

INTRODUCTION

Delayed transfer of critically ill patients from the Emergency Department (ED) to the Intensive Care Unit (ICU) can have devastating effects on patient treatment and outcomes including increase in length of stay and patient mortality.

AIM

To decrease the time from admission orders to patient occupancy of an ICU bed to ≤ 30 minutes for patients admitted from the ED during a 4-month period of time. We implemented a "Just in Time" process for bed allocation for inpatient throughput for our Medical Intensive Care Unit (MICU) and established a "Two Beds Ahead" protocol at 7am and 7pm.

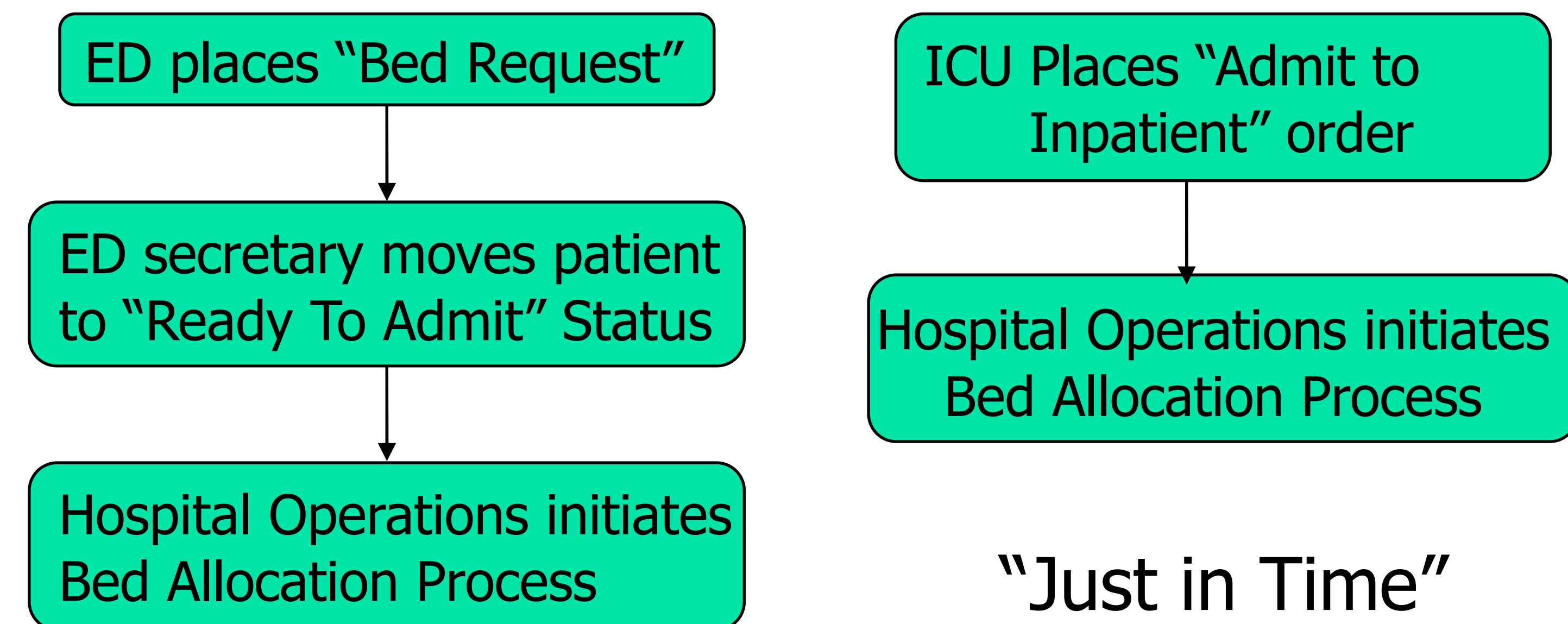
TWO BEDS AHEAD

We added a "Two Beds Ahead" protocol that allocated the first two available step-down unit beds to stable MICU patients with transfer orders. These beds were assigned at 7 AM and repeated at 7 PM in order to allow for decompression of the ICU by having up to two open beds ready for critically ill patients from the ED.

JUST IN TIME

Previously, the ED team was responsible for placing a "Bed Request" order upon consultant acceptance via telephone of a critically ill patient to the ICU. This "Bed Request" order started the admission process, but it relied on the ED secretary to move the patient to a "ready to admit" status in the EHR.

We changed this process to a "Just in Time" by having the MICU team member place an "Admission to Inpatient" order on initial verbal ICU acceptance. This allowed an immediate initiation of the bed allocation process by skipping over the request for the patient to get a bed.



METHODS & RESULTS

We collected data on the time from ED arrival to MICU bed admit order, time to bed assignment for the MICU, and time to bed occupancy to the MICU from the EHR.

From PDSA cycle 1 to PDSA cycle 2, the time from bed request to assignment < 60 minutes improved from 63% to 76%, and 100% of patients had a bed request to assignment of < 120 minutes.

	Control ED to MICU (N= 16)	PDSA Cycle # 2 ED to MICU (N=21)
Bed Request to Assignment < 60 min	63%	76%
Bed Request to Assignment < 120 min	88%	100%
Bed Assignment to Occupancy < 60 min	81%	76%
Bed Assignment to Occupancy < 45 min	75%	67%
Bed Assignment to Occupancy > 75 min	19%	10%

DISCUSSION

While we saw an improvement in the time from bed request to assignment, the time from bed assignment to occupancy did not drastically change during this PDSA cycle. We believe this is due to the time needed for bed cleaning in between patients. Future work will focus on bed turnover and improving processes such as stat cleans.

CONCLUSION

Implementation of these quality improvement processes decreased transfer times from the ED to the MICU, thus resulting in more efficient, cohesive, and organized patient health care.

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