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The Quality Post

Monthly Quality Improvement Newsletter
FOR THE
Division of Hospital Medicine

February 2012 • Issue 14

Greetings from Michelle & Katie

QUALITY IMPROVEMENT
DIVISION OF HOSPITAL MEDICINE

Welcome to the 14th edition of the Quality Post. This issue is all about Sepsis, Sepsis, Sepsis. We provide our hospital medicine data on our current sepsis performance, our plans to improve sepsis early detection on the floors and our goals for sepsis mortality. As always we'll also review our performance on our Division Incentive Metrics.

Should We Be Graded on our In-Hospital Mortality?

Both hospital mortality and 30-day mortality are increasingly being used as indicators of the quality of care provided in the inpatient setting. CMS publicly reports 30-day mortality for select disease populations (AMI, HF, Pneumonia) on their website: www.hospitalcompare.hhs.gov and there is talk of them using both in-hospital and 30-day mortality in the Value-Based Purchasing program. The appeal of mortality data is clear: it is a measure with an indisputable outcome. It also just makes sense that a patient might do better at a hospital with a low mortality rate than a high one. Why then isn't mortality used more often to decide if an institution provides high quality care versus focusing on processes like core measures?

Mortality rates may seem to represent the ultimate outcome measure, but there are innumerable factors, many beyond providers control, that contribute to and influence them; far more than can ever be put into a risk adjustment model. In-hospital mortality may be unreliable for small hospitals who transfer sicker patients. Large differences are also seen in hospitals who have inpatient palliative care suites versus those that routinely discharge patients to outpatient hospice. Finally, hospitals that engage patients in goals-of-care discussions may have more patients, both those at high and low risk of death, passing away in the hospital.

Additionally, risk models, which are meant to account for patient factors (comorbidity, age, etc) are notoriously poor at adjusting for these differences. According to a 2010 article in the NEJM, four common risk adjustment methods for calculating in-hospital mortality produced substantially different results. The current trend of reporting risk adjusted in-hospital mortality is causing hospitals to drive their observed to expected ratio (O/E) far below 1. However a lower number, far below 1, may not always represent better quality of care. Hospital mortality rates have not been shown to align with other quality measures. A certain rate of mortality can represent high quality, resource conscious care where patients and families are engaged in end-of-life decisions and patients pass away in the hospital.

So does this mean we shouldn't look at mortality? No one who understands its complexity would say that mortality is an unequivocal marker of hospital quality. No single indicator ever is, and mortality is just part of the story. We cannot take a simplistic approach to measurement or improvement. Quality leaders must continue to evaluate new process measures that may help reduce mortality and other poor outcomes and continually check to assess the impact of improved implementation of existing and new measures on outcomes. This approach will put us well along the path to achieving higher quality health care and a high performance health system.

Recognize when it's time to stop emailing and pick up the phone

Email has fundamentally changed the way we interact. But, it cannot replace live conversation. This especially applies when resolving a conflict or communicating an important business decision.

Far too many people try to do sensitive business via email. This is problematic because tone and context are easy to misread. In a live conversation, how one says something is as important as what they are saying.

Without inflections and intonations, it's hard to understand the feelings behind the words. In fact, email-based conflict often escalates because you aren't forced to be as thoughtful as you would be in a one-on-one conversation. Next time you have a delicate or complex issue to discuss, take your hands off the keyboard and pick up the phone.

The Sepsis Story

A 56 year-old Laguna Honda resident with history of stroke, seizures, HTN, HF, DM admitted with AMS and hypoxemia. In the ED, he was febrile to 39.2, hypotensive to 87/61, tachycardic to 121, tachypneic to 32 satting 94-96% on 6L. Labs were notable for acute renal failure, lactate of 4.1 and troponin 0.54. Blood pressure improved with fluids and he was admitted to Medicine with BSA and triaged to the TCU and boarded on 8S. Overnight he was febrile, tachycardic to 140s and had a seizure. In the morning he went to ultrasound due to concern for abdominal process. On his return he was unresponsive and a code blue was called. He was unable to be resuscitated.

Findings on review

- Patient triaged in ED at 10:30AM, delay in sepsis management due to concern for a seizure or stroke. Neuro consult and head CT. (11:30am).
- Medicine was called after 3pm and patient arrived on the floor at 8pm. Presumed diagnosis was UTI, but sepsis was not mentioned in the differential on the admission H&P
- Administration of antibiotics was delayed due to delay in reaching the floor. Zosyn dose was give 4 hrs late and the scheduled evening dose of Vancomycin was missed on the floor.
- Neither Nocturnist nor ICU nor RRT evaluated this patient for the ICU. The medicine attending saw the patient in the ED and on the floor following the admission and staffed the pt with the team.
- Patient went unmonitored to US on the post-call day.

How can the sepsis initiative help?

- Earlier identification of +SIRS criteria and a documented infection would identify this patient as having Severe Sepsis and could prompt timely administration of antibiotics and evaluation by the ICU
- Better partnership between the ED, Medicine and ICU in the triage and care of sepsis patients
- Screening by nurses on change of shift would likely trigger a call to RRT or to ICU

Our Performance with Sepsis Bundle Compliance:

We've got room to improve with our Sepsis Bundle Compliance. Our goals surround regular screening for sepsis to trigger prompt lactate, blood cultures, antibiotics and fluid resuscitation. We need better partnership with the ED and better communication within our teams.

Measure	DSRIP (IHI-SSC)	Medicine Compliance Jul-Dec 2011 N=73
Lactate	Serum lactate measured (SSC requires within 6 hrs of TOP)	64 **88%**
Blood Culture	Blood cultures obtained prior to antibiotic administration.	67 **92%**
Antibiotic	Broad-spectrum antibiotics administered **within 3 hours** for ED admissions and **1 hour** for non-ED ICU admissions.	51 **70%**
Fluid Resuscitation	In the event of hypotension and/or lactate >4 mmol/L: Deliver an initial minimum of 20 ml/kg of crystalloid (or colloid equivalent) Apply vasopressors for hypotension not responding fluids maintain mean arterial pressure (MAP) >65 mmHg	38 **52%**

What about our Mortality data?

Indicator	Target	Stretch	FY 2011	Q4 2010	Q1 2011	Q2 2011	Q3 2011	YTD
Mortality Measures (Michelle Mourad/Katie Quinn)								
Overall Mortality (%, O/E)	0.6	0.5	5.35 (.98)	5.22 (1.0)	4.97 (.84)	6.22 (1.07)	4.77 (.87)	5.0 (.90)
Pneumonia Mortality (%, O/E)	0.6	0.4	2.81 (.67)	5.32 (1.11)	1.52 (.57)	1.72 (.50)	2.04 (.71)	3.24 (.95)
Sepsis Mortality (%, O/E)	0.6	0.3	26 (.89)	25 (.92)	30.16 (.94)	28.57 (.89)	20.0 (.69)	30.0 (.82)

19 Died expected to die	**5 Died** expected to live
26 Lived expected to die	**52 Lived** expected to live

Sepsis Mortality Update: July-December 2011

Though our Observed Sepsis deaths/ Expected Sepsis deaths are now below 1, we still have unexpected sepsis deaths on the medicine service.

There were 5 unexpected Sepsis deaths in the last 6 months.

Our Sepsis Mortality O/E has fallen unexpectedly in the last year. Without a good sense of the reason for this fall, the concern is that our performance could easily return to previous levels

How can you help?

- Document sepsis, severe sepsis and septic shock and the presumed source clearly in your note
- Improve your documentation of expired patients in the discharge summaries

The Sepsis Plan

The aim is to improve early recognition of sepsis in the ED, 14L & 14M and the ICU and improve the timely administration of the sepsis bundle. Screening is already taking place in the ED, ICUs and 14th floor each with a little variation. Below is a draft version of a screen being piloted on 14M.

① **Are there 2 new signs of SIRS below?** ☐ yes ☐ no **(acute changes over baseline)**		② **Is there 1 new sign of Organ Failure below?** ☐ yes ☐ no **(acute changes that are persistent for > 1 hour)**	
☐	**Temp > 38°C < 36°C**	☐	**SBP < 90 or > 40 below baseline**
☐	**HR > 90**	☐	**Mental Status Change**
☐	**RR > 20**	☐	**SpO2 < 90% on room air**
☐	**WBC > 12K or < 4 K (most recent lab)**	☐	**↑ need for O2 to maintain SpO2 > 92%**
③ **Does the patient have a suspected or confirmed infection?** ☐ yes ☐ no		☐	**Mottled Skin**
		☐	**Capillary Refill > 3 seconds**

① + ③ or ② + ③ = + screen → call for further evaluation

Ever wonder what our patients think of their care?

The Patient Satisfaction Committee has been planning to conduct 2 focus groups with medicine patients to understand their perspective on how we might improve the patient experience. This month, we'll provide an overview of the project as well as pointers for how you can help make this a success.

Engaging Patients and Care Partners in Redesigning the Patient Experience

GOALS:

- Gain more in-depth insight into patient and care-partners desires and expectations.
- Generate locally relevant and tangible ideas for patient driven initiatives.
- Work with a multidisciplinary group of physicians and nurses to rate feasibility of desired initiatives.
- Implement selected initiatives and monitor their impact on patients satisfaction scores

PROJECT TEAM:

Diane Sliwka, Naama Neeman, Katie Quinn, Marwa Shoeb

TIMELINE:

Sept-Oct: Planning
Nov-Jan: Patient Identification
Jan-March: Patient Recruitment
March-April: Conduct Patient Focus Groups
May-July: Conduct Provider Focus Groups
September: Implementation Phase 1

Help us find patients and care partners!

Who? Patients with:

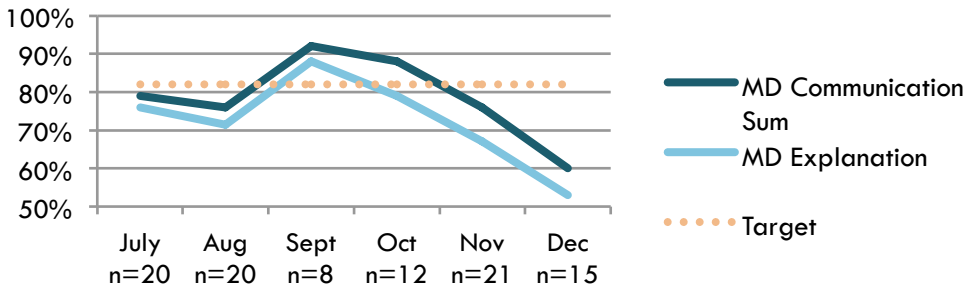
- High English language proficiency
- Appropriate physical and cognitive ability
- Residences less than one hour from the hospital
- At least 2 admissions to the medicine service within the past year OR one admission within the past month with LOS of 2 days or more.

How? Simply E-mail names/MR#s to Marwa Shoeb mshoeb@medicine.ucsf.edu

Thank you!! We will report the findings at a faculty lunch.

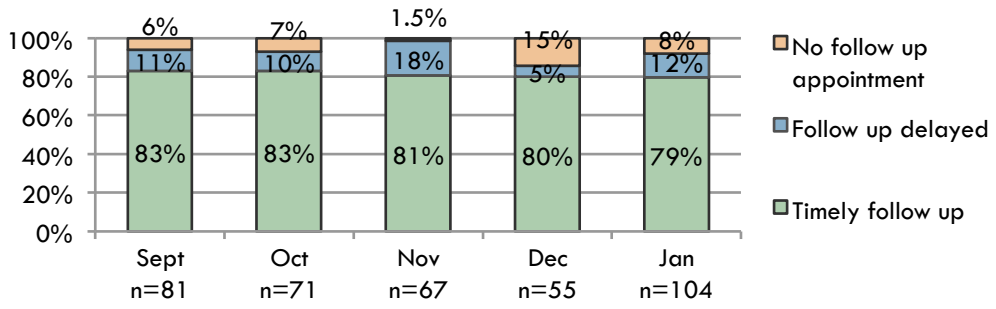
Division Incentive Goals			Progress towards Goal	Baseline Data		FY 2012
Communicate with UCSF PCP >80% of time			↗	PCPs reported receiving information at discharge >80% of the time: 6%		7of 10 recent months
July	Aug	Sept	Oct	Nov	Dec	Jan
30%	40%	22%	55%	**80%**	**81%**	**81%**

Achieve HCAHPS: Communication with Doctors Top Box score above 82%			↘	FY 2011 HCAHPS Top Box Score: **79%**		7of 10 recent months
July	August	Sept	Oct	Nov	Dec	Jan
78%	71%	**92%**	**86%**	74%	60%	



Achieve MD hand hygiene rates of >85% on all Medicine Floors: 14L, 14M, MTZ 5E/W			◎	2010 MD HH Compliance: **89%**		7 of 10 recent months
July	August	Sept	Oct	Nov	Dec	Jan
89%	**86%**	**88%**	**97%**	**96%**	**89%**	**86%**

Schedule follow up appointments for 80% UCSF primary care patients discharged home (2 wks) and SNF (1 month)			↘	June 2010: DGIM PCP follow up **29%**		6 of 8 recent months:
July	August	Sept	Oct	Nov	Dec	Jan
59%	54%	**83%**	**83%**	**81%**	**81%**	**79%**



Calendar of Events

Resident QI Lunches

M&M type format for Quality Cases:
Feb 17
Mar 13
April 16

Faculty QI Lunches

Feb 13: Sepsis Task Force Update
Mar 13: Readmission Awareness Project

Center for Health Professions

Mar 14: Conflict Management: A tool for physician leaders
Mar 28: Conflict Management and the Myers-Briggs