The Advanced Practice Provider in Observation

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Disclosure

• I have no actual or potential conflict of interest in relation to this presentation.

The APP-Run Unit

- Staffing
- Champion
- Beyond Typical ED Management
- Quality Assessment
- Customer Service
Observation at BWH

- Abdominal Pain
- Allergic Reaction
- Asthma/COPD
- Atrial Fibrillation and Flutter
- Back Pain
- Cellulitis
- Chest pain
- CHF
- DVT
- Dehydration/hyperemesis
- Febrile Neutropenia
- Flank Pain (Pyelonephritis/Urolithiasis)
- General Complaint

Protocols at BWH

- Headache
- Metabolic Derangement
- Mild Traumatic Brain Injury
- Pneumonia
- Psychiatric Emergency
- PE
- Social Interventions
- Syncope
- Transfusion
- TIA/Stroke
- GI Bleed
- Hyperglycemia
- Hypoglycemia
Protocols at BWH

Frequency of use (2016)

- Generic Protocol: 26%
- Psychiatric Illness: 12%
- Chest Pain: 11%
- Neuro Eval (Stroke/TIA): 10%
- Abdominal Pain: 7%
- LEFT BLANK: 5%
- CHF: 1%

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Protocols at BWH

**GENERIC PROTOCOL**

I. Relative Exclusion Criteria:
   A. Patient in restraints
   B. Patient with acute intoxication
   C. Patient with GCS of < 13 (if new)
   D. Expected LOS > 36 hours

Note that patients with inclusion A and B can still be managed as an OBS patient. Some OBS documentation is required but patient does not move to OBS unit.

II. Typical OBS Interventions:
   A. Analgesics
   B. Antibiotics
   C. Serial exams
   D. Telemetry and oxygen saturation monitoring
   E. Imaging
   F. Care coordination/Social work consultation

III. Disposition Criteria:
   A. HOME
      1. Treatment and evaluation complete, no indication for inpatient admission
   B. HOSPITAL
      1. Need for ongoing treatment or evaluation after observation stay
      2. Any indication for further inpatient hospitalization identified

IV. Time Frame:
   A. Up to two midnights

Used for:
- SBO
- Seizure
- Fever
- PICC line issue
- Non-operative hip fx
- Gout
- Crohn’s flare
- And many more

Staffing: Qualities in our APP

Better call the backline for a STAT read so I can discharge this one ASAP

Sure, I’d be happy to call your brother, sister and cousin to update them too...

My patient in room 2 is looking septic

Let’s check vitals and start fluids
Staffing

- **Emergency medicine**
- **Critical care**
- **Inpatient medicine**

**Advanced Practice Providers**

<table>
<thead>
<tr>
<th>Clinical flexibility</th>
<th>Reduce healthcare costs</th>
<th>Abundance</th>
<th>High patient satisfaction rates</th>
</tr>
</thead>
</table>

**Physician Assistant**
- Don’t require specialization

**Nurse Practitioner**
- Acute care
- Family practice

AAPA: PA Salary Report
US Department of Labor Capstack, et al.
Paradise, et al.
Staffing: Hiring and Training

Staffing: New Hire Training

**Experienced APP**
- 3-4 weeks ED training shifts
- 2 OU training shifts
- Solo OU shift after 3-6 months

**New Graduate APP**
- 4 weeks ED training shifts
- 3-4 OU training shifts
- Solo OU shift after 6-12 months
- Needs support
Staffing

How can we prevent this?

- Dedicated OU staff
  - Familiarity

- Rotating ED staff
  - Perspective
Staffing: Supporting Existing Staff

YOU WANT ME
TO DO WHAT!?!

Staffing: Rounds in 24 hour APP unit

- Overnight APP
- Daytime APP
- Physician

6:30AM
8:00AM
Beyond Typical ED Management

Longer LOS = extra time for value added care

Longer LOS = inpatient-like issues arise

Beyond Typical ED Management

- Medication Reconciliation
- Diabetes Management
- VTE Prophylaxis
Beyond Typical ED Management

Active medication management
- Who does it?
- Special considerations
  - Metformin and beta blockers in chest pain
  - AKI
  - Bowel Regimen
  - Pharmacy can help

Lindenauer, et al.

Beyond Typical ED Management

Make a reference guide

- Check glucose
- Short acting insulin for diabetics
- Steroid induced hyperglycemia
- New onset diabetes and discharge
Beyond Typical ED Management

Diabetes Discharge

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Preferred Meter *last updated 7/2014</th>
<th>GLUCOMETER SELECTION: **Please discuss with case management before ordering</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCBS of MA</td>
<td>One Touch</td>
<td>Order Test Strips and Lancets associated with meter (freestyle or one touch) QID testing (120/month supply)</td>
</tr>
<tr>
<td>Caremark (CVS)</td>
<td>One Touch</td>
<td></td>
</tr>
<tr>
<td>Commonwealth of MA (Unicare State Indemnity Plans)</td>
<td>One Touch</td>
<td></td>
</tr>
<tr>
<td>Express Scripts National Preferred Formulary</td>
<td>One Touch</td>
<td></td>
</tr>
<tr>
<td>Fallon Community Health Plan</td>
<td>One Touch</td>
<td></td>
</tr>
<tr>
<td>Harvard Pilgrim Health Plan</td>
<td>Freestyle</td>
<td></td>
</tr>
<tr>
<td>MA Medicaid (MassHealth)</td>
<td>Freestyle</td>
<td></td>
</tr>
<tr>
<td>Medicare (Part B)</td>
<td>Freestyle</td>
<td></td>
</tr>
<tr>
<td>Tufts Health Plan</td>
<td>One Touch</td>
<td></td>
</tr>
</tbody>
</table>

**Insulin glargine (Lantus Solostar Pen 100unit/mL)**

- __#_ units SC __ freq__
- Disp: 5 pens
- Refills: 3

**Insulin glargine (Lantus 100unit/mL)**

- __#_ units SC __ freq__
- Disp: 3 vials
- Refills: 3

**Insulin needles (disposable) 32 x 5/32”**

- Disp: 100 needles
- Refills: 3

**Insulin syringe-needle U-100 1mL 31x15/64”**

- Disp: 100 syringes
- Refills: 3

GLUCOMETER SELECTION: **Please discuss with case management before ordering**

Order Test Strips and Lancets associated with meter (freestyle or one touch)

QID testing (120/month supply)

ORDERING LANTUS:

Lantus PEN -- **Please check with case management, not covered by all insurances

Lantus VIAL -- ** Alternative if pens not covered

Give instructions for endocrine follow up: 617-732-5666

GLUCOMETER SELECTION: **Please discuss with case management before ordering**

Beyond Typical ED Management

Padua Prediction Score for Risk of VTE

<table>
<thead>
<tr>
<th>Baseline features</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active cancer*</td>
<td>3</td>
</tr>
<tr>
<td>Previous VTE (with the exclusion of superficial vein thrombosis)</td>
<td>3</td>
</tr>
<tr>
<td>Reduced mobility†</td>
<td>3</td>
</tr>
<tr>
<td>Already known thrombophilic condition‡</td>
<td>3</td>
</tr>
<tr>
<td>Recent (≤1 month) trauma and/or surgery</td>
<td>2</td>
</tr>
<tr>
<td>Elderly age (≥70 years)</td>
<td>1</td>
</tr>
<tr>
<td>Heart and/or respiratory failure</td>
<td>1</td>
</tr>
<tr>
<td>Acute myocardial infarction or ischemic stroke</td>
<td>1</td>
</tr>
<tr>
<td>Acute infection and/or rheumatologic disorder</td>
<td>1</td>
</tr>
<tr>
<td>Obesity (BMI ≥30)</td>
<td>1</td>
</tr>
<tr>
<td>Ongoing hormonal treatment</td>
<td>1</td>
</tr>
</tbody>
</table>

*Patients with local or distant metastases and/or in whom chemotherapy or radiotherapy had been performed in the previous 6 months. 
†Bedrest with bathroom privileges (either due to patient’s limitations or an physician’s order) for at least 3 days. 
‡Carriage of defects of antithrombin, protein C or S, factor V Leiden, G20210A prothrombin mutation, antiphospholipid syndrome.

**Score > 4 is high risk: Anticoagulate**

**Score < 4 or staying <24 hours: mechanical prophylaxis**

Barbar, et al.
Navigating the intersection of patient expectations with specialty service expectations

- Timing of testing and results
- Backlines for reading rooms
- Weekend and holiday schedule
- Consultant availability

Customer Service

Disposition planning
- Case management
- Physical therapy
- Social work
- Patient relations

Can you come back tomorrow? Maybe then I’ll be ready to go home...
Quality Assessment

- Review of data
- Peer submitted case review

Use caution with diagnosis with no specific, easy to identify endpoint
Identify a Champion

NOW HIRING

**Job description:**
- Front line worker
- Creates relationships
- Facilitates training
- Manages complaints

APP Leadership Structure

- Director
- Chief
- PA-III
  - Observation
  - Epic and IT support
  - New hire orientation and training
  - Urgent care
- PA-II
- PA-I
## APP Staffing

- 12 hour shifts
- ED
- Urgent Care
- Observation

## Summary

- Recruit experienced APP’s
- Ideal staff rotates
- Support your current staff with education
- Anticipate inpatient-like issues
- Have “cheat sheets”
- Manage expectations
- Befriend case managers, social workers and patient relation specialists
- Have a complaints department
- Chose a diagnosis with an endpoint
- Have a cheerleader
Questions?

Email: cchipalkatty@bwh.harvard.edu

References

Staffing

**Physician Only**
- Nurses (4-5:1)
- Nursing Assistant
- Unit Secretary

**Groups Compared**
Not at BWH

**Physician + Advanced Practice Provider (APP) or Resident**
- Nurse (4-5:1)
- Nursing Assistant
- Unit Secretary

**Model at BWH**

Connely, et al

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Observation at BWH

<table>
<thead>
<tr>
<th>Shorter Stay OU</th>
<th>Longer Stay OU</th>
</tr>
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<tbody>
<tr>
<td>• 10 Beds</td>
<td>• 10 Beds</td>
</tr>
<tr>
<td>• Located in ED</td>
<td>• Located on 12th floor</td>
</tr>
<tr>
<td>• 12 hour APP / 12 hour resident coverage</td>
<td>• 24 hour APP coverage</td>
</tr>
<tr>
<td>• Shared case manager</td>
<td>• No resident coverage</td>
</tr>
<tr>
<td>• LOS 14 hours</td>
<td>• Dedicated case manager</td>
</tr>
<tr>
<td>• 13 patients/day</td>
<td>• LOS 20 hours</td>
</tr>
<tr>
<td>• MD + APP + Resident</td>
<td>• 8 patients/day</td>
</tr>
<tr>
<td></td>
<td>• MD + APP</td>
</tr>
<tr>
<td></td>
<td>• No behavioral health</td>
</tr>
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Protocols at BWH

Frequency of use (2016)

- Generic Protocol: 18%
- Chest Pain: 17%
- Psychiatric Illness: 11%
- Neuro Eval (Stroke/TIA): 11%
- Abdominal Pain: 9%
- LEFT BLANK: 5%
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- Dehydration
- Social Intervention
- Chest Pain
- Abdominal Pain
- Back Pain
- Flank Pain
- Metabolic Derangement
- Psychiatric Illness
- LEFT BLANK
- Syncope
- Headache
- Allergic Reaction