



Standardized Approach to Reduce Fluid Overload (STARFLO)



AKI & CRRT Conference

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Introduction

- Fluid overload, the pathologic state of positive fluid balance, is common in the pediatric intensive care unit (PICU) and independently associated with poor outcomes.
- Despite the importance of eliminating unnecessary variation in fluid balance assessment and fluid administration, there is a lack of quality improvement-based processes to measure and assess fluid balance in critically ill children.
- We sought to implement a fluid management strategy to standardize measurement and assessment of fluid balance and fluid administration in critically ill children.

Methods and Materials

- Our aim is adherence to four components (process measures) of the fluid management strategy in $\geq 50\%$ of PICU patients.
 - 1) creation and implementation of a fluid balance dashboard
 - 2) documented daily weights on all PICU patients
 - 3) fluid balance discussed on rounds daily
 - 4) active total IV fluid order for patients receiving continuous IV fluids
- We are using PDSA cycles to implement, track, and improve compliance to each measure.

Results

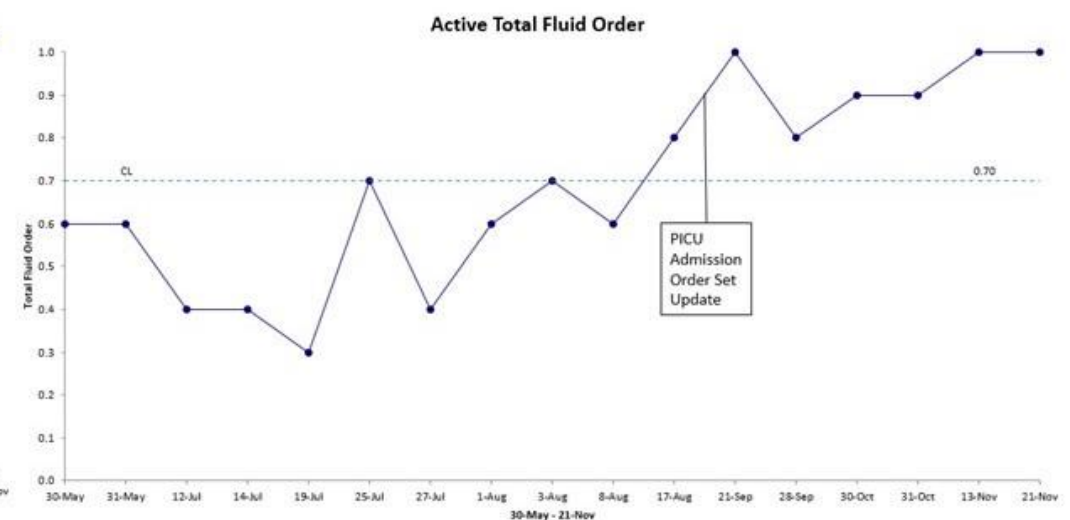
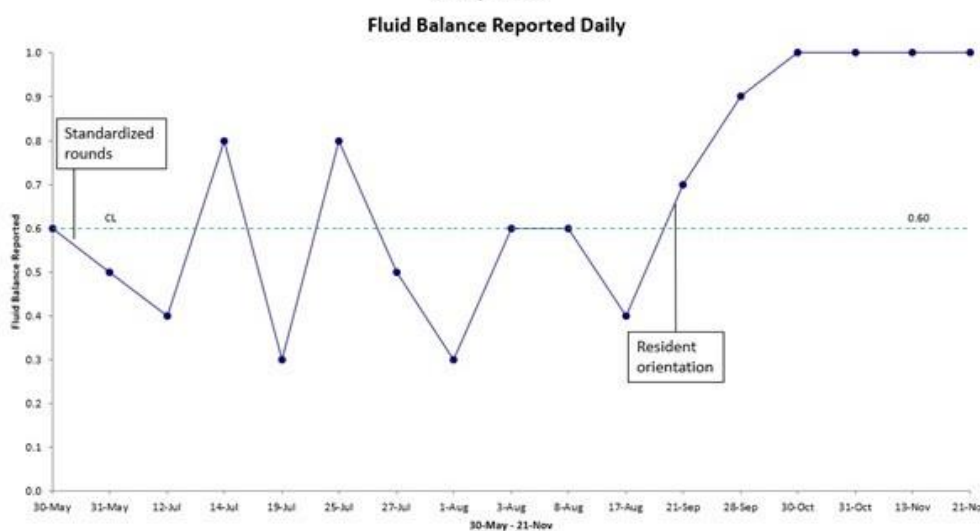
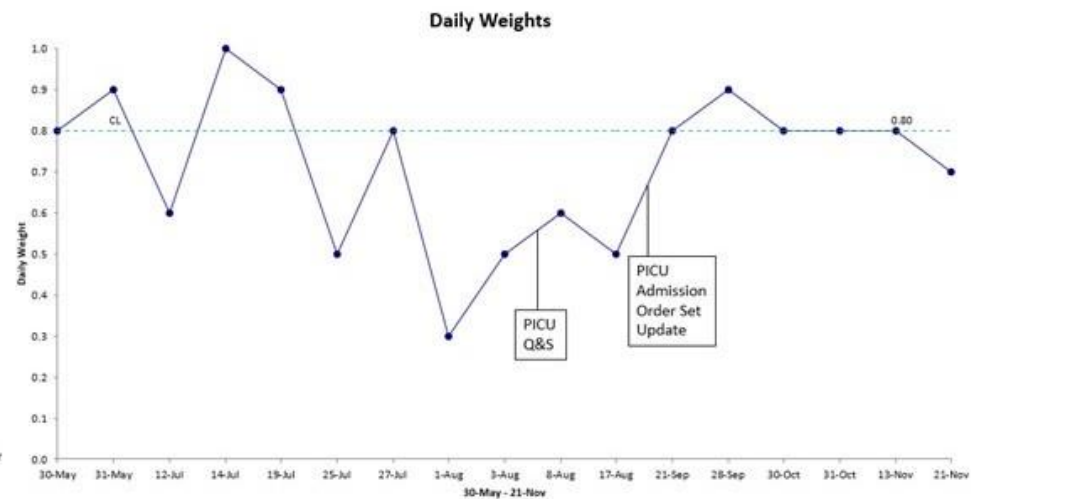
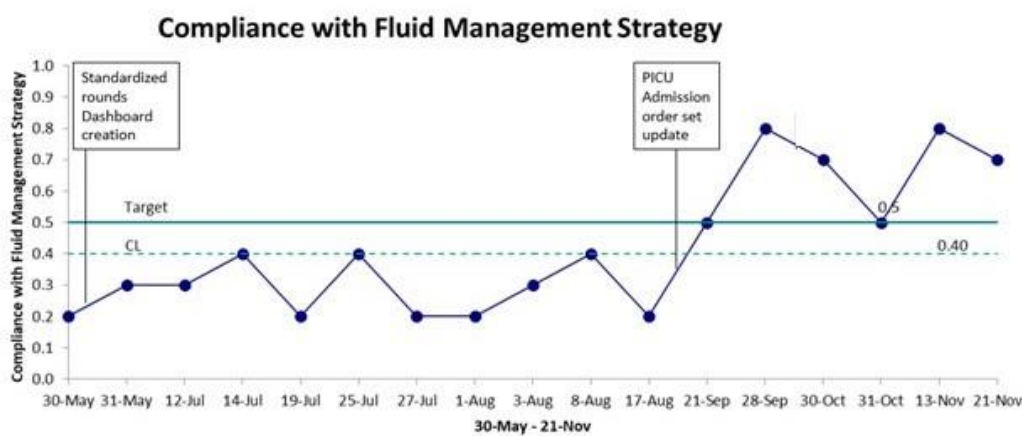
- 160 patient encounters were reviewed from May-November 2023.
- Compliance with the fluid management strategy has been $\geq 50\%$ since September 2023.
- Center lines for each process measure
 - 100% patients on fluid balance dashboard
 - 80% documented daily weights
 - 60% fluid balance reported on rounds
 - 70% with an active total IV fluid order

Discussion

- Documentation of daily weights has shown the most variation as displayed on a run chart, though compliance remains adequate with a center line of 80%
- Updating our PICU admission order set has led to sustained improvement in active total IV fluid orders.

Conclusions

- We achieved our aim of $\geq 50\%$ compliance with our fluid management strategy since September 2023
- Our next PDSA cycles will address compliance with total IV fluid orders and work to address barriers
- Future work will involve daily utilization of the fluid balance dashboard to evaluate each patient's cumulative fluid balance and highlight patients that may require intervention.



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