Approaches to Managing Patient Flow in the Emergency Department

Bill Frohna, MD, FACEP
Chair, MedStar Emergency Physicians
Background

• MedStar EDs

• MedStar Medical Group
  – Emergency Medicine Clinical Practice Council (EM CPC)

• MedStar ED Summit I-IV
Input ➔ Throughput ➔ Output
Input

• Early discussions with MIEMSS

• Improved access to MedStar clinicians/e-Visit

• *PromptCare*- MedStar urgent care initiative

• **CEDOCS** implementation

• **Tele-triage**

• **FlexCare** (post- MSE triage out)
Tele-triage

Requested Consults Per Hour

Today’s Consult Data

<table>
<thead>
<tr>
<th></th>
<th>GSH</th>
<th>WHC</th>
<th>All Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Consults</td>
<td>43</td>
<td>81</td>
<td>124</td>
</tr>
<tr>
<td>Requested Consults</td>
<td>43</td>
<td>81</td>
<td>124</td>
</tr>
<tr>
<td>Median Door to Consult</td>
<td>10:01</td>
<td>16:27</td>
<td>14:00</td>
</tr>
<tr>
<td>Median Consult Length</td>
<td>01:16</td>
<td>01:14</td>
<td>01:15</td>
</tr>
<tr>
<td>Median Wait Time</td>
<td>00:11</td>
<td>00:16</td>
<td>00:11</td>
</tr>
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</table>
Short-term Care With Long-term Costs: The Unintended Consequences of EMTALA

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Government agencies need to rethink the relative risks of allowing nonurgent patients to continue using the ED as a source of regular ambulatory care and allow formal hospital policies that would instead use the ED as a capture point to redirect nonurgent patients with chronic conditions to an appropriate location for ongoing care. Strict interpretation and enforcement of current EMTALA provisions deter hospitals from innovating and sabotage an important moment of opportunity. A much-needed change in EMTALA would include less emphasis on the medical screening examination alone and more emphasis on a population-based strategy that would provide access to needed outpatient treatment and follow-up care after stabilization of emergency conditions.
FlexCare (aka post-MSE triage out)

- Piloted at MedStar Harbor
- Close to 5000 patients
- Pushed out to other MedStar ED
- Optimize ED utilization/primary care
Throughput/Output

- MMG EM Practice Council
- **Split Flow** (managing ESI III, IV, and V patients)
- **Algorithm Driven Workflows**
  - HEART Score Plus
  - Low Risk TIA
- **ED Hospital Connectivity**
  - Flow Team
  - Full Capacity Protocol
Impact of Split Flow on ESI 4/5 Throughput
Impact of Split Flow on LWTC

LWTC Oct. - Dec. 2015

LWTC Rate in 2015 for October - December = 3.3%
Chest Pain

Concern for Ischemic Heart Dz

HEART Score +

Heart Pathway

LOW
0-3
- T=0 and T=3hr TN/EKG
- Discuss with pt and family
- D/C with timely, closed loop F/U

MOD
4-6
- Consult Cardiologist
- Candidate for early anatomic (CCTA) testing?
- If neg- may D/C from ED with timely/closed loop F/U

ADP

HIGH
≥ 7
- Tx/Hospitalize per usual pathway

Cerner CDS AUDIT TOOL

STEMI
TAD
PE
Esoph Rupture
Pneumothorax
Peri/Myocarditis
HEART Score Plus Compliance by MedStar ED
Disposition of ED Chest Pain Patients

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Patients</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017 Ann</th>
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<tbody>
<tr>
<td>TOTAL</td>
<td></td>
<td>827</td>
<td>560</td>
<td>464</td>
<td>431</td>
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<tr>
<td>Inpatient</td>
<td></td>
<td>6,906</td>
<td>6,582</td>
<td>6,019</td>
<td>5,177</td>
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<tr>
<td>OP Observation</td>
<td></td>
<td>14,155</td>
<td>14,693</td>
<td>16,220</td>
<td>15,541</td>
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<tr>
<td>OP Emergency</td>
<td></td>
<td>21,888</td>
<td>21,835</td>
<td>22,703</td>
<td>21,149</td>
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Throughput/Output

• **ED Hospital Connectivity**
  – *Flow Team*
  – *Full Capacity Protocol*

• **Interdisciplinary Model of Care**
The Interdisciplinary Model of Care (IMOC)

- New care delivery model to improve patient outcomes and experiences
- Emphasizes bidirectional communication, coordinated and goal-driven care, and consistent role definitions for providers and associates.
- Pilot in 18 units across 4 MedStar entities (MHH, MWHC, MGUH, MNRN) in June 2016. Since January 2017 spread across the MedStar system to all 10 entities (120 units).
- Early results—directionally positive movement in reduced LOS. As the system continues hardwiring IMOC standards of excellence (absolutes), anticipate additional LOS reductions.
RESULTS:
Impact on EMS Diversion
MEP ED Total Diversion Hours in Region III (MFSMC, MGSH, MHH, MUMH)

<table>
<thead>
<tr>
<th></th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEP Region 3 Sites</td>
<td>691</td>
<td>846</td>
<td>1,277</td>
<td>882</td>
<td>539</td>
<td>728</td>
<td>1,164</td>
<td>858</td>
<td>449</td>
<td>338</td>
<td>261</td>
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<tr>
<td>Total Region 3</td>
<td>2,412</td>
<td>2,518</td>
<td>3,489</td>
<td>3,041</td>
<td>2,333</td>
<td>3,170</td>
<td>6,078</td>
<td>4,043</td>
<td>2,988</td>
<td>2,252</td>
<td>2,441</td>
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</table>

MEP EDs’ Contribution to Total EMS Diversion Hours in Region III

- **July 2016**: 19.6% (FY 2016: 28.6%)
- **August 2016**: 20.3% (FY 2016: 23.5%)
- **September 2016**: 23.9% (FY 2016: 23.1%)
- **October 2016**: 23.0% (FY 2016: 23.0%)
- **November 2016**: 23.1% (FY 2016: 25.2%)
- **December 2016**: 23.0% (FY 2016: 29.5%)
- **January 2017**: 21.2% (FY 2016: 19.2%)
- **February 2017**: 15.0% (FY 2016: 15.0%)
- **March 2017**: 15.0% (FY 2016: 24.4%)
- **April 2017**: 15.0% (FY 2016: 27.8%)
- **May 2017**: 10.7% (FY 2016: 24.0%)
### Year-on-Year Variance in Total Diversion Hours

**MFSMC, MGSH, MHH, & MUMH**

<table>
<thead>
<tr>
<th>Months</th>
<th>FY 2017</th>
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</thead>
<tbody>
<tr>
<td>Jul</td>
<td>61.5%</td>
</tr>
<tr>
<td>Aug</td>
<td>177.3%</td>
</tr>
<tr>
<td>Sep</td>
<td>131.9%</td>
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<tr>
<td>Oct</td>
<td>39.8%</td>
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<tr>
<td>Nov</td>
<td>4.7%</td>
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<tr>
<td>Dec</td>
<td>0.2%</td>
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<tr>
<td>Jan</td>
<td>29.4%</td>
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<tr>
<td>Feb</td>
<td>-7.8%</td>
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<tr>
<td>Mar</td>
<td>-75.3%</td>
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<tr>
<td>Apr</td>
<td>-63.3%</td>
</tr>
<tr>
<td>May</td>
<td>-61.4%</td>
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Questions?