the**quality**post

Greetings from Cat, Nader and Sasha

QUALITY IMPROVEMENT
DIVISION OF HOSPITAL MEDICINE
Welcome to the 67th edition of The Quality Post. In this issue we feature a piece on the group problem solving and distinguishing Lean from Taylorism. We also highlight updates in CDI, a piece on where are now with med rec, and data on our 4+1 metrics.

Distinguishing Lean from Taylorism

In a NEJM piece on Lean published earlier this year, Pamela Hartzband, MD and Jerome Groopman, MD claimed that the Toyota Production System (TPS)/Lean was inspired by the principles of "Taylorism" made popular by Frederick Taylor in the early 20th century. John Toussaint, MD, CEO of the ThedaCare Center for Healthcare Value wrote a response published by the Health Affairs blog distinguishing TPS/Lean from Taylorism.

Taylor believed that there was one way to accomplish a task, and it was up to management determine that way and make sure all workers executed the plan. In contrast, TPS/Lean is based on the teaching of W. Edwards Deming who argued that frontline works should be in charge of improvement processes

The application of TPS/Lean in healthcare is relatively nascent, and it is true that it has failed in some organizations, but advocates of Lean argue that this is likely due to misguided implementation. Healthcare institutions like ThedaCare, Stanford, and others that have adhered to the original principles of TPS, including respect for frontline workers, have seen extraordinary results.

"There remains too much unjustified waste and unwarranted complexity in delivering care to patients, exposing them to errors and complications. It is time to marry the science of management systems as embodied in TPS/Lean with the science of medicine to achieve care that is safe, efficient, effective, personalized, timely, and equitable." --Toussaint

As we move forward with our Lean journey at UCSF, it will be essential to learn from the pitfalls at other institutions and to participate in the movement towards building national standards for applying TPS in health care.

Source: http://healthaffairs.org/blog/2016/04/06/the-toyota-production-system-what-does-it-mean-and-what-does-it-mean-for-health-care/

Make Group Problem Solving More Effective

When groups get together to brainstorm, they actually come up with fewer ideas than the individuals in that group would have come up with on their own. That's why it's important to think about group problem solving in two phases: divergence and convergence.

Divergence happens when the group considers as many different potential solutions as possible. For example, "How many different uses can you find for a brick?"

Convergence happens when a large number of ideas are whittled down to a smaller set.

For the best results, have people work alone when generating ideas. Then collect those ideas and send them around to the group. Allow the divergence to continue as group members individually build on the ideas of their colleagues. Give the resulting ideas to everyone and let the group get together to pick the best ones. This way everyone can offer solutions without being unduly influenced by others' ideas.

Harvard Business Review: Adapted from "The Problem-Solving Process That Prevents Groupthink," by Art Markman

Clinical Documentation Improvement
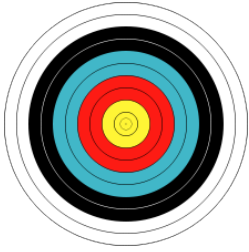
GOALS OF THE PROGRAM:

- Document, capture and code all diagnoses, procedures, co-morbidities and complications
- Accurately and completely reflect the clinical complexity of our patients and the quality of their care
- Improve publically reported measures and ratings

What is the relationship between our quality outcomes and how we document?

Hospitals are increasingly being judged on our quality outcomes-- outcomes like mortality, LOS, and hospital acquired complications; all of which are adjusted by patient's severity of illness.

Capturing severity of illness thus becomes increasingly important if we want our quality measurements to be accurate measures of our performance as physicians and as a medical center.

How is Severity of Illness measured?

Severity of Illness is based on the **Case Mix Index (CMI)** of your patient population.

The CMI is used to **Risk Adjust** patient outcomes.

Every Medicare principle diagnosis or **MS-DRG** is associated with a case mix index.

Complications and Comorbidities

AND

Major Complications and Comorbidities → Add to the principle diagnosis or the DRG to increase the Case Mix Index and expected LOS of patients.

Related diagnosis groups of 44X differ in the presence or lack of CC's or MCC's.

MS-DRG		CMI	LOS
446	Disorders of Biliary Tract w/o CC or MCC	0.7	2.4
	Secondary Diagnosis- **leukocytosis**		
445	Disorders of Biliary Tract w CC	1.0	3.5
	Secondary Diagnosis- **bacteremia or cholangitis**		
444	Disorders of Biliary Tract w MCC	1.6	4.7
	Secondary Diagnosis- **Severe sepsis**		

Documenting *"Leukocytosis"* will result in severely under representing this patient's severity of illness.

If we want our quality outcomes and LOS to be judged fairly we need to pay attention to how we document co-morbidities and complications

Clinical Documentation Improvement

Attention to just some **simple specific terms** can eliminate the need for most queries!

The old way	The new way
CKD	CKD **and the stage**
Volume overload Echo shows low EF HFpEF or HFrEF	Acute pulmonary edema Acute/Chronic systolic heart failure Acute/Chronic diastolic heart failure
Vent dependent Unable to wean from vent	Acute hypoxemic respiratory failure
Requiring pressors	Septic/Cardiogenic Shock
Rising Creatinine	AKI/ ATN (remember contrast nephropathy is ATN
GI bleed	Acute anemia 2/2 Blood Loss
AMS	Encephalopathy or Coma

Other more unique issues to be aware of:

SIRS & SEPSIS

- Look for SIRS with every infection
    - SIRS + Infection = Sepsis
- Look for organ dysfunction and document Severe Sepsis
- Document Sepsis in the discharge summary (let's the coders know this was a confirmed Dx)

    ⊘ Urosepsis   ⊘ Pneumosepsis   ⊘ Biliary Sepsis

- SIRS without an infection is still a marker of severity (Think of a severe COPD patient)

HEALTH CARE ASSOCIATED PNA

- Not all PNA are created equal
- Health care associated PNAs carry a higher risk of readmission
- Unfortunately documenting **HCAP** is not enough!
    ➢ Document broad spectrum antibiotics and the organisms the are covering for

HCAP: Treating with Zosyn for possible pseusomonas and vancomycin for possible MRSA

NSTEMI TYPE II vs. DEMAND ISCHEMIA

The problem: We use these terms interchangeably, but they are different codes!
In the coding world: NSTEMI = Acute MI To be accurate use:

- **NSTEMI Type II** for TROPONIN **+** EKG changes, Typical Symptoms or wall motion abnormalities
- **Demand Ischemia** for isolated Troponin Elevation in the setting of non-cardiac disease

ENCEPHALOPATHY

What is encephalopathy?
A global or diffuse alteration in brain function associated with a systemic cause.

Examples:
- **Toxic** – intoxication/withdrawal or over medication
- **Infectious** – AMS from sepsis
- **Hepatic** – Excess ammonia
- **Ischemic** – Associated with stroke or shock

Sustaining the Gains: Med Rec Kaizen

The Med Rec Kaizen took place in September of 2015, and brought together a multidisciplinary group of ED and Medicine pharmacists, housestaff, an attending and an RN. With the goal of improving the efficiency, safety, and quality of the medication reconciliation process, the team created standard work and training materials for housestaff, attendings, pharmacists and nurses. Since then, the UCSF Med Rec Committee and the Housestaff Incentive Program (HIP) residents have been continuing to work hard on sustaining the gains.

So how are we doing almost a year after the Kaizen?
Not only have we improved the percent of patients with medications reconciled prior to discharge, but we now have data to show that we have improved the quality of the med rec process.

The percent of patients with no duplicate meds and the percent of patients with prior to admission meds has improved. Below are statistical process control charts showing a new set of upper and lower control limits (3 sigma above and below the centerline) based on our new and improved system.

Complete admission medication reconciliation prior to discharge
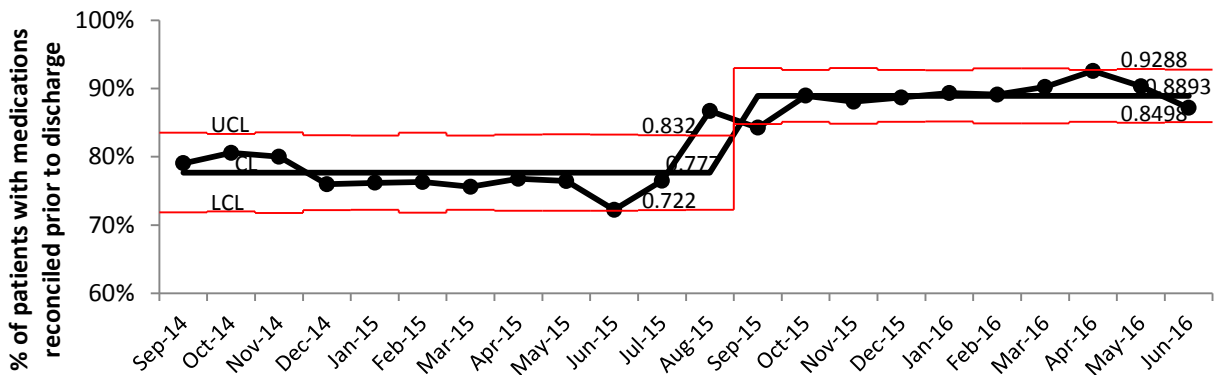
Patients with no duplicate meds
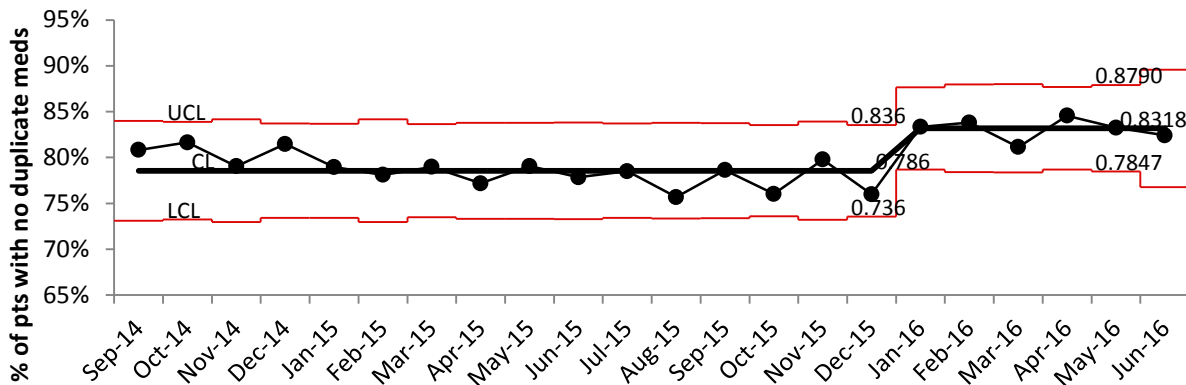
Prior to Admission Meds

DHM/Residency "4+1" Priorities

Four Core Metrics:

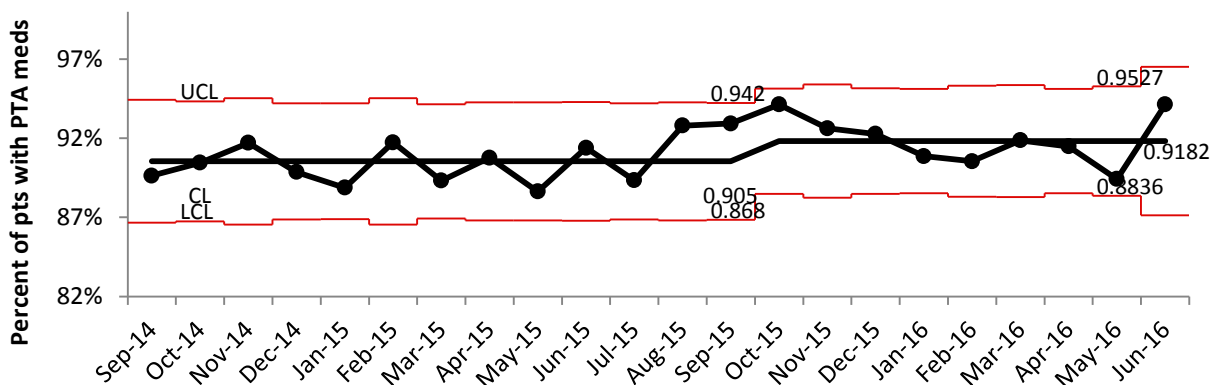| Achieve ≥ 75% score for HCAHPS Communication MD "Explained in Understandable Way"	↗	7 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
74.9%	71.4	**83.3**	**81.8**	67.7	**84.8**	**89.7**	**81.0**	70.5	69.4	73.3	73.3	**83.3**

Sustain number of total phlebotomy draws by achieving ≤ 1.7 sticks per hospitalized patient per day	◯	6 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1.7	**1.56**	**1.51**	**1.51**	**1.64**	**1.60**	**1.51**	**1.50**	**1.42**	**1.45**	**1.55**	**1.54**	**1.61**

Achieve ≥ 90% of patients who have had all medications reconciled before discharge	↘	4 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
77.7%	76.5	86.7	84.3	88.9	88.1	88.7	89.3	89.1	**90.2**	**92.6**	**90.3**	87.2

Achieve ≥ 20% of hospital medicine discharges by noon	↗	8 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
20.1%	**20.4**	16.0	15.7	17.1	18.5	18.9	18.3	**23.8**	16.8	19.6	16.7	**20.0**

Plus One Metrics:

Achieve ≤ 23% of patients on telemetry until discharge (with LOS > 48hrs)	◯	6 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
22.6%	**23.0**	24.2	23.6	29.0	**17.5**	**22.1**	**21.2**	**18.3**	**20.0**	**20.7**	**22.1**	**17.9**

Achieve ≥ 75% patients with High-Quality AVS	↘	6 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
74.4%	65.1	69.1	62.0	65.0	65.2	65.7	64.6	**78.5**	**78.4**	**75.3**	69.4	65.3

Achieve C Diff rate of ≤ 11.1 (per 10,000 patient days)	◯	6 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
9.23	16.8	**6.26**	**9.05**	**0.00**	**3.35**	**3.03**	**5.61**	**3.03**	**2.92**	**3.21**	14.2	

Achieve 50% of patients (not full code) with POLST completion	◯	6 of 12 months										
FY2015 Baseline	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
40.2%	37.1	**52.1**	**51.5**	**50.8**	**62.2**	**52.1**	**59.3**	45.6	**66.7**	**63.4**	**57.4**	**57.7**