National Patient Safety Initiative

9th Scope of Work (SOW)
Introductory Webinar
Hospital Projects

September 10, 2008

Objectives

- Discuss 9th SOW Patient Safety Initiatives
- Describe measures and goals for:
  - MRSA
  - SCIP
  - Heart Failure
  - Pressure Ulcer
- Explain the selection process
- Describe what project participation involves
- Explain FMQAI's Support Activities

FMQAI - QIO

FMQAI, the Medicare Quality Improvement Organization (QIO) for Florida, is tasked to fulfill the vision for Centers for Medicare and Medicaid Services (CMS) of providing patient-centered and value-driven quality healthcare services for Medicare beneficiaries.

Core QIO Functions

- Improving quality of care for beneficiaries
- Protecting the integrity of the Medicare Trust Fund
- Protecting beneficiaries through case review activities

9th SOW Themes

- Beneficiary Protection
- Patient Safety
- Prevention
- Disparities
- Transitions of Care
- Chronic Kidney Disease

Patient Safety Theme Goals

Hospitals
- Reduce rates of healthcare associated Methicillin-resistant Staphylococcus aureus (MRSA) infections
- Improve inpatient surgical safety & heart failure (SCIP/HF)
- Reduce rate of pressure ulcers

Nursing Homes
- Reduce rates of and use of physical restraints
- Reduce rate of high risk pressure ulcers
- Implement activities aimed at nursing homes in need (NHIN)

All Medicare Settings
- Improve drug safety

MRSA Infection Prevention

MRSA Goals

- Reduce Hospital MRSA infections and transmissions by 40%!
- Baseline: 4Q08 - Jan 09

MRSA

- In 1974 MRSA infections accounted for 2% of the total number of *staph* infections:
  - In 1995 it was 22%
  - In 2004 it was 63%
- In 2003, the proportion of hospital-onset *S aureus* infections that were methicillin-resistant reached 64% in US intensive care units.
- In 2005 85% of all invasive MRSA infections were associated with healthcare.

Sources: 1) Wisplinghoff H. et al. Nosocomial blood stream infections in US hospitals: analysis of 24,179 cases from a prospective nationwide surveillance study. Clin. Infect. Dis. 2004;39(3):389-391. 2) Klevens RM. Et al. Changes in epidemiology of methicillin-resistant Staphyloccocus aureus in intensive care units in U.S. hospitals, 1992-2003. Clin. Infect. Dis. 2006;42(3):389-391. 3) JAMA 2007;298(15):1763-1771.

MRSA (continued)

- In 2005- 94,360 serious MRSA infection (i.e. invasive).
- 18,360 persons died during a hospital stay related to these serious MRSA infections.
- Persons with MRSA infections 4 times more likely to die than those with Staph infections susceptible to abx

Source: JAMA 2007;298(15):1763-1771.

MRSA (continued)

- In 2002, 1.7 million hospital-acquired infections were associated with 99,000 deaths.
- A 2007 Leapfrog Group survey of 1,256 hospitals 87% of those hospitals do not consistently follow recommendations to prevent many of the most common hospital-acquired infections.

Source: Klevens et al. Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002. Public Health Reports. March-April 2007. Volume 122.

MRSA Measures

- MRSA 1- nosocomial MRSA infections rate
  - # of infections per 1000 pt-days by location (i.e. MICU)
- MRSA 2- is the incidence rate of hospital onset MRSA based on clinical cultures which is calculated by:
  - the 1st MRSA per 1000 pt-days and is hospital wide.

Surgical Care Improvement Project (SCIP) and Heart Failure (HF)

SCIP Goal

- National Goal: reduce national incidence of surgical complications by 25% by 2010
- National Benchmark
  - Post-operative infections
  - Venous thromboembolisms
  - Preventable adverse cardiac events
- Baseline: 1Q07

SCIP-INF Background Data

- 38% of all nosocomial infections among surgical patients are surgical site infections (SSIs)
- 4% to 16% of all nosocomial infections among all hospitalized patients are SSIs
- 2% to 5% of operated patients will develop an SSI

Source: CDC's National Nosocomial Infections Surveillance (NNIS) website.

SCIP-INF Background Data

- SSIs increase LOS average of 7 days
- $2,734 to $26,019 extra cost per SSI (1985, U.S. dollars)
- $130M- $845M per year estimated national costs in the U.S.

Sources: 1) Shojania KG et al. Making Health Care Safer: A Critical Analysis of Patient Safety Practices. Agency for Healthcare Research and Quality, July 2001: chap 20. AHRQ Publication No. 01-E058. 2) CDC's National Nosocomial Infections Surveillance (NNIS) website.

SCIP-VTE Background Data

- Almost all hospitalized patients have at least one VTE risk factor
- Approximately 40% have three or more risk factors
- Without thromboprophylaxis, hospital-acquired DVT is approximately 40 – 60% following major orthopedic surgery

Source: Geerts WH, Bergqvist D, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th Edition). Chest 2008; 133;381-453.

SCIP-VTE Background Data

- 7 million patients discharged from 944 American acute care hospitals, postoperative VTE was the second-most-common medical complication and second-most-common cause of excess length of stay
- PE is the most common preventable cause of hospital death

Source: Geerts WH, Bergqvist D, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th Edition). Chest 2008; 133;381-453.

SCIP-CARD Background Data

- Perioperative beta-blockers --significant reductions in mortality among surgical patients at highest risk
- Treated patients have a significant survival advantage
- 1M patients suffer a major perioperative cardiac complication

Physician's Weekly newsletter. Preventing Adverse Cardiac Events in Surgery. March 3, 2008, Vol. XXV, No. 9. Available at: http://www.physiciansweekly.com/article.asp?issueid=552&articleid=4940.

SCIP-CARD Background Data

- Postoperative MI incidence may be as high as 30% in high-risk vascular surgery
- Mortality rates associated with perioperative MI are as high as 60%
- Perioperative MI is leading cause of death after surgery
- Perioperative MI accounts for $20 billion additional costs each year

Physician's Weekly newsletter. Preventing Adverse Cardiac Events in Surgery. March 3, 2008, Vol. XXV, No. 9. Available at: http://www.physiciansweekly.com/article.asp?issueid=552&articleid=4940.

SCIP Measures

- Inf 1: Prophylactic abx received within 1 hour
- Inf 2: Appropriate antibiotic
- Inf 3: Antibiotics discontinuation
- Inf 4: Glucose control
- Inf 6: Appropriate Hair Removal

SCIP Measures

- VTE 1: VTE Prophylaxis Ordered
- VTE 2: Appropriate & timely VTE Prophylaxis
- Card2: Beta Blocker

Proposed SCIP Measures

- Inf-8: Intraoperative abx redosing
- Inf-9: Urinary catheter removed by post-operative day 2
  - 86% of patients have an indwelling catheter
  - 50% > 2 days
  - Patients with catheters > 2 days are twice as likely to develop a UTI infection & have higher mortality
- Inf-10: Normothermia in all surgical patients (replaces Inf-7 not NQF-endorsed)

Source: Personal communication D. Bratzler, SCIP Steering Committee Member

SCIP/HF Measure Performances

Measure	Selected Hospitals 4Q06 & 1Q07	Selected Hospitals 4Q07	Florida Aggregate 4Q07	National Benchmark 4Q07
Inf 1	84.4%	89.6%	91.7%	99.0%
Inf 2	87.8%	93.4%	94.2%	99.5%
Inf 3	60.5%	76.1%	85.6%	98.2%
Inf 4	79.5%	87.4%	90.5%	99.0%
Inf 6	92.3%	96.8%	96.8%	99.9%

Source: CMS QIO Warehouse Data

SCIP/HF Measure Performances

Measure	Selected Hospitals 4Q06 & 1Q07	Selected Hospitals 4Q07	Florida Aggregate 4Q07	National Benchmark 4Q07
VTE 1	75.1%	84.7%	88.6%	99.2%
VTE 2	68.4%	78.9%	84.4%	98.5%
CARD 2	73.1%	92.2%	91.5%	99.7%
HF 3	84.6%	91.5%	92.2%	99.7%

Source: CMS QIO Warehouse Data

8th SOW SCIP Measure Performances

- Worked with 24 hospitals
- Baseline : 1Q06
- Re-measurement: 4Q06
- Achieved 55% RFR from baseline

HF Background Data

- HF --6.5 million hospital days each year
- Costs for HF in 2008 is $34.8 billion
- HF most common DRG
- Most common hospital admission & readmission

Source: Heart Disease and Stroke Statistics: 2008 Update. Circulation: Journal of the America Heart Association. Dallas, TX: American Heart Association: 2008.

HF Background Data

- More Medicare dollars are spent for the diagnosis and treatment of HF than for any other diagnosis
- Approximately 5 million people in the US have HF; over 660,000 people with HF are diagnosed for the first time each year.

Source: Heart Disease and Stroke Statistics: 2008 Update. Circulation: Journal of the America Heart Association. Dallas, TX: American Heart Association: 2008.

HF Measure

- HF 3: Heart failure patients with left ventricular systolic dysfunction without ACEI and ARB contraindications who are prescribed ACEI/ARB at discharge.

Hospital Pressure Ulcer (HPrU) Goal

- Reduce pressure ulcers by 8% from baseline
- Baseline: 4Q08
- Based on Hospital Acquired Conditions (HAC), POA indicator

Hospital Pressure Ulcers (HPrU)

- HPrU prevalence 14%-21% over previous decade.
- Increased LOS up to 11 days.
- Hospital-acquired pressure ulcers estimated to be between $2.2 billion and $3.6 billion/yr.
- FY06 Medicare claims 322,948 cases secondary Dx & $40,381 per hospital stay

Sources: 1) Gallagher SM. Outcomes in clinical practice: pressure ulcer prevalence and incidence studies. Ostomy Wound Management. Jan-Feb 1997;43(1):28-32, 34-5, 38. 2) Whittington KT, Briones R. National Prevalence and Incidence Study: 6-year sequential acute care data. Adv. Skin Wound Care. Nov-Dec 2004; 17(9):490-4.

HPrU (continued)

- Hospital pressure ulcers:
  280,000 cases in 1993
  455,000 cases in 2003- (63% increase).
- Hospitalizations for the treatment of pressure ulcers lasted nearly 13 days.
- Legal, financial, public reporting implications

Source: Russo A and Elixhauser A. H-CUP Hospitalizations related to pressure sores. Statistical brief No. 3, April 2006.

Pressure Ulcer Locations

- Buttock region- 70%
- Sacral- 46%
- Ischial- 26%
- Lower Extremities- 15% (heel locations most common)

Source: Leblebici B. et al. Clinical and epidemiologic evaluation or pressure ulcers in patients at a university hospital in Turkey. J Wound Ostomy Continence Nurs. Jul-Aug 2007;34(4):407-11.

Pressure Ulcer Stages

- Stage I - blanchable erythema
- Stage II - partial thickness loss (epidermis, dermis)
- Stage III - full-thickness loss of skin, extending into subcutaneous tissue.
- Stage IV - full-thickness tissue loss with extension into muscle, bone, tendon or joint
- Unstageable- not observable, deep tissue injury, full-thickness tissue loss with base of ulcer covered w/slough or eschar so that full depth of wound not appreciated.

Value-Based Purchasing (VBP) Hospital Program

- Links payment more directly to performance
- Replace current hospital quality pay-for-reporting program with the VBP program by fiscal year 2009
- "Rewarding hospitals for the quality of care they provide Medicare beneficiaries" (Kerry Weems, CMS acting administrator, 11/26/07)

Present on Admission (POA)

DRA - Section 5001 (c)

- October 1, 2007, IPPS hospitals were required to submit POA indicator
- October 1, 2008, CMS cannot assign a case to a higher DRG based on the occurrence of one of the selected conditions, if that condition was acquired during hospitalization.
- Per Medicare Data (FY 2007)
  - Stage III and IV Pressure Ulcers
    - 257,412 cases/$43,180 hospital stay

Hospital Acquired Conditions

1. Foreign Object Retained After Surgery
2. Air Embolism
3. Blood Incompatibility
4. Stage III and IV Pressure Ulcers
5. Falls and Trauma: Fractures, Dislocations, Intracranial Injuries, Crushing Injuries, and Burns
6. Catheter-Associated Urinary Tract Infection (UTI)

HAC (cont)

7. Vascular Catheter-Associated Infection
8. Surgical Site Infection-Mediastinitis after Coronary Artery Bypass Graft (CABG)
9. DVT/PE
10. Poor glycemic control

Provider Selection & Participation

MRSA Provider Selection

- Volume of Medicare claims
- Target specific hospitals reporting to the CDCs- National Healthcare Safety Network (NHSN)
- Recruit other hospitals to join the NHSN.

National Healthcare Safety Network (NHSN)

- Collects data from sample of healthcare facilities to permit:
  - Estimate of magnitude of adverse events among pts and healthcare providers
  - Estimates adherence practices related to healthcare-associated infections (HAI)
  - Analyze/report trends
  - Assist facilities in developing surveillance and analysis methods for timely recognition

Source: http://www.cdc.gov/ncidod/dhqp/nhsn.html

Why Participate in the NHSN?

- Reflects facilities committment for high quality, timely data on ADE's/ Adherence/ Prevention
- Public reporting achieves better results
- Strict confidentiality

SCIP/HF Provider Selection

Hospitals meeting criteria for SCIP measures

- SCIP Inf-1 and SCIP Inf-3 used
- SCIP Inf-1 and SCIP Inf-3: in use since 2002, have the highest rates of performance, hospitals scoring low on these two measures likely to have scored low on the other SCIP measures
- SCIP Appropriate Care Measure (ACM is composite measure using both Inf-1 and Inf-3

SCIP/HF Provider Selection (continued)

- Hospitals having ACM score 30 points or more below Achievable Benchmarks of Care (ABC) for the two most recent available quarters (4Q06 and 1Q07)
- The Achievable Benchmarks of Care (ABC) method incorporates the mean of the best care for at least 10% of the measured population

SCIP/HF Measure Performances

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HPrU Provider Selection

- Targeted hospitals will be recruited, criteria include high volume of discharges to skilled nursing facilities.
- Per CMS direction, FMQAI will work with select acute care hospitals within close proximity to the nursing homes with high rates of pressure ulcers.

Support Activities

- Site Visits
- Web Seminars/Conference Calls
- Collaborative Conference
- Hospital Leadership and Quality Assessment Tool (HLQAT) and AHRQ Patient Safety Survey
- Access to resources & recognition program

Site Visits

- One-on-one consultation to identify areas for improvement
- Assessment of medical record documentation
- Develop a plan of action
- Monitor the implementation of intervention

Web Seminars

- Several web based seminars each year focused on:
  - Quality Improvement Strategies
  - Topics related to Quality Measures
  - Fostering of a safety culture

Patient Safety Collaborative Conference

- Plenary session to include:
  - TeamSTEPPS Training
  - Subject Matter Expert Speakers
- Breakout sessions for Hospitals and Nursing Homes

TeamSTEPPS: http://teamstepps.ahrq.gov/

Patient Safety Surveys

HLQAT

- Designed to help hospital boards & executives determine where a hospital stands regarding leadership efforts that foster changes for improved quality of care.
- Includes descriptors of structures, processes and activities of hospital leaders related to their engagement in clinical quality.

AHRQ

1. Overall perceptions of safety
2. Frequency of reported events
3. Manager expectations/actions to promote patient safety
4. Organizational learning
5. Teamwork within units
6. Communication openness
7. Feedback on errors
8. Non-punitive response to error
9. Staffing
10. Management support for safety
11. Teamwork across units
12. Handoffs & transitions

Access to Resources

- Literature updates
- Guidelines
- Algorithms
- P&P, protocols, checklists
- Comparative data
- Mentor providers
- Recognition program

How To Participate

- Review literature in Recruitment Packet sent to CEO
- Have CEO sign Participation Agreement and fax back to FMQAI (instructions and fax # are on the participation agreement)
- Deadline – September 16, 2008

Hospital Acquired Conditions

1. Foreign Object Retained After Surgery
2. Air Embolism
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4. Stage III and IV Pressure Ulcers
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What's in it for me?

- Program costs covered by CMS
- Comparative data, best practices, clinical unpublished updates, data reporting updates
- Value Based Purchasing (Pay for performance)
- Financial, legal & public reporting implications SSI, DVT/PE, HPrU, MRSA (RHQDAPU& POA)

Contact Information

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