Mass General Brigham

Building Blocks of Starting An Observation Unit

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Assistant Professor of Emergency Medicine

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Observation Medicine– Science and Solutions Conference

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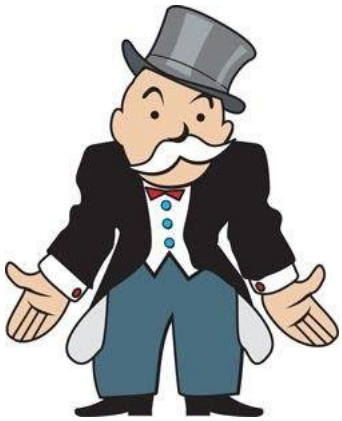
Disclosures

No relevant disclosures



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Let's Set the Scene…

3

BACK IN THE DAY

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A NEED, BUT NOT ENOUGH RESOURCES

ED WAITING ROOM

DMV WAITING ROOM

AIRPORT GATE WAITING AREA

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THE PROBLEM

- Increased ambulatory and ambulance traffic
- Long waiting room times
- Hospital regularly above capacity
- Borders in the hallway
- Inpatient teams capped without planned discharges

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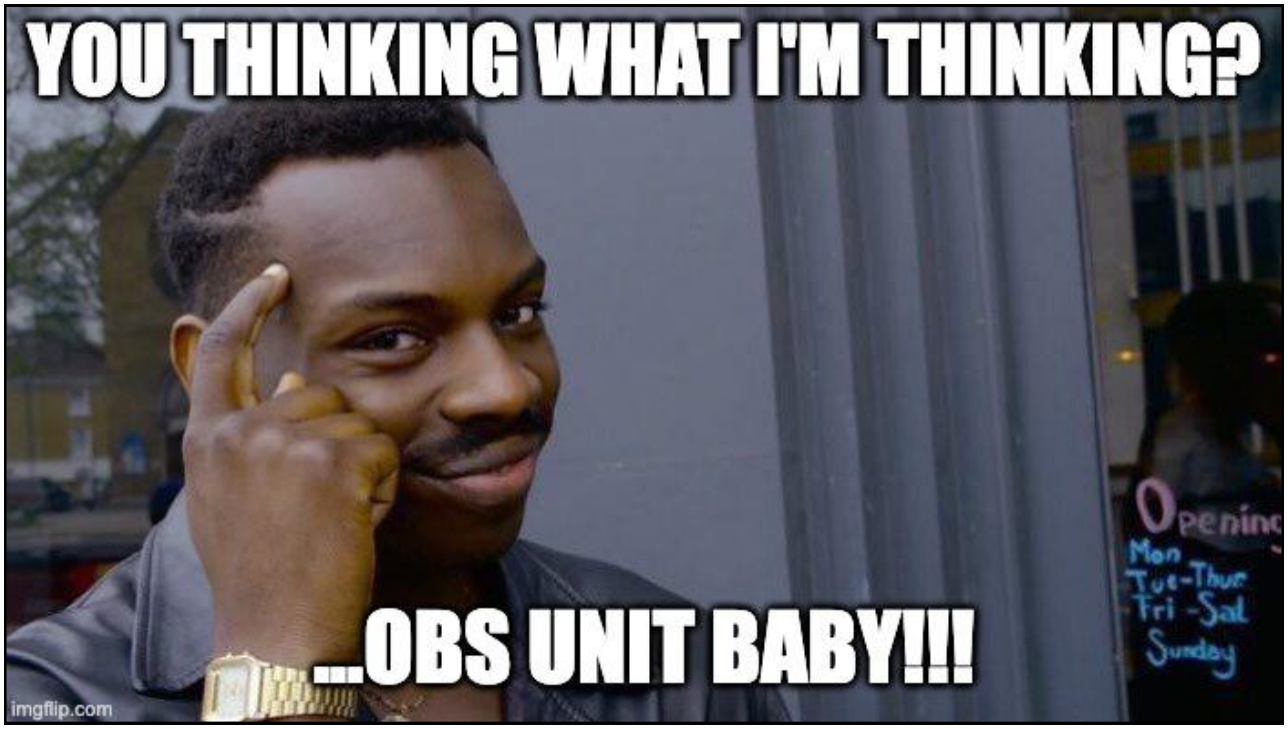
YOU THINKING WHAT I'M THINKING?
...OBS UNIT BABY!!!
imgflip.com

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WHERE DO I....
S1 T1 A1 R1 T1
?

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"THIS ISN'T MY FIRST RODEO"
-ME, AT MY SECOND RODEO
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YOU WANT ME TO DO WHAT
makeameme.org

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Objectives

- Outline key foundational elements for building your own observation unit
- Identify Pro-tips to aid in the process
- Provide examples from our own observation unit

Learning Objectives

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The Drawing Board

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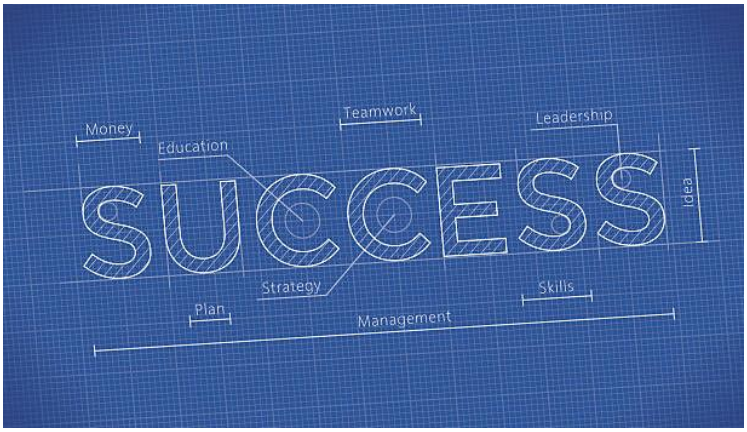
KEY ELEMENTS– BLUEPRINT FOR SUCCESS



- LOCATION / TYPE OF UNIT
- SIZE / VOLUME
- STAFFING
- PROTOCOLS
- WORKFLOWS
- METRICS

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LOCATION

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REAL ESTATE
1. LOCATION
2. LOCATION
3. LOCATION

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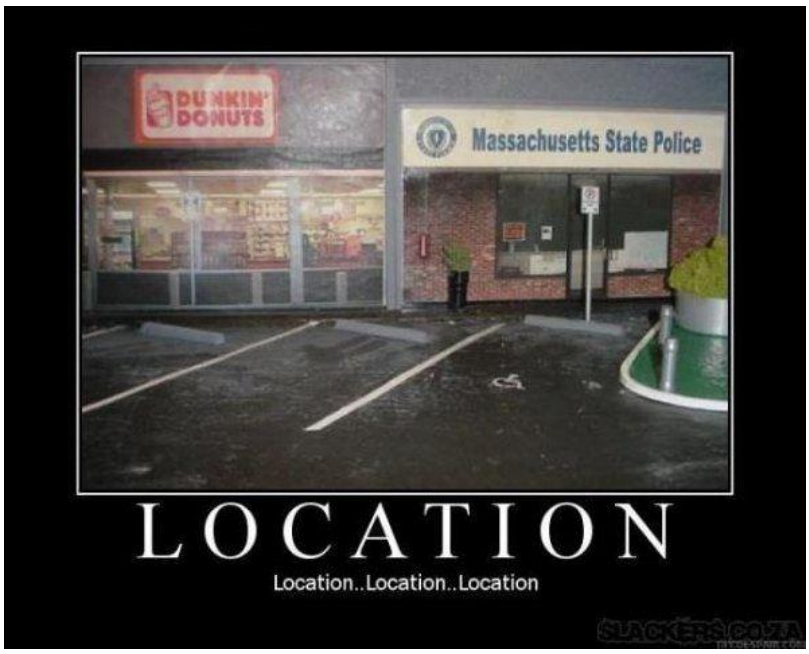
DUNKIN' DONUTS
Massachusetts State Police
LOCATION
Location..Location..Location

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LOCATION

- Critical design component for an Observation Unit
- Ideal to Find a Dedicated Space Within or Adjacent to the ED
  - Processes minimally disrupted
  - Close proximity of key resources
    - Clinicians
    - Supplies
    - Equipment / Testing Devices

Conley J, Bohan JS, Baugh CW. The Establishment and Management of an Observation Unit. *Emerg Med Clin North Am*. Aug 2017;35(3):519-533. doi:10.1016/j.emc.2017.03.002

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LOCATION

- Remote Observation Unit
  - No significant change to the internal dynamics of the unit
  - Loss of efficiency
    - Clinical re-evaluation
    - Transport
    - Communication
  - Look to use ED tech or internal transport to expedite patient movement to remote EDOU

Baugh CW, Venkatesh AK, Bohan JS. Emergency department observation units: A clinical and financial benefit for hospitals. *Health Care Manage Rev*. Jan-Mar 2011;36(1):28-37. doi:10.1097/HMR.0b013e3181f3c035

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LOCATION– HOW TO CHOOSE

- Present Day Challenges
  - Overcrowding
  - Boarding
  - Limited department space
- How to choose?
  - Undersize ED / Lose Acute Care Beds
    vs
  - Remote Observation Unit
- Work with the Hospital Leadership, ED Leadership, and Operations team to determine the right fit

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TYPE OF OBSERVATION UNIT

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TYPE OF OBSERVATION UNIT

Closed Units

- Most common design
- Managed by a single physician group or specialty

Open Units

- Grant more than 1 group of physicians the opportunity for patient placement in the unit
- Care of each patient driven by discretion of individual physician

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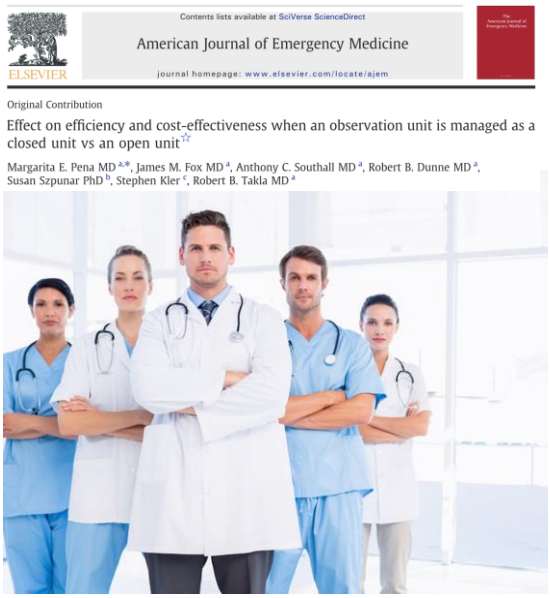
CLOSED UNIT

- Unified leadership
- Condition specific protocols
  - Clear inclusion /exclusion criteria
  - Defined interventions
  - Solid Endpoints for Admission / Discharge
- Consistency in type of patients placed in unit
- Clinicians have greater expertise in managing patients in OU setting
- Ease of targeted education / quality control feedback
- More cost effective



Contents lists available at SciVerse ScienceDirect

American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem

Original Contribution

Effect on efficiency and cost-effectiveness when an observation unit is managed as a closed unit vs an open unit☆

Margarita E. Pena MD [a,*], James M. Fox MD [a], Anthony C. Southall MD [a], Robert B. Dunne MD [a], Susan Szpunar PhD [b], Stephen Kler [c], Robert B. Takla MD [a]

Pena ME, Fox JM, Southall AC, et al. Effect on efficiency and cost-effectiveness when an observation unit is managed as a closed unit vs an open unit. Am J Emerg Med 2013;31:1042–1046.

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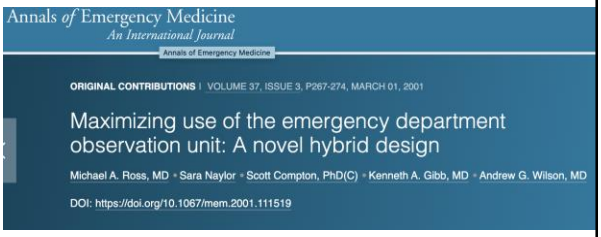
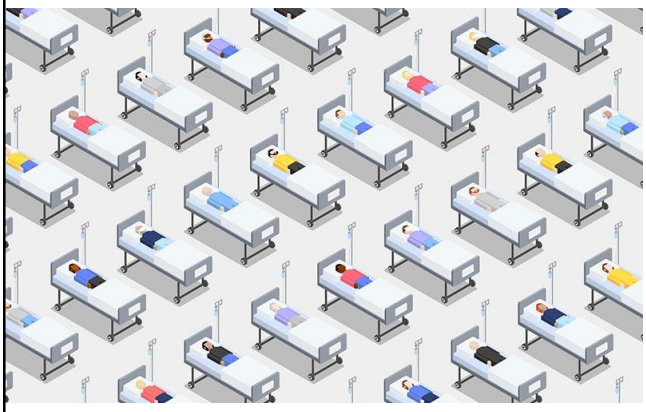
HYBRID UNIT

- Unit used by both observation patients and other patient populations
  - Eg: Recovering elective procedure patients
- May be a necessity for smaller hospitals trying to overcome
  - Staffing cost of nursing / ancillary staff
  - Unit not consistently operating at full capacity
- Has been shown to improve hourly census and nurse utilization



Ross MA, Naylor S, Compton S, Gibb KA, Wilson AG. Maximizing use of the emergency department observation unit: a novel hybrid design. Ann Emerg Med. 2001 Mar;37(3):267-74. doi: 10.1067/mem.2001.111519. PMID: 11223762

HYBRID UNIT



Boarding Patients

- May be enticing or seem like a good idea to bed control / administration

PRO TIP

- Must be avoid aside from disaster capacity situations
  - Holding / boarding time frames are unknown / longer than expected
  - Impacts Observation Capacity
  - Short stay patients directed then to inpatient teams
- Lean on ED leadership to prevent this process from becoming the norm

VOLUME

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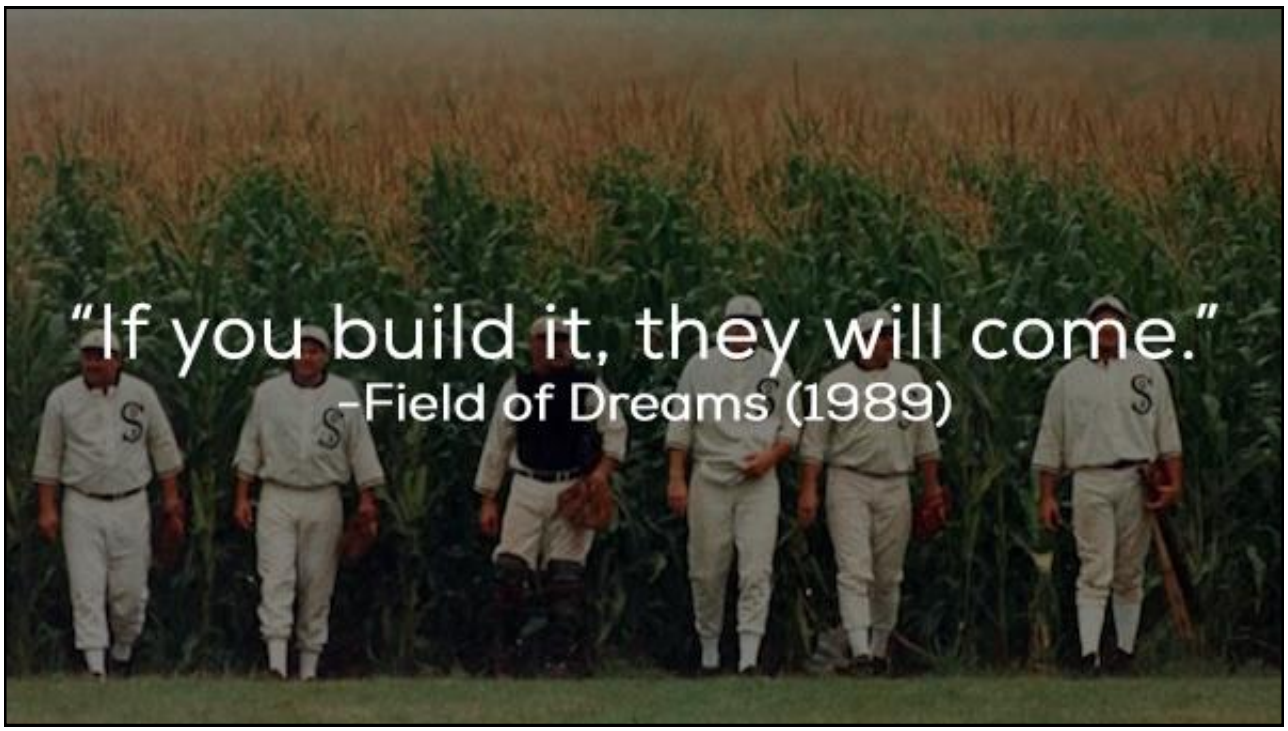

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VOLUME CAPACITY– FINDING THE RIGHT FIT

- Connect with your hospital / department's data personnel– last 3-6 months of data
  - Number of observation admissions
  - Number of short stay admissions
- Approximately 5-10% of all ED patients are good candidates for observation care
  - Adjust up / down depending on size / admission rate of your hospital

Mace SE, Graff L, Mikhail M, Ross M. A national survey of observation units in the United States. *Am J Emerg Med*. Nov 2003;21(7):529-33.doi:10.1016/j.ajem.2003.08.012

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VOLUME / CAPACITY

BRIGHAM AND WOMEN'S FAULKNER HOSPITAL OBSERVATION UNIT: 6 BEDS → EXPANSION TO 12 BED UNIT

- Minimum size
  - 5 to 8 beds
  - Average daily volume of 8 patients'
  - Allows for nursing ratio of 1:5 or 1:4
  - Typically need 80 ED visit / day and 30,000 ED visits annually
- Hybrid model offers flexibility

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PHYSICAL DESIGN

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PHYSICAL DESIGN

- Thoughtful design to optimize patient care
- Considerations
  - Space usage (premium)
  - Relationships
    - Patient – clinician
    - Patient – nursing
  - New vs Renovated space
  - Nurse-to-patient ratio → determines number of beds in design
  - City and State regulations – DPH

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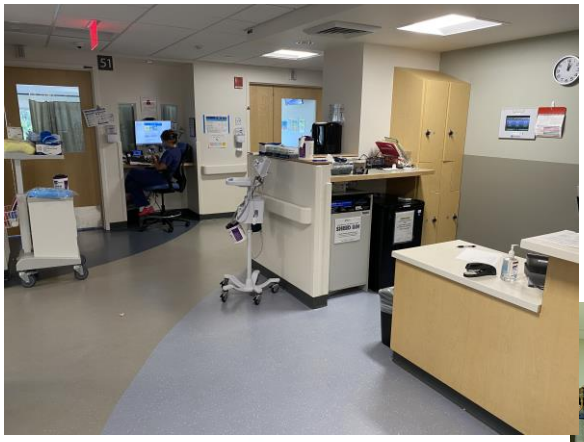
PHYSICAL DESIGN



- Considerations
  - Business specialist / secretary workspace
  - Omnicell / Medication location
  - Nourishment station
  - Visitor accommodations

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PHYSICAL DESIGN

- Considerations (cont):
  - Touchdown space for consultants
  - Curtained cubicles vs closed-door rooms
    - Each with advantages / challenges
    - More square footage-curtains
    - Communicable disease considerations (eg: COVID)
  - Patient – Provider Proximity
    - Location of workstations in relation to patient rooms
    - Optimize “observation”
    - Enhance patient relationship / experience

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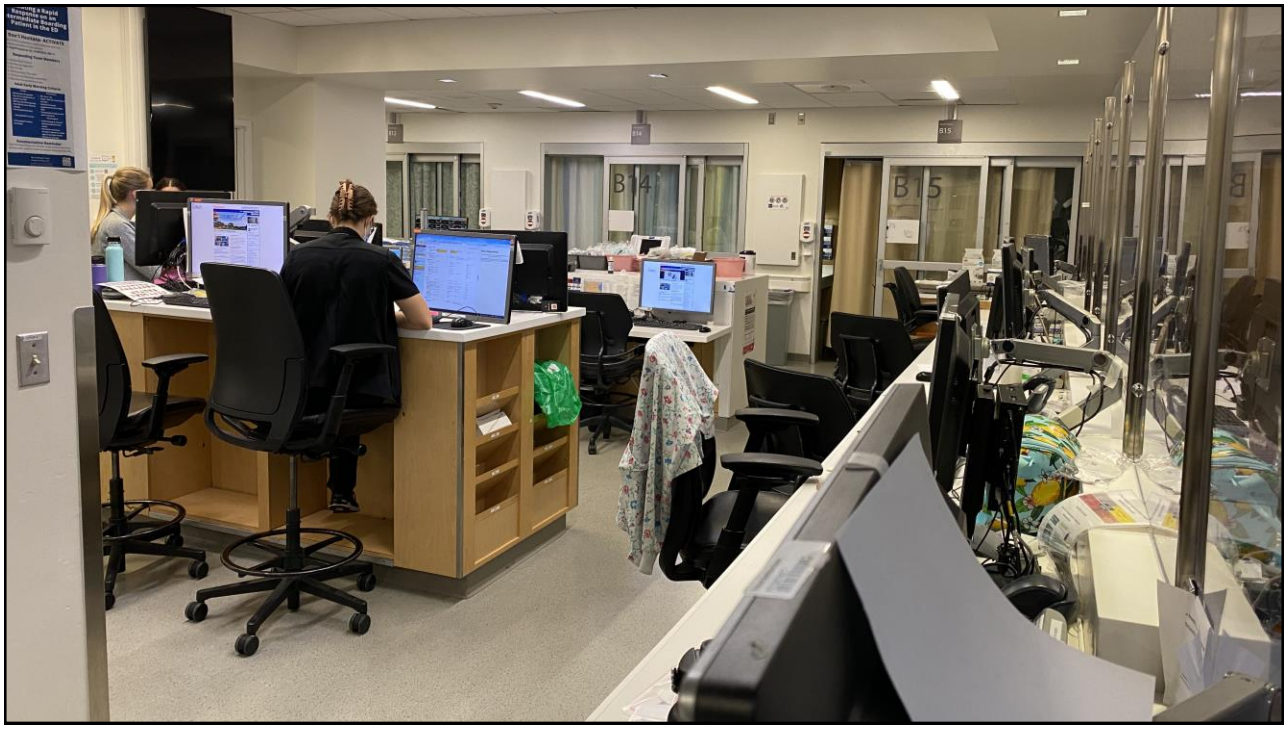

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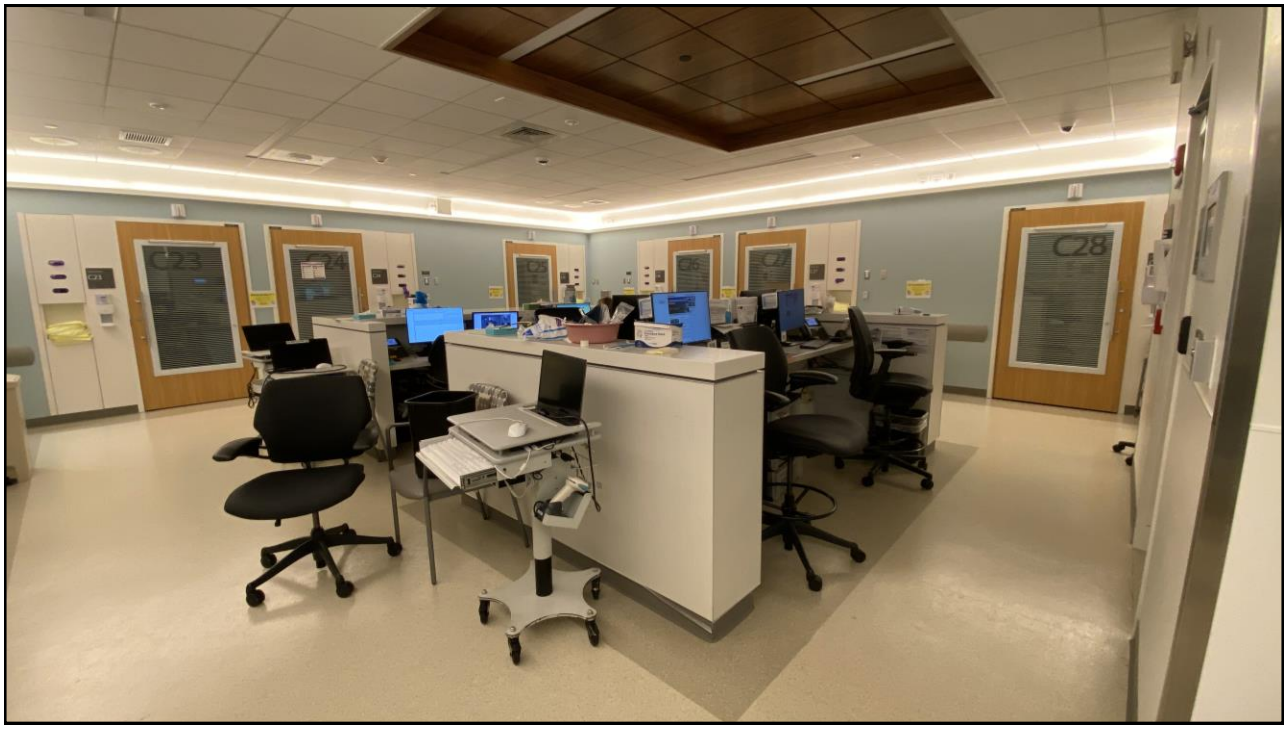

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STAFFING

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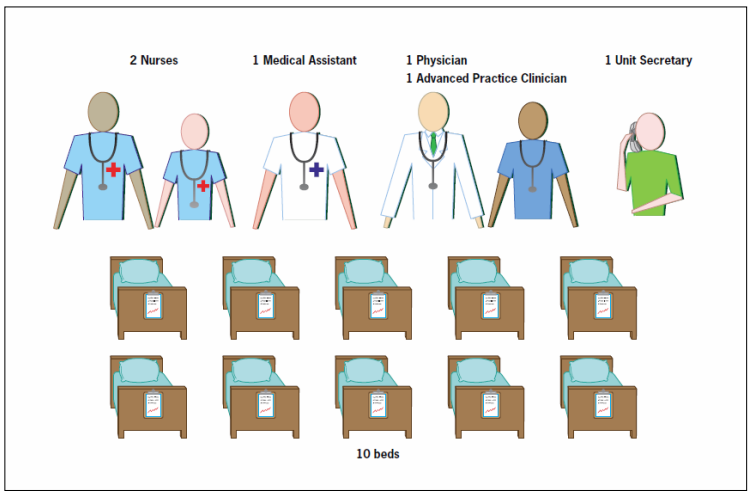
LEADERSHIP

- Critical to the successful creation and continued management of an OU
- Leadership Quartet
  - Medical Director
  - Nurse Director
  - Administrative Director
  - Lead Advanced Practice Provider
- Establish / maintain key functions of the unit
  - Space utilization
  - Train and maintain staff
  - Create / revise condition-specific protocols
  - Quality and safety review process
  - Advancing academic / educational activities around observation medicine

CLINICAL STAFFING MODEL

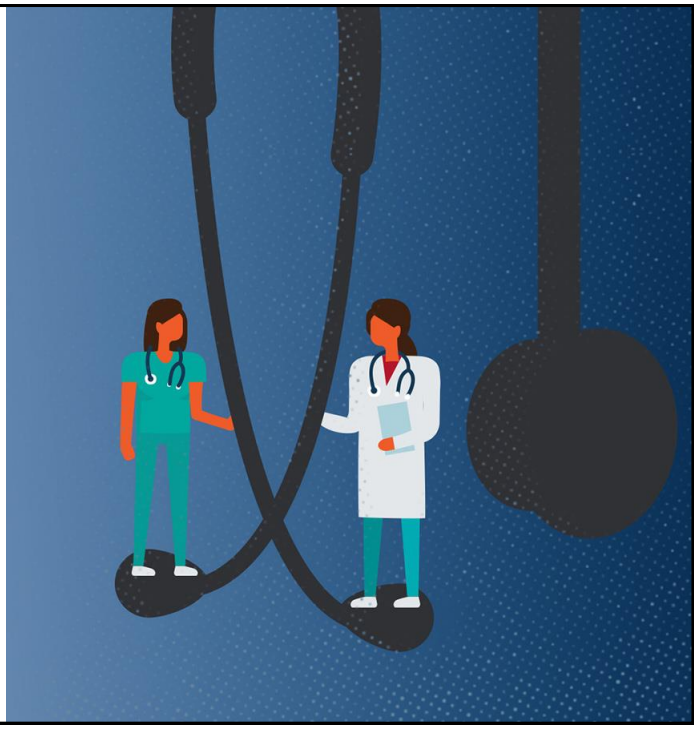


Courtesy of Sharon E. Mace, MD, Emergency Services Institute, Cleveland Clinic and Ken Kula, Clevelend Clinic Center for Art and Medical Photography

- Appropriate clinical staffing – drives the unit's efficiency and effectiveness
- Typically consists of
  - Physicians
  - APPs
  - Nurses
  - Medical assistant
  - Unit secretary
- Combination / Number of staff determined by:
  - Proximity to ED
  - Number of beds
  - Complexity of patients

PHYSICIAN STAFFING

- Two primary models of clinical care
  - **Physician-nurse team** caring for all patients in the OU
  - **APP-nurse team** caring for all patients with physician oversight



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PHYSICIAN-NURSE MODEL

- Direct physician coverage provided for the patients
- Constant presence of attending physician in the unit
- Limits the ability for the physician to cross cover other areas of the ED

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APP-NURSE MODEL with PHYSICIAN OVERSIGHT

- Attending physician is immediately available but not continuously in the OU
- Attending has protected time to round in the AM
- Outside of rounds, the attending physician:
  - Continues to oversee patients
  - Staffs new acute ED patients
- Relies on APP to carry out work duties of the unit in conjunction with the RN

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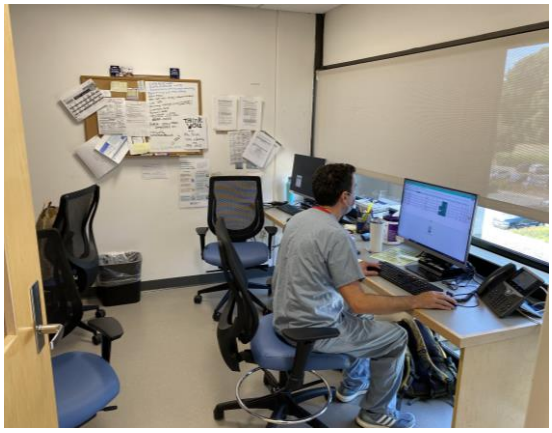
ADVANCE PRACTICE PROVIDERS

- Offer great options for EDOU care
  - Can function independently
  - Provide on-unit presence during the shift
  - Less costly for a department vs direct physician coverage
- Dual functions
  - Clinical support during and after OU rounds
  - “Flex up” to see acute patients in ED on down times in the OU
  - Provide administrative duties like “patient call backs”



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NURSING STAFF

- Look to staff with RNs experienced with managing Obs patients
  - ED staff nurses familiar with workflows and efficiency of ED
  - Avoid Float Pool nurses-– less familiar with Obs protocols
  - Various approaches given RN shortage
- RN workflow = timeliness of testing and treatment
- Staffing dictated by bed number
  - 1 RN : 4-6 patients
  - 2003 study by Mace et al – 4.2 pts / RN
- Can scale up for day / evening shifts and down for overnight

Mace SE, Graff L, Mikhail M, Ross M. A national survey of observation units in the United States. *Am J Emerg Med*. Nov 2003;21(7):529-33. doi:10.1016/j.ajem.2003.08.012

SUPPORT STAFF

- Unit secretary
  - Manage phone calls and patient paperwork
- ED tech / Medical Assistant
  - Connecting / disconnecting patients to the monitor
  - Assist with patient movement
  - Obtaining EKGS
  - Vital sign checks
- Care coordinator
  - Available to assist overcoming barriers to discharge
  - Business hours or into early evening
- Consultants

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PROTOCOLS

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MEDICAL / SURGICAL CONDITIONS

- Identify potential conditions for inclusion
  - Hospital / Department Data
    - Most frequent DC from inpatient teams-– Obs Status
    - ED LOS patients >8 hrs
- Start with more common conditions / pathways
  - Eg: Chest pain
- Don't re-invent the wheel
  - ACEP Observation Section Website
  - Obs Content Experts

OBSERVATION MEDICINE SECTION

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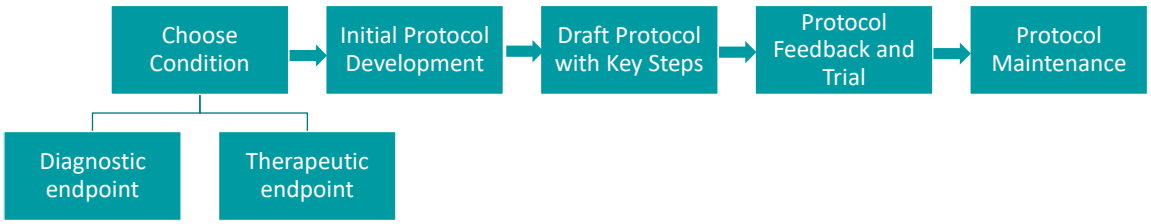
OBSERVATION UNIT PROTOCOL DEVELOPMENT



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STAKEHOLDERS

- Carefully cultivate strong relationships with consult and testing services
- Mutually beneficial and collaborative relationship
- Examples
  - Cardiology
    - Establish clear pathways for chest pain workups
    - Preferred testing resources
    - Prioritization of OU patients for stress testing
  - Physical therapy / Social Work / Care coordination
    - Important relationships and key facilitators for discharge

ACEP Observation Services Toolkit, "Development and Maintenance of Key Partnerships in an ED Observation Unit". https://www.acep.org/by-medical-focus/observation-medicine/observation-services-toolkit/

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WORKFLOWS

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WORKFLOWS

- Length of Stay
  - Important to establish and educate around LOS parameters
    - 8-15 hours LOS most favorable
      - No significant reimbursement for longer periods
    - Avoid short OU Stays <8 hours
      - Added documentation
      - Risks with handoffs
- Rounds / Coverage
  - Quality standards / payer requirements– attending physician Obs admission / discharge
  - Timing of 6-9 minutes per patient= 10 bed unit rounded on in 1 hour
  - Cross cover with APP support

Baugh CW, Graff LG. Management - Staffing. In: Graff LG, ed. *Observation Medicine: The healthcare system's tincture of time*. 2011:chap 8.

WORKFLOWS

- Handoff / Communication / Documentation
  - Establish protocol driven order set for specific conditions including placement in Obs order
  - Documentation of the ED course and verbal / electronic handoff should be completed
  - ED Obs Documentation
    - Obs Admission documentation
    - Progress Notes
    - Obs Discharge Summary
    - Create template / skeleton notes– facilitate proper documentation for compliance / billing

PRO TIP

METRICS / QUALITY

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METRICS

- Performance indicators critical for optimal use of an OU
- Key metrics
  - Length of Stay (LOS)
    - Benchmark – 15 hrs
    - Assess LOS by condition
    - Consider assessing behavior health / non-behavioral health
  - Occupancy rate
    - Should approach or reach 100% at midinight
  - Inpatient conversion
    - <20% of all EDOU patients
- Attention to indicators ➔ efficient / effective flow through the EDOU

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METRICS

ED OBS	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Total ED Obs Visits	525	483	477	510	472	552
% IP Conversion Rate	14.7%	18.2%	19.7%	20.0%	18.0%	21.7%
% Total Short Stay Patients (<6 Hours)	13.7%	13.7%	12.2%	15.5%	13.1%	13.6%
% Total Long Stay Patients (>36 Hours)	9.1%	10.1%	12.2%	13.9%	12.1%	8.3%
Overall Average LOS	18:38	20:06	20:36	23:06	19:53	20:33
Overall Median LOS	15:19	16:27	16:43	16:52	15:51	16:09

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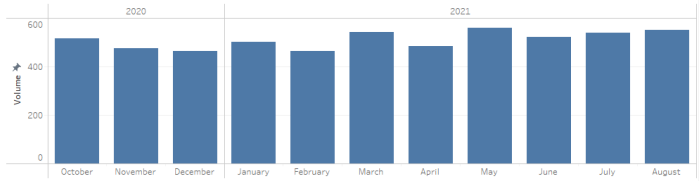
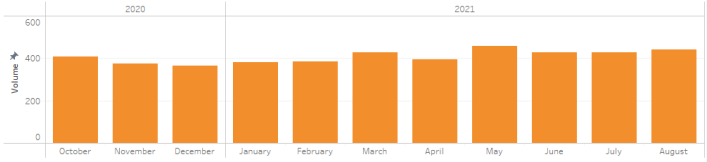
METRICS

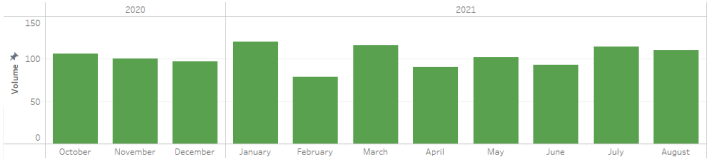
Obs Volume



Non-BH volume



BH-Volume



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Metrics

- Work with statistician and Obs /Department leadership to have data available on a monthly basis
- Consider creation of a dashboard– ease data pulls
- Allows for continuous assessment and refinement of the OU

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QUALITY REVIEWS

- Establish a system with OU Leadership
- Review utilization of the OU
- Consider personalized data review of providers
- Create review / response process for Q&S case referrals– critical for patient safety

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PROMOTION

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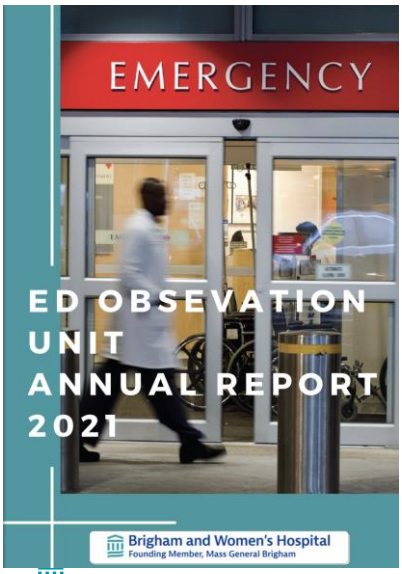
ANNUAL REPORT



2021 PAGE 5

HIGHLIGHTS AND SUCCESS

Under the new leadership of David Meguerdichian, MD, Director of Observation Medicine, and Audrey Reust, PA-C, Associate Director of Observation Medicine, several key patient-centered initiative were developed and deployed in 2021 to address patient safety, operations, and challenges posed by COVID-19 and hospital crowding.

COVID 19 OBS PROTOCOL

.edobsstickynote

OBS STICKY NOTE TEMPLATE

OBS BEST PRACTICES GUIDE

ED OBS HOME HOSPITAL COLLABORATION

BWH ED OBSERVATION UNIT ANNUAL REPORT 2021

2021 PAGE 6

OBSERVATION UNIT INITIATIVES

COVID 19 EDOU PROTOCOL

This novel protocol was developed in conjunction with the MGH Emergency Department Observation Medicine leadership with a goal of providing a safe care option for those COVID-19 patients too ill to be discharged but whose hemodynamics or clinical picture did not warrant admission.

ED OBS STICKY NOTE TEMPLATE

This Epic templated dot phrase was created to provide a standard, consistent means of displaying important information that can be rapidly accessed regarding our obs patients. These notes are now a vital part of the way we communicate during pass off and provide a centralized location to communicate important details such as DVT prophylaxis status, family/facility contact information, and a flag to notify providers if a patient has health related social needs.

ED OBS BEST PRACTICES GUIDE

This resource, available on EM Web as well as in hard copy in every ED unit, was created to help streamline and improve the workflow and care of patients in EDOU. The document spans important information from key admission practices to vital contact details for important testing resources.

ED OBS HOME HOSPITAL COLLABORATION

This collaborative effort was created with the goal of increasing capacity both within the emergency department and the hospital as a whole. Through targeted rounds with the Home Hospital Group, this working relationship helped identify and transition patients out of EDOU and onto the Home Hospital service for continuation of the care. This effort helps open up obs beds, subsequently freeing up new acute ED beds, and avoids the use of scarce inpatient beds in a time of extreme hospital census.

BWH ED OBSERVATION UNIT ANNUAL REPORT 2021

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DONOR RELATIONS AND DEVELOPMENT OFFICE

- Connect with your Development Office to explore potential naming rights for your OU
- Can bring needed donor funds for your hospital and department

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TAKE HOME POINTS

LOCATION

Ideal: Dedicated, closed unit within or adjacent to the ED

PHYSICAL DESIGN

Ensure optimization of patient care, considering provider-patient interaction and RN ratios.

CLINICAL STAFFING

Dictated by size of the OU and model type: MD-RN or APP-RN with MD oversight

PROTOCOLS

Use frequent hospital obs conditions, ACEP Obs section content, and input from key stakeholders to create protocols

VOLUME / CAPACITY

Use hospital short stay data and overall census to determine unit capacity

METRICS

Have regular access to performance indicators to ensure optimal use of OU

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