SUCCESSFUL MANAGEMENT OF AN EMERGENCY DEPARTMENT OBSERVATION UNIT

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Disclosures

• I have **no** conflicts of interest or disclosures.
Introduction

• How can we improve ED wait times (reduce LWBS, etc)?
• How can we decrease ED crowding (long ED stays, etc)?
  • How can we decrease ED boarding?

Answer:

Change the way we deliver care to our patients.

(or just buy more beds)
Growth of Observation Services
How Did We Get Here?

• ED overcrowding

• Institute of Medicine recommendation that OUs be part of solution to hospital overcrowding crisis

• Expanding literature base supporting use of dedicated OUs as efficient care model

• Expanded reimbursement for observation services

• Best practice standards recognizing use of observation units (ACEP)

• 2 midnight rule

• Readmission penalties
Why Doesn’t Everyone Do It?

Under ‘Observation,’ Some Hospital Patients Face Big Bills

Hospitalized but 'under observation'? Seniors, beware

Two Kinds of Hospital Patients: Admitted, and Not

Judith Stein got a call from her mother recently, reporting that a friend was in the hospital. “Be sure she’s admitted,” Ms. Stein said.
Observation Service Delivery Models Vary

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Protocol driven, observation unit</td>
<td>Highest level of evidence for favorable outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Care typically directed by ED</td>
</tr>
<tr>
<td>Type 2</td>
<td>Discretionary care, observation</td>
<td>Care directed by a variety of specialists</td>
</tr>
<tr>
<td></td>
<td>unit</td>
<td>Unit typically based in ED</td>
</tr>
<tr>
<td>Type 3</td>
<td>Protocol driven, bed in any</td>
<td>Often called a “virtual observation unit”</td>
</tr>
<tr>
<td></td>
<td>location</td>
<td></td>
</tr>
<tr>
<td>Type 4</td>
<td>Discretionary care, bed in any</td>
<td>Most common practice</td>
</tr>
<tr>
<td></td>
<td>location</td>
<td>Unstructured care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor alignment of resources with patients’ needs</td>
</tr>
</tbody>
</table>

Ross et al. Health Aff 2013;32:2149-2156

- **Type 1**: only 1/3rd observation services delivered in this model (majority by ED)
- **Type 4**: ‘scatter bed’ model, majority of observation services delivered in this model; observation status in an ‘inpatient’ bed, traditional ‘inpatient’ workflows
Why we are discussing this change now:

- Failure to realize favorable clinical outcomes
- Performance advantages and disadvantages
- Failure to recognize savings
- Potential for cost-shifting
- Need for value-based, reliable care
First Step: Observation Unit Requires Hospital Support

• This is a strategic initiative for the hospital system (not one department)
  – Messaging to medical community should emphasize this
  – Impacts everyone’s patient care (direct and indirect)

• Goal alignment is important (ie. Why are we doing this?)
  • Improve efficiency
  • Create capacity
  • Reducing cost of care
  • Improve clinical outcomes
  • Denial activity
What is the Ideal Set up?  
Observation Unit Characteristics

• Dedicated unit  
  – Regulated with process  
  – Specialized staff  
  – Closed unit

• Evidence-based, protocolized care  
  – Streamlined care  
  – Improved throughput  
  – Optimized Utilization

• Value-based delivery model  
  – Reduced cost  
  – Equal or better quality

**A 1-2 day hospitalization benefits from a certain type of care, independent of billing status (observation, inpatient, etc)**
How Do Patients Get In?  
Inclusion and Exclusion Criteria for Obs Unit

- **Inclusion Criteria**
  - Patients requiring the active management of their condition following the initial ED visit to determine the need for inpatient admission or discharge

- **Exclusion Criteria**
  - No clear working diagnosis
  - No clear management plan
  - Acute exacerbation of psychiatric condition
  - Acutely altered mental status
  - Hemodynamic instability
  - Sepsis
  - Requirement for nursing evaluation more frequently than every 4 hours
  - Agitated, combative or acutely intoxicated patient (may be placed in Observation Services after clinical sobriety achieved in ED)
How Are Patients Managed?
Clinical Protocols

- Streamline care
  - Scheduled investigations, therapies, reassessments

- Standardized management
  - Less variability

- Discharge and admission criteria
  - Reduced 30-day readmissions relative to routine care

- Inclusion/Exclusion criteria
  - Tailor to the unit, based on resources
Which Diagnoses Lend Themselves to Protocol-driven Care? (Hint: Long ED stays, <2 midnight inpatient stays, etc)

<table>
<thead>
<tr>
<th>Clinical Protocols Used in the Emergency Department Observation Service&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Pain</td>
</tr>
<tr>
<td>Allergic Reaction</td>
</tr>
<tr>
<td>Asthma/COPD Exacerbation</td>
</tr>
<tr>
<td>Back Pain</td>
</tr>
<tr>
<td>Cellulitis</td>
</tr>
<tr>
<td>Chest Pain</td>
</tr>
<tr>
<td>Dehydration</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Metabolic Disorder</td>
</tr>
<tr>
<td>Pneumonia</td>
</tr>
<tr>
<td>Pyelonephritis</td>
</tr>
<tr>
<td>Syncope</td>
</tr>
<tr>
<td>Transfusion</td>
</tr>
<tr>
<td>Transient Ischemic Attack</td>
</tr>
<tr>
<td>Venous Thromboembolism</td>
</tr>
</tbody>
</table>

<sup>a</sup>Abbreviation: COPD, chronic obstructive pulmonary disease.

Protocols at go-live were a best-guess guess of what our patients would be like.
Prioritization by Collaborating Services
Key to Efficiency & Streamlined Workflows

• **Cardiology**
  - Chest Pain
  - Atrial tachycardia
  - CHF

• **Neurology**
  - TIA
  - Vertigo
  - Headache

• **Surgery**
  - Abdominal pain

• **Gastroenterology**
  - GI Bleed
    • Bowel prep, endoscopy procedures, NPO status

• **Diagnostic Services**
  - Non-invasive cardiology
  - Radiology
  - Lab

• **This means:**
  - First test of Day
  - First consult of day
  - Early consult attending rounding
  - STAT TAT
Dedicated Clinical Resources

• **Nursing**
  - 4:1 patient to nurse ratio
  - Dedicated to OU care

• **APP (NP/PA)**
  - Dedicated to OU care
  - Provide OU care under physician supervision

• **Attending**
  - Reassess all patients in the OU daily
  - Available 24/7
  - Round in OU, then supervise APP care

• **Leadership**
  - Develop and monitor protocols
  - Support flow from ED
  - Monitor utilization and quality
  - Training, support
  - Update competencies
A ‘TYPICAL’ DAY IN THE OU
How Will Your Success Be Measured?

- **Volume**
  - Length of Stay
  - Conversion Rate
  - Recidivism
  - Patient satisfaction

\[ \text{Quality} \downarrow \quad \text{Efficacy} \quad \text{Safety} \]

\[ \text{Value} = \frac{\text{Outcome}}{\text{Cost}} \]
Volume

• Influenced by:
  – Inclusion Criteria
  – Exclusion Criteria

• Monitor by protocol
  – Overutilization
  – Underutilization

• Evaluate need for new protocol
  – ‘General protocol’
  – ‘Can I put my patients in your OU’?
Volume ➔ How many beds?

- Clinical breadth
- Simple vs Complex observation
- Resource justification
Initial Protocols

Protocols at go-live were a best-guess guess of what our patients would be like
Key Metrics

- Volume
- **Length of Stay**
- Conversion Rate
- Recidivism
- Patient satisfaction

\[
\text{Value} = \frac{\text{Outcome}}{\text{Cost}}
\]
Length of Stay

• Therapeutic protocols have longer LOS

• Troubleshoot prolonged obs stays
  – Priority testing
  – STAT turnaround time
    • Diagnostics
    • Labs
    • Consults
  – Intrinsic factors
    • Staffing, workflows
    • Patient selection, management
OUs Require Prioritization Everywhere

- Protocolized, coordinate workflows
  - Consultants (ie. Neuro for TIA)
  - Procedures (ie. GI for EGD)

- Prioritized diagnostics, labs
  - 1st stress test of the day

- Linens, food, garbage emptying, bed cleaning, transport, etc…
Key Metrics

- Volume
- Length of Stay
- Conversion Rate
- Recidivism
- Patient satisfaction

Value = \frac{Outcome}{Cost}

Quality \quad Efficacy \quad Safety
Conversion Rate

• The percent of patients admitted to inpatient status at the end of OU care

• Marker of OU efficacy and resource matching
  – Goal 15-20%
    • Too high: patient selection, workflow issue
    • Too low: patient selection, missed opportunities
  
• Exception:
  – Complex observation: trend towards higher rate
Key Metrics

- Volume
- Length of Stay
- Conversion Rate
- **Recidivism**
- Patient satisfaction
ED Revisit After Obs Discharge

72-hr ED revisit rate after Obs discharge: 4.5%

Repeat Dispo

- 34% Admit
- 66% Discharge
(16% returned to Obs)
72-Hour Revisit after ED Obs Discharge

Cause of revisit by % total revisit volume

<table>
<thead>
<tr>
<th>Reason for Revisit</th>
<th>% of Total 72-Hr Revisits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrelated to index stay</td>
<td>40%</td>
</tr>
<tr>
<td>Insufficient (clinical) Anticipatory Guidance</td>
<td>15%</td>
</tr>
<tr>
<td>Progression of dx</td>
<td>14%</td>
</tr>
<tr>
<td>Inadequate Output Follow-up</td>
<td>12%</td>
</tr>
<tr>
<td>Expected Return</td>
<td>9%</td>
</tr>
<tr>
<td>Missed Dx</td>
<td>7%</td>
</tr>
<tr>
<td>Inadequate Home Support</td>
<td>3%</td>
</tr>
</tbody>
</table>
Key Metrics

- Volume
- Length of Stay
- Conversion Rate
- Recidivism
- Patient satisfaction

\[
\text{Value} = \frac{\text{Outcome}}{\text{Cost}}
\]
Patient Satisfaction is Higher in a Dedicated Obs Unit

Patient satisfaction higher when observation services are provided in a Type 1 OU setting.
Patient Satisfaction

Started with all OU discharges. 358 comments in total.

41 comments were identified as being negative and consequently omitted from qualitative analysis.

116 of the remaining comments contained just a single word such as “Excellent” or “Good”, just a staff member’s name or other non-substantive text.

201 of the remaining positive comments were coded based on theme.

123 comments were in some way related to hospital staff.

78 comments were on their stay overall. - “Can’t think of anything. It’s really first-rate”, “Could not have been better.”

49 comments referenced the staffing overall without specifying the department. - “The staff were so caring and kind. I felt very safe.”, “The staff was excellent in every regard.”

46 comments specifically cited the nursing staff. – “The nurses were incredible - very professional and efficient - but comforting and calm. I had complete confidence in them.”

17 comments cited the physicians/PAs. – “the PA and the doctor were both incredible, empathetic and sweet.”

Remaining 11 comments about staff included those about those who drew blood and performed tests such as CT scans.
Summary: Keys for Success

- Teamwork (interdisciplinary MD/RN/APP/CM/SW, etc)
- Global collaboration (across service lines, disciplines, etc)
- Evidence-based, protocolized care (limit variability, optimize efficiency)
- Case management, social work (effective transitions)
- Leadership team (Nurse/Physician/APP partnering)
- Integration with community/private attendings (trust, DC planning, follow up)
- Institutional/IT support (customize, prioritize, keep it lean)
Where to go from here?
Education in Observation Medicine

- Majority (85%) of EM program directors felt observation medicine important part of training
  
  ---but---

- Few programs (<10%) had dedicated curriculum or required training

- Only recently (2016) a model observation medicine curriculum was presented

- In the interim:
  - Focused didactics
    - Interdisciplinary (physician, APP, RN)
    - Utilize ‘in-house’ experts
      - Intra- or Interdepartmental joint conferences (ie. EM-IM, EM-Cardiology, etc)
    - Local observation medicine experts
  - Targeted protocol-based reading
  - CME conferences
Developing a New Culture: Unit-Based Education Collaboration

- **Challenge**: New team members were asked to integrate themselves into a new unit delivering a novel form of healthcare and develop critical skills in a short timeframe.

- **Strategy**: Leadership conducted a needs assessment for staff to self-identify learning opportunities.

- **Lessons Learned**: Staff-level sharing of knowledge is an invaluable approach to team building and an effective tool for culture change.
Questions?
Thank you!

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