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.

EDLOS for hospitalized pts is a network goal
- EDLOS
  - increase cost,
  - decrease patient satisfaction
  - increase mortality

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:
- Mean non-value added activities: 159.7 minutes
- Mean value added activities: 36.9 minutes

- 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

Small sample size, insufficient data for definitive conclusions, will need larger study to validate.