Incorporating Observation Medicine Teaching in your OU

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Disclosure of Commercial Relationships

• No Commercial Relationships
Why Teach Observation Medicine?

• 36% of EDs have dedicated Observation Units (OUs)¹
• 2/3 of EM residency programs have a dedicated OU
• Only 9.8% have a required Observation Medicine (OM) rotation and only 25.5% have an OM elective²
• 85% of PDs believe OM is an important part of EM

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Why Teach Observation Medicine?

• **Observation Medicine is a cognitive skill**
  - Understanding clinical pathophysiology of what can be managed in the OU
  - Optimal management protocols
  - Smooth transitions of care
  - Recognize potential risks and outcomes
  - Develop administrative skills
Why Teach Observation Medicine?

• Understanding natural history of disease

• Better disposition decisions

• Better manage boarded patients

• Bridge the gap between Emergency Care and Acute Inpatient Care

Why Teach Observation Medicine?

• Exposure to sub-acute diagnostic testing

• More time for direct resident observation and face to face teaching.

• Opportunity to provide direction and leadership for developing OUs
Background

• VCU Medical Center Clinical Decision Unit (CDU)
  – Opened in 2006
  – Two EM/IM boarded physicians as co-directors
  – 24/7 Mid-level provider services
  – Only ED physicians allowed to admit. No direct admits or holds accepted

Background

• Started with 15 protocols, expanded to 32 protocols
• Accepted “Complex” Observation and Extended ED LOS patients who met criteria.
• Able to meet admission and LOS benchmarks in 1st yr of existence.
• Offered elective in Obs Medicine starting July 2007
Background

• In July 2008, offered a core rotation in Observation Medicine to second year ED residents.
• Created an “Observation Medicine Track” within the EM residency program.
• 2009 – recognized as a separate “Division of Observation Medicine” by VCU board of reagents.

Observation Medicine Students

• Emergency Medicine Residents
• Mid-level Providers
• Medical Students
• Internal Medicine Residents
• Pharmacy Residents
Methods of Learning

• Web 2.0
• Web-based asynchronous learning
  • Longitudinal Curricula
  • Simulation-based curricula
  • Didactic presentations
    • Group Learning

Prerequisites

• Dedicated leadership with a commitment to teach
• Institutional and Departmental support
• Preferably a closed unit
• Involve dual trained faculty (EM-IM, EM-FP)
• Unit that meets clinical benchmarks
Structure of Rotation at VCU

● Dynamic flow, mimics the ED multitasking approach

● 7A-5P: rotation starts with an AM sign-out.

● Disposition driven

● Working rounds, break off to admit/discharge

Structure of Rotation at VCU

● Bedside teaching

● “Field trips” – nuclear medicine, ECHO, Stress testing, EP, Endoscopy

● Didactic teaching
  – Teaching file, daily quiz
  – Observation Administration
Model Curriculum

• Didactics, Clinical Experience and Self Directed learning
• As resident progresses, gradual escalation of involvement in observation care
• With an end goal of allowing a senior resident to be able to manage an observation unit under the supervision of an attending

Model Curriculum

• Didactics
  – Core curriculum lectures
  – Separate discrete lectures
  – Reading List
  – Recent literature
Longitudinal Curriculum

• PGY-1 Year
  – Development of Knowledge Base
    • Basic Principles of Observation Medicine
    • Understanding unit protocols
    • Appropriate patient selection, management and disposition
    • Follow up on resident’s patients who underwent observation

Longitudinal Curriculum

• PGY-2 Year
  – Understand observation unit protocols
    • Inclusion/exclusion criteria
    • Interventions and further clinical testing
    • Disposition based upon observation unit stay
  – Learn patient management in greater detail
    • Interpretation of clinical results
  – Manage multiple observation patients
Longitudinal Curriculum

• PGY-3 Year and beyond
  – Manage a group of observation patients both clinically and administratively
  – Understand the administrative aspect of observation medicine
    • Participation in quality assurance
    • Development of new protocols
    • Evaluation/Research based upon existing protocols
    • Billing and coding

Potential Pitfalls

• Overstaffing
  – Not enough patients to keep everyone busy

• Lack of institutional or departmental support
  – Inadequate release time for teaching

• Lack of clearly defined goals
Other Possibilities

• Integrate Observation Medicine teaching into existing EM department rotation

• Combine Observation Medicine Rotation with Ultrasound, Procedure, Toxicology or EMS rotation

Evaluating milestone based performance
Evaluating the Educational Impact of an Observation Unit Rotation for Emergency Medicine Residents

**OBJECTIVE:** To assess the educational utility of a 21 day rotation in an observation unit by second year Emergency Medicine (EM) Residents

**METHODS:** This is a quantitative and qualitative study assessing the educational utility of a required EDOU rotation. The study used two assessment instruments. The first was a ten question assessment of the residents’ knowledge of criteria used to admit patients to the EDOU. The second was a 15-item survey utilizing a five point Likert scale designed to assess the key elements of ACGME general competencies.

**RESULTS:** EM residents improved their mean score on the medical knowledge assessment by 16% (5.96 vs. 6.92, 95% CI 0.41-1.51) and achieved statistically significant improvement in each of the other general competencies except interpersonal communication.

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<thead>
<tr>
<th>CDU-Pre-rotation evaluation</th>
<th>Not at all</th>
<th>very Comfortable</th>
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<tbody>
<tr>
<td>Independently managing patients</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Coordinating all aspects of patient care, including specialty providers, nursing, and social work</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Performing procedures</td>
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<td>Utilizing resources appropriately</td>
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<td>Making decisions regarding disposition of ED patients</td>
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<td>Communicating with patients</td>
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<td>Communicating with other care providers</td>
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<tr>
<td>Advocating for my patients within the healthcare system (i.e. arranging timely follow-up and outpatient testing, etc)</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Diagnosing and treating:</td>
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<tr>
<td>Asthma</td>
<td>1 2 3 4 5</td>
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<td>Soft-tissue infections</td>
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<tr>
<td>Blunt trauma</td>
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<tr>
<td>Chest pain risk stratification</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Complication of diabetes</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>Syncope</td>
<td>1 2 3 4 5</td>
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</table>
CDU-Post-rotation evaluation

Please rate your comfort level in the following:

1. Independently managing patients
2. Coordinating all aspects of patient care, including specialty providers, nursing, and social work
3. Performing procedures
4. Utilizing resources appropriately
5. Making decisions regarding disposition of ED patients
6. Making decisions regarding dispositions of CDU patients
7. Communicating with patients
8. Communicating with other care providers
9. Advocating for my patients within the healthcare system (i.e. arranging timely follow-up and outpatient testing, etc.)
10. Diagnosing and treating:
   - Asthma
   - Soft-tissue infections
   - Blunt trauma
   - Chest pain risk stratification
   - Complication of diabetes

As a result of the CDU rotation I can:

1. Utilize hospital resources more efficiently
2. Better understand financial aspects of medicine
3. I learned a lot this month
4. I learned more than I would have during an ED rotation
5. I learned more than on my inpatient medicine rotation

Sample questions: Pre-test (evaluating TIA and Syncope pathways)

50 year old male with diabetes and hypertension presents with right arm and face weakness which completely resolves in the ED. His CT Scan shows a small left basal ganglia stroke. The Neurology service would like to put the patient in CDU to obtain a MRI to confirm the diagnosis, should you

Circle: Yes or No

67 year old patient with prior history of CAD presents with first episode of syncope. His EKG is unchanged and blood work including troponin and BNP are normal. Should you admit the patient in CDU?

Circle: Yes or No
Sample questions: Post-test (evaluating TIA and Syncope pathways)

50 year old male with diabetes and hypertension presents with right arm and face weakness which completely resolves in the ED. His CT Scan is normal. The Neurology service would like to put the patient in CDU to obtain a MRI to work up TIA, should you

Circle: Yes or No

67 year old patient with history of CHF on multiple cardiovascular medications presents with first episode of syncope. His EKG is unchanged, his last echo showed an EF of 25%. Should you admit the patient in CDU

Circle: Yes or No

*Reading List – PGY 1*

- Graff, LG. Observation MEDICINE The Healthcare System’s Tincture of Time. (online textbook)

*O’Malley et al., Development and Integration of an Observation Medicine Curriculum into an Emergency Medicine Residency*
Reading List – PGY 2

Chest Pain:


Asthma:


Transient ischemic attack:


Atrial Fibrillation:

Reading List – PGY 2

Syncope:

Congestive Heart Failure:

Pediatrics:

Geriatrics:

Abdominal Pain:

Health Policy:

Financial issues:

Unit Management:

National policy issues:

Reading List – PGY3

Health Policy:

Financial issues:

Unit Management:

National policy issues: