Today's Moderator

Camille Smith, MSPH, MSW
Project Manager, National Quality Forum
Today’s Featured Speakers

- Wendy Vernon, MPH, MPT, Senior Director, National Priorities, National Quality Forum
- Debra Sims, RN, Clinical Supervisor, Children’s Hospital at Providence (2010 Eisenberg Award Recipient)
- Jack Jacob, MD, Staff Neonatologist, Pediatrix Medical Group

Today’s Featured Speakers

- Terry Rogers, MD, CEO, Foundation for Health Care Quality
- Hae Mi Choe, PharmD, Director, Innovative Ambulatory Care Pharmacy Practices, University of Michigan Hospital and Health Systems
- Lindsey Kelley, PharmD, MS, Coordinator, Ambulatory Pharmacy Initiatives and Transitions of Care
Patient Safety Webinar Series: Recurring Themes

- Creating culture change through organizational leadership and empowered frontline providers
- Engaging patients and families in a meaningful way
- Coordinating the efforts of multidisciplinary teams and organizations
- Designing payment models that promote and incentivize quality and safe practices
- Measuring quality consistently and reliably within and between organizations

Objectives for Today’s Webinar

1. Provide an opportunity for thought leaders in patient safety to share best practices, success stories, and strategies for improving systems of care
2. Provide an overview of the PfP-NPP public-private partnership and collaborative efforts underway to improve patient safety in alignment with the National Quality Strategy
3. Generate action in organizations and communities nationwide
4. Provide examples of multidisciplinary teams working collaboratively to achieve results for patients
Wendy Vernon, MPH, MPT, Senior Director
National Priorities, National Quality Forum

NPP Input into the National Quality Strategy

- **October 2010**: NPP provides input to HHS to inform the development of the NQS
- **March 2011**: HHS issues NQS based on the triple aim
- **September 2011**: NPP input to HHS helps to make NQS more actionable:
  - Identification of goals and measures
  - Recommendation of strategic opportunities
  - Consensus across key leaders about where they should drive their organizations
  - Full report is available from the Links tab in the upper left corner of your screen
NPP INPUT ON HHS’S NATIONAL PRIORITIES:
Patient Safety

Goals:
- Reduce preventable hospital admissions and readmissions*
- Reduce the occurrence of adverse healthcare associated conditions*
- Reduce harm from inappropriate or unnecessary care

Measure Concepts:
- Hospital admissions for ambulatory-sensitive conditions
- All-cause hospital readmission index*
- All-cause healthcare-associated conditions*
- Inappropriate medication use and polypharmacy
- Inappropriate maternity care
- Unnecessary imaging

*Aligned with HHS’s Partnership for Patients initiative. Healthcare-associated conditions include adverse drug events, catheter-associated urinary tract infections, central line blood stream infections, injuries from falls and immobility, obstetrical adverse events, pressure ulcers, surgical site infections, venous thromboembolism, and ventilator-associated pneumonia.
Partnership for Patients **Goals**

- **Keep patients from getting injured or sicker.** By the end of 2013, preventable hospital-acquired conditions would **decrease by 40%** compared to 2010.

- **Help patients heal without complication.** By the end of 2013, preventable complications during a transition from one care setting to another would be decreased so that all hospital readmissions would be **reduced by 20%** compared to 2010.

Partnership for Patients **Nine Areas of Focus**

- Catheter-associated urinary tract infections (CAUTI)
- Central line-associated blood stream infections (CLABSI)
- Injuries from falls and immobility
- Adverse drug events
- Obstetrical adverse events
- Pressure ulcers
- Surgical site infections (SSI)
- Venous thromboembolism
- Ventilator-associated pneumonia (VAP)
And how will it happen at scale?

- There is no “silver bullet,” but we know we must:
  - Engage leadership
  - Engage patients and families, authentically
  - **Work together**
  - Provide thoughtful incentives
  - Assist in the painstaking work of improvement
Tell us about your experience

If you have any questions or comments for today's speakers, please type into the chat box at the bottom left corner of your screen. To dial into the discussion, call 877-852-6561, confirmation code 4215560.

Your questions will be answered throughout the webinar and during the audience discussion.

Eliminating Central Line Associated Blood Stream Infections (CLABSI) in the Newborn Intensive Care

Jack Jacob, MD: jack.jacob@pediatrix.com
Debra Sims, RNC: debra.sims@providence.org
Carol Van de Rostyne, ANP: carol.vanderostyne@providence.org
Grace Schmidt, RNC: grace.schmidt@providence.org

The Children’s Hospital at Providence NICU, along with Pediatrix Medical Group, Anchorage, Alaska

2010 Recipients of the John Eisenberg Patient Safety and Quality Award for Innovation in Patient Safety
• This is not just a “NICU success story”

• This is a model for improvement work that can be applied to Any topic, in Any unit

References:

*Toward the Elimination of Catheter-Related Bloodstream Infections in a Newborn Intensive Care Unit (NICU)
Jacob J, Sims D, Van de Rostyne C, Schmidt G, O'Leary K.

US Department of Health and Human Services
– Agency for Healthcare Research and Quality
www.innovations.ahrq.gov
(Search “all editions” or use search tool)

“Protocols, Task Specialization, and Case Reviews Virtually Eliminate Catheter-Related Bloodstream Infections in Neonatal Intensive Care Unit”
2002 and 2003 gave us focus on implementation of best practices for preventing catheter-related blood stream infections.

2004-2006 focused on implementing and maintaining best practices:

- Hand Hygiene
- Full Barrier Precautions
- Hub Care
- 2 peripheral blood cultures & adequate volume for certainty of diagnosis
- Line Care
- Closed line systems
- Dressing changes/ PICC team focused on dressings and placement
- Protocols/policies and the implementation, auditing and enforcement of them
- **Changing the mental model:** CLABSIs are preventable, even in vulnerable tiny preterm babies with compromised immune systems – posted sepsis-free days at entrance for all staff and family to see
Mental Models

- An internal symbol or representation of external reality based on fundamental assumptions, that plays a major role in cognition, reasoning, and decision-making.
- Our mental models help shape our behavior and define our approach to solving problems.
- There is a lot of evidence that VLBW babies have immune deficiency so the traditional mental model is that these infants are destined to get nosocomial infection.
- Changing this mental model is the first step in achieving the goal of eliminating CLABSIs.
- Posting sepsis-free days in a prominent place and bringing daily attention to it gave feedback and raised awareness – we also began to see a shift in our unit mental model as the # of days rose higher and higher.

Results:

- By implementing PBPs, we were able decrease our CLABSI by 60% (best 10% in VON Network) in 2004-2006.
Starting in 2005.....

- We began using Clinical Microsystems principles learned through the Vermont Oxford Network “Your Ideal NICU” collaborative
- We kept a detailed database on each case of sepsis and analyzed the data
- We used the concept of the “web of causation” to understand contributors to sepsis
- We tirelessly had reflective conversations with nursing staff around this issue and learned from them
- We developed a learning culture within the context of our daily clinical work
- We worked on processes and systems improvement
- We involved staff doing clinical care in our work
- We worked across hospital boundaries
- We added standardization to PDSA cycles

Clinical Microsystems Principles


- http://dms.dartmouth.edu/cms/
Success Characteristics

- Leadership of microsystem;
- Culture of microsystem;
- Macro-organizational support of microsystem;
- Patient focus;
- Staff focus;
- Interdependence of care team;
- Information and information technology;
- Process improvement; and
- Performance pattern.

Creating an Information Rich Environment: Database

- We kept information on each case of nosocomial sepsis since 2005.
- Demographics: GA, birth-weight, type of line, timing of infection, classification of infection, invasion of lines, infusions, CDC classification of etiology, etc.
- We learned from its analysis. We learned as we went along.
What we learned early on

- Umbilical catheters contributed significantly to our line infections

Actions taken:

- Limited duration of umbilical lines
- Closed UAC system
- Result: last umbilical line infection: 2007

Web of Causation

- Encourages the identification and investigation of all potential sources that result in an outcome
“Web of Causation” of CLABSIs in the NICU

- Insertion of Central Lines
- Certainty of Diagnosis
- Line Care
- Hub Care
- Variation in Practice (Reducing)
- Medication Administration via PICC line
- Use of IV lipids
- Limit use of H-2 blockers
- Limit Postnatal steroid use
- Nutrition

Buy-in
Microsystems Principle: Buy-in vs. Ownership

- “Ownership” is when you own or share the ownership of an idea, a decision, or an action plan; it means that you have participated in its development, that you chose on your own accord to endorse it. It means that you understand it and believe in it. It means that you are both willing and ready to implement it.

- “Buy-in” is the opposite: someone else or some group of people has done the development, the thinking, the cooking and now they have to convince you to come along and implement their ideas/plans.

- What is wrong with “buy-in” is the notion that it is perfectly ok for a few to make the plans and decisions and then to impose them on all the others and still expect that those others will be willing and able to implement them perfectly as if they had made the decisions themselves. That is a total illusion.

Leadership: Ownership

- If leaders made the effort and took the time UPFRONT to involve all the people that will be involved later on in the implementation there would be no need for buy-in for the simple reason that there would be “ownership”.

Your Culture is Important

• Change the mental model: all preemies get infections, empower and involve those doing the work, overcome hospital hierarchy.

• Ownership culture.

• Change MD culture: individualized patient care vs. group decision making & process improvement, how we make changes in clinical care.

• Develop a learning culture in your day to day work.

Learning Culture

Execution Culture

• Focus on deliverables
• Make the numbers
• Remove the low performers
• Fix what is broken
• Listen to the customer
• Execute against the plan

Learning Culture

• Focus on improvement
• Break past the numbers
• Improve the low performers
• Diagnose why errors occur
• Learn from the customer
• Monitor and evolve the plan
Learning Culture

• To become a learning organization is to accept a set of attitudes, values and practices that support the process of continuous learning within the organization.

• Through learning, individuals can re-interpret their world and their relationship to it. A true learning culture continuously challenges its own methods and ways of doing things. This ensures continuous improvement and the capacity to change.

Elements of a Learning Culture

• **personal mastery** – create an environment that encourages personal and organizational goals to be developed and realized in partnership

• **mental models** – know that a person’s ‘internal’ picture of their environment will shape their decisions and behavior

• **shared vision** – build a sense of group commitment by developing shared images of the future

• **team learning** – transform conversational and collective thinking skills, so that a group’s capacity to reliably develop intelligence and ability is greater than the sum of its individual member’s talents

• **system thinking** – develop the ability to see the 'big picture' within an organization and understand how changes in one area affect the whole system.
Reflective Process / Conversations

Create a:
• Safe place to think
• Safe place to learn
• Starts with leadership
• Requires regularity & collaboration
• Promotes understanding of self & others
• *Critical for ownership*

Reflective Process/Conversations

What we learned:
• Preparing IV fluids / TPN for bedside use was a critical process
• Different types of lines contributed differently to sepsis
• TPN cycling story – staff identified a break in process
• Processes standardized in the NICU environment were broken during surgical procedures
The critical process of running IV fluids

- Hired student nurses – called “externs” (decrease variation – limited group of people)
- Must have completed sterile process education in school
- Work as “nurse extenders” in the unit
- Work per diem, but prioritize availability around IV fluid change times

Priming room
Playbook example

- Keep standardization – hospitals are notorious for bringing in “a better product”

- Work on developing “Ideal Processes”

- Once they are working move from PDSA cycles to standardization / playbooks
Working across boundaries

- Infection control
- Surgery
- Anesthesia
- Hospital Administration

Next steps – 2008 to present

- Investigate & deconstruct each sepsis event to get a better understanding (CSI)
- This is possible once you achieve a low sepsis rate
- Staff own their “zero” sepsis rate and readily contribute
Investigation of the last 2 cases of CR BSI

- When babies went to the operating room for surgery – procedures that got us to a zero sepsis rate were not followed by anesthesia and surgical staff.
- These are now being corrected by working across boundaries.

What we now have in our NICU

- Life in the NICU is not as much of a mystery any more.
- We have a potential reason for each case of CLABSI for the last 3 years.
- We are now using these same improvement principles to eliminate necrotizing enterocolitis - a major GI disease causing severe morbidity and mortality in the NICU that has eluded many, and to address ALL cases of nosocomial sepsis (In 2011 > 80% reduction in all-cause nosocomial sepsis in the NICU).
- We’ve had 1 case of CLABSI in the last 21 months.
Here we are today...

Conclusion:

- Evidence based medicine will not get you to perfection in health care.

- Implementation of “best practices” will not get you to perfection either.

- Developing a learning culture within the context of clinical work and clinical Microsystems thinking within your local context allows you to obtain success not imagined.
Audience Feedback

Tell us about your experience

To ask questions or provide feedback at any time, type into the chat box at the bottom left corner of your screen. To dial into the discussion, call 1-877-852-6561, confirmation code 4215560. Press *1 to ask a question.

Featured Speaker

Terry Rogers, MD
Chief Executive Officer, Foundation for Health Care Quality
The Foundation for Health Care Quality

- 501c3, Member supported, with some other revenue
- Multiple programs: QI, IT, Patient Safety
- QI programs are physician driven, data intensive
- Abstracted clinical chart data
- Results fed back to physicians and hospitals.

PCI Trends: Median Time to Inflation
Door to Balloon Time: Average vs Benchmark

These 5 hospitals are the top performing hospitals in the state for this particular measure.

Blood Use in Cardiac Surgery: Average vs Benchmark

These 2 hospitals are the top performing hospitals in the state for this particular measure.
SCOAP Changing Behavior Around Quality

Blood Clot Prevention

Proper LN Evals in Cancer

Diabetes management

Avoiding Transfusion

Step 1: Operative Preparation (Anesthesia and Surgery)
- Patient preparation, including review of history, physical examination, and laboratory results.
- Proper positioning of the patient.
- Administration of preoperative medications.
- Monitoring of vital signs.

Step 2: Preoperative - Prior to Skin Incision (Surgical Team)
- Identification of the surgical team.
- Verification of the surgical specimen.
- Review of the surgical plan.

Step 3: Surgical - Prior to Skin Incision (Surgical Team)
- Verification of the surgical plan.
- Confirmation of the surgical site.
- Identification of the surgical team.

Step 4: Debriefing - All completion of Care (All Team Members)
- Review of the procedure.
- Identification of any potential complications.
- Review of the postoperative care plan.

Avoiding Transfusion

Diabetes management

Proper LN Evals in Cancer

Blood Clot Prevention

SCOAP
Hopefully Helpful Hints

1. Identify and agree upon a community goal
   - Revisit it when things get sticky.
2. Identify a champion(s) with staying power.
3. Bring your best, every day.
4. Encourage, compliment, support.
5. Don’t give up.
6. See number 1.

Lindsey R. Kelley, PharmD, MS

Lindsey R. Kelley, PharmD, MS
Coordinator, Ambulatory Pharmacy Initiatives and Transitions of Care
University of Michigan Health System
Transitions of Care Technician Pilot

• Preliminary data (master med list):
  – Average number of updates to medication master list is about 3 per patient
  – Average number patients seen by a technician in a day is between 5 and 10
Transitions of Care Technician Pilot

- Preliminary data (prior authorizations):
  - Average number possible PAs identified through report build is about 40/day
  - Number that require technician intervention is about 3/day
  - Number of PAs prevented is nearly 100%

Featured Speaker

Hae Mi Choe, PharmD
Director, Innovative Ambulatory Care Pharmacy Practices
University of Michigan Hospital and Health Systems
Tell us about your experience

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Conclusion

Next Steps, Further Resources, and Concluding Remarks
Further Resources

Resources, links, and PDF documents are available now in the top left corner of your screen in the Links tab, including:

- Partnership for Patients website
- National Priorities Partnership (NPP) website
- National Quality Forum patient safety webpage
- NQF 2012 Annual Conference “Building a Patient and Family-Centered Health System” on April 4-5, 2012, in Washington, DC
- Information for both available online at www.qualityforum.org

Thank You

A recording of this webinar will be available on the National Quality Forum website within a week. When you exit, you will automatically be directed to an evaluation about this webinar.

For further questions, please contact priorities@qualityforum.org