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# The Quality Post


**Monthly Quality Improvement Newsletter** for the **Division of Hospital Medicine**

August 2013 • Issue 32


## Greetings from DHM QI!


QUALITY IMPROVEMENT
DIVISION OF HOSPITAL MEDICINE

Welcome to the 32nd edition of The Quality Post. In this edition we explore the power of data to change performance and review our own Divisional Data. How can we best use our data to drive change?

## How Do We Use Data To Stimulate Conversation And Change?

The main goal of data visualization is to communicate information clearly and effectively through graphical means. It doesn't mean that data visualization needs to look boring to be functional or extremely sophisticated to look beautiful. To convey ideas effectively, both aesthetic form and functionality need to go hand in hand, providing insights into a rather sparse and complex data set by communicating its key-aspects in a more intuitive way.

> Experts assert that ideal visualization should not only communicate clearly, but stimulate viewer engagement and attention.

The best kind of visualization, like the best kind of story, is one the viewer can relate to. Ask yourself: can users see themselves? A 2009 New York Times feature showed a graph of unemployment -- including not just averages, but letting readers highlight trends by gender, age, education. The title? "The Jobless Rate for People Like You."

This kind of interaction puts the "you are here" dot in the visualization, orienting viewers and letting them add their own context. It then fulfills the mission of data visualization, to stimulate viewer engagement and attending. When a data visualization can be shared and discussed, it draws more interest. At the same time, a conversation can lead to a deeper understanding of the data as people ask questions and discuss interpretations.

Fernanda Viegas and Martin Wattenberg, "How To Make Data Look Sexy", CNN.com, April 19, 2011. http://articles.cnn.com/2011-04-19/opinion/sexy.data_1_visualization-21st-century-engagement?_s=PM:OPINION

## Three Elements of Successful Data Visualization

Good designers know not just how to pick the right graph and data range, but how to be a compelling storyteller through the visualization. Here are some common features of compelling data:

**1. It understands the audience.**
A successful visualization is based upon the designer understanding whom the visualization is targeting, and executing on three key points: 1) Who is the audience and how will it read and interpret the information? 2) What type of information is most useful to them? 3) How can viewers take action from it?

**2. It sets up a clear framework.**
The designer needs to set up a clear framework, which involves the semantics and syntax under which the data information is designed to be interpreted. The semantics involve the meaning of the words and graphics used, and the syntax involves the structure of the communication.
Before everything else, make sure your data is clean and you understand its nuances. Does your data set have outliers? How is it distributed? Where does your data have holes? Are you making pre-judgments about the data?

**3. It tells a story.**
Visualization in its educational or conformational role is really a dynamic form of persuasion. Few forms of communication are as persuasive as a compelling narrative. To this end, the visualization needs to tell a story to the audience. Stories package information into a structure that is easily remembered which is important in many collaborative scenarios when an analyst is not the same person as the one who makes decisions, or simply needs to share information with peers.

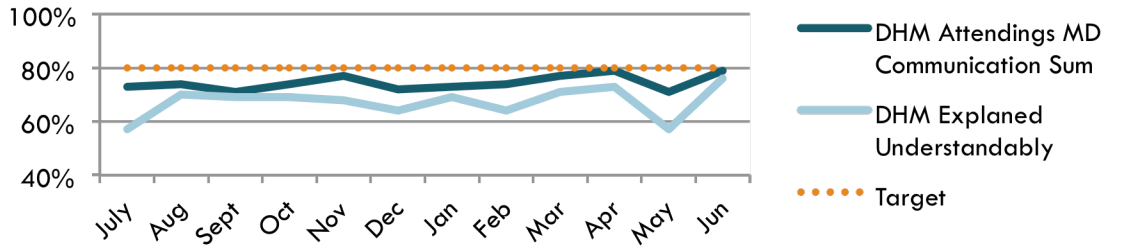
# Division Incentive Metrics FY 2014

We've conquered hand hygiene, been humbled by readmissions, taken on the patient experience… The yearly DHM Division Incentive Metrics are an opportunity to improve on 5 measures mutually agreed upon by our Division and the medical center for financial gain.

The incentive metrics provide us an opportunity to define measures important to our Division and hold ourselves financially responsible for achieving them.

## ① The Patient Experience

Improving patient satisfaction has proven challenging. As the HCAHPS patient satisfaction scores are both publically reported and have an impact on reimbursement for care this remains a priority for our Division and for the Medical Center.




Thought our line *looks* unchanged, our average has improved significantly over the last year.

MD Communication Top Box score average in FY2013 was 75.6% compared to 72% the year before.

What we are asking:

- Set expectations with your team on communication best practice
- Hand out your facecards and explain your name and role
- Be open to individual feedback on your team performance

## ② Clinical Documentation Improvement

With so many challenging metrics we wanted to have one metric that was definitely achievable.

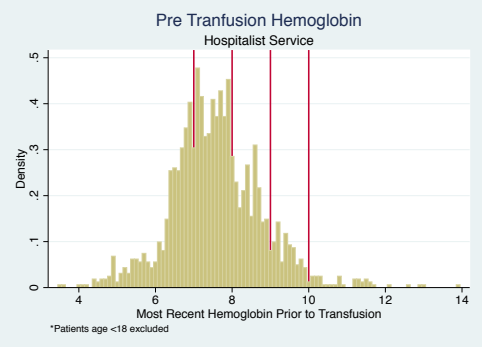
| Current Performance on Answering CDI Nurse Queries | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| | | 20% | 77% | 91% | 90% | 89% | 85% | 92% | 95% | 97% | 92% |

To avoid getting queries all together, remember these tips:

- Recognize and name Sepsis, Severe Sepsis & Septic Shock
- Name AMS as Acute delirium or Encephalopathy
- Recognize Cachexia & Malnutrition
- Recognize when you are treating pneumonia for resistant organisms
- Remember CHF needs acute/chronic & systolic/diastolic
- Remember CKD needs a stage

# Division Incentive Metrics FY 2014

## ③ Blood Utilization Stewardship

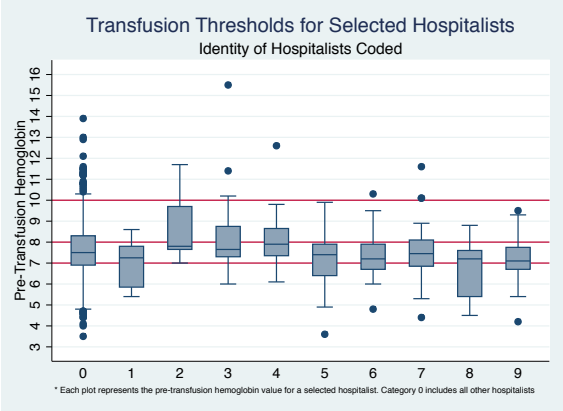



*Hospital Medicine practices excellent transfusion stewardship right?*

While the majority of our transfusions have a pre-transfusion Hgb from 7-8 g/dL, we still have a significant number of transfusions at Hgb levels above 8 g/dL While our performance may be better than other services, we still have room for improvement.

One indication of potential improvement is variable performance by attendings. Looking at 9 hospitalists with the largest volume of transfusions, you can see significant variability for each provider and between providers.

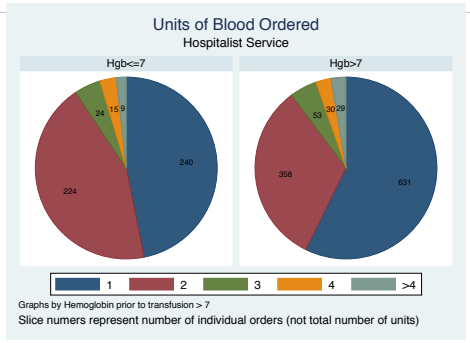
*This data suggests that standardization can improve performance.*

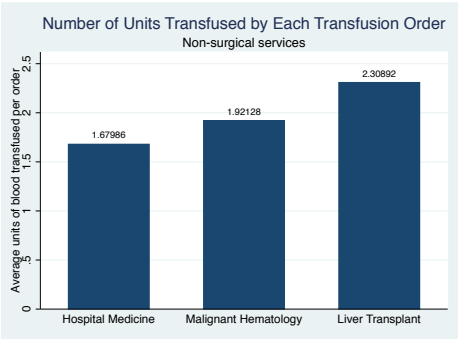



### So How Can We Increase Stewardship?

- Discuss transfusion literature with your teams on rounds
- Transfuse 1 Unit instead of 2 Units unless a patient is actively bleeding
- Use evidence to guide transfusion thresholds

*We transfuse 1.67 units per transfusion order. Consider whether your patient really needs 2 units!*




*While the majority of transfusion orders are for 1 unit, a significant number of patients with Hgb >7d/dl get two units of blood.*

# DHM Division Incentive Metrics FY2014

## ④ Responsible Telemetry Use

Previous data published by Nader in JAMA Internal Medicine suggests that concern for "clinical deterioration" was the most commonly sited reason for telemetry when in reality very few patients had clinically meaningful telemetry events and even fewer had events that prompted a change in therapy. Not much has changed.

- *Over one fourth* of our admissions had some telemetry monitoring, 99/~350 admissions
  - **62%** of telemetry patients had a baseline "Normal Sinus Rhythm"
- The most cited reason for telemetry was: *"At risk of cardiac arrest, respiratory arrest or development of hypotension"*
  - **45%** of telemetry patients had telemetry until discharge

When talking with your team use these strategies:

- Discuss appropriate indications for telemetry with your team
- Ask daily if your patient still needs step down and/or telemetry
- Pass along "floor ready" patients to your team from MDR

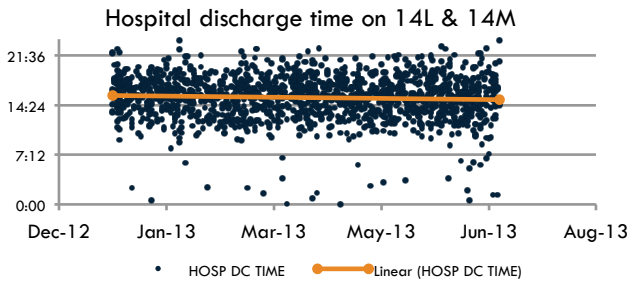
## ⑤ Discharge by Noon

**Discharge before Noon**

One of the key aims of the LEAN process is to remove waste from the discharge process and help patients leave earlier and this is a Med Center IAP goal this year.

- Could we discharge **20% of our patients before noon**?
- This is only **1 discharge of the 3-4 on each unit each day.**

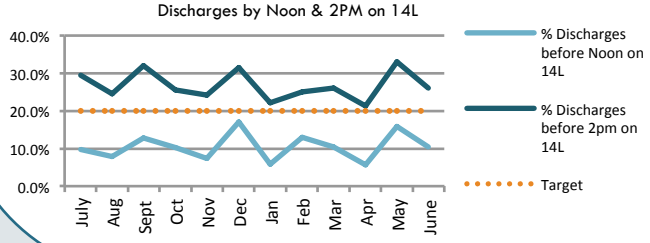
**How do we do currently?**




Discharge time has remained very constant and clustered around 3:30 for ***several years!***

*Changing our culture around discharge times will require changes in the way we prepare for discharge on the day prior to discharge.*

To affect change, we will be implementing 4PM tee time, starting with two of the case managers on the Medicine Service.

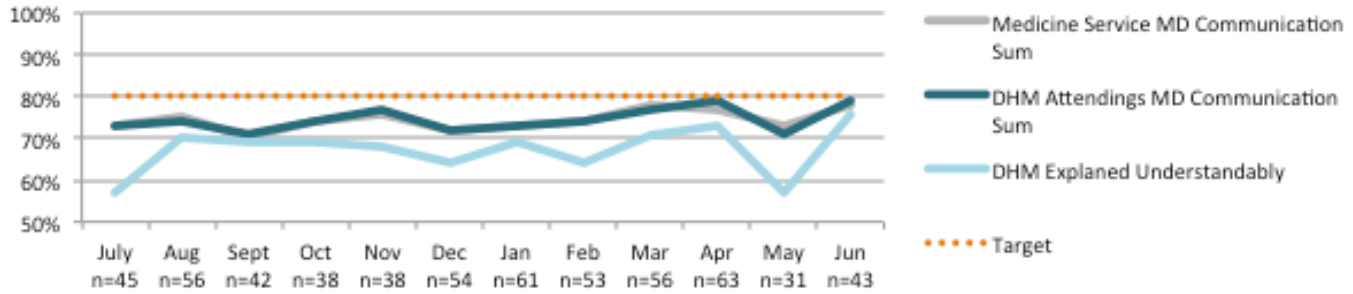



- Start by understanding reasons for late discharge
- Look at preventable factors and incorporate into Tee time checklist
- Standardize CM workflows around Tee time with communication to team
- Track performance by team

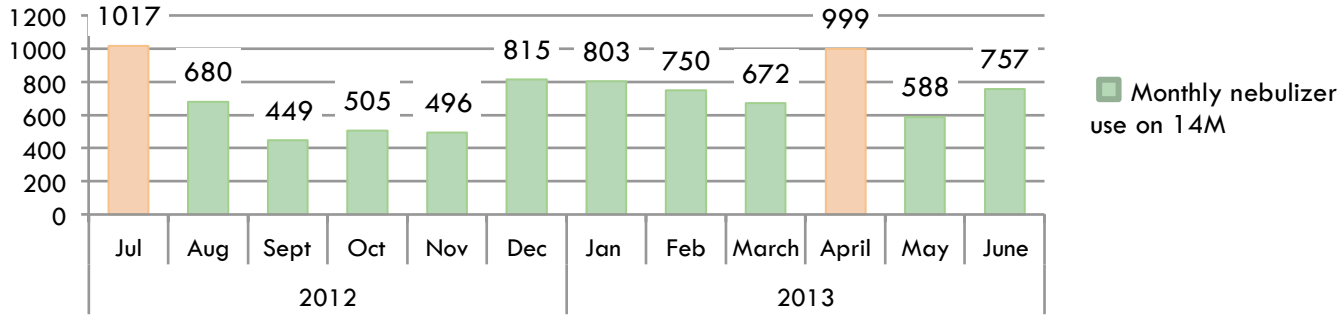
## Division Incentive Metric Performance

| Achieve >60% full bundle compliance with Lactate, Blood Culture, Broad Spectrum Antibiotics, and Fluid Resuscitation | | FY 2012 Compliance: 40% | | | | | | | | | 1 of 4 quarters |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June |
| 81% | 87% | 76% | 93% | 94% | 93% | 81% | 86% | 89% | 78% | 85% | 77% |

| Achieve HCAHPS Communication with Doctors Top Box score above 80% | | FY 2012 HCAHPS Top Box Score: 72% | | | | | | | | | 6 of 12 months |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June |
| 73% | 75% | 70% | 74% | 76% | 72% | 73% | 74% | 78% | 73% | 77% | 88% |




| Promote appropriate nebulizer use and early transition to MDI; Reduce monthly nebulizer use by 15% (baseline ~1000 nebs/mo) | | FY 2012 Baseline: 3.5 per hospitalization | | | | | | | | | 2 of 4 quarters |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June |
| 1017 | 680 | 449 | 505 | 496 | 815 | 803 | 750 | 671 | 999 | 588 | 757 |




| Achieve an average MD hand hygiene rate of >85% for Medicine/Hospitalist | | CY 2012 by floor: 88% | | | | | | | | | 9 of 12 months |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 91% | 90% | 95% | 97% | 98% | 90% | 88% | 98% | 100% | 95% | 94% | 95% |

| Respond to >80% of nurse clinical documentation improvement queries | | FY 2012 Baseline: No Data Available | | | | | | | | | 2 of 4 quarters |
|---|---|---|---|---|---|---|---|---|---|---|---|
| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | April | May | June |
| | | 44% | 77% | 89% | 89% | 86% | 90% | 92% | 96% | 97% | 90% |