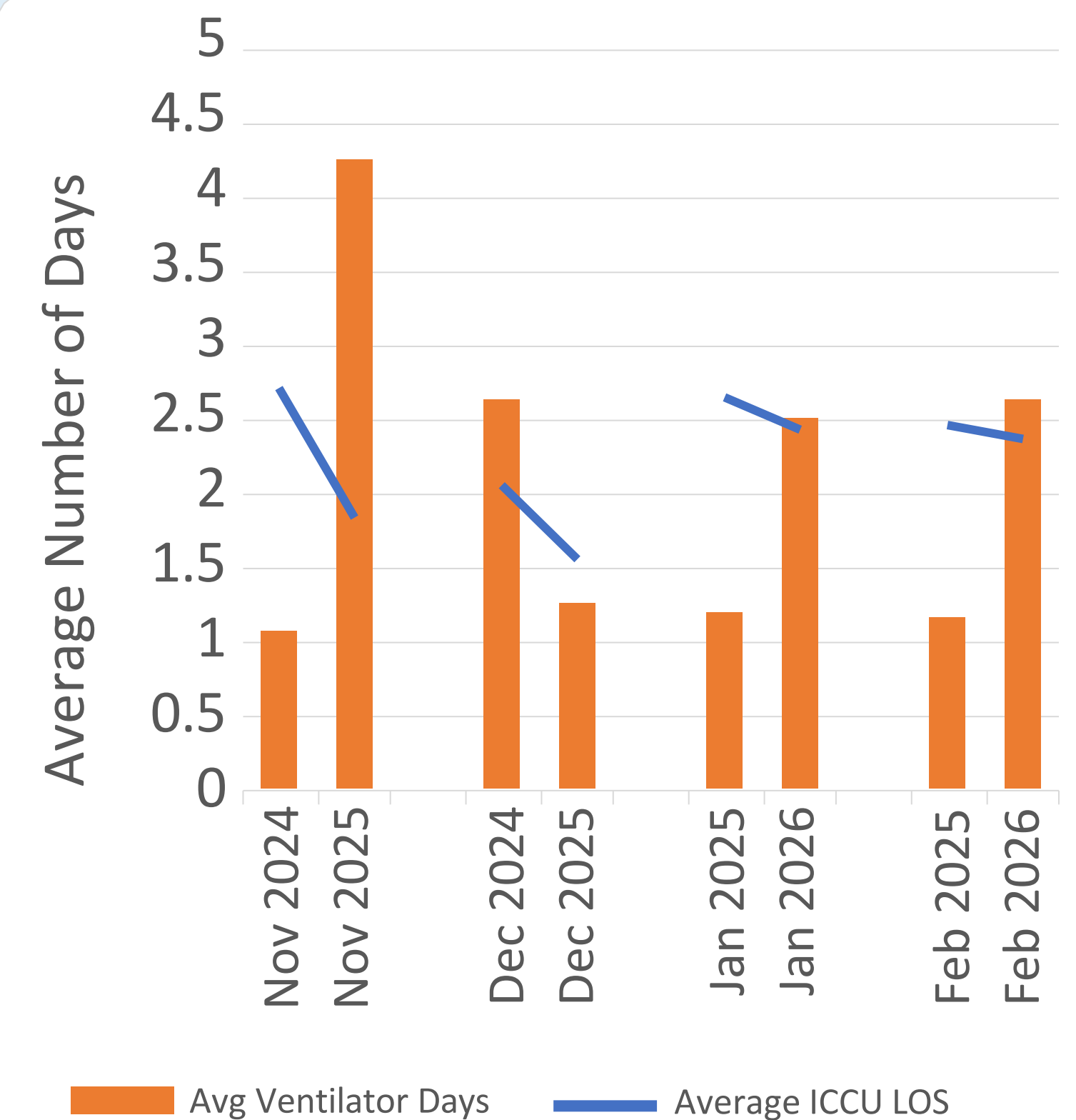
## BACKGROUND

Over the course of the last few years, a gap in mobilizing ICU patients was noted. While identifying the issue, it became clear the inconsistency in mobility of ICU patients began during the COVID-19 pandemic. Likely because of increased patient acuity as well as staff turnover. Mobility had declined to the point where some of the staff that joined the unit after that period had never even heard of mobilizing a ventilated patient.

## ACTIONS TAKEN

This change was led by ICU nursing, physical therapy, and respiratory therapy. The plan-do-study-act (PDSA) quality improvement framework was used as a guide. First, the interdisciplinary team reviewed the old protocol, discovered areas needing improvement, and created a plan for implementation. The first change was made to the safety prescreen to ensure patients are medically stable enough to mobilize. Next, the evidence-based Activity Measure for Post-Acute Care (AM-PAC) "6-clicks" scoring system was implemented. This scoring system looks at how much aid a patient needs to do certain activities (rolling side to side, sitting at the edge of the bed, etc.). The AM-PAC score then correlates with a level of mobility from the John's Hopkins Highest Level of Mobility (JH-HLM) level. This gives nursing staff and therapists a mobility goal to achieve for the patient throughout the day (such as performing standing exercises). The level of mobility performed by the patient then gives nursing the ability to order physical therapy and occupational therapy per protocol, preventing delays in therapy, but also ensuring the order is proper for the patient.

## METRICS



## ANALYSIS

To control seasonal fluctuations in patient census, outcome measures were compared year-over-year by month rather than using immediate pre/post data. This showed a few different things. The average length of stay in October, November, December, January, and February during the post-implementation period was lower than the corresponding months in the pre-implementation period. When looking at average ventilator days, these increased in all months post-implementation. Although this number increased, the disease process itself cannot be excluded as the primary cause of this data. When comparing results from a staff survey before the change to after, it is noted that nursing staff felt as if they were more compliant with documentation, more familiar with the levels of mobility, setting and meeting mobility goals for patients, and three separate mobility sessions on ventilated patients were reported as opposed to none prior. When looking a compliance of the Society of Critical Care Medicine's (SCCM) ICU Liberation Bundle standards, there was an increase in compliance of a documented acceptable level of mobility from less than five percent, to between eighty-two and eighty-six percent.

## NEXT STEPS

Data on compliance with mobility is tracked quarterly. Therapy and nursing staff are made aware of this data through unit huddles. The mobility program is also continuously assessed for any gaps or areas of needed improvement. One area that has recently been found is poor compliance amongst float staff. This is likely due to lack of knowledge of the program. To mitigate this, the unit "float guidelines" are being updated, and lead nurses are tasked with educating float staff on the mobility program.

## CONTACT INFORMATION

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| AM-PAC MOBILITY SCORE | HIGHEST LEVEL OF MOBILITY GOAL (circle one) | MOBILITY EXERCISES                   | Mary Greeley MEDICAL CENTER |
|-----------------------|---------------------------------------------|--------------------------------------|-----------------------------|
| 24                    | 8 Walk 250 feet or more                     | Standing with supervision            |                             |
| 22-23                 | 7 Walk 25 feet or more                      | Standing with supervision            |                             |
| 18-21                 | 6 Walk 10 steps or more                     | Standing unassisted with supervision |                             |
| 16-17                 | 5 Stand (1 or more minutes)                 | Standing with assistance             |                             |
| 10-15                 | 4 Move to chair/commode                     | Seated unassisted                    |                             |
| 8-9                   | 3 Sit at edge of bed                        | Seated with assistance as needed     |                             |
| 6-7                   | 2 Bed activities/dependent transfer         | Supine with assistance as needed     |                             |
| 1                     | 1 Lay in bed                                | Supine with assistance               |                             |

Marching Heel Raise Side Kicks Mini Squat Walking

Leg Kicks Marching Arm Raises Scooting

Ankle Pumps Heel Slides Leg Raises Arm Raises

DAILY COMPLETION RECORD:

☐ Morning ☐ Afternoon ☐ Evening