



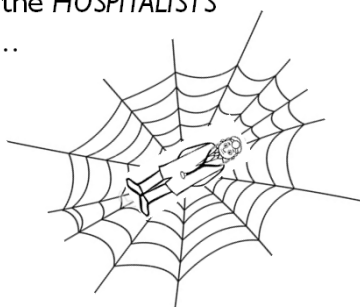
Optimizing Patient Flow: New Challenge for Hospitalists

Jeffrey Frank MD, MBA, FACP
Program Director of Quality, CEP America Hospitalist Division
Medical Director Inpatient Care Coordination, John Muir Health



Patient Flow:

Let's get the *HOSPITALISTS* to fix it....





What is Patient Flow? Hospital Throughput?

Efficiency of in-hospital transitions:

- Admissions: ED
- Admissions: Post-surgical
- Inpatient: unit to unit
- Discharge transitions
- Diagnostics



Why is Patient Flow a Big Deal?

Learning Objectives

- CMS
- Joint Commission
- Clinical Outcomes & Patient Satisfaction
- Evolving Role of ED
- Challenges to Improve Pt Throughput

Patient Flow meets the Triple Aim

Improving patient throughput efficiency:

- Improves outcomes
- Improves patient experience
- Reduces costs



VALUE to Our Customers





CMS Measures: Efficiency of Care

Hospital Compare:

- AMI: Time to ECG, ASA, PCI or tPA
- PNA: Time to blood cxs, antibiotic
- ED: Time to eval by physician, time to pain med for fx bone, LWBS
- CVA: Time to tPA, time to head CT result

Note: these are outcome based



CMS Measures: Efficiency of Care

Hospital Compare: ED Turnaround Time (TAT)

- OP-18: TAT-Discharge Patients
 - door to discharge
- ED-1: TAT-Admissions
 - door to departure: admits
- ED-2: TAT-Decision
 - decision to departure: admits

JOHN MUIR HOSPITAL	Concord Campus Average	Walnut Creek Average
Door to Decision	2:39	2:16
Decision to Orders Received	1:35	2:51
Orders to Departure	1:19	2:15
Door to Departure	5:33	7:12
Preliminary Goal-Door to Departure	5:00	5:00



CMS Measures: Efficiency of Care

Hospital Compare: *Timely and Effective Care*

- ED TAT is a surrogate measure for hospital efficiency
- ED TAT currently NOT a pay for performance measure
- CMS planning to include ED Throughput as a value based purchasing measure
- ED-TAT measures: FY2014



Joint Commission: Patient Flow

LD.04.03.11:

- The hospital manages the flow of patients throughout the hospital
- Leadership use of data to identify, mitigate, and manage issues affecting patient flow throughout the hospital
- Safety for boarded patients
- *The management of ED throughput as a system-wide issues*



Pt Flow and Clinical Outcomes

Effect of ED Crowding on...Outcomes

Bernstein et. al. Ac Em Med, 2009, 16(1):1-10

ED crowding & Increased ED LOS

- Increased in-hospital mortality
- Longer time till tx: PNA & acute pain
- Increased LWBS



Pt Flow and Clinical Outcomes

Decreasing waiting time...improving patient satisfaction

Spaite et. al. Ann Emerg Med. 2002;39:168-177

Triage focused process improvements:

- Increased patient satisfaction

Active Bed Management...

Howell et. al. Ann Intern Med. 2008;149(11):804-810

Hospitalist triage for admissions:

- Reduced ambulance diversion



Evolving Role of EDs in US

Maganti et. al. RAND Research Report, 2013

2003-2009:

- Unscheduled admissions from ED increased by 17%
- Medicare accounts for 48% of ED admissions
- Inpatient care accounts for 31% of US healthcare spending
- Outpt PCPs: increased referrals to EDs for timely and complex work-ups



Evolving Role of EDs

National Trends in Emergency Department Occupancy, 2001 to 2008: ...

Pitts SR et.al., Ann Emerg Med. 2012 Jun 20

ED crowding is growing twice as fast as visits, rising to unsustainable proportions





Challenges to Improve Pt Throughput

The Influence of Hospital Census on ED LOS Lucas et.al. Ac Em Med, 2009; 16:597-562

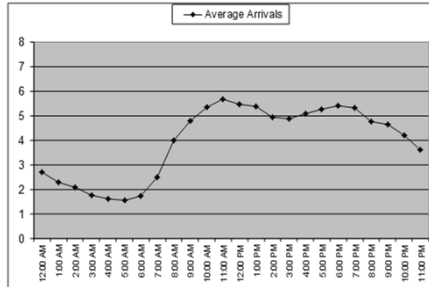


ED LOS correlated:

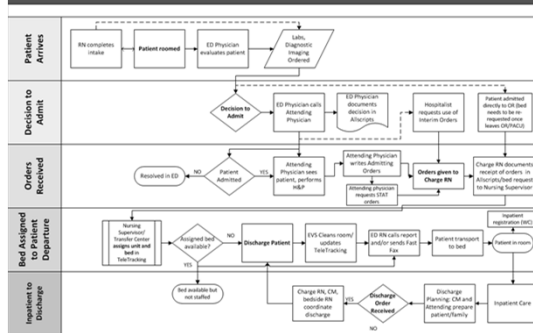
- Number of admissions
- Census in ICU and IMCU

Challenges to Improve Pt Throughput

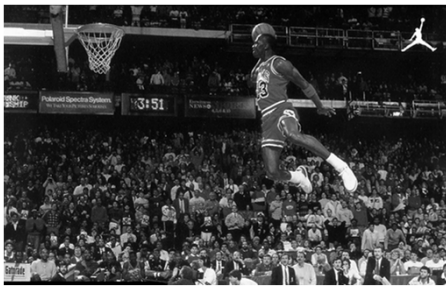
Patient Arrival Times



Acute Care Transition (ACT) by Data Element



“Talent wins games, but teamwork and intelligence wins championships.”
Michael Jordan





**SHM
2014**

Joe Guarisco MD
Las Vegas, Nevada
March 26, 2014

**Better, Faster, ~~Cheaper~~
Less Costly**

- **Better** (improved patient experience, safer, better patient satisfaction)
- **Faster** (door to doc, door to admit decision, admit decision to disposition)
- **Less costly** (less costly, reduced cost per visit)



HealthLeaders

[+]
Access for All: San Francisco Covers the Uninsured p.14
Watch Your Assets: Using RFID to Track Equipment p.33

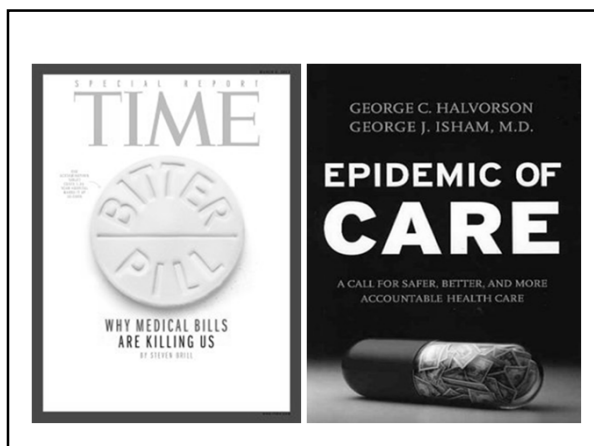
CALL FOR ENTRIES

EMERGENCY DEPARTMENT

Making the most complex part of your hospital work p.20

WHY IS THE ED SUCH A PAIN?

ED DOC



THE WALL STREET JOURNAL.
WSJ.com

THE SATURDAY ESSAY | Updated September 21, 2012, 10:56 p.m. ET

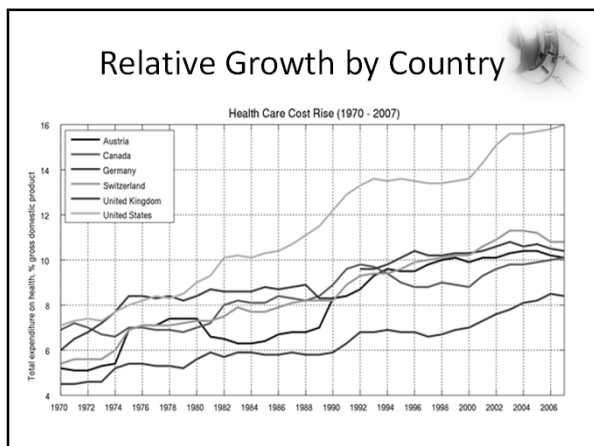
How to Stop Hospitals From Killing Us

Medical errors kill enough people to fill four jumbo jets a week. A surgeon with five simple ways to make health care safer.

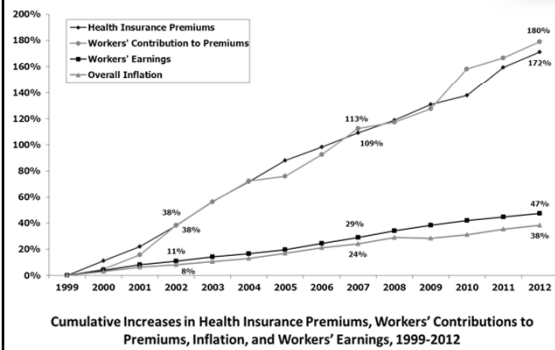
By MARTY MAKARY

When there is a plane crash in the U.S., even a minor one, it makes headlines. There is a thorough federal investigation, and the tragedy often yields important lessons for the aviation industry. Pilots and airlines thus learn how to do their jobs more safely.

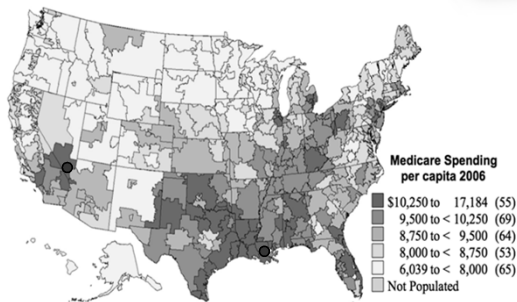
The world of American medicine is far deadlier: Medical mistakes kill enough people each week to fill four jumbo jets. But these mistakes go largely unnoticed by the world at large, and the medical community rarely learns from them. The same preventable mistakes are made over and over again, and patients are left in the dark about which hospitals have significantly better (or worse) safety records



Insurance Cost vs. Employed Earnings



Medicare Cost per Enrollee

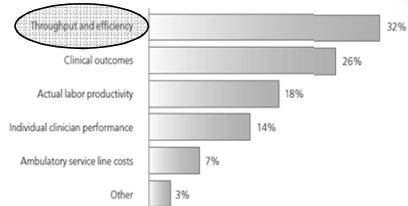




The Burning Platform



Q | Which performance data measurement is your most critical need?

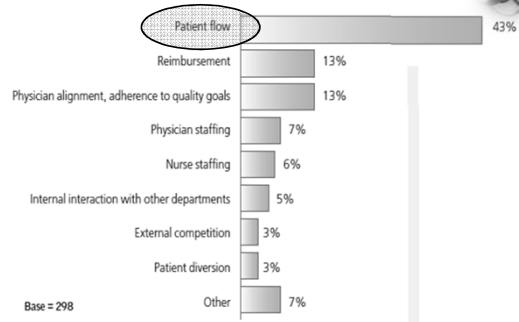


Base = 250

HealthLeaders Intelligence

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Q | What is the greatest strategic challenge regarding your ED?



Base = 298

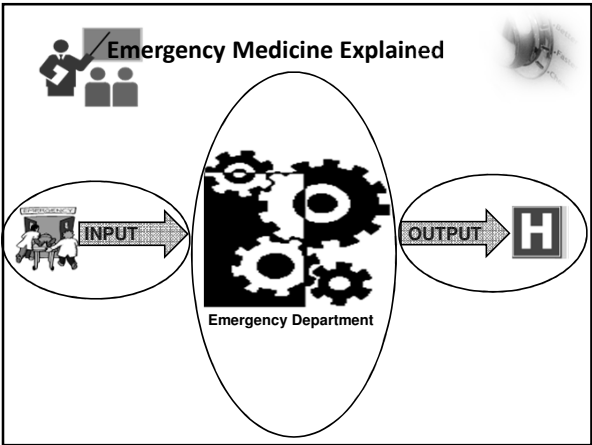
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Q | Please rate the following clinical areas on the difficulty of achieving results in improved efficiency and cost reduction.

	Very difficult 1	2	3	4	Not at all difficult 5
Emergency department	30%	35%	23%	10%	1%
Surgery	19%	29%	30%	19%	3%
Inpatient/med-surg/critical care	13%	37%	33%	14%	2%
Imaging	8%	20%	39%	28%	6%
Pharmacy	6%	25%	34%	28%	8%
Lab	4%	19%	42%	28%	6%
Outpatient/ambulatory	4%	21%	40%	28%	6%

Base = 250

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Transforming the ED's Role in Delivering Agile and Coordinated Care

- Fostering Collaborative Throughput
- Strategizing Observation Patient Management
- Hardwiring Continuity of Care
- Managing High-Utilizer Populations

Emergency Medicine News:
June 2013 - Volume 35 - Issue 6 - p.14-15
doi: 10.1097/01.EEM.0000431330.25453.7f
Special Report

Special Report: All Roads Begin in the ED

Scheck, Anne

The idea that crowded emergency departments are a financial drain on the hospitals they serve has held such powerful sway that there has been little examination about what might happen should the funnel of ED patients shrink. Now research suggests the ED is a gateway of growing importance for hospital admissions.



Healthwatch

THE HILL'S Healthcare Blog

Emergency rooms gaining power in US healthcare, study finds

By Elise Viebeck - 05/20/13 12:39 PM ET

Tweet

0

COMMENT
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PRINT
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Emergency departments (EDs) play an increasingly important role in U.S. healthcare by sorting through possible hospital admissions and supplementing the work of primary care doctors, according to a new study.

EMERGENCY PHYSICIANS MONTHLY

CURRENT FEATURES

Survey: The ED is the Nexus of Care

by Jim Augustine, MD on October 3, 2013

Print

New EDRA data from nearly 1000 EDs shows that the emergency department admits at least 68% of inpatient volume



The NEW ENGLAND JOURNAL of MEDICINE

Perspective

The Growing Role of Emergency Departments in Hospital Admissions

Jeremiah D. Schuur, M.D., M.H.S., and Arjun K. Venkatesh, M.D., M.B.A.



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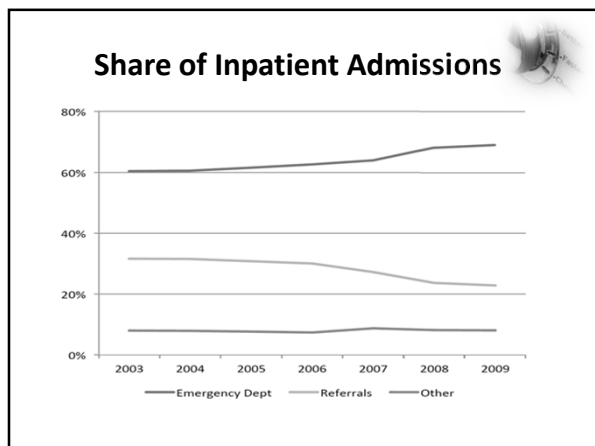
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E.R.'s Account for Half of Hospital Admissions, Study Says

By REED ABELSON
Published: May 20, 2013

Emergency rooms account for about half of the nation's hospital admissions and accounted for virtually all of the rise in admissions between 2003 and 2009, according to a study released on Monday.

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From: *The Hospitalist*, November 2013

Hospitalists Have Opportunity to Transform Healthcare

Despite system-wide challenges, hospitalists should strive to redefine the practice of medicine

by Nasim Afsar, MD, SFHM



"I'm going to the sun," my TWO-and-a-half-year-old daughter confidently declared. She said it so casually, as if she was letting me know that she was going to the playground.

Thinking I could use this as a great parenting opportunity and push my toddler to think through her decisions, I replied in a concerned tone: "Sweetie, the sun is really, really hot. What are you going to do about that?"



From: *The Hospitalist*, August 2013

Hospitalists Hold Key to Admissions Door for ED Patients

Partnering with ED physicians helps hospitalists tackle problem of emergency department boarding for admitted patients

by Eric Howell, MD, SFHM



Although it was more than a decade ago (the last century, in fact), I remember it like it was yesterday. It was my first month as chief resident at Johns Hopkins Bayview Medical Center in Baltimore, our 325-bed hospital, with the ED chair and my chair of medicine in a heated argument. Very heated. There was no yelling; it was the kind of discussion where, even as a kid, you knew the severely stern voice meant that this was beyond the yelling stage.



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News Releases

ER Docs are Key to Reducing Health Care Costs

May 20, 2013

ACEP: Emergency Physicians Save More Than Lives

WASHINGTON, May 20, 2013 /PRNewswire-USNewswire/ -- Emergency physicians are key decisionmakers hospital admissions, highlighting a critical role they can play in reducing health care costs, according to a RAND Corporation.



HEALTH POLICY/ORIGINAL RESEARCH

Effect of Emergency Department Crowding on Outcomes of Admitted Patients

Benjamin C. Sun, MD, MPP, Renee Y. Hsia, MD, Robert E. Weiss, PhD, David Zingmond, MD, Li-Jung Liang, PhD, Weijuan Han, MS, Heather McCreath, PhD, Steven M. Asch, MD

From the Department of Emergency Medicine, Oregon Health and Science University, Portland, OR (Sun); the Department of Emergency Medicine, University of California, San Francisco, CA (Hsia); the Department of Biostatistics, School of Public Health (Weiss); and Department of Medicine (Zingmond, Liang, Han, McCreath), University of California, Los Angeles, CA; and the VA Palo Alto Health Care System and Stanford University School of Medicine, Palo Alto, CA (Asch).

Study objective: Emergency department (ED) crowding is a prevalent health delivery problem and may adversely affect the outcomes of patients requiring admission. We assess the association of ED crowding with subsequent outcomes in a general population of hospitalized patients.

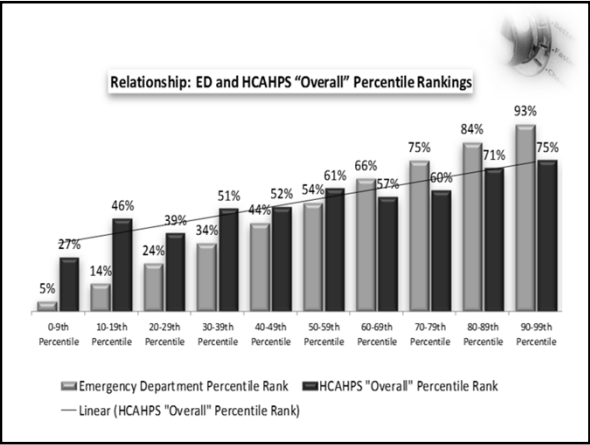
Methods: We performed a retrospective cohort analysis of patients admitted in 2007 through the EDs of nonfederal, acute care hospitals in California. The primary outcome was inpatient mortality. Secondary outcomes included hospital length of stay and costs. ED crowding was established by the proxy measure of ambulance diversion hours on the day of admission. To control for hospital-level confounders of ambulance diversion, we defined periods of high ED crowding as those days within the top quartile of diversion hours for a specific facility. Hierarchic regression models controlled for demographics, time variables, patient comorbidities, primary diagnosis, and hospital fixed effects. We used bootstrap sampling to estimate excess outcomes attributable to ED crowding.

Results: We studied 995,379 ED visits resulting in admission to 187 hospitals. Patients who were admitted on days with high ED crowding experienced 5% greater odds of inpatient death (95% confidence interval [CI] 2% to 8%), 0.8% longer hospital length of stay (95% CI 0.5% to 1%), and 1% increased costs per admission (95% CI 0.7% to 2%). Excess outcomes attributable to periods of high ED crowding included 300 inpatient deaths (95% CI 200 to 500 inpatient deaths), 6,200 hospital days (95% CI 2,800 to 8,900 hospital days), and \$17 million (95% CI \$11 to \$23 million) in costs.

Conclusion: Periods of high ED crowding were associated with increased inpatient mortality and modest increases in length of stay and costs for admitted patients. (Ann Emerg Med. 2012;xx:xxx.)

Please see page XX for the Editor's Capsule Summary of this article.

0196-0644/\$-see front matter
Copyright © 2012 by the American College of Emergency Physicians.
<http://dx.doi.org/10.1016/j.annemergmed.2012.10.006>



Patient Loyalty Cost

WHY A RESTAURANT CUSTOMER QUILTS

- 1% Die
- 3% Move Away
- 14% Unclean Dining Area
- 14% Bad Food
- 68% Indifferent Attitude About Service

EMERGENCY ROOM PATIENTS

PLEASE SIGN IN
REMOVE SIGN IN SLIP
AND DEPOSIT IN TRIAGE
DOOR MAIL SLOT.

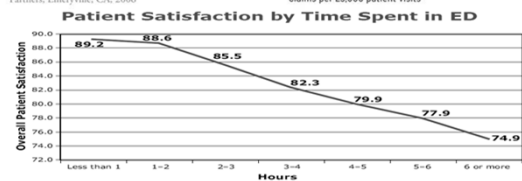
THEN PRESS RED BUTTON

Legal Cost

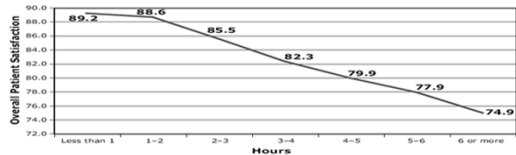
Shorter ED Wait Times Reduce Malpractice Claims

Patients at emergency departments with an average wait time of more than 60 minutes were more than four times as likely to file a malpractice claim than patients at emergency departments who waited less than 30 minutes⁴

Courtesy of CEP America Physician Partners, Emeryville, CA, 2006



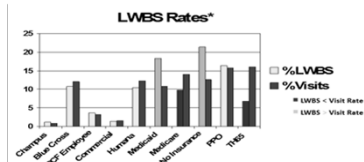
Patient Satisfaction by Time Spent in ED



Represents the experiences of 1,524,720 patients treated at 1,656 EDs nationwide between January 1 and December 31, 2007

Opportunity Cost

- Net revenue (actual LWBS payor mix)
 - Outpatient facility net revenue @ \$300/visit discharge (90% of visits)
 - Inpatient facility net revenue @ \$5,000/visit admission (10% of visits)
 - Professional provider net revenue @ \$125/visit all (100% of visits)
- 1% LWBS @ 50,000 visits = **500 visits**
- Lost opportunity net dollars for every 500 visits LWBS
 - \$135,000 facility outpatient revenue (450 pts x \$300)
 - \$250,000 facility inpatient revenue (50 pts x \$5,000)
 - \$62,500 professional revenue (500 pts x \$125)
- Cost of 1% LWBS at 50,000 volume = **\$447,500**



Capacity Cost

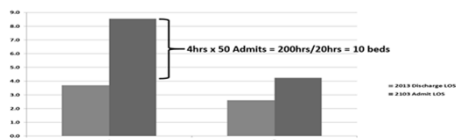
60,000 ED Visits x 1 hour admit (25%) LOS = 15,000 bed hours

➤ Reduce LOS by 1 Hour

- If your AVERAGE LOS is 3 Hours/Visit = 5,000 potential new visits

➤ Financials

- 5,000 new visits x net \$200/Visit = **\$1,000,000 pro fees**
- 5,000 new visits x \$500/Visit/Facility = **\$2,500,000 facility fees**



Financial Cost



New York City Ties Doctors' Income to Quality of Care



Adam Lanza, president of the corporation that runs New York City's public hospitals, and the state's chief of public health, at a news conference. (L) ANEMONA HARTOCOLLIS
Published January 11, 2013

The public hospital system has come up with 13 performance indicators. Among them are how well patients say their doctors communicate with them, how many patients with heart failure and pneumonia are readmitted within 30 days, how quickly emergency room patients go from triage to beds, whether doctors get to the operating room on time and how quickly patients are discharged.

The New York Times

FROM THE DIRECTOR OF
JOURNALISM EDUCATION



JAN 16, 2013

The Short Life and Lonely Death of Sabrina Seelig

By ANEMONA HARTOCOLLIS
SABRINA SEELIG seemed too young to die.

For Mr. Seelig and Ms. Gibson, the letter serves as evidence that their daughter's death did matter to someone, and made some difference.

Asked what lesson might be taught by Sabrina's death, Ms. Gibson said there was one. "No one should go to a hospital without someone with you — no one," she said. "Don't go unless somebody at least knows you're there."

The Waits That Matter

John Maa, M.D.



She was 69 years old and, with the exception of mild heart disease, was in excellent health. One day, around mid-morning, she noticed that her heartbeat was irregular and she felt slightly short of breath. Using her home blood-pressure cuff, she found that her pulse was 130. Since her blood pressure was stable, she decided to forgo a call to 911 and instead asked her husband to drive her to the local hospital — one of the most highly regarded academic medical centers on the West Coast.

N ENCL J MED 36:234 NEJM.ORG JUNE 16, 2011

Those of us who have dedicated our careers to health care must confront the fact that our inability (or, more likely, unwillingness) to reduce the waits and delays that bedevil emergency care is harming and even killing our patients.

The solution will come too late to save my mother. But it would help me honor her memory.



From: *The Hospitalist*, March 2012
**John Nelson: ED Patient
 Throughput Is New Core
 Measure**

Hospitals are likely to increase their customers' satisfaction by improving "frontend" throughput from the ED to the inpatient unit. In fact, CMS added two new core measures (known as inpatient quality reporting, or IQR) that hospitals began reporting on Jan. 1.

by John Nelson, MD, MHM



To understand one reason why your hospital cares so much about patient throughput and discharging patients before noon, think of tables in a restaurant. A restaurant has a limited number of tables, and the more quickly they serve customers, the sooner they're able to seat a new party. So by improving their throughput, they can serve more customers and increase profitability without having to add tables.

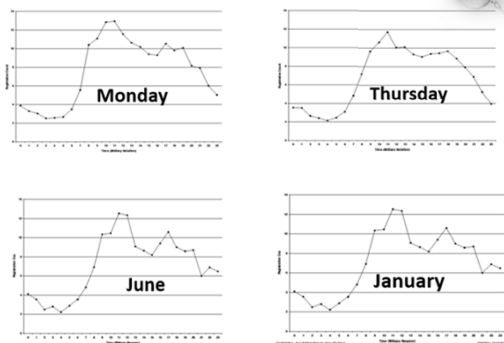
CMS Throughput Core Measures

Patient Left Before Being Seen
Door to Diagnostic Evaluation by a Qualified Medical Professional
Median Time from ED Arrival to ED Departure for Discharged ED Patients
Median Time from ED Arrival to ED Departure for Admitted ED Patients
Admit Decision Time to ED Departure Time for Admitted Patients

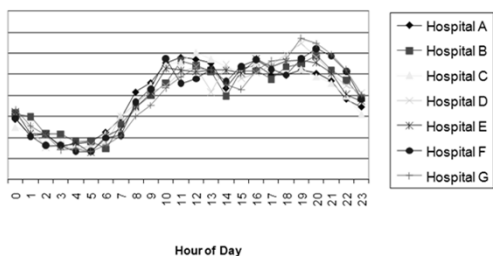
Tools

- Create analytics for predicting demand

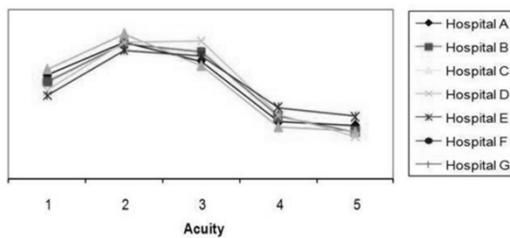
What Chaos?

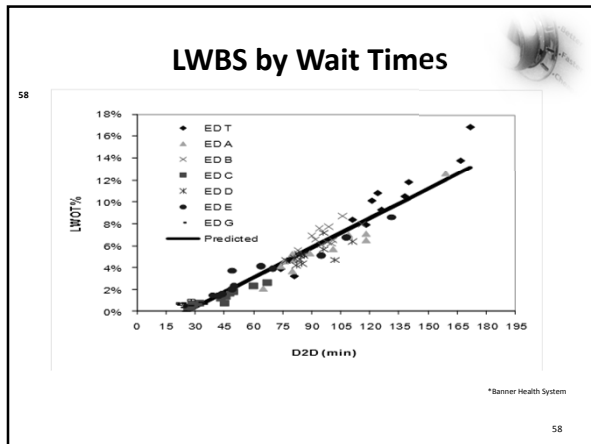


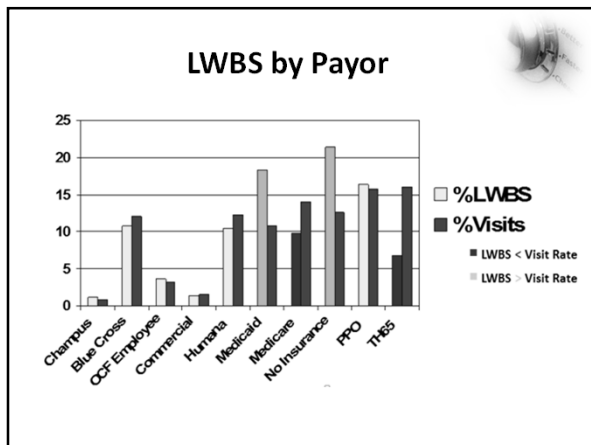
Patient Arrivals by Hour

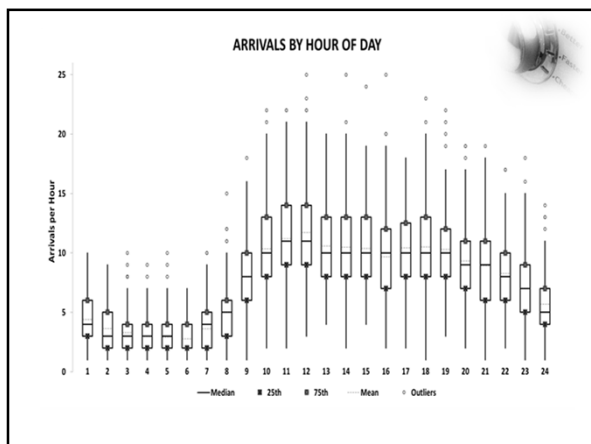


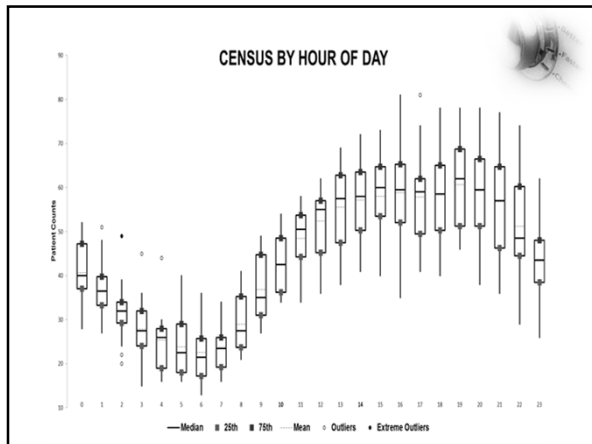
Arrivals by Acuity Distribution

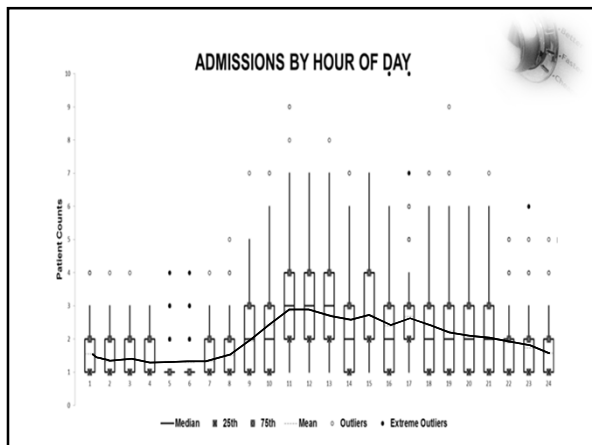








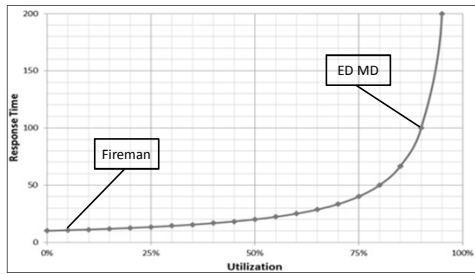




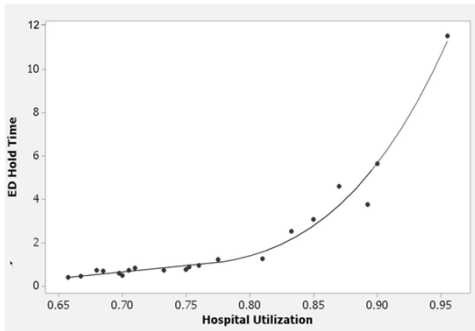
Tools

- Create analytics for predicting demand
- Create staffing models to leverage the MD

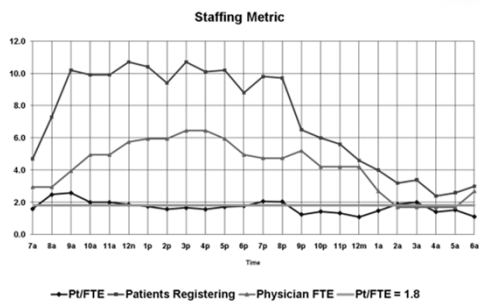
Patient Holds vs MD Capacity

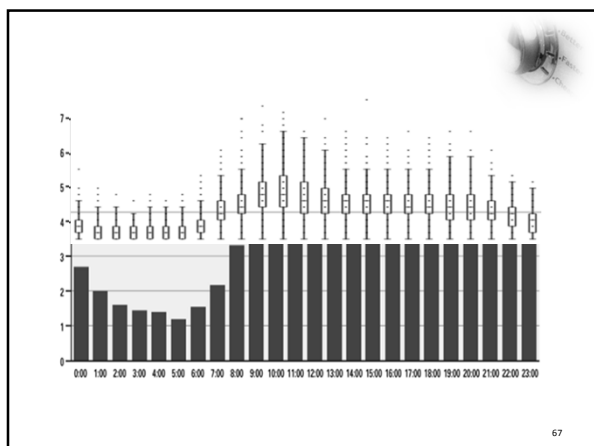


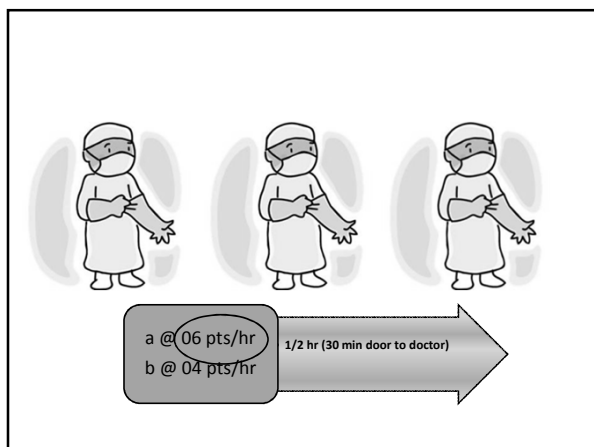
ED Holds vs Hospital Capacity

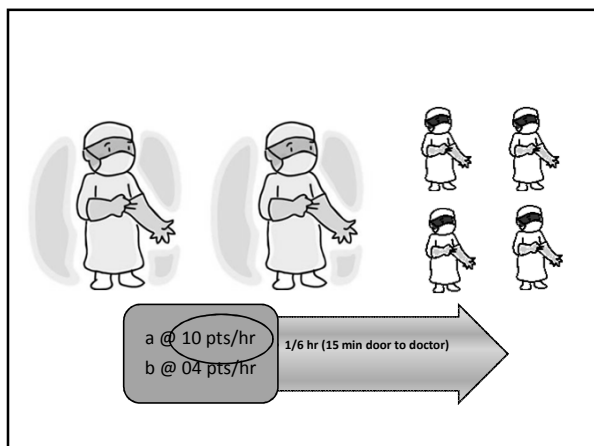


Mapping Staff to Average Demand







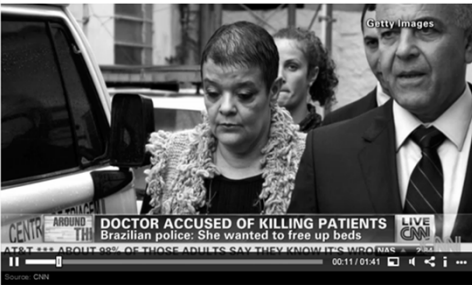


Tools

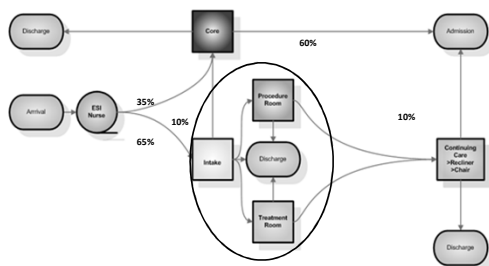
- Create analytics for predicting demand
- Create staffing models to leverage the MD
- Create virtual capacity

Brazilian doctor killed 7 patients to free up hospital beds, police say

By Marilia Brocchetto, CNN
updated 1:37 PM EDT, Thu March 28, 2013



Workflow (Creating Capacity)



Virtual Capacity

Radiology Answered	Brittany	JGottlieb	OUR	US
11 Min	JGottlieb	OUR	US	
Nurse assigned	Brittany	JGottlieb	OUR	US
17 Min	JGottlieb	OUR	US	
MLP assigned	Katie	Chandler	OUR	US
18 Min	JGottlieb	OUR	US	
MLP assigned	Holly	Chandler	OUR	US
1 Hr 14 Min	JGottlieb	OUR	US	
IC Down	Katie	Chandler	OUR	US
11 Min	JGottlieb	MLK/James	OUR	US
IC Down	Lucas	Chandler	OUR	US
1 Hr 4 Min	Chandler	OUR	US	
Nurse assigned	Jeanne	Chandler	OUR	US
14 Min	JGottlieb	OUR	US	
Radiology Answered	Jeanne	Chandler	OUR	US
1 Hr 25 Min	JGottlieb	OUR	US	
Radiology Answered	Jeanne	Chandler	OUR	US
1 Hr 29 Min	JGottlieb	OUR	US	
Nurse assigned	Jeanne	Chandler	OUR	US
1 Hr 24 Min	JGottlieb	OUR	US	
Radiology Answered	Lucas	Chandler	OUR	US
1 Hr 9 Min	JGottlieb	OUR	US	
Radiology Answered	Jeanne	Chandler	OUR	US
1 Hr 12 Min	JGottlieb	OUR	US	
MLP assigned	Sofienberry	Chandler	OUR	US
1 Hr 45 Min	JGottlieb	OUR	US	
Nurse assigned	Sofienberry	Chandler	OUR	US
1 Hr 37 Min	JGottlieb	OUR	US	
Nurse assigned	Sofienberry	Chandler	OUR	US
1 Hr 6 Min	JGottlieb	OUR	US	
Nurse assigned	Sofienberry	Chandler	OUR	US
1 Hr 32 Min	JGottlieb	OUR	US	

Celebration Hospital Disney - Orlando, Florida



St Charles Hospital - New Orleans, Louisiana



Tools

- Create analytics for predicting demand
- Create staffing models to leverage the MD
- Create virtual capacity/workflow
- Co-management (decrease WIP)
- Form EM/MH and meet as a group regularly
- Create at-risk shared performance metrics



Optimizing Patient Flow: The New Challenge for Hospitalists

David J. Yu, MD, MBA, FACP, SFHM
 Medical Director, Adult Inpatient Medicine Service (AIMS)
 Presbyterian Medical Group (PMG), Presbyterian Hospital
 Albuquerque, NM



Presbyterian Medical Group, PMG Adult Inpatient Medicine Service, AIMS Presbyterian Hospital

- 48 FTE requirements
- 70 + Hospitalist Attending
- 8 RNs, Triage RNs, Cross Cover RNs
- 17 Rounding Teams, 4 Admitting Swing Shifts, 3 Over Night Shifts, 2 Triage Shifts.
- Presbyterian Hospital, Albuquerque, NM, Inner City Tertiary Center, 453 beds
- AIMS performed 16,500 discharges 2013
- Presbyterian Hospital ED 68,888 encounters 2013
- Admits and discharges 80 to 125 patients per day. Peak volume: 85 admissions with H&P in a 24 hour period.



Optimizing Patient Flow

- Reducing waiting time in Emergency Dept for admissions.
- Improvement of flow through the Emergency Dept.
- Hospitalist Program designed for patient flow optimization.
- Reduction of aLOS on the Med/Surg floors.
- View Patient Flow as a "Process" and not bits and pieces.



Negative Consequence of Inefficient Patient Flow

- Emergency Dept bypass.
- Emergency Dept wait time, increased Left Without Being Seen.
- Emergency Dept boarding of admitted patients.
- Lack of bed availability for transfers or direct admissions.
- Delay or cancellation of elective surgery.
- ED/ Hospitalist/ Nursing burnout from constant work load burden.



Financial Consequences of Inefficient Patient Flow

- Emergency Dept bypass, wait time, increased Left Without Being Seen.
- Emergency Dept boarding of admitted patients.
- Delay or cancellation of elective surgery.
- ED/ Hospitalist/ Nursing burnout and turnover cost.
- Increased aLOS which has a variable cost component and lost opportunity cost.



Emergency Department Contribution to Patient Flow

- Triage and medical stabilization of patient for disposition. Mission creep of ED.
 - Discharge home
 - Admit to hospital
 - Observation placement
 - Hospice
 - Hospital at Home
 - Patient Navigation to out patient clinic setting (Care Coordinator)



Issues: Hospitalist's Contribution to ED Patient Flow

- Reduce variation in the acceptance of admission and work up of patient in the ED.
- Standardized process to reduce variation in communication between ED and Hospitalists.
- Standardization of admitting and consulting process with various specialties.
- View ED as a Customer!



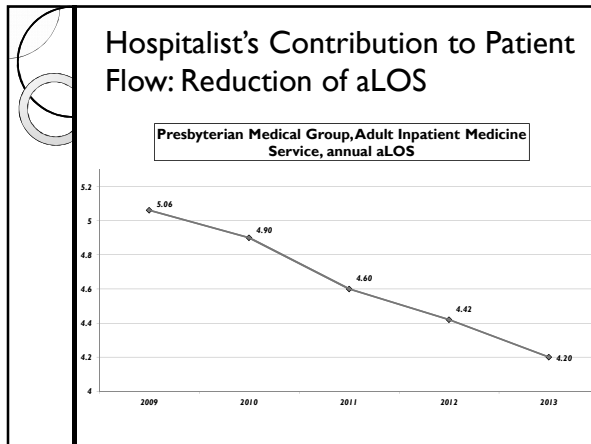
Solutions: Hospitalist's Contribution to ED Patient Flow

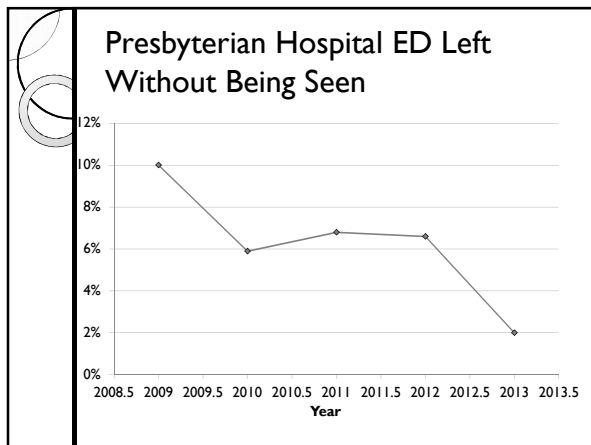
- Service Line Agreement with surgical and medical subspecialist regarding admission and consult responsibilities.
- Establish professional team relationship with ED staff, Surgical specialists, and Medical specialist to facilitate communication and a culture of cooperation.
- Hospitalists presence in ED.Triage RN with Triage Physician working closely with ED to aid in the early disposition and management of patients.

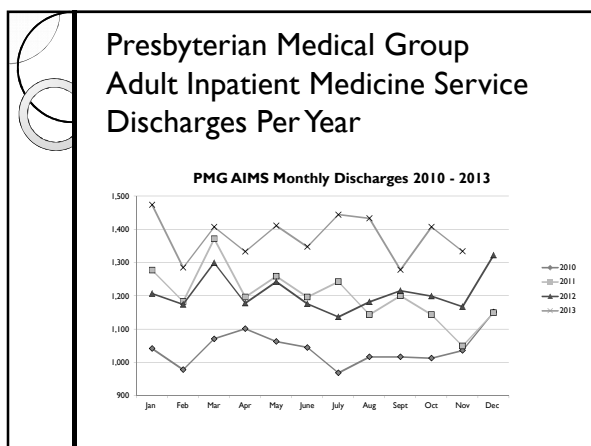


Solutions: Hospitalist's Contribution to ED Patient Flow

- ED physician call AIMS Triage RN to discuss patient for admission, and relevant information is uploaded into EPIC triage note system by Triage RN.
- Triage RN alpha numeric texts AIMS Triage Physician to evaluate admission, who either electronically accepts admission for distribution to rounding team, or has the option to call the ED attending to discuss case. Electronically adds any information and accepts by adding admission attestation order through EPIC.AIMS Triage RN then pages Hospitalist Team next up for admission.









aLOS

- Average Length of Stay and Budgeted Bed Capacity determines patient flow.
- Emergency Room is flow directly related to bed availability which is directly associated with Average Length of Stay (assuming fixed resources).
- Hospitalists and Hospitalist Groups play a major role.
- Ancillary Services, Specialists, Nursing, Care Coordination play critical role.



Hospitalist's Contribution to Patient Flow

- Factors which affect patient flow:
 - Perverse incentive not to discharge
 - Census management
 - Cost and work shifting
 - Continuity of care
 - Schedule / Resource Management
 - Bed management / Nursing Perverse incentive not to discharge
 - Communication with consultants
 - Standardized process of patient flow with multidisciplinary approach



Hospitalist Perverse Incentive Not to Discharge: Level Loading Census

- Level loading census due to wRVU structure, sense of "fairness", and concerned about unequal census
- Result: Leads to Perverse Incentive to hold on to establish patients since discharge would lead to replacement of stable patients with admission of acutely ill patients, and in conjunction with a census cap, best case scenario not to discharge.



Hospitalist Perverse Incentive Not to Discharge: Level Loading Census: Solution

- Hospitalist contract not wRVU related.
- Census to float /allow variation. No floor or ceiling on census. PMG, AIMS: First day census of 12 patients, then the census floats depending on discharge and equal distribution.
- Other non wRVU financial and non financial incentives. Extra admissions paid out next pay check or extra shifts paid out or banked.
- Discharge before noon fallacy. Should you praise a hospitalist for discharging someone today at 11 am, that could have been discharged at 4pm yesterday?



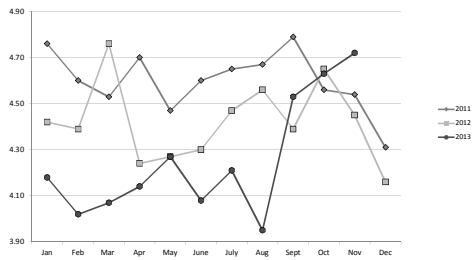
Hospitalist Hindrance to Discharge: Census

- Higher the census number, more difficult it is for the hospitalist to discharge the patient on a timely basis.
- Golden 4 Hours: 8am to Noon. Robbing Paul to pay Peter Syndrome: Discharge Before Noon Fallacy.
- Goal PMG/AIMS: 13 to 16 patient encounters per day, including discharges and admissions. Optimization of census: productivity vs patient flow.
- Census management also applies to Care Coordination and Nursing in principle. What are their ratios?



Hospitalist Hindrance to Discharge: Census

AIMS/ PMG monthly aLOS 2011 - 2013



Month	2011 (Squares)	2012 (Diamonds)	2013 (Triangles)
Jan	4.45	4.75	4.15
Feb	4.40	4.60	4.05
Mar	4.80	4.55	4.10
Apr	4.25	4.70	4.15
May	4.25	4.50	4.25
June	4.30	4.60	4.10
July	4.45	4.65	4.20
Aug	4.55	4.40	4.00
Sept	4.40	4.80	4.50
Oct	4.65	4.55	4.60
Nov	4.45	4.50	4.70
Dec	4.10	4.30	4.30



Hospitalist Hindrance to Discharge: Continuity of Care

- Maximize Continuity of Care by increasing the percentage of admissions by the rounding team and the minimize service turnover.
- Maximize number of days in a rounding cycle.
- Efficient, standardized, handover and communication process.



Hospitalist Hindrance to Discharge: Cost and Work Shifting

- Silo approach to budget, leads to unplanned inefficiencies. Cutting budget in one department leads to cost shifting the same work to higher cost department.
- Example: Reduction of Care Coordination cost leads to Hospitalists spending time coordinating non medical issues at discharge.
- Example: Reduction of Housekeeping might delay multiple admissions and lead to ED by pass.
- "Dropping a dollar to pick up a quarter". Budget must follow operational alignment of work flow, instead of work flow adjusting to budget. Must break down financial silos and have strategic view of budgeting in multiple departments.



Hospitalist Hindrance to Discharge: Cost and Work Shifting

- Opposite of Cost and Work Shifting is to add resources to take away non medical responsibilities that Hospitalists have to perform. Requires understanding of Return on Investment. Addition of resources to become more efficient.
- Example: AIMS/ PMG uses RN to supplement Triage and Cross Cover Hospitalist to unload work load. AIMS Triage RN, and AIMS Cross Cover RN service.



Hospitalist Hindrance to Discharge: Schedule/ Resource Management

- Reduction of Hospital resources on the weekend. Change of work force load in Hospitalists, Specialists, Ancillary Services (PICC line placement), PT, OT, Care Coordinators on weekends.
- Consider hospital operations on weekends as though weekdays. Cost/ benefit of up staffing on the weekends.
- Scheduling to the Work: Matching ED Work Load, and not for ease of scheduling. (10pm to 2am AIMS has 7 Hospitalist performing admissions.)
- "Surface Area" to rapidly admit and evaluate ED admission bolus. (AIMS: 18 Hospitalist available to admit from 8am to 4:30 pm.)
- "Your schedule looks like a Shetland Pony with a birth defect."



What Does Your Schedule Look Like?





Form Follows Function









Hospitalist Hindrance to Discharge: Bed Management/ Perverse Nursing Incentive Not to Discharge

- Nursing Perverse Incentive Not to Discharge:
Nurses incentivized to delay discharge until end of their shifts to avoid another admission.
- Nursing incentive for decentralized bed management, blocking of beds to avoid admissions.
- Solution: Centralized control of bed management: Bed Management Center. Change of nursing scheduling and resources to remove perverse incentive to avoid nursing admissions and discharges.



Perverse Nursing Incentive





Hospitalist Hindrance to Discharge: Communication with Consultants

- Standardized process to communicate early with consultants.
 - Voicemail service for consults. PMG/AIMS has Voicemail service for consults with Infectious Disease, Gastroenterology, and Neurology, as well as various service line agreement specific for certain surgical subspecialist regarding late night admissions that require non emergent consults.



Standardized Process of Patient Flow:

- Quality does not stand alone as a tool to be randomly applied as needed. Quality is imbedded in a process.
- Standardization and elimination of waste.
- Before Assembly Line, Model T Ford took 12.5 hours to assemble and priced at \$825. Post Assembly Line, 1.5 hours and \$240.
- "I am rounding like I did before I was a hospitalists". David J.Yu, 2010.
- Do you have a "PROCESS"?



Standardized Process of Patient Flow with Multi Disciplinary Approach:

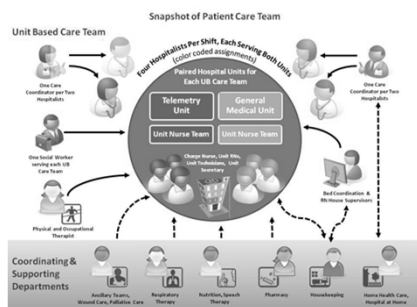
- PMG/AIMS: If we were a factory, we are in the business of producing a "discharge".
- Evidence Based Management Principles: Lean Six Sigma
 - When people and organizations focus primarily on quality, quality tends to increase and costs fall over time.
 - However, when people and organizations focus primarily on costs, costs tend to rise and quality declines over time.
 - "Every activity and every job is a part of the process", W. Edwards Deming
 - Physician leaders are re-inventing the wheel.
- Unit Base Rounding with Multidisciplinary Rounding: Lean Six Sigma Project



Unit Base Model with Multidisciplinary Rounding

- Hospitalists are geographically isolated on designated medicine floors, and teamed with care coordination. The Hospitalists, Care Coordinators, Nurses, Physical Therapy, Pharmacy, and ancillary services meet at the Whiteboard to perform multidisciplinary rounds on a daily basis to discuss each patient. This ensures standardization of communication for optimal patient flow and care.

Unit Base Model with Multidisciplinary Rounding



Whiteboard Multidisciplinary Rounds



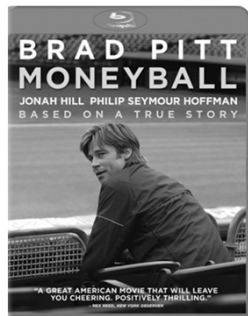
Why Most Hospital Patient Flow Improvement Projects Fail:

- Must answer question, "What's in it for me?"
- Was additional resources considered to improve process? Quality is not free. "Return on Investment".
- Does it add another burdensome layer for the clinical staff?
- There are no bad workers, just bad processes and bad management.

Why Most Hospital Patient Flow Improvement Projects Fail:



MONEYBALL



MONEYBALL: Billy Beane

- Baseball Mentality of 100 years:
 - Buy players to win games
 - Batting averages/ number of hits are the most valued statistics to produce runs
 - Player centric
- Money Ball:
 - Buy wins, not players
 - Wins achieved by getting "runs", you need to buy "runs" not players
 - You need base runners to produce "runs"
 - On Base Percentage are more critical then batting averages, it doesn't matter how you get on base
 - Process centric: Card counting at Black Jack
 - "It's a process, it's a process", Billy Beane (Brad Pitt).



Current Hospital Flow Concepts

- ED is a place of diagnosis and treatment.
- ED is the Hospitalist Group's nemesis!
- Hospitalist main goal is productivity to generate revenue and wRVU is the key statistic.
- Hospitalist is the lone wolf determining hospitalized patients course.
- Weekends are special and minimal work takes place.
- Silo budgets and departmental policies determine patient flow.
- Cut costs to improve margin.
- Clinical provider specific.



Medicine Ball Flow Concepts

- ED is a place of triage and disposition, with multiple disposition options.
- ED is the Hospitalist Group's customer.
- Hospitalist main goal is throughput / patient flow, and aLOS and variable cost per case are the key statistics of cost reduction.
- Hospitalist must be part of a multidisciplinary team to standardize communication within a quality process designed for patient flow.
- No distinction between weekends and weekdays.
- All departmental policies and budget aligned for patient flow.
- Invest in quality process to reduce waste and improve efficiency to improve margin.
- Process specific.
