Patient Flow: What it is. What it is not...

Crowding Measures

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Objectives

- Discuss methods and tools with which to measure flow
- Define & measure success
The ideal measure

- Hour-to-hour comparison within an institution
- Comparison with benchmarks
- Measurable, accessible & “real-time”
“Air-traffic control”
Registrations by hour
Measuring flow

- Median length of stay (LOS)
- Medians hide a lot of poor performance
- 95% have a LOS of < x minutes
- Predictors of LOS
  - ED volume, metropolitan area
  - Teaching hospital
  - Age distribution, severity of illness

Door-to-doctor time

- Measures front-end process
- Predictors include:
  - patient acuity by triage category
  - queue size – how many patients waiting to see the doctor
  - flow rate - # of patients seen by the doctor in the last hour
  - boarding hours – volume, acuity

ED occupancy

- Number of patients in bays and waiting room/total # of beds
- Real-time, prospective snapshot
- *Can be used to institute change right now!*
- Disadvantage is difficulty in comparing EDs because denominator is # of beds
The ideal measure does not exist!

What is your priority?

- Occupancy “real-time”, institution specific measure
- Median LOS - retrospective measure is difficult to use real-time
- Can be used for comparison with benchmarks