Expanding your OU

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OBSERVATION MEDICINE SCIENCE & SOLUTIONS
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NO COI

TOC

Vision
Why?
Before Expansion…..
Finding the next protocol
Implementation/The UofM Experience
Further Expansion

Vision

Take a moment during this talk to write down a one line vision

Examples: "within 1 year the (insert your program) will provide the most accurate, effective, efficient, and compassionate approach to Chest Pain in the region"

Example: "within 5 years the (insert your program) will be the singular short stay interface of the system for patients who need ongoing hospital services for less than 24hrs"

Why? Why? Why? Why? Why?

Under capacity? Census variability?
- Doesn't substantiate FTEs: Providers, Nurses, Techs
  - Mandate Nurses home

External forces?
- Hospital Capacity
- ED Boarding
- Hospital Obs Patients in InPt beds
- Specialty Service Requests

All of the above?

Before Expansion…..
Define your Unit Type[1]

Type 1: Protocol Driven	Highest level of evidence for favorable outcomes Care typically directed by ED
Type 2: Discretionary Care	Care directed by a variety of specialists* Unit typically based in ED
Type 3: Protocol Driven ◦ Hospital bed anywhere	Often called a virtual observation unit
Type 4: Discretionary Care ◦ Hospital bed anywhere	Most common practice Unstructured Care Poor alignment of resources with patients needs

Before Expansion…..
Create a Mission[1]

7 Principals of Observation Medicine:

1. **Focused** patient care goals
2. **Limited** duration and intensity of service
3. Appropriate hospital **setting**
4. Appropriate **staffing**
5. Providing **ongoing care** in an outpatient setting
   1. ADPs: (Chest Pain)
   2. Accelerated treatment protocols: (Asthma)
6. Intensive **review**
7. **Economic** service

Strengthen your General Criteria

Supports your Mission: Defined by the limits of your team and the institution:

- **Is the patient likely to go home tomorrow?**
- Are **active Comorbidities** going to negate the benefit of Observation? (Too Complex?)
- Are **active Behavior or Social factors** going to negate the benefit of Observation? (Too variable?)
  - Is there a **reasonable discharge plan** after a period of Observation?
- Is there a **risk score** that helps with decision making?
  - HEART Score
  - Pneumonia Scores (PSI, CURB65)
  - Glasgow-Blatchford Score
- Is there a **sign/test** that can be followed to consider disposition?
  - Orthostatics, HB, Blood Sugars, Stress Testing
- Will **consultants** be needed?

Before Expansion…..
Take Inventory:

- SWOT Analysis: Strengths, Weaknesses, Opportunities, Threats
  - Approach to Leadership
    - Small Units*: Can be Directed from a single source
    - Larger Units: Organized team approach
      - Open book management: "Everybody is an owner"
  - How do you approach Q/I, new projects, Data Gathering/Review?
    - LEAN Tools
      - PDCA Toolshed

PDCA Toolshed
Plan Do Check Adjust

Visual
- Dashboards
- Value Stream Analysis (VSA)

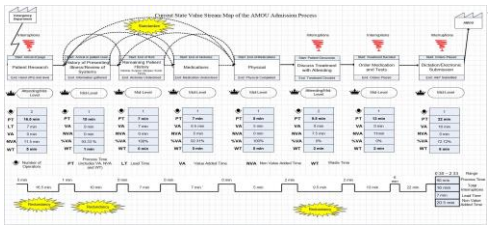
Intake/Learn
- Gemba Walks
- Simulate
- Data Reviews
- RCA: 5 Whys

Organize/Structure
- Brain Storm (Bad?)
- A3 Left Side
- Catch Ball

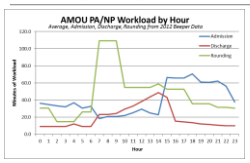
Do
- JDI: simple
- A3 Right Side: Complex
- 4S: simple

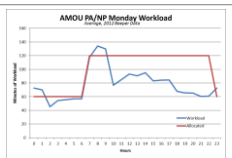
Reassess/Realign

Map a Process: Value Stream Analysis



Before Expansion…..
Know your present workload



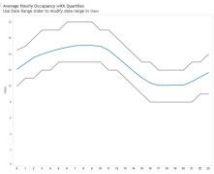


What is the best fit?

REVIEW GENERAL DATA

Census by hour
- Not meeting @ 85% capacity?
  - Consider advertising present protocols
- Long stretches of low volume?
  - Short LOS can create deep afternoon dips
    - Consider adding longer LOS protocols
    - Consider adding Post Procedure afternoon monitoring

CENSUS BY HOUR



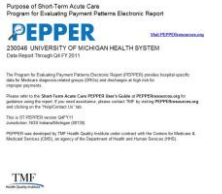
Finding the next protocol

Program for Evaluating Payment Patterns Electronic Report (PEPPER)
- Helping with PEPPER Dx can help save $$
  - Ex: Syncope, COPD, PNA, TIA, HF, Afib

ED Boarding Patients

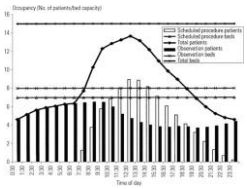
Observation in InPt Bed Reports

1 day admits from IR, GI, Procedure Units



Evaluate Protocols[2]

- Review each Protocol for fit:
  - Usual time of admission: Day, Eve, Night
  - Usual LOS
  - Complexity: Can your team manage this patient type?
  - Resources Required
    - Staffing
    - Testing
    - Consultants
  - Draw out the hourly census for the specific protocol and map with present hourly census



Implementation

Interactions/Stake Holders

Many new protocols may have unexpected interactions and stakeholders
- Initial consultation rate may be high until providers are seasoned
- Easy to overlook materials services/Housekeeping
  - Obs Units have much higher turnover. (Consider deep cleaning required for diarrhea)
- Testing priorities for "non-ED" areas may be slower (eg Echo, MRIs)
  - Weekend testing may be different than weekday
- Escalation in care/Alternative care
  - VQ scan when severe allergy to PECT IV Contrast
  - Need for Urgent Tagged RBC scan/Angiography in GI bleeding

Simulation
- **Table Top** Exercise with all known stakeholders
- **Map** Processes, discover Gaps
- **Gemba Walk**: Go See areas affected (like disaster drills)

Implementation = Adaptable

Leadership Meeting announcements

Team Education

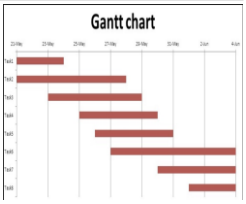
Open House: Code Team, Consultant Services

Skills Workshops/Simulation Center

Directed support during startup

Mechanism for real-time adjustments
- Requires Data Capture!

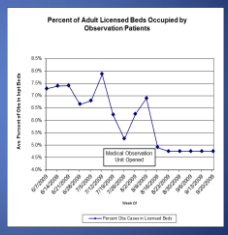
Celebrate



UofM Experience

Obs Status: UMHS

- 2008: High Obs InPt Beds
- 2009: 18 Bed Obs Unit and Service
- Ave Monthly Vol.: @200
  - Too Low, but helpful
  - 7.5% -> 4.5%



Initial Start Up Problems

- Low Ave Vol.
- Patients x=x protocols
- Nurses were mandated home
- Hospital still too full
- "Refused" patients went to busy InPt Services
  - Poor standardization around "appropriate" patients
  - ED confused
- Consultant Mutiny: GI/Cards
- Too Selective
- Too Complex
- Poor Standardization
- Poor Communication
- Mutiny

Initial Start Up Successes

- Visual System: White Board
  - PAVED (Pain, Ambulate, Void, Eliminate, Diet)
- Standard Unit Wide Handoffs/Sign Out: 7/3/11
- Unit Wide MDR 10:30
- High Provider and Nurse Staffing
  - Up to 3:1 max, 4:1 night, rare 5:1
- Case Managers/Social Workers

Initial Provider Staffing

Docs: EM, IM, FM

7xxxxxxx3

3xxxxxxx11

11xxxxxxx7

PA/NP

7xxxxxxx4

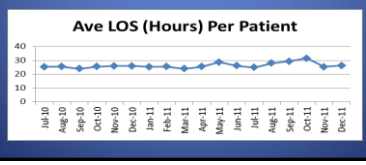
7xxxxxxxx4

3xxxxxxxx12

3xxxxxxxx12

10xxxxxxxxx8

Initial Years: 2009-2011 Growth



Initial Years

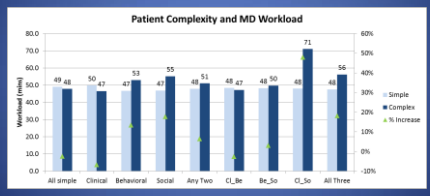
- Abandoned Protocols
  - **Non Standard Triage!**
  - *Mistake: Should have evolved the protocols
  - Individualized care
- Each Summer InterQual Changed!
  - **Non Standard Triage!**
  - As InterQual kept including more patients as Obs, team must adapt skillset or deny patients
- Seemed to collect Chronic Pain, Social/Behavior issues
- The LOS seems stable (24), but the workload was rising……Complexity (*)
  - Efficiency vs More Providers

A "Complexity Study": The CBS Scale

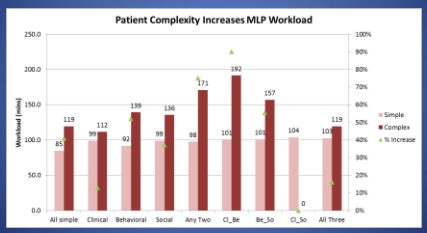
- Provider Assigned Complexity as:
  - Source: ED based, Interqual Obs Status
  - Simple/Complex: **C**linical, **B**ehavioral, **S**ocial
  - Provider Workload (ladder logs), LOS studied

CBS ALL ACCESS

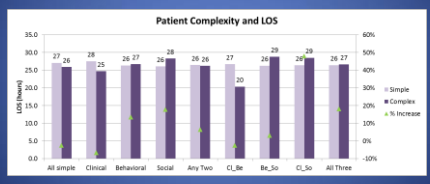
MD Workload effect was MINIMAL



Complexity has a MAJOR effect on MLP workload!



Complexity has little effect on OU LOS*



Maturing Years: 2011-2012

- Stats Stabilizing:
  - pts/month 325-375
  - LOS: 22-26
  - Admit Rate: 10% (*)
- Team More Seasoned
  - Low Turnover!
- But markedly increased Obs In InPt bed volume
  - Back to original Stats >7%!

Evolutionary Years: 2013-2015

- Recognized variability in care patterns
  - Returned to Protocols -> Guidelines
  - 2014 Started EPIC
    - Incorporated Guidelines Into Admit Order Set
- Created Grass Roots Committee to Adapt Guidelines
  - Team Buy-In, Reality Testing
  - PDCA

Protocols vs Guidelines

Protocols < LOS
- Rigid
- Easier to detect outliers
  - Cellulitis, CP
- Better to control Metrics
- Better to follow QI
- Easier to follow Individual Performance

Guidelines > LOS
- Malleable
- Easier to apply to complex patients
- Able to incorporate multiple cycles of Eval/Treat
  - Abd Pain/HA
- Better to keep in same location

Don't miss their hidden value! **Communication!**

Growth Years: 2014-2015

- UMHS Admin recognized need for more Beds and Staffing
- 2 Midnight Rule, ACA
- Designed Short Stay Program:
  - Interqual Obs <2MN
  - Interqual InPt <2MN (higher complexity)
    - Deny >2MN! Easier for ED Docs (not perfect)

Medical Short Stay: July 13 2015

- Original Adult Medical Obs (Maize)
  - 18 Beds, 16 Curtains, 2 Isolation, All Obs
- Medical Short Stay South (Blue)
  - 22 Beds, 22 Isolation, 13 InPt Capable
- Admission Service
  - ED Based team of Doc/MLP
    - Triage, Admit

Service Structure

ED Admit Team

MD
7xxxxxx3
3xxxxx11

MLP
10xxxxxxxx10
12xxxxxxxxx12

Maize/Blue Units (x2)

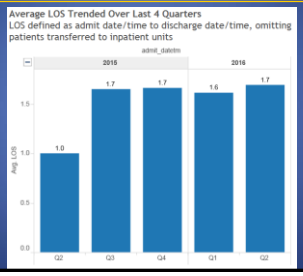
MD
7xxxxxx3
3xxxxx11
11xxxxx7

MLP
7xxxxxxxx5
7xxxxxxxx5
2xxxxxxxxx12
2xxxxxxxxx12
10xxxxxx8

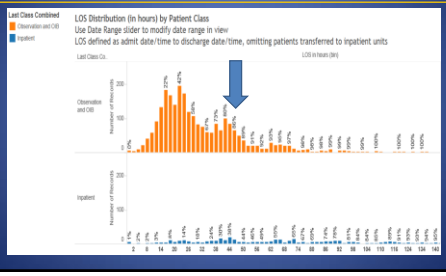
First Year Stats

- LOS Hrs
  - Obs Only Unit: LOS inc 24 -> 36
  - Mixed , 2MN: LOS 48
  - Total 38-40
- Biggest problem moving Long Stay patients to Long Stay beds!

Initial Stats!



Initial Stats!



Maturation

- Continuing Stats: Successes
  - Busiest Service
  - High Occupancy
  - ED Handoff time dropped
    - 45min – 30min
- Continuing Stats: Challenges
  - Standardization
  - LOS Jumped 24hrs – 41hrs!

Core Principals: Teamwork

- Go Team!
- Sign Out/Handoffs
- Visual Systems
  - White Board
  - PAVED
- Dashboard Metrics
  - Eg handwashing

Warnings

- You Can't Force a Complex Obs program into an EDOU model
  - But you CAN adjust your model to incorporate Complex Obs
  - Many ED Docs do NOT want to do Complex Obs!
- Complex Obs is NOT = Hospitalist
  - Hospitalists may not be used to as rapid shift to shift changes that occur in Obs Medicine. (Approx 1/3 shorter LOS)

Future Predictions

- Environmental Changes
  - Home ED/Advancing EMS
  - EDOU -> Complex Obs -> InPt Continuum
  - ED -> ICU Continuum
  - Complex Care -> Home (Alternatives to Admission)
- Greater focus on Pretest Probability
  - Big Data
  - Wearables, Patient Input
- Observation Dynamic Testing
  - Aggressive testing and evals in an Obs Structure

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