AAMC’s Approach to Managing Patient Throughput

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Our Original State - June 2016

- 375 Licensed beds
- 97,000 Emergency Department visits per year
- 26,000 Inpatient Admissions
- ED Diversion was 25%
- ED Door to Bed TAT in the lowest 2% in the country (570 m)
- ED TAT for discharged patients 200m+
- 180 hours of boarders per day/5000+ hours per month
- Patient Satisfaction in ED averaging 65%
Our Original State-June 2016

- Too much diversion
- Long waits with decreased Patient Satisfaction in ED
- Didn’t always have people in right place
- Our M.O. was follow rules, often resulting in leave in ED
- ED consumed with boarders versus ED focus
- Blame game
Metrics
ED Diversion

- Averaged 25% of Total Hours
- 19th out of 23

Compassion  Trust  Dedication  Innovation  Quality  Diversity  Collaboration

Anne Arundel Medical Center

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Hospitals Listed
Original State
Another way we look at it (Fiscal Year 2016)
Metrics

ED Core Measures

No improvement in ED Throughput measures

ED Arrival to Departure (minutes)

ED Decision to Admit to Departure (minutes)
Call to Action (burning platform)

We do not have a system of care that places patients in the right care environment in a timely manner. This results in safety concerns, longer than acceptable diversion, and less than delighted patients and staff.
Target State

- Improved patient flow through ED and inpatient units
- No diversion
- Appropriate room and care assignment especially with Observation and IMU
- Increase Patient Satisfaction
What were the Gaps?

- Lack of standard work throughout
- Inpatient bed alignment
  - Not aligned with patient demand
  - Many “rules” governing placement
  - Variability in pulling patients to open beds from ED
  - Variability in right patient status
- Inefficient use of ED space
  - Too much patient movement
  - Flow and siloes prohibited team based approach to care
  - Variable workflow and volumes led to traffic jams
  - Boarding patients stretched resources
- Data Rich-Information Poor
- Staffing Schedules and Structure Misaligned
How did we start the work?

• Meet Auntie Esther

• ED throughput improvement became a True North Objective
Work before our big changes

- Telemetry
- ED to Inpatient Bed Pull Process
- EVS Room Turnover Flow (Dirty to Clean Bed)

Framework for Improvement
Solutions - The Puzzle Pieces

- Mix of leadership driven projects and PDSA

- Acute Care Pavilion bed alignment and flow improvements
  - Right sized our Observation, Medical and IMC beds
  - Increased inpatient bed capacity
  - Reduced rules to a medical bed (Cardizem drip process)
  - Focused on pulling patient out of ED
  - Focused on earlier discharges
  - Observation hourly flow redesign

- Care Management Processes (Impact on Throughput and Denials)
  - Inpatient CM/Physician Pairing
  - ED CM to drive appropriate placement
  - CM workflow

- ED Value Stream based process improvement
Solutions - Observation Unit Redesign

- Hourly RN Flow
  - Standard work
  - Pull to bed from ED
- Patient Selection
  - Care Manager in ED Flow
  - Heart Score
- Define Standard of Care & order sets for Chest Pain, CHF, Afib
- Cardiology optimization and prioritization of testing & result reporting
- Staff/Physician schedules aligned to patient demand
- Discharge to Lounge
- Pharmacy Management (Dilaudid/Cardizem administration)
Solutions - New ED Flow

- Frontline Teams Solving Problems to Drive Strategic Goals (PDSA Improvement)
- ED had been building pieces of the care and connected them
- Opened toll booths of care
  - Patient to the right room as quickly as possible and team based care flowing around them
  - Minimizing patient and staff movement
  - Minimal use of waiting rooms
- Proper alignment of staff resources
Summary of New ED Flow

- Process running since Sunday, 5/21/17
- Process has been stressed (EDAs/high volumes) but still going
- Early Patient Satisfaction #s (top box) for discharges post 5/21 show 27% improvement from prior experience (59-75%)
- Patient TAT has decreased by 10-30%
- Average patient time has decreased as much as 40%

And........
- The Providers and Staff like the new process
Sustainment and Moving Forward

- Executive Status Updates
- Ongoing Process Owner Led Workgroup Meetings
- Facilitation/PI Partnership Embedded in Each Effort
- CRM meetings
  - Data driven
  - Stakeholders represented
  - Supportive environment
  - Owning the results
Improvement Timeline

- Inpatient Structure July through October 2016
- Emergency Department
  - Management System started Jan 2015
  - Value Stream Based Improvement started April 2016
- Inpatient Care Model started July 2016
• Last quarter averaging 3% diversion
• 8th out of 23
June 2016 versus June 2017

- 28% improvement
- 3% increase in volumes
Top Box Trends

Emergency Department
Anne Arundel Medical Center
Overall

Anne Arundel Medical Center
Q&A/Discussion