NASS
NORTH AMERICAN SPINE SOCIETY
7075 Veterans Boulevard, Burr Ridge, IL 60527
Toll-free: (866) 960-6277 Phone: (630) 230-3600
Fax: (630) 230-3700 Web: www.spine.org

Spine Summit

Educational Forum
August 10, 2012
9:30am - 4:30pm

AGENDA

I. Introduction (NASS-Heggeness)
II. Update from 2011 Meeting (NASS-Heggeness)

III. Research and Clinical Care
   a. Registry Updates (NASS-Ghogawala, ASA-Rosenquist, AANS-Groff, AAOS/AJRR-Etkin)
   b. Spine Clinical Guidelines Collaboration (NASS-Reitman)
   c. Risk Evaluation and Mitigation Strategies (REMs) (ISIS-Baker & AAPM-Grabois)
   d. Appropriateness Criteria: Short discussion from the various members and how these are being pursued. (AAOS-Watters, NASS-Reitman, ISIS-Baker, SRS-Ibrahim)
   e. Choosing Wisely Campaign (NASS-Wetzel)

BREAK

IV. Payer Relations and Reimbursement
   a. Current Reimbursement Issues (NASS-Przybylski)
   b. Third Party Payer Coverage Policies (AANS/CNS/JS-Cheng)

Lunch

   c. AMA CPT Issue and Industry Lobbying, along with attention to recent policy changes at CPT (NASS-Heggeness/Sullivan)
      i. AMA HOD resolutions; NASS & AANS. (AANS-Groff/Cheng, NASS-Mick)
   d. Reimbursement with specific attention to the Milliman criteria issues (Cheng)
      i. Coverage Task Force (NASS-Bono)

V. Advocacy
   a. Healthcare Reform, PPACA Update-Health Policy and Legislative Activities (AANS-Groff/Cheng)
   b. Scope of Practice (ISIS-Summers)
      i. Non-physician provider issues - the policies/positions already approved by the AMA HOD and a discussion of drafting a multi-society position statement on this topic.

c. Anti-trust legislation H.R. 1409 (AAOS-Kauffman)
d. Improve industry / Society relationships without compromising ethical Professionalism (NASS-Finkenberg)

VI. Multi-Society Leadership Survey Results (NASS-Wetzel)
VII. Medicare Audits (NASS-Wong)
VIII. Open Forum: Reports from Spine Summit Participants (Open to all)

North American Spine Society

Spine Registry Update

Zoher Ghogawala, MD
Daniel Resnick, MD

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What's Happened Since Spine Summit 2011?

- NASS elected to move forward with a registry project.
- A registry vendor—Outcome Sciences, Inc.– was retained.
- NASS is funding a pilot project.

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NASS Spine Registry Pilot

Purpose

- Research/quality improvement for spine care.
- Collect de-identified data to enhance understanding of spine care treatments, resulting patient outcomes, as well as examine natural history of spine disorders.

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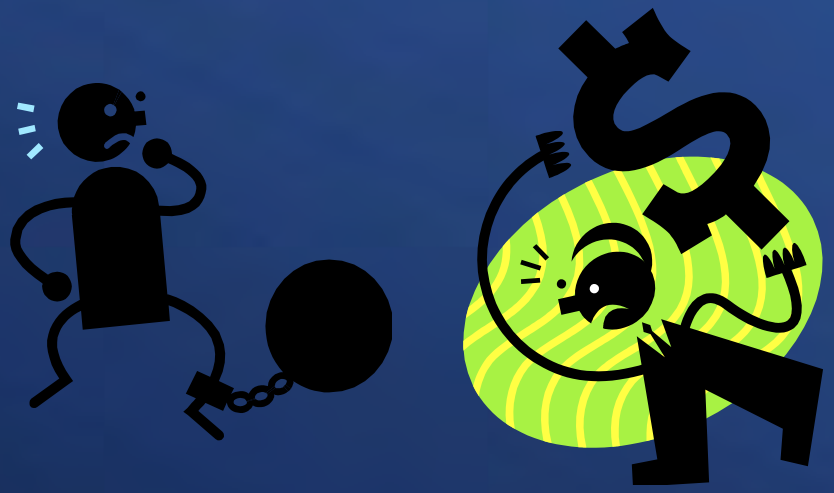
NASS Spine Registry Pilot

Purpose

- Before expanding registry to NASS membership:
  - Collect de-identified data to test the registry data collection process, platform and measures
  - Test administrative and cost burden to participants.



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NASS Spine Registry Pilot

Overview⇨Funding

Pilot funded by NASS.

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NASS Spine Registry Pilot

Overview⇨IRB

Exemption determination for the pilot received from central IRB.

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NASS Spine Registry Pilot

- Overview⇨
  - 15 Sites (including NASS leadership)
    - Surgical and nonsurgical providers
  - 1000 Patients
  - 12-18 Months
  - Web-based platform

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NASS Spine Registry Pilot

- Overview⇨
  - Consecutively entered
  - Measures
    - Discussed at a meeting of multiple spine organizations on registry development (Madison, WI; July 2010)
    - Aimed to be substantially similar to neurosurgical procedure-based registry, N2QOD
      - To allow for better communication

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NASS Spine Registry Pilot

- Overview⇨
  - Provider participants receive confidential feedback on care based on their data.
    - Providers own their data
  - NASS only has access to de-identified aggregate data.
    - NASS owns aggregate data

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NASS Spine Registry Pilot

- Overview⇨

Registry applicable for use by multidisciplinary audience (both relative to specialty and surgical/medical orientation).

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NASS Spine Registry Pilot

QUESTIONS?

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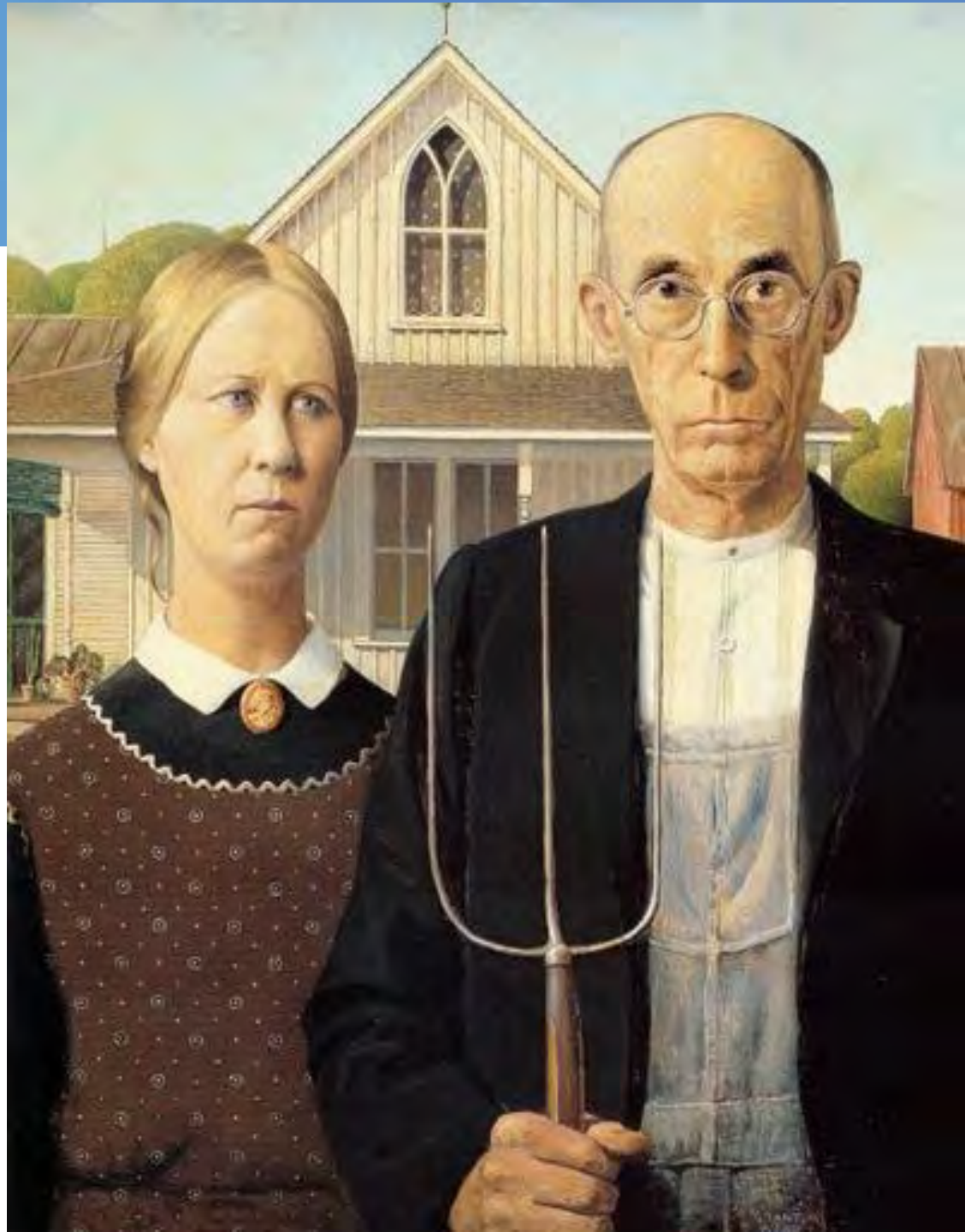
The Challenge

The government wants to know that Ma and Pa are getting the healthcare they deserve … and that our taxes pay for.



We live in the Information Age…

"Your data is going to be collected. Do you want it to be gathered by your friends or by your enemies?"

-- Keith Ruskin, MD

Anesthesia Quality Institute

The AQI

- A non-profit 501(c)3 corporation
- Vision: To become the primary source for quality improvement in the clinical practice of anesthesiology
- Mission: To establish and maintain the National Anesthesia Clinical Outcomes Registry

Anesthesia Quality Institute

AQI Participation: Cost

- $500 per physician
- Discount to $0 for ASA members
- Practice Cost = $0 if all cases are performed, directed or supervised by an ASA member

Anesthesia Quality Institute

AQI Registries

- NACOR
- AIRS
- PPAI
- NPR – the National Pain Registry

Anesthesia Quality Institute
NATIONAL ANESTHESIA CLINICAL OUTCOMES REGISTRY

Anesthesia Quality Institute
ANESTHESIA INCIDENT REPORTING SYSTEM (AIRS)
Report Adverse Events & Near Misses
www.aqiairs.org

PPAI Practice Performance Assessment and Improvement

Anesthesia Quality Institute

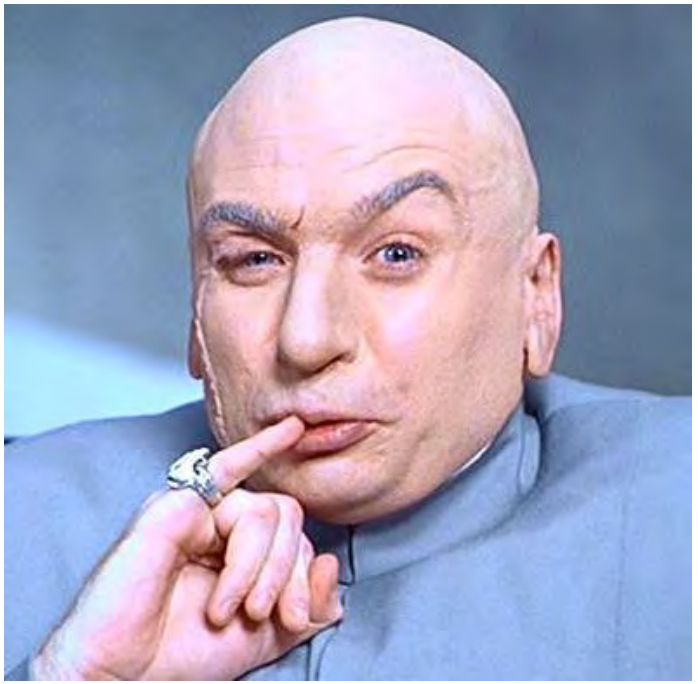
NACOR: the National Anesthesia Clinical Outcomes Registry

- Electronic capture
- All cases (no bias)
- All available data
- De-identified, but with context
- Automated reporting
- Automated validation
- Analysis and reporting

Anesthesia Quality Institute

NACOR to date

- **> 800 interested groups**
- **176 participating practices**
- **Case data from:**
  - 112 groups
  - 1165 facilities
  - 9,000 providers
  - **4,900,000 cases**



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Outcomes

Measure Group	Description (n=814,890 cases)	Events	Incident Rate
Process	Process outcomes	11,201	1.37%
Major	Serious adverse events; actual patient harm or significant risk	3,539	0.43%
Minor	Minor adverse event; without long-term impact	85,210	10.46%
Admin	Administrative outcomes; such as case cancel, extended PACU, unexpected admission	11,420	1.40%
Mortality	Patient death; excluding patients presenting for organ harvesting	293	0.04%

Anesthesia Quality Institute

What Does AQI Know About Pain?

- Substantial information about acute pain management for surgical cases: regional blocks, epidural catheters
- Information on chronic pain procedures done in participating practices: CPT codes, use of fluoroscopy, patient demographics

- No long-term follow-up or outcomes

The National Pain Registry

- Goal: Collect structured case-based data on pain patients and outcomes
- Electronic submission from existing EHRs (i.e. Epic) or custom software
- The ability to follow patient outcomes over time

- Still aspirational … any volunteers?

Anesthesia Quality Institute

Contact Us!

www.aqihq.org

or

r.dutton@asahq.org

Anesthesia Quality Institute

NEUROPOINT

ALLIANCE

est. 2008

NeuroPoint Alliance (NPA)

- Not-for-profit corporation established in 2008 by the AANS in cooperation with a broad coalition of neurosurgical societies including the Congress of Neurological Surgeons, Society of Neurological Surgeons, American Board of Neurological Surgery, and AANS/CNS Section on Spine & Peripheral Nerves.

NEUROPOINT ALLIANCE
est. 2008

NPA Mission

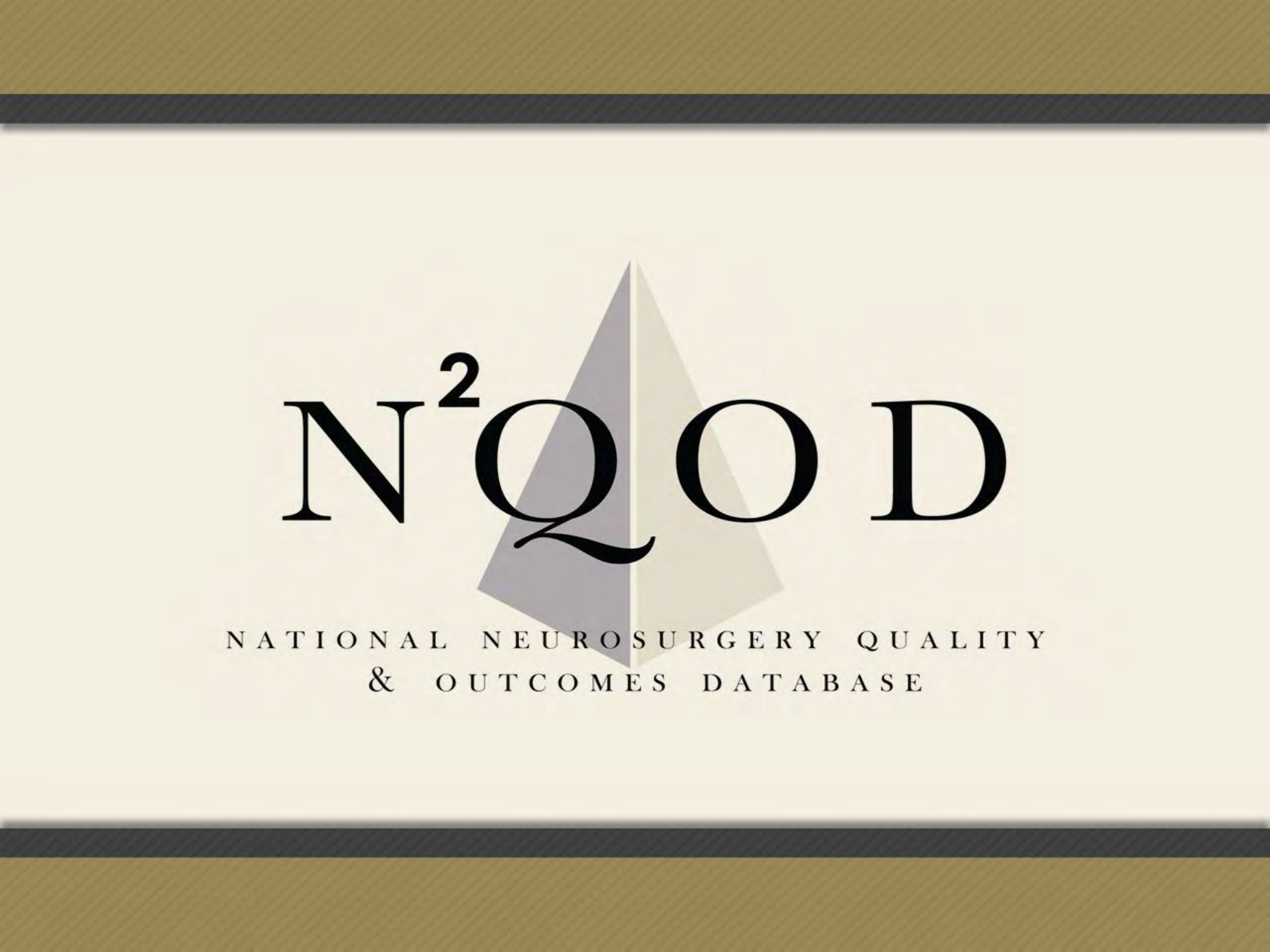
- NPA coordinates a variety of national projects involving the acquisition, analysis, and reporting of clinical data from neurosurgical practice using online technologies.

NEUROPOINT ALLIANCE
est. 2008

NPA Objectives

- Support National Quality Research Efforts, including Comparative Effectiveness Research
- Satisfy Public Reporting Requirements for programs such as PQRS
- Satisfy practice data collection requirements for ABNS primary certification and Maintenance of Certification (MOC)
- Quality improvement

NEUROPOINT ALLIANCE
est. 2008


N2QOD
NATIONAL NEUROSURGERY QUALITY
& OUTCOMES DATABASE

N^2QOD

- Continuous national clinical registry for neurosurgical procedures and practice patterns
- Data capture via REDCap platform, Vanderbilt Institute of Medicine & Public Health (VIMPH)
- OHRP and OCR have determined N^2QOD as presently described does not constitute human subject research

N²QOD
NATIONAL NEUROSURGERY QUALITY & OUTCOMES DATABASE

N²QOD Goals

- Establish risk-adjusted national benchmarks for both the safety and effectiveness of neurosurgical and spine procedures.
- Allow practice groups and hospitals to analyze their individual morbidity and clinical outcomes in real-time.
- Generate both quality and efficiency data to support claims made to public and private payers.
- Demonstrate the comparative effectiveness of neurosurgical procedures.
- Facilitate essential multi-center trials and other cooperative clinical studies.

N²QOD
NATIONAL NEUROSURGERY QUALITY & OUTCOMES DATABASE

Current Status

- Lumbar module formally launched February 22, 2012
- Over 1,000 patients enrolled in database
- 23 participating sites
- All sites participating with waiver of written consent for obtaining patient-reported outcomes
- Quarterly performance reports distributed July 11th to each site

N2QOD
NATIONAL NEUROSURGERY QUALITY & OUTCOMES DATABASE

Current Status

- Cervical, Essentials, and Cranial modules are in development
- CMS PQRS registry certification is in progress
- NPA website is live, visit www.neuropoint.org
- N^2QOD website is live, visit www.npa-n2qod.org

N2QOD
NATIONAL NEUROSURGERY QUALITY & OUTCOMES DATABASE

The American Joint Replacement Registry

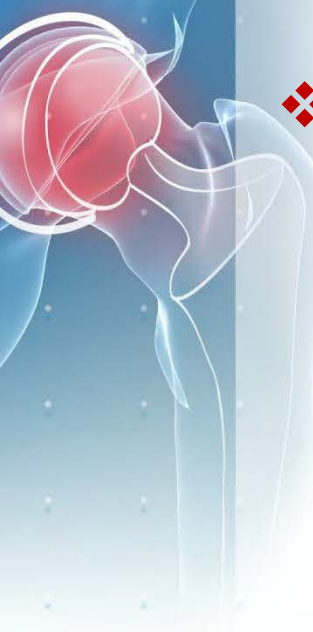
AJRR
American Joint Replacement Registry

Why a joint replacement registry?

- The AJRR will provide comprehensive orthopaedic knowledge by examining an array of outcomes.
- Registry information will enable patients and their surgeons to make the best choices about their total joint procedure, devices and rehabilitation.
- International registries have seen up to a 50% reduction in revision rates after registry initiation and identification of best practices.

AJRR American Joint Replacement Registry

AJRR Mission and Vision



- **Mission** Foster a national center for data collection and research on total hip and knee replacement with far-reaching benefits to society including reduced morbidity and mortality, improved patient safety, improved quality of care and medical decision-making, reduced medical spending, and advances in orthopaedic science and bioengineering.

- **Vision** A national total joint registry dedicated to the improvement in arthroplasty patient care by data driven modifications in the behavior of collaborating providers, institutions, manufacturers, payers, and patients

AJRR Board of Directors

- The AJRR Board of Directors includes representation from the entire orthopaedic community including:
  - Orthopaedic surgeons
  - Orthopaedic industry
  - Private payers
  - Hospitals
  - Public

AJRR American Joint Replacement Registry

AJRR Board of Directors

AAOS Representatives

- Thomas C. Barber, MD, Kaiser Permanente
- William J. Maloney, MD, Stanford Hospital
- J. Wesley Mesko, MD, Michigan Orthopaedic Center
- E. Anthony Rankin, MD, Providence Hospital

Specialty Society Representatives

- David G. Lewallen, MD, Mayo Clinic, [The Hip Society] *
- Kevin J. Bozic, MD, MBA, UCSF, [AAHKS]
- Terence J. Gioe, MD, University of Minnesota, [The Knee Society]

Industry Representatives

- Robert E. Durgin, JD Biomet , Inc.
- Eric Rugo, MBA, Stryker, Inc.

Payer Representatives

- Catherine MacLean, MD, PhD WellPoint Inc.
- Steven H. Stern, MD United Healthcare

Public Advisory Board Representative

- Patience White, MD, MA Arthritis Foundation

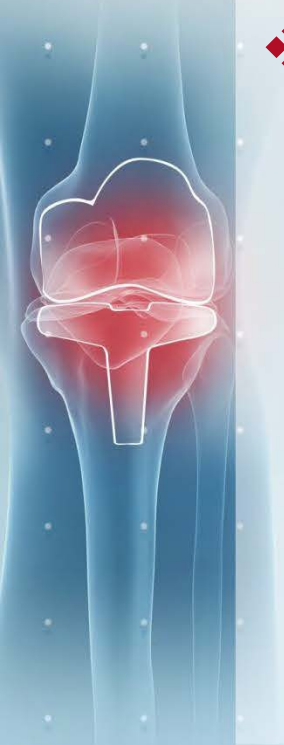
* AJRR Board Chairman

AJRR American Joint Replacement Registry

Public Advisory Board

- Established to provide input to the AJRR Board from a greater spectrum of patient and public advisory groups

- Current advisory members include:
  - Arthritis Foundation
  - Society for Women's Health Research
  - AARP
  - Informed Medical Decisions Foundation
  - The Joint Commission
  - Patient Representatives



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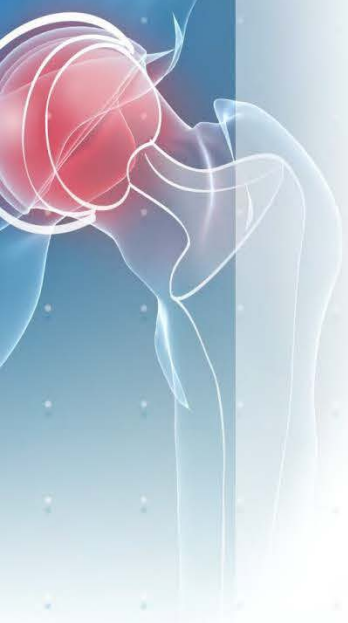
Financing



- AAOS
- American Association of Hip and Knee Surgeons (AAHKS)
- The Hip Society
- The Knee Society
- Blue Cross and Blue Shield
- United Healthcare
- WellPoint
- Orthopaedic Industry (via AdvaMed)

AJRR American Joint Replacement Registry

AJRR Milestones

June, 2009	Incorporated as a not for profit in Illinois
February, 2010	Approved AJRR Board members and bylaws
October, 2010	Started pilot program with 15 hospitals
November, 2010	Attained 501(c)(3) status as “supporting organization” to AAOS
May, 2011	Business plan finalized, startup funding secured
June, 2011	Pilot study concluded with 8 institutions/11 hospitals
August, 2011	Selected final registry production software
September, 2011 to present	Active recruitment of all hospitals conducting total hip and knee replacements

Purpose of pilot program

- Define and refine process that allows hospitals to participate and provide Protected Health Information (PHI) and adhere to HIPAA requirements
- Identify the methods to acquire procedure information (manual data entry, electronic transfer from patient EMR, others)
- Identify the requirements for a long-term software solution
- Collect Level I data elements

AJRR American Joint Replacement Registry

Core Data Elements

LEVEL ONE

- **Patient**
  - Name (Last, First)
  - Date of birth
  - SSN
  - Diagnosis (ICD-9 or ICD-10)
  - Gender
  - Ethnicity
- **Hospital**
  - Name (NPI)
  - Address
- **Surgeon**
  - Name (NPI)
- **Procedure**
  - Type (ICD-9)
  - Date of surgery
  - Laterality
  - Implants

LEVEL TWO

- e.g. Patient risk factors/co-morbidities (ICD-9), PQRI measures, surgical approaches, prophylaxis, ASA score

LEVEL THREE

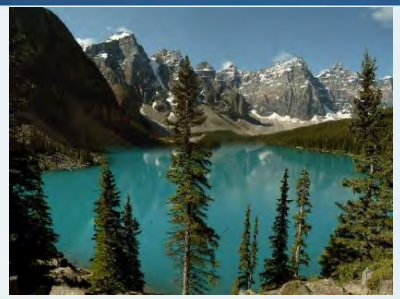
- e.g. SF-12, SF-36, HOOS, KOOS, WOMAC, Oxford Hip and Knee Scores, Knee Society Knee Scoring System, Harris Hip Score, AAOS Hip and Knee Core Scale

LEVEL FOUR

- Radiographic Images

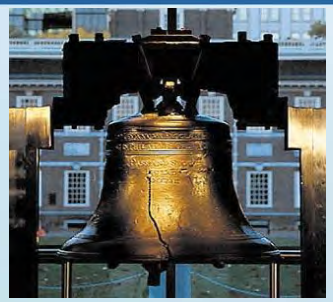
AJRR American Joint Replacement Registry

Pilot Results



St. Mary's Hospital/Western Slope Study Group (CO)

Rush University Medical Center (IL)



Thomas Jefferson University Hospitals (PA)

NYU Langone Medical Center (NY)

St. Francis Hospital (IN)

HealthEast Care System (MN)

St. Francis Hospital (CT)

University of California, San Francisco

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Pilot Results

Age range (20 – 98 years)	
Contributing Sites	11
Contributing Physicians	129
Procedures	3,600
Primary Hip	1,256
Primary Knee	1,973
Revisions (with both primary and revision procedure in the data set)	30
Revisions (without primary procedure in the data set)	414

AJRR American Joint Replacement Registry

2012 Participation Update

- Staff of 6 at AAOS Headquarters in Rosemont, IL
- All pilot sites continue to submit data
- 300+ new sites have been contacted since August, 2011
- 150+ hospitals/health systems are actively engaged in the recruitment process
- N = 45 Business Associate Agreements have been signed
- Targeting institutional collaboratives such as the High Value Healthcare Collaborative (HVHC)
  - Dartmouth-Hitchcock Medical Center, Cleveland Clinic, Mayo Clinic, Denver Health, and Intermountain Healthcare
- Targeting large hospital networks
  - Aurora Advanced Health Care, Ochsner, Intermountain Healthcare
- Targeting major high volume medical centers
  - Rush University Medical Center, NYU-Langone Medical Center, UC San Francisco, Cleveland Clinic, Massachusetts General Hospital

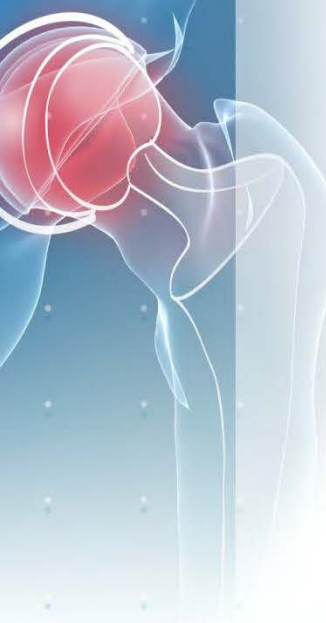
AJRR American Joint Replacement Registry

What you will get

- Publicly Available Annual Reports
  - Procedure frequency Nationally and by State/Region
    - Devices used with Device Specific Survivorship
    - Volume Effects: By Surgeon and Hospital “Type”
    - “Early Warning” surveillance of new technology
- More specific or individualized data will be available by subscription
  - Surgeons, Hospitals, Manufacturers, Payers, Government Agencies
  - Frequency could be quarterly, monthly or as often as needed

AJRR American Joint Replacement Registry

AJRR Contact Information



For more information www.ajrr.net

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AJRR American Joint Replacement Registry

Charles Reitman, MD

PRACTICE CLINICAL GUIDELINES COLLABORATION

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2011 Spine Summit

- Conclusion
  - Collaborate and coordinate guideline development
  - Promote expansion of guidelines
  - Avoid duplication

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Practice Clinical Guidelines Collaboration

- American Academy of Orthopaedic Surgeons (AAOS)
- American Academy of Pain Medicine (AAPM)
- American Academy of Physical Medicine & Rehabilitation (AAPMR)
- American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Section on Spine (AANS/CNS)
- American Society of Anesthesiologists/American Society of Regional Anesthesia and Pain Medicine (ASA/ASRA)
- American Society of Spine Radiology (ASSR)
- Cervical Spine Research Society (CSRS)
- International Spine Intervention Society (ISIS)
- International Society for the Advancement of Spine Surgery (ISASS)
- North American Spine Society (NASS)
- Scoliosis Research Society (SRS)
- Spine Executive Forum

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Practice Clinical Guidelines Collaboration

Coordination of guidelines efforts between the various societies is not an entirely new concept, but one that has been primarily informal.

AANS/CNS

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AAOS

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Practice Clinical Guidelines Collaboration

- Consensus agreement on collaborative guideline recommendations unlikely
  - Variation in specialty affiliation
  - Variation in methodology
  - Variation in goals

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Practice Clinical Guidelines Collaboration

Document with reasonable recommendations drafted and sent to Summit participants

- Sign-ons to date

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Practice Clinical Guidelines Collaboration

- **Recommendation-Catalog Existing Resources**
  - Develop a list of existing spine-related guidelines and appropriateness criteria accessible to all.
  - List would act as a resource when seeking information and assist groups in future topic selection to avoid duplication.

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Practice Clinical Guidelines Collaboration

- **Recommendation-Coordinate Topic Selection**
  - Prevent overlap in topics
  - Optimal use of resources
  - Optimal expansion of guidelines

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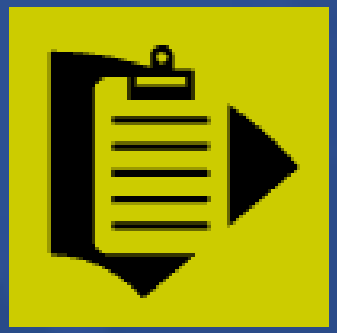

Practice Clinical Guidelines Collaboration

- Methods to achieve coordinated topic selection could include:
  - Annual/bi-annual discussion between guideline representatives from societies.
  - Review catalog of existing resources to avoid duplication.
  - Staff contact between societies if changes in previously discussed topics occur.
  - Develop list of future guideline priorities and stake out topics in advance among the societies.

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Practice Clinical Guidelines Collaboration

- Sharing EBM training for summit participant guidelines or AUC committee members at cost.

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Practice Clinical Guidelines Collaboration

- **Recommendation-Multidisciplinary Representation**
  - Encourage inclusion of representatives from other societies/specialties in guideline efforts to broaden the spectrum of the discussion.
  - Recommendation for the societies able to accommodate it.
  - Representative participation would be expected to be in numbers that would not dominate any one societies' established process.

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Practice Clinical Guidelines Collaboration

- **Recommendation-Collaboration (Where It Makes Sense)**
- Collaborative guideline development between societies would be encouraged where collaboration makes sense and is possible between like-minded societies on a case-by-case basis.

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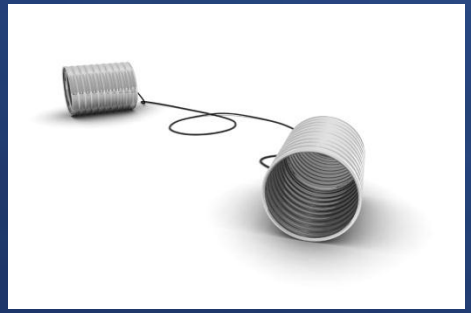
Practice Clinical Guidelines Collaboration

- **Recommendation-Feedback**

Societies could allow feedback from summit participant societies on draft guidelines when a society's methodological process allows it.



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Practice Clinical Guidelines Collaboration

- **Recommendation-Annual Report**

Collaboration/coordination activities related to guidelines should be reported at each annual Spine Summit as part of the regular meeting.

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Practice Clinical Guidelines Collaboration

If anyone has not yet signed on, would encourage your society do so…

Look forward to future of collaboration…

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Injection Practices: Risk Evaluation Mitigation Strategies

Ray M. Baker, MD

International Spine Intervention Society

Disclosure - Baker

- Relievant MedSystems: minor stock, consulting, SAB
- Nocimed: minor stock, SAB
- Laurimed: minor stock, SAB

The Problem: Infection Outbreaks

"In the last 5 years, CDC is aware of at least 27 outbreaks due to unsafe injection practices. These outbreaks resulted in more than 95,000 patients being referred for testing. 74% (n=20) of these outbreaks involved use of single-dose/single-use medications for more than one patient. Pain clinics (n=9, 45%) represented the most common facility type."

Common Modes of Transmission

- Reuse of syringes / needles
- Pooling or diluting medication
- Failure to wear a face mask
- Reuse of single dose medication vials on more than one patient.

The CDC Policy

In response to increasing numbers of outbreaks, the CDC released the *2007 Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings*.

The Politics

Over the past several years, Journal articles and editorials, a congressional letter writing campaign, a ‘fact sheet’, and a draft multi-society consensus statement were directed at the CDC guideline enforcement efforts.

Coordinated Response

2009: CDC Safe Injection Practices Coalition

2011: CDC ‘One and Only’ campaign

2011: GAO investigation commissioned.

2012: CMS memorandum to State Survey Agency Directors regarding the reuse of SDVs.

2012: CDC MMWR focusing on unsafe injection practices

CDC Contact with ISIS

April 27, 2012: "I wanted to share CDC's Single-dose Vial Position Statement for your consideration. This document was drafted to clarify CDC's position regarding single-dose vials and to dispel several inaccuracies that were presented in the *"Consensus statement on infection control measures of single dose vials for multiple patients"* that was sent to several professional organizations. "

DRAFT Multi-society statement

"…there is no evidence to date that single dose vials, when used for multiple patients, are responsible for infections if proper infection control measures are applied."

CDC Position Statement 4/2012

"CDC is aware of confusion about and misrepresentation of guidelines…"

Under the *Misperceptions* section:

'There is no evidence that single-dose/single-use vials used for multiple patients are responsible for infections if "proper infection control measures" are applied.'

CDC MMWR July, 2012

- Highlighted 2 outbreaks:
  - Mar 2012 - Delaware Orthopedic Clinic reused Bupivacaine vial resulting in 7 patients with septic arthritis.
  - Apr 2012 - Arizona Pain Clinic

Arizona, April 2012

- On April 8, 2012, 10 patients received contrast from 2 diluted vials: six from the morning vial and four from the afternoon vial.

Arizona, April 2012

- 4-8 d later, 3 pts. were hospitalized.
- All had severe MRSA infections, including acute mediastinitis, meningitis, epidural abscess, sepsis.
  - Hospitalized 9-41 days; 1 long-term.

Arizona, April 2012

- A fourth patient was found dead at home, 6 days after treatment. The cause of death was reported as multiple-drug overdose; however, MRSA could not be ruled out.
- All 4 patients received diluted contrast from the afternoon vial.

Arizona, April 2012

- Breaches noted by CDC:
  - Reused SDVs for more > 1 patient
  - Diluted contrast
  - Failure to wear face masks when performing spinal injections.

CDC MMWR July, 2012

- "…health-care providers reported difficulty in obtaining specific medication types and vial sizes, prompting them to use contents from SDVs for more than one patient. As evidenced by these outbreaks, the smallest vial size manufactured can exceed the amount routinely needed for individual patients. "

ISIS Response

- ISIS is committed to working with others to:
  - Educate providers regarding safe injection practices.
  - Assure that providers have access to affordably priced and suitably sized SDV medications.

The Reality

- CMS and Joint Commission surveyors have been alerted to the CDC policy on injection safety, especially related to SDVs.
- Both have been instructed to cite hospitals and ASCs for non-compliance.

AAOS and AUCs

SPINE SUMMIT 2012
BURR RIDGE, ILLINOIS

AAOS American Academy of Orthopaedic Surgeons
American Association of Orthopaedic Surgeons

Appropriate Use Criteria Committee (AUCC)

- This Committee was approved by the AAOS Board of Directors in 2011
- Membership with experience in Evidence-based Medicine was solicited

AUCC Membership

- William C. Watters III, MD - Chair
  - Joseph A Bosco III, MD
  - Brent Graham, MD
  - Michael H Heggeness, MD
  - Michael Warren Keith, MD
  - Charles T Mehlman, MD

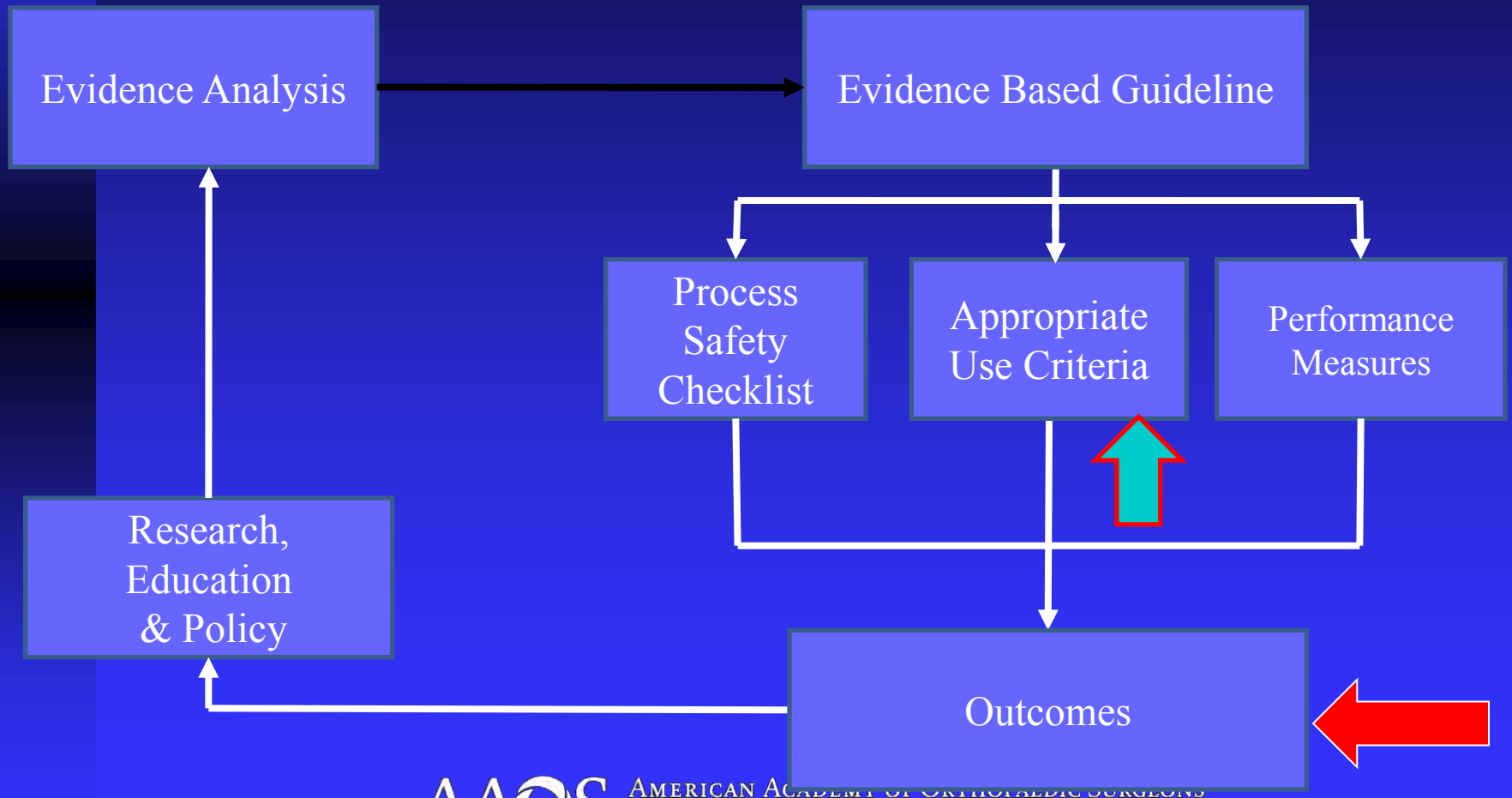
AUCC Charges

- Comply with the strategic plan as adopted by the BOD
- Participate as a full member of the AAOS Quality Institute and Research Council
- Oversee the development of AUC
- Participate in the development of AUC
- Select and prioritize topics for AUC with input from members, payors, etc.

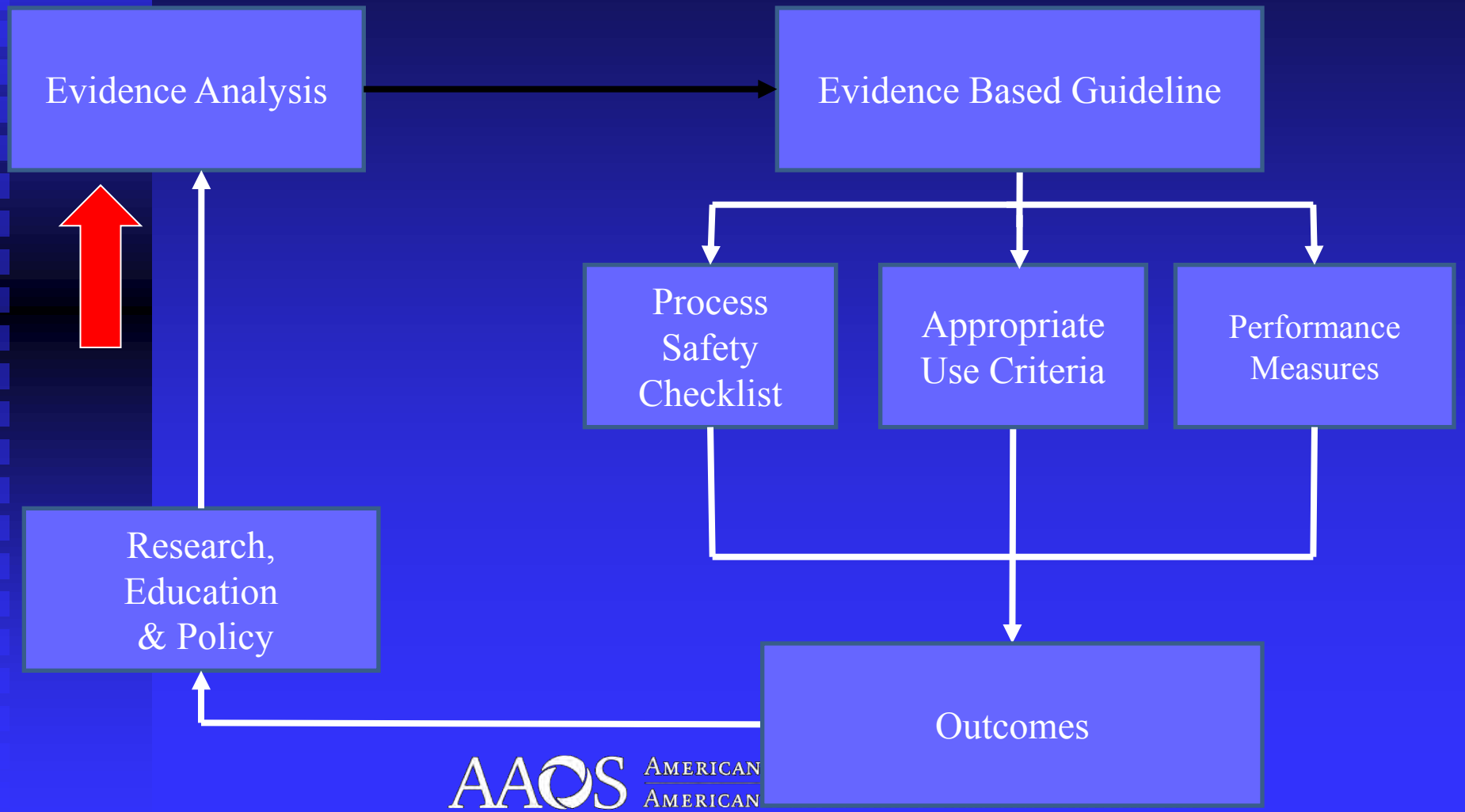
AUCC Charges

- Establish and maintain communications with BOS and BOC about AUC
- Through BOC, develop relationships with relevant states to facilitate dissemination and implementation of pilot projects
- Assist in the design of AUC implementation tools

Assessing the Quality Cycle: The natural tendency is to start measuring outcomes of care or jump to convenient starting points



Start Evaluations at the Beginning of the Quality Cycle

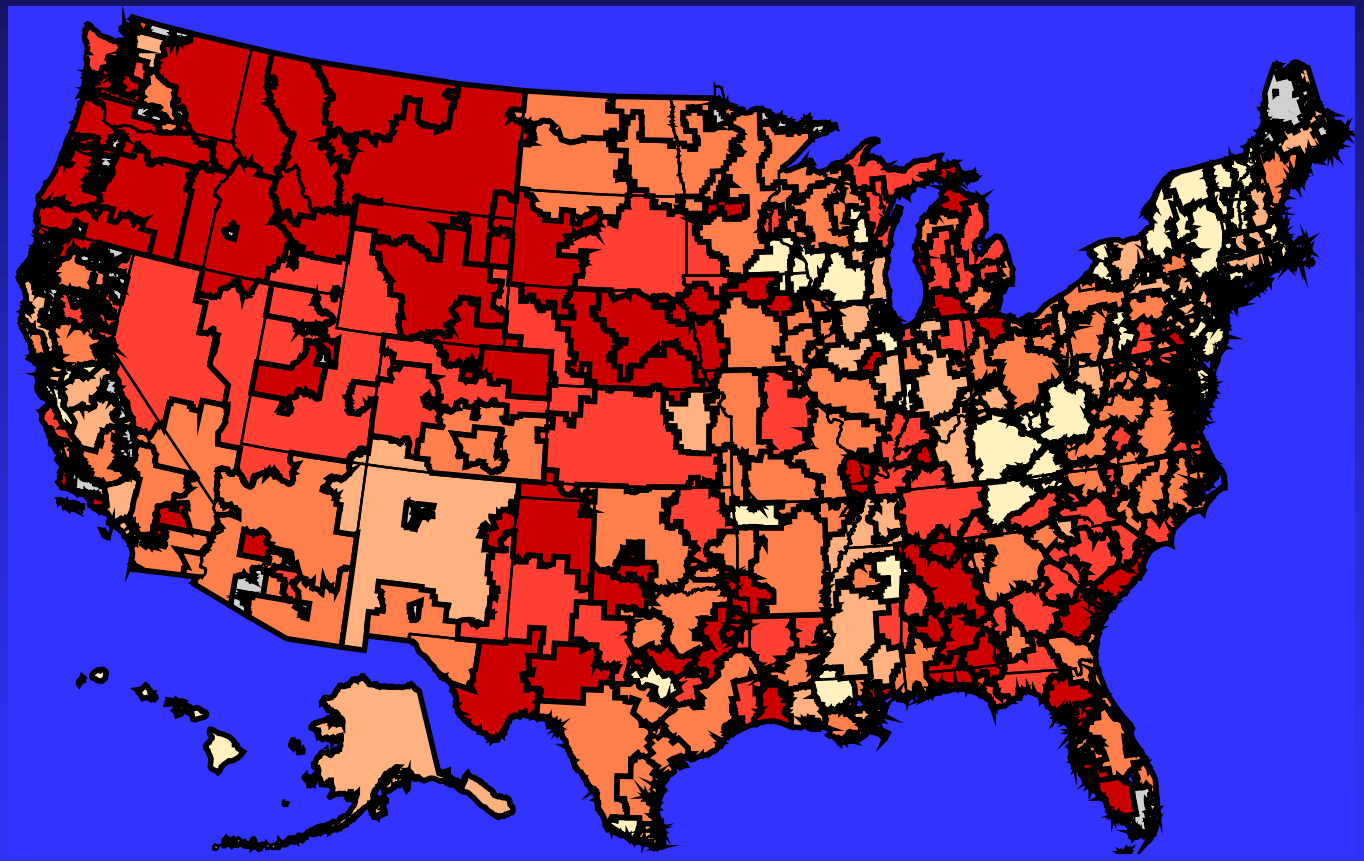


AAOS American American

Why Appropriate Use Criteria (AUC)?

- Unprecedented focus on assessment and improving quality
- Explosive growth of some orthopedic procedures
- Substantial regional variation
- True nature of utilization unknown
  - Overuse, Underuse, Appropriate Use
- Clinicians, patients, and payers seeking guidance

Current patterns of utilization characterized by growth as well as regional variation…



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American Association of Orthopaedic Surgeons

The Role of Guidelines, Performance Measures and AUC in the World of Quality Assessment

Guidelines, Performance Measures and AUC

- Clinical Guidelines
  - Exhaustive review of literature – all available evidence
  - Best practices for management of a disease/diagnosis/condition
  - "Should do, should not do"

Guidelines, Performance Measures and AUC

- Performance Measures
  - Selective, focused, measurable, actionable
  - Based on guidelines for what has been proven to improve patient outcomes
  - Tools for quality measurement
  - "Must do"

Guidelines, Performance Measures and AUC

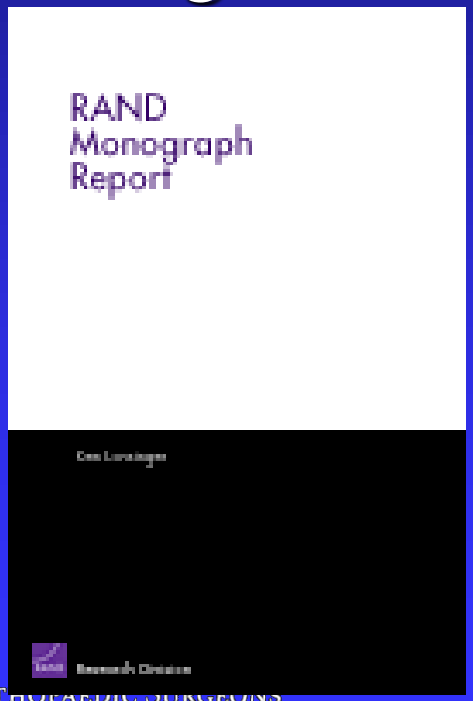
- Appropriate Use Criteria
  - Selective indications
  - Clinical scenarios are built from evidence of effectiveness (e.g. a CPG)
  - Evaluate relative risks/benefits of a procedure/service for a specific indication
  - "Reasonable to do"

Appropriate Use Criteria

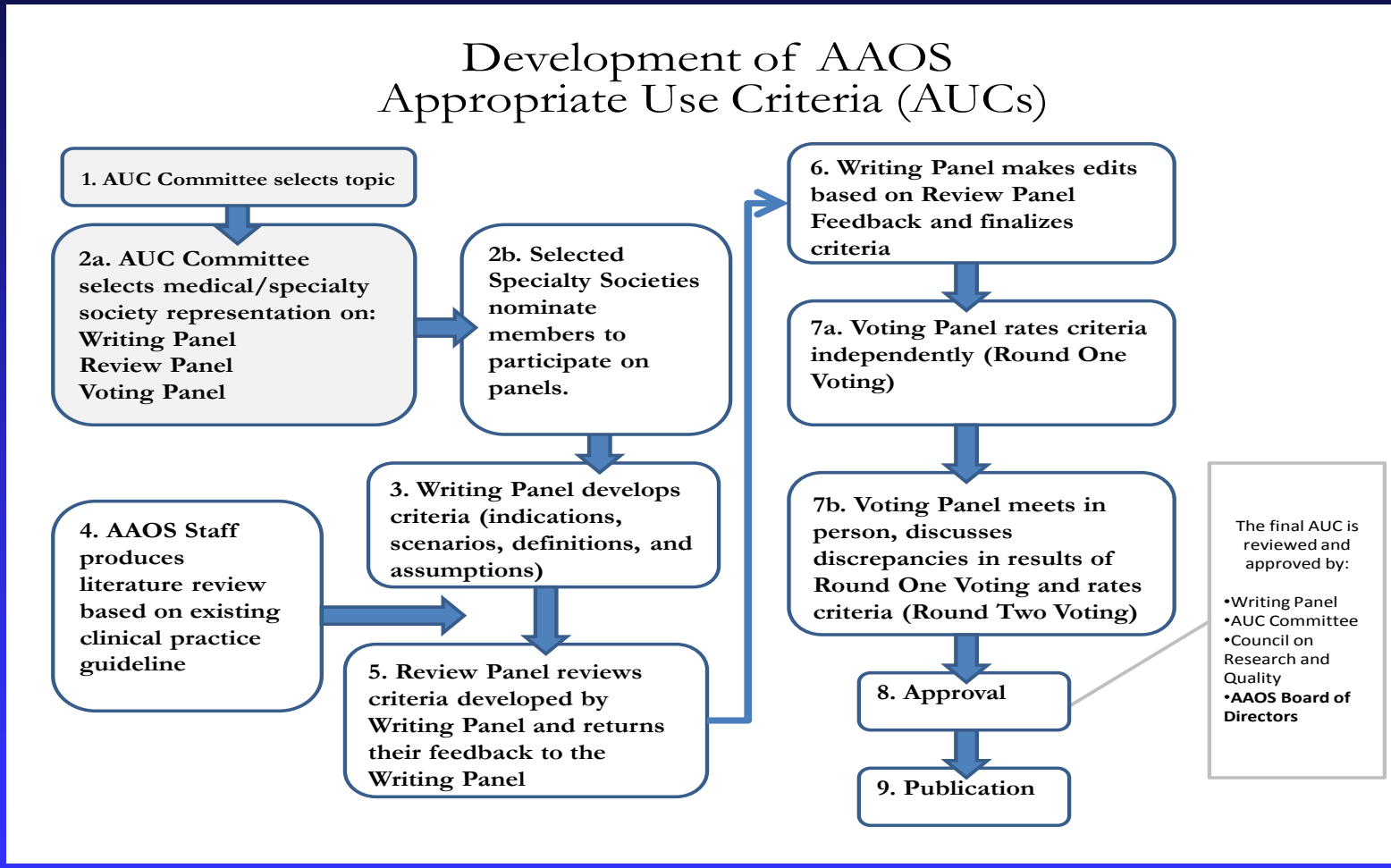
- Evidence-based Guidelines vs. Appropriate Use Criteria
  - Evidence-based CPGs tell us **if** a procedure or service works
  - AUCs specify **when** it's appropriate to perform that procedure or service

AUC - RAND/UCLA Method

- Combines best evidence with collective judgment of experts to develop a statement *re* appropriateness of performing a procedure
  - Patient symptoms
  - Patient Demographics
  - Medical history
  - Test results



AAOS AUC Template



Appropriate Use Criteria
Methods – 3 Panels (ACC)

- Writing Group (5-10 members) – teleconf
  - Clinical Scenarios – up to several 100
- Review Group (up to 30 members) - email
  - Determines resonableness of scenarios
- Technical Rating Panel (15-17 members)
  - In person meeting - using Delphi
  - <50% of people involved the topic

Appropriate Use Criteria
Delphi Ranking of Indications (1-9)

- 7-9: Appropriate procedure/service for specific indication
  - Procedure **is** generally acceptable and **is** a reasonable approach for the indication
- 4-6: Uncertain or unclear if appropriate for specific indication
  - Procedure **may** be generally acceptable and **may** be a reasonable approach for the indication
- 1-3: Inappropriate test for specific indication
  - Procedure is **not** generally acceptable and is **not** a reasonable approach for the indication

Appropriate Use Criteria on the Surgical Treatment of Distal Radius Fractures

Scenario #1: Type A, High-Energy, Home-bound, ASA 1-2-3, No Associated Injuries
Rating Definitions: **1-3 (Inappropriate)**; **4-6 (Uncertain)**; **7-9 (Appropriate)**

TREATMENT	1	2	3	4	5	6	7	8	9
Immobilization without reduction	○	○	○	○	○	○	○	○	○
Reduction and Immobilization	○	○	○	○	○	○	○	○	○
Percutaneous Pinning	○	○	○	○	○	○	○	○	○
Spanning External Fixation	○	○	○	○	○	○	○	○	○
Non-spanning External Fixation	○	○	○	○	○	○	○	○	○
Distraction Plate	○	○	○	○	○	○	○	○	○
Volar Locking Plate	○	○	○	○	○	○	○	○	○
Dorsal Plate	○	○	○	○	○	○	○	○	○
Fragment Specific Fixation	○	○	○	○	○	○	○	○	○
Intramedullary Nail	○	○	○	○	○	○	○	○	○

AAOS AUCs

Advantages for AAOS Dissemination

Appropriate Use Criteria – Benefits for AAOS:

- Provide a clear and public demonstration of how orthopaedic community works for patients
- Give AAOS a stronger voice with payers and healthcare purchasers
- May result in guaranteed reimbursement and reduced paperwork for those who practice in accordance with these criteria

Dissemination and Implementation

- Develop quality-related tools that physicians can use at common orthopaedic sites of service
  - Mobile applications
  - Web resources – EMR prompts
  - Printed materials
- Incorporate culturally/electronically
- Pilot this in large group ortho practices

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ACCF/ACR/SCCT/SCMR/ASNC/NASCI/SCAI/SIR 2006 Appropriateness Criteria for Cardiac Computed Tomography and Cardiac Magnetic Resonance Imaging*

A Report of the American College of Cardiology Foundation Quality Strategic Directions Committee Appropriateness Criteria Working Group, American College of Radiology, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, American Society of Nuclear Cardiology, North American Society for Cardiac Imaging, Society for Cardiovascular Angiography and Interventions, and Society of Interventional Radiology

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ACCF APPROPRIATENESS CRITERIA WORKING GROUP

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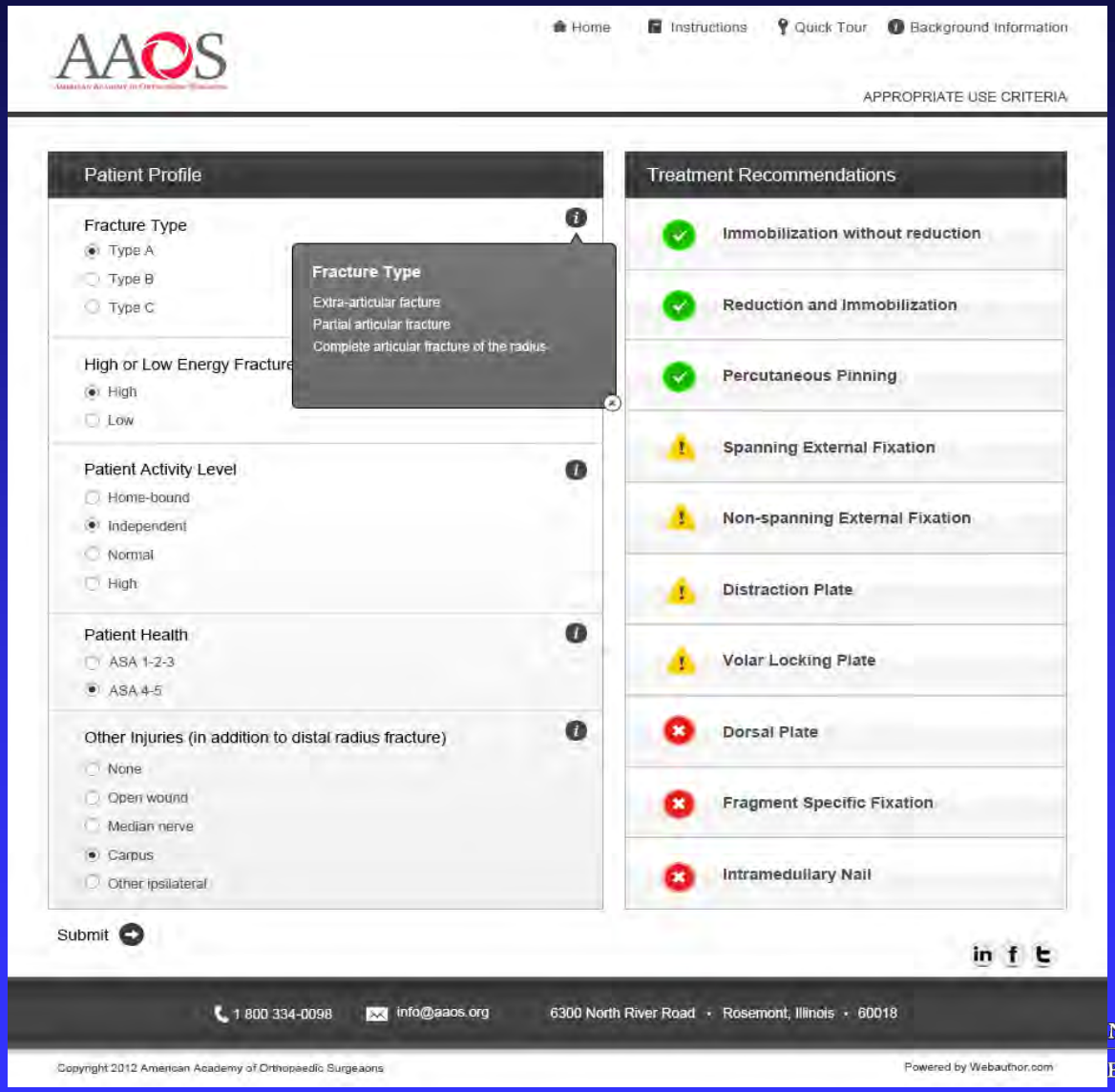
Manesh R. Patel, MD

*Developed in accordance with the principles and methodology outlined by ACCF: Patel MR, Spertus JA, Brindis RG, Hendel RC, Douglas PS, Peterson ED, Wolk MJ, Allen JM, Raskin IE. ACCF proposed method for evaluating the appropriateness of cardiovascular imaging. J Am Coll Cardiol 2005;46:1606–13.

AAOS AUC Mobile App



(Prototype:
In development)

Appropriate Use Criteria - Summary

- Opportunity to participate in health care reform
- Set an example of best practices and indications
- Broaden findings of guidelines/risk stratify
- Work with payers and CMS
- AAOS members/specialists key to the development
- Opportunity to enhance our advocacy message
- AAOS takes further steps down the Quality path

First AUC Topic – A Special Case

- Our experience in CPGs cautioned us against choosing a large, highly significant and requested topic as an initial endeavor (DVT was the first CPG)
- Our experience in developing AUC is limited (read that as non-existent)

First AUC Topic

- Thus a limited topic with which the committee felt comfortable developing our techniques was felt to be important
- A topic for which the AAOS already had a recent CPG and thus recent literature review was felt to be important

First AUC Topic

- A topic that was utilized by a broad number of orthopedic practitioners on a broad number of patients was felt to be important
- A topic in which the treatment choices had changed fairly markedly over the last 1-2 decades was felt to also be important

First AUC Topic:
Distal Radial Fractures

- A common procedure for many practicing orthopedic surgeons, not largely limited to specialty upper extremity or hand surgeons
- A procedure with applications across a wide age range from pediatric to Medicare age groups

Distal Radial Fractures – 1st AUC Topic

- A procedure with a large payor mix from government-supported plans to private plans
- A procedure that has a recent AAOS CPG making the evidence-gathering minimal
- A procedure in which thoughts on definitive, operative treatment have changed markedly over the last 10-15 years

Composition of AUC Panels

- Each AUC topic will involve 50-60 AAOS members in various degrees of input
  - Writing Group: Broadest group of practitioners
    - Thought Leaders
    - High-volume surgeons
    - Non-specialist community surgeons

Composition of AUC Panels

- Each AUC topic will involve 50-60 AAOS members in various degrees of input
  - Review Group: Similar make up to Writing group with a large number of content experts

Composition of AUC Panels

- Each AUC topic will involve 50-60 AAOS members in various degrees of input
  - Technical Rating Panel:
    - 50 % AAOS proceduralists
    - 50% non-AAOS
      - Other societies
      - Other viewpoints

Composition of AUC Panels

- Conflict of Interest
  - Writing Panel: COI Reported
  - Review Panel: COI Reported
  - Technical Rating Panel: Same COI restrictions as for Guideline Workgroups

DRF AUC

- Writing Group - Done
- Review Group – Done
- Technical Rating Group - Meeting 09/12

NASS Appropriateness Criteria- Update

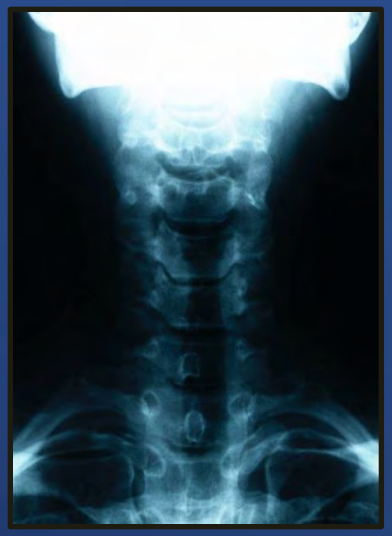
Charles A. Reitman, MD

NASS
NORTH AMERICAN SPINE SOCIETY

NASS AUCs

- First Topic: Cervical Fusion
- Work Groups
  - *Oversight—Research & Health Policy*
  - Writers — Literature Search
  - Reviewers

  - Raters



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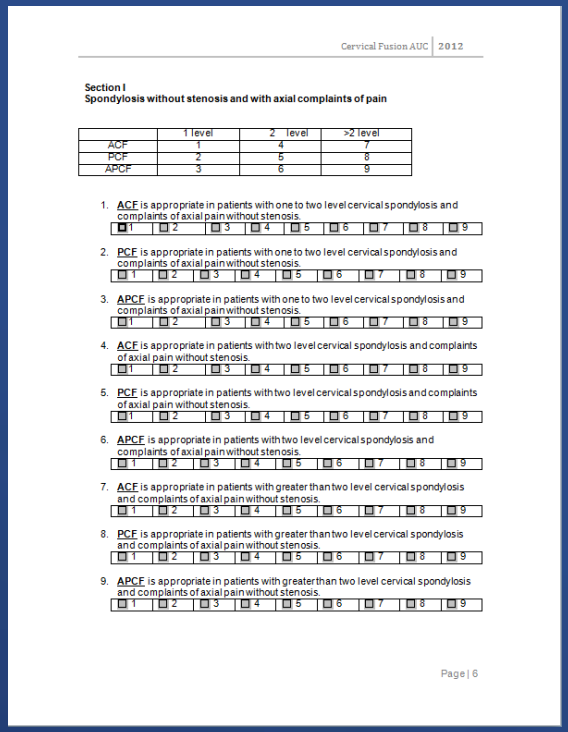
NASS AUCs

- Modified RAND Methodology
  - Drafted definitions
  - Key modifiers
  - Matrices formed
  - Drafted and reviewed scenarios
    - 253 scenarios



Cervical Fusion AUC | 2012

Section I
Spondylosis without stenosis and with axial complaints of pain

	1 level	2 level	>2 level
ACF	1	4	7
PCF	2	5	8
APCF	3	6	9

1. ACF is appropriate in patients with one to two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
2. PCF is appropriate in patients with one to two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
3. APCF is appropriate in patients with one to two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
4. ACF is appropriate in patients with two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
5. PCF is appropriate in patients with two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
6. APCF is appropriate in patients with two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
7. ACF is appropriate in patients with greater than two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
8. PCF is appropriate in patients with greater than two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9
9. APCF is appropriate in patients with greater than two level cervical spondylosis and complaints of axial pain without stenosis.
   ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9

Page | 6

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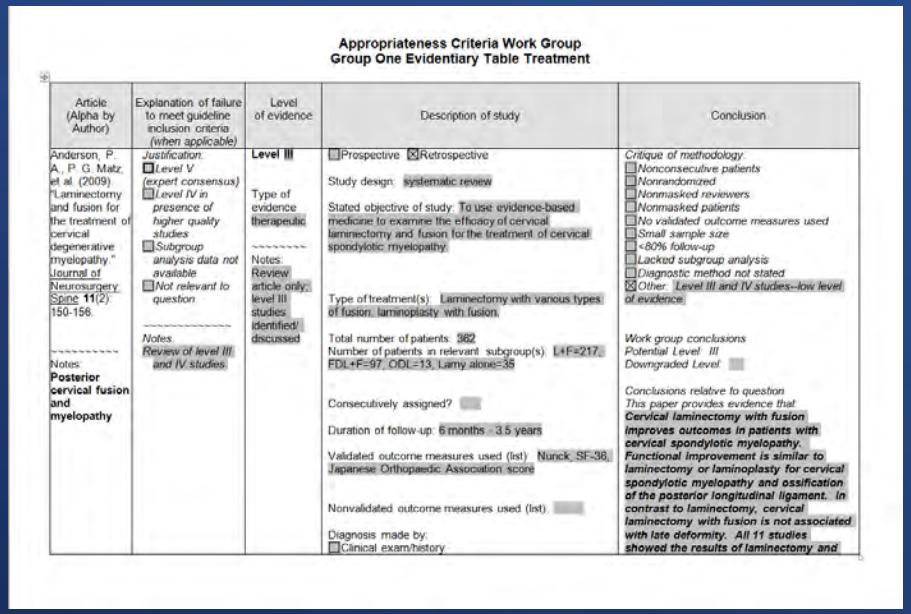
NASS AUCs

- Modified literature search
  - EBM-trained reviewers
  - Guidelines
  - Systematic Reviews
  - Level one and two studies
  - Development of evidentiary tables for reference



Appropriateness Criteria Work Group
Group One Evidentiary Table Treatment

Article (Alpha by Author)	Explanation of failure to meet guideline inclusion criteria (when applicable)	Level of evidence	Description of study	Conclusion
Anderson, P. A., P. G. Matz, et al. (2009). "Laminectomy and fusion for the treatment of cervical degenerative myelopathy." Journal of Neurosurgery Spine **11**(2): 150-156. Notes: **Posterior cervical fusion and myelopathy**	*Justification:* ☐ *Level V (expert consensus)* ☐ *Level IV in presence of higher quality studies* ☐ *Subgroup analysis data not available* ☐ *Not relevant to question* *Notes:* *Review of level III, and IV studies*	**Level III** Type of evidence therapeutic Notes: Review article only; level III studies identified/ discussed	☐ Prospective ☒ Retrospective Study design: systematic review Stated objective of study: To use evidence-based medicine to examine the efficacy of cervical laminectomy and fusion for the treatment of cervical spondylotic myelopathy. Type of treatment(s): Laminectomy with various types of fusion, laminoplasty with fusion. Total number of patients: 382 Number of patients in relevant subgroup(s): L+F=217, FDL+F=97, ODL=13, Lamy alone=35 Consecutively assigned? Duration of follow-up: 6 months - 3.5 years Validated outcome measures used (list): Nurick, SF-36, Japanese Orthopaedic Association score Nonvalidated outcome measures used (list): Diagnosis made by: ☐ Clinical exam/history	*Critique of methodology:* ☐ *Nonconsecutive patients* ☐ *Nonrandomized* ☐ *Nonmasked reviewers* ☐ *Nonmasked patients* ☐ *No validated outcome measures used* ☐ *Small sample size* ☐ *<80% follow-up* ☐ *Lacked subgroup analysis* ☐ *Diagnostic method not stated* ☒ *Other: Level III and IV studies--low level of evidence* *Work group conclusions* *Potential Level: III* *Downgraded Level:* *Conclusions relative to question* *This paper provides evidence that* ***Cervical laminectomy with fusion improves outcomes in patients with cervical spondylotic myelopathy. Functional improvement is similar to laminectomy or laminoplasty for cervical spondylotic myelopathy and ossification of the posterior longitudinal ligament. In contrast to laminectomy, cervical laminectomy with fusion is not associated with late deformity. All 11 studies showed the results of laminectomy and***

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NASS AUCs

- Rating Process
  - 1st round using electronic document
  - In person meeting
  - 2nd round of rating

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NASS AUCs

Final document expected by 2012 Annual Meeting (October)

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ISIS AUC Project

Ray M. Baker, MD
International Spine Intervention Society

First Topic

Fluoroscopically-Guided Diagnostic and Therapeutic SIJ Interventions.

- SI joint steroid injection
- Lateral branch blocks
- SI joint lateral branch RF neurotomy

First conference call last week.

Participating Societies

American Academy of Orthopaedic Surgeons

American Academy of Pain Medicine

American Academy of Physical Medicine and Rehabilitation

American College of Radiology

American Society for Anesthesiologists

North American Spine Society

Process: Evidence Panel

- Develop Clinical Scenarios
- Develop Glossary of Terms
- Develop Systematic Review

Timeline: August – November 2012

Process: Rating Panel

- Careful Review of Systematic Review and Glossary of Terms
- Independent Ratings of Appropriateness of Interventions for Clinical Scenarios

Face-to-Face meeting of society reps, 'impartial' rep, and patient advocate.

Timeline: Dec 2012 – Feb 2013

Final Phases

Development of AUC Document

Participating Society Review/Endorsement

Publication in *Pain Medicine*, online, and Promotion to Stakeholders

Review/Update – every 3-5 years, or as called for by changes in the evidence base