CAH Quality Measurement and Evidence-Based Quality Improvement

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A Performance Monitoring Resource for Critical Access Hospitals, States, and Communities

Flex Monitoring Team

University of Minnesota
University of North Carolina at Chapel Hill
University of Southern Maine

Overview of Presentation

- Building the evidence base to improve quality of care in CAHs
  - Importance of reporting quality data
  - Relevant quality measures for CAHs
  - Medicare Beneficiary Quality Improvement Project (MBQIP)
- Evidence-based quality improvement programs and strategies for CAHs
  - Pneumonia example

Importance of Public Reporting of CAH Quality Data

- Long term viability of the Flex Program depends on having national data on program effectiveness
- Existing state and multi-state quality reporting and benchmarking efforts are important and should continue, but comparable national data are needed
- All CAHs need to report on a core set of measures the same way so data are comparable nationally
- Public reporting of quality data provides a richer environment for CAH benchmarking and QI

Reasons given for not reporting to Hospital Compare

- It's only the small states that have high CAH participation
- The measures are not "rural relevant"
- We have our own quality measurement system
- CMS does not require CAHs to participate

Rural Relevant Quality Measures for CAHs

- Current work:
  - Evaluating the relevance of the current and proposed CMS outpatient quality measures
  - Developing an up-to-date list of rural relevant inpatient quality measures for CAHs

Criteria for Assessing Rural Relevance

- Prevalence/volume in CAHs
- Internal usefulness for QI processes
- External usefulness for public reporting and payment reform
- Additional considerations
  - Ease of data collection (e.g., calculation using claims data; effort required for medical record abstraction; and feasibility of using EHRs)

Rural Relevant Outpatient Measure Project

- Review of peer-reviewed literature
- Descriptive analysis of Medicare Hospital Outpatient 2008 claims using specifications for current and proposed CMS outpatient measures
- Descriptive analysis of Hospital Compare 2009 outpatient quality measure data for AMI/chest pain and outpatient surgery
- Review of measures by UMRHRC Expert Work Group

CMS Current and Proposed Outpatient Measures

- Emergency Department
- Outpatient Surgery
- Imaging (e.g., CT scans, mammography)
- Structural measures (e.g., use of health information technology)
- Measures for specific clinical conditions: diabetes, cancer, and heart failure
- Other measures (e.g. vaccination, medication reconciliation)

Rural Relevant Outpatient Measures

Emergency Department Measures

- Median time to transfer to another facility for acute coronary intervention for AMI patients
- Aspirin at arrival for patients with AMI or chest pain
- Median time to ECG for patients with AMI or chest pain
- Emergency Department Transfer Communication Measures
- Transition record with specified elements received by discharged patients
- Door to diagnostic evaluation by a qualified medical professional
- ED head CT scan results for stroke within 45 minutes of arrival

Rural Relevant Outpatient Measures

Outpatient Surgical Care Improvement Measures

- Timing of antibiotic prophylaxis
- Prophylactic antibiotic selection for surgical patients
- Appropriate surgical site hair removal

Structural HIT Measures

- Ability for providers to receive laboratory data electronically into EHR system as discrete searchable data
- Tracking clinical results between visits

Other Measures

- Pneumococcal and influenza vaccination status
- Medication reconciliation
- Advance care directives

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Rural Relevant Inpatient Measure Project

- Analyzed several sets of quality measures
  - Earlier University of Minnesota/Stratis Health work and NRHA meeting on quality metrics
  - CMS Hospital Compare, hospital acquired conditions, and HIT meaningful use measures
  - NQF-endorsed, AHRQ, Joint Commission measures
- Used Hospital Compare data, AHRQ discharge data and literature to assess volume in CAHs
- Expert work group to review and rate the inpatient quality measures later in July 2011

Potential Rural Relevant Inpatient Measures for CAHs

- ***Process of Care Measures for Specific Conditions***
  - Pneumonia
  - Heart failure
  - AMI (except fibrinolysis, PCI)
  - Stroke
  - Venous thromboembolism
  - Surgical care improvement (except cardiac surgery)
  - Obstetrical measures

Potential Rural Relevant Inpatient Measures for CAHs

- ***Hospital-wide Measures***
  - HCAHPS
  - Hospital Acquired Conditions
  - Healthcare-associated Infections
  - Patient Safety Indicators
  - Care transitions
  - Medication reconciliation
  - Advance directives
- ***Structural Measures***
  - Participation in relevant clinical database registries

Flex Medicare Beneficiary Quality Improvement Project (MBQIP)

- MBQIP will identify areas where CAHs can improve performance and focus QI activities on those areas
- Areas of focus
  - Phase 1: Hospital Compare inpatient pneumonia and heart failure measures
  - Phase 2: Hospital Compare outpatient AMI/chest pain measures, outpatient surgical measures, and HCAHPS
  - Phase 3: Pharmacist CPOE/24 hour verification of medication orders and transfer communication measures

Evidence-based QI Programs and Strategies for CAHs

- Growing awareness that QI strategies need to rest on a strong evidence base, and we need to understand why particular interventions work and factors that affect their success in different settings
- Current FMT project is identifying evidence-based QI programs/strategies for pneumonia, heart failure, AMI and surgical care improvement for CAHs
- Synthesized findings from literature; additional information from FMT Expert Work Group, State Flex Grant Applications, sponsoring organizations

Key Findings: Pneumonia

- Majority of peer-reviewed articles address QIO programs to improve hospitals' documentation and scores on pneumonia quality measures
- The programs primarily focus on improving:
  - timing and selection of appropriate antibiotics
  - pneumococcal and influenza vaccination documentation and rates
- Implemented in collaboration with State Flex Programs, State Hospital Associations, Universities, health systems and other partners

Strategies for improving timing and selection of appropriate antibiotics

- Baseline data on hospital performance, data feedback and benchmarking
- Development of a QI plan
- Educational sessions with medical staff and/or QI staff
- Standardized/pre-printed admission order sheets
- Clinical pathways (for antibiotic administration)
- Standing orders (for blood/sputum cultures)
- Medical records checklists, forms and reminders
- Physician/nursing/pharmacy champions

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Strategies for improving pneumococcal and influenza vaccination rates

- Provision of baseline data on hospital performance
- Data feedback and benchmarking
- Educational sessions with medical staff and/or nursing/QI staff
- Standardized/pre-printed admission/intake assessment forms
- Standing orders for immunizations by nurses
- Medical records checklists, forms and reminders

Examples of Pneumonia QI Programs Involving CAHs

- Kansas Foundation for Medical Care (QIO) and the Kansas Rural Health Options Project with 17 CAHs
  - Information on importance of hospital immunization programs
  - Examples of standing orders and standardized nursing admission or intake assessment forms, but no hospitals obtained support from their medical staff to implement standing orders
  - Monthly peer comparison feedback on performance
- Documentation and receipt of influenza immunization status improved; documentation of pneumococcal immunization status improved but immunization receipt did not change

Examples of Pneumonia QI Programs Involving CAHs

- Oklahoma Foundation for Medical Quality (QIO) intervention with 36 mostly rural community hospitals
  - Face-to-face meeting with each hospital's medical staff
  - Personalized packet included data on each hospital's performance on quality indicators, review of the literature and sample QI plan.
  - Additional QI training, site visits, teleconferences as requested
- Statistically significant improvements occurred in the performance of all quality indicators

Examples of Pneumonia QI Programs Involving CAHs

- Mountain-Pacific Quality Health Foundation (QIO) and Montana Health Research and Education Foundation with 34 CAHs in Montana
- Numerous interventions included one-on-one training with CAHs; online training sessions with national and local experts; presentations at CAH conferences; development of tools and educational materials; provision of literature; and assistance with data collection
- Pneumococcal immunization rate increased from 6.9% at baseline to 35.4%

Additional Information

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