Stroke Core Measures: 101

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Core Measures: *Outline*

- What are they?
- Why should I care?
- Stroke core measure definitions
  - Process examples of how to meet measures

Core Measures: *Background*

- Originally introduced by The Joint Commission (TJC) and Centers for Medicare/Medicaid Services (CMS) in 1997
- Attempt to support quality improvement efforts
- Data collection began in 2002 on standardized or "CORE" performance measures
- TJC and CMS aligned measures in 2003
  - Same data set satisfies requirements of both TJC and CMS

What are “CORE” measures??

- Evidence based patient care interventions shown to provide best outcomes
- High volume, problem-prone, costly diagnoses
  - Acute MI
  - Heart Failure
  - Pneumonia
  - Surgical Care Improvement Project (SCIP)
  - Asthma care for children
  - Pregnancy related conditions (PR)
    - Will retire April 1, 2010
    - To be replaced by Perinatal Care (PC)

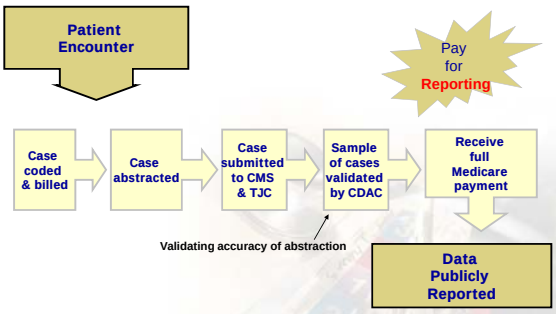
Published April 2009…

- Specifications Manual for National Hospital Quality Measures
- Implementation with discharges on or after October 1, 2009
- Venous thromboembolism (VTE) prophylaxis
- STROKE!!!

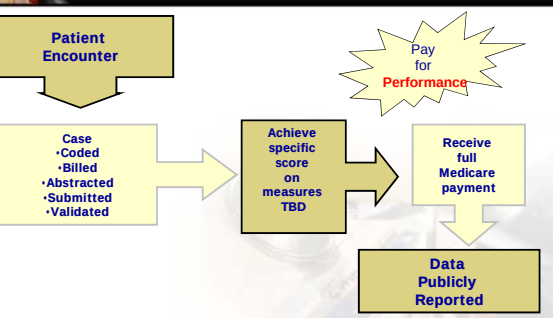
Why should I care???

- Compliance data is publicly reported
- Voluntarily reporting your data allows for maximum reimbursement for each diagnosis
- Reduces avoidable complications and unnecessary costs
- Coming attractions…compliance goals will be tied to reimbursement dollars
- Most important reason….
  - Improving your patient outcomes!!!

Currently:
Annual Payment Update (APU)



Next up:
Value Based Purchasing (VBP)



Public Reporting

- TJC
  - Quality check
  - www.qualitycheck.org
- CMS
  - Hospital Compare
  - www.hospitalcompare.hhs.gov
  - Process, outcome, hospital experience
    - Core measures
    - Mortality
    - Readmission rates
    - HCAHPS – Patient Satisfaction

What to Report??

- Specifications Manual for National Hospital Inpatient Quality Measures
  - http://www.jointcommission.org/PerformanceMeasurement/PerformanceMeasurement/Current+NHQM+Manual.htm

Data Reporting: *Sample Size Requirements*

Quarterly Sampling

Avg quarterly initial patient population size "N"	Minimum required sample size "n"
≥ 900	180
226-899	20% of initial pt pop size
45-225	45
< 45	No sampling: 100% initial pt pop required
0-5	Submission pt level data not req; 100% if submission occurs

Data Reporting: *Sample Size Requirements*

Monthly Sampling

Avg monthly initial pt pop size "N"	Minimum required sample size "n"
≥ 300	60
76-299	20% of initial pt pop size
15-75	15
< 15	No sampling: 100% initial pt pop required

Who is included??

- **ICD 9 for Ischemic Stroke**
  - 433.01
  - 433.10
  - 433.11
  - 433.21
  - 433.31
  - 433.81
  - 433.91
  - 434.00
  - 434.01
  - 434.11
  - 434.91
  - 436
- **ICD 9 for Hemorrhagic Stroke**
  - 430
  - 431

Patients for whom these codes are the primary diagnoses are included

Stroke Core Measures

- Is there a difference between JC Stroke Core Measures and JC Primary Stroke Center Measures?

Definition: *Classes & Levels of Evidence*

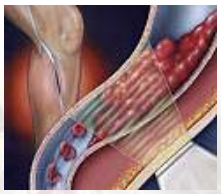
Classes		
I	SHOULD be performed	Benefit >>> Risk
IIa	REASONABLE to perform	Benefit >> Risk
IIIb	MAY BE CONSIDERED	Benefit ≥ Risk
III	Should NOT be performed	Risk ≥ Benefit
Levels		
A	Data derived from multiple RCT's or Meta-analysis Multiple populations evaluated	
B	Data derived from a single RCT or non-randomized studies Limited populations evaluated	
C	Only consensus opinion of experts, case studies, or standard of care Very limited populations evaluated	

Stroke 1 (STK-1)

- Venous thromboembolism (VTE) prophylaxis
  - Ischemic and hemorrhagic stroke patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission
    - Deadline – midnight day 2
    - *Reason why no VTE prophylaxis was provided must be documented by MD/APN/PA – cannot be inferred*
    - Evidence of ambulatory status alone does not count
    - Risk scoring tool

Stroke 1 (STK-1): *Supporting Evidence*

- Both ischemic & hemorrhagic stroke patients are at risk of developing VTE, especially if paralyzed or mobility is impaired
- Ischemic stroke
  - anticoagulant therapy
  - compression modalities
  - Both class I, Level of evidence A (Summers, et al. 2009)
- Hemorrhagic stroke
  - Intermittent pneumatic compression
  - Class I, Level of evidence B (Broderick, et al. 2007)



Stroke 2 & 5 (STK-2; STK-5)

2) Discharged on Antithrombotic Therapy
  - Ischemic stroke patients prescribed antithrombotic therapy at hospital discharge

5) Antithrombotic Therapy by end of Hospital Day 2
  - Ischemic stroke patients administered antithrombotic therapy by the end of hospital day 2
    - Deadline – midnight day 2

For both STK 2 & STK 5 – if antithrombotic therapy is not ordered, reason must documented by MD/APN/PA - cannot be inferred

STK 2 & 5: *Supporting Evidence*

- Acute therapy
  - Oral administration of ASA (325mg) within 24-48 hrs after stroke onset is recommended for treatment of most patients (Class I, Level A) (Adams, H., et al. 2007)
- Secondary prevention
  - ASA (50-325mg/d) monotherapy, combination of ASA & extended release dipyridamole, or clopidogrel monotherapy are all acceptable options for initial therapy (Class I, Level A) (Adams, R., et al., 2008)

Stroke 3 (STK-3)

- Anticoagulation therapy for atrial fibrillation/flutter
  - Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge
  - If anticoagulation therapy is not ordered at discharge – reason must be documented by MD/APN/PA

STK 3: *Supporting Evidence*

- 68% relative risk reduction of stroke for atrial fibrillation patients treated with warfarin
- For patients with ischemic stroke or TIA with persistent or paroxysmal AF, anticoagulation with adjusted-dose warfarin (target INR 2.5; range 2.0-3.0) is recommended (Class I, Level A) (Adams, R.J. et al., 2008)

Stroke 4 (STK-4)

- Acute ischemic stroke patients who arrive at your hospital within 2 hours of time last known well and for whom IV-tPA was initiated at your hospital within 3 hours of time last known well
  - Any contraindication to tPA must be documented by MD/APN/PA – cannot be inferred

STK 4: *Supporting Evidence*

- IV rtPA (0.9mg/kg, max dose 90mg) is recommended for selected patients who may be treated within 3 hours of onset of ischemic stroke (Class I, Level A) (Adams, H.P. et al., 2007)
  - NINDS tPA for acute ischemic stroke trial 1995
  - Effects of tPA for acute ischemic stroke at one year 1999
  - NINDS Reanalysis 2004
  - SITS-MOST 2007

Stroke 6 (STK-6)

- Ischemic stroke patients with LDL greater than or equal to 100mg/dl, or LDL not measured, or who were on a lipid lowering medication prior to hospital arrival are prescribed statin medication at hospital discharge
  - If a statin is not ordered at discharge – reason must be documented by MD/APN/PA – cannot be inferred

STK 6: *Supporting Evidence*

- Based on SPARCL trial, administration of statin therapy with intensive lipid lowering effects is recommended for patients with atherosclerotic ischemic stroke or TIA and without known CHD to reduce the risk of stroke and cardiovascular events (Adams, R.J. et al., 2008) (Class I, Level B)

Stroke 8 (STK-8)

- Stroke Education
  - Ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during the hospital stay addressing ALL of the following:
    - Activation of emergency medical system
    - Need for follow up after discharge
    - Medications prescribed at discharge
    - Risk factors for stroke
    - Warning signs/symptoms of stroke

Stroke 10 (STK-10)

- Ischemic or hemorrhagic stroke patients who were assessed for rehabilitation services
  - If no rehab services are required, ie…return to baseline, no neurological deficit…this must be clearly documented
  - Does not have to be MD

STK 10: *Supporting Evidence*

- Rehab therapy should start as early as possible once medical stability is reached (Dept of Veterans Affairs 2003)
  - Level of evidence
    - Quality of evidence = I
      - Evidence obtained from at least one properly randomized controlled trial
    - Overall Quality = Good
      - High grade evidence directly linked to health outcome
    - Rating = A
      - A strong recommendation that the intervention is always indicated and acceptable

Measuring Up: *Examples for meeting the measures*

- Clinical pathways
  - Expected care to be completed each day
- Core measure checklist
- Embed measures in computerized charting
  - Pop-up reminders
  - Stops that require documentation of reasons for not ordering
- Order sets
- Concurrent chart review

Helpful Websites/Resources

- Brain Attack Coalition
  - http://www.stroke-site.org/guidelines/guidelines.html
- Joint Commission questions
  - http://manual.jointcommission.org/bin/view/Manual/WebHome
- AANN resource area: AANN.org
- Websites from other stroke centers
  - http://www2.massgeneral.org/stopstroke/
- Activase.com
- Resource for education in multiple languages
  - http://www.healthinfotranslations.com/

Helpful Websites/Resources

- American Stroke Association
  - http://www.strokeassociation.org
  - Copies of scientific statements from AHA/ASA
    - http://www.americanheart.org/presenter.jhtml?identifier=3004586
  - Get with the Guidelines
- National Stroke Association
  - http://www.stroke.org

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