

Emergency Department Admissions Throughput A Systems Issue

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Emergency Department Admissions Throughput

A Systems Issue

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BACKGROUND / INTRODUCTION

Better Care

Improve inpatient access.

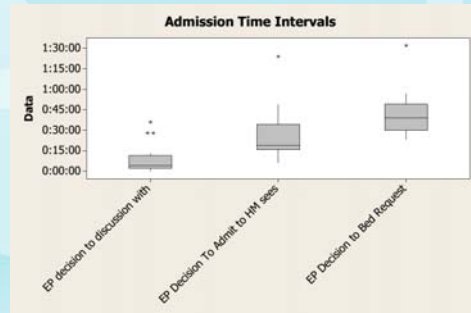
Burmeister, Friel & Jordan

- EDLOS for hospitalized pts is a network goal
-  EDLOS
 - increase cost,
 - decrease patient satisfaction
 - increase mortality ¹
- Numerous systems issues large impact LOS
 - Input – registration, triage
 - Throughput
 - Diagnostics, evaluation & consults, including admission
 - *Throughput was studied in this exercise*
 - Output – Hospital bed & Outpatient appt availability

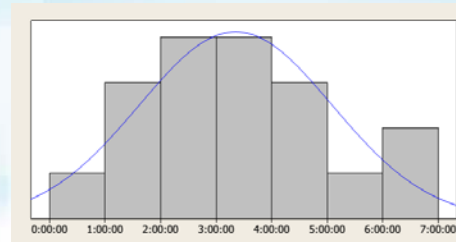
METHODS

- Weekday Daytime time study - admission intervals
 - 14 pts observed
 - Observed high EP decision to admit around 3 pm
- Weekday Daytime time study - CT Scan intervals
 - 17 pts admitted; 14 pts with complete data
 - 25 pts observed; 18 pts with complete data
- Limitations on study:
 - High patient volume late in the day interfered with data collection on hospitalized patients
 - Small sample sizes
 - Time CT scan sent to radiologist not captured
 - Only studied during day shift, when more resources are available and when competition with inpatient demand is highest

OUTCOMES



- CT Ordered to Action:



Average Interval Times

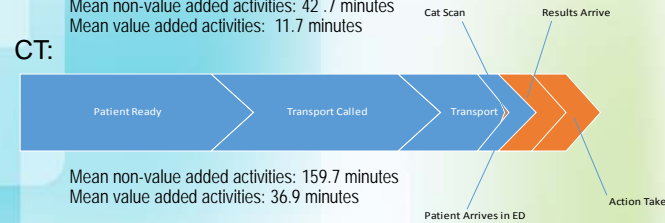
- CT ordered to ready 65 mins.
- CT ready to called for transport 56 min
- Transport called to transport arrived 29 min.
- Transport arrived to CT start 7 min
- CT start to CT completed 10 min
- Patient returns to ED with CT result 22 min.
- CT interpretation to ED action 3 mins

RESULTS

Admissions

Mean non-value added activities: 42.7 minutes
Mean value added activities: 11.7 minutes

CT:



- Admissions Time - Mean 56.4 minutes
- CT Time – Mean 190 minutes

NEXT STEPS

- Observed daytime average admissions process ~1h per patient, yet high volume peaks can overwhelm ED providers, CT capacity & hospitalists
- **There is a committee working on the admission process within Improve Inpatient Access**
- Observed time from CT order to start of CT may contribute to patient length of stay & may shift the admissions process to later in the day
- **Group forming with EM and Radiology to evaluate the entire process for obtaining a CT Scan in the ED in Improve Inpatient Access.**

REFERENCES

1. Patel, P., Combs, M., Vinson, D. *Reduction of Admit Wait Times: The Effect of a Leadership Based Program.* *Academ Emerg Med*, 2014, 21(3): p. 266-73.

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