AJRR Year In Review

www.aaos.org/registries
Registry Staff

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2019 Highlights

• Launched Surgeon Dashboards
• Enhanced Platform Functionality
• Increased Data Reuse Opportunities
• Strengthened Partnerships With Healthcare Organizations
• Launched Registry Analytics Institute
• Published 2019 Annual Report
At the Core of Academy Strategy

Registry Effort Goals

✓ Collect unique clinical information demonstrating real-world practice

✓ Enable performance measurement by physicians for physicians

✓ Facilitate national registry-driven quality improvement programs

✓ Support novel scientific research
AAOS Family of Registries

AAOS Board of Directors

Registry Oversight Committee (ROC)

Collaborative Registries

Collaborative Registry with AANS & AAOS American Spine Registry (ASR)
- Cervical Degenerative Spine
- Lumbar Degenerative Spine
  Accepts data from 2016 - present

Shoulder & Elbow Registry (SER)
- Shoulder Arthroplasty
- Rotator Cuff Repair
- Elbow Arthroplasty
  Accepts data from 2016 - present

American Joint Replacement Registry (AJRR)
- Hip Arthroplasty
- Knee Arthroplasty
  Accepts data from 2012 - present

Musculoskeletal Tumor Registry (MsTR)
- Orthopaedic Oncology
  Accepts data from 2016 - present

AAOS Registries
Registry Participation

Over 1,450 participating sites contracted and 11,200 registered surgeons across all 50 states.

Data representing over 1,860,000 procedures capturing over 40% of all US TJA volume annually.
AJRR Data Element Summary

**Procedure**

**Patient**
- Name, Date of Birth, SSN
- Diagnosis (ICD-9/10)
- Gender
- Race/Ethnicity
- Weight, Height/BMI
- Payer Status

**Site of Service**
- Name and Address (TIN, NPI)

**Surgeon**
- Name (NPI)
- Trainee

**Procedure**
- Type (ICD-9/10, CPT)
- Date of Surgery, Length of Stay
- Surgical Approach
- Surgical Technique
- Laterality
- Implants (Manufacturer, Lot #)
- Anesthesia

**Comorbidities and Complications**
- Comorbidities (ICD-9/10)
- CJR Risk Variables
- Height + Weight/Body Mass Index
- Length of Stay
- American Society of Anesthesiologists Score
- Charlson Index
- Operative and Post-operative Complications

**Patient-reported Outcomes**

**Recommended:**
- PROMIS-10 Global
- VR-12
- HOOS Jr.
- KOOS, Jr.

**Also Accepted:**
- SF-36 v1
- HOOS/KOOS
- Oxford Hip and Knee Scores
- Knee Society Knee Scoring System
- Harris Hip Score
- WOMAC (Modified via HOOS and KOOS)
- SF-12, EQ-5D, WOMAC (only accepting final scores)
Decreasing Data Burden

• AAOS has partnered with technology vendors to facilitate the data submission process.

• Re-use data that already exists in medical record, practice management and PRO systems.

• Direct data submission and management can be handled by a technology provider with sites able to fix rejected files.
Surgeon Level Dashboards:

Unlimited Surgeon Accounts with access to surgeon and national level dashboards

Self service functionality for surgeon and site dashboards
Enhanced Dashboards

- Self Service Functionality
- Added Performance Measures Tab
Increased Data Reuse Opportunities

Participation in the American Academy of Orthopaedic Surgeons (AAOS) Registry Program offers a wide variety of data reuse opportunities including requirements for quality initiatives and state collaboratives.

- AAOS RegistryInsights Platform
  Standard Reports and personalized dashboards
- AAOS RegistryInsights National Benchmarks
- Accreditation Association for Ambulatory Health Care (AAAHC) Advanced Orthopaedic Certification
- American Board of Orthopaedic Surgeons (ABOS) Maintenance of Certification (MOC) Program
- BlueCross BlueShield Blue Distinction Specialty Care
- Blue Shield of California waiver of prior authorization
- Bree Collaborative

- Centers for Medicare & Medicaid Services (CMS) Bundled Payments for Care Improvement Advanced (BPCI-A)
- CMS Comprehensive Care for Joint Replacement (CJR) Model
- CMS Merit-based Incentive Payment System (MIPS) Promoting Interoperability (PI) and Quality Payment Program (QPP)
- DNV GL Orthopaedic Center of Excellence
- The Alliance QualityPath
- The Joint Commission Advanced Certification for Total Hip & Knee Replacement
- Aetna Institutes of Quality
- Cigna Surgical Treatment Support Program
New & Enhanced Partnerships

• Joint Commission Advanced Certification
• Aetna Institutes of Quality
• ASCA Pilot
• OrthoForum
Sites can now track the four measures for the Joint Commission Advanced Certification for Total Hip and Total Knee through AJRR:

- Regional Anesthesia
- Postoperative Ambulation on Day of Surgery
- Discharged to Home
- Preoperative Functional/Health Status Assessment

<table>
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Aetna Institutes of Quality

• AAOS partnered with AETNA to help sites achieve the Institutes of Quality designation
  • Consent Form
  • Sites will be able to track and report the performance measures set by AETNA through AJRR, with future plans to add the functionality on RegistryInsight Platform.
The goal of the AAOS Registry Analytics Institute is to provide a resource to the scientific community to further understand and improve orthopaedic and musculoskeletal care by making data available to examine outcomes related to orthopaedics.

- The Institute provides clinicians and clinician-scientists the opportunity to submit proposals for analytic insight that are contained within its various Registries.

- Selected awardees receive statistical support, data analyses, and potential monetary support.
2019 AJRR Annual Report Highlights

• Over 1.5 million hip and knee procedures representing over 1,200 enrolled sites of service
  • 28.5% growth compared to 2018

**Figure 1.1:** Cumulative Procedural Volume by Year, 2012-2018 (N=1,525,435)
AJRR Annual Report Highlights Continued

• Age and sex adjusted clinical survivorship curves
• Patient-reported outcomes

PATIENT-REPORTED OUTCOME MEASURES (PROMs): New in 2019:
   The number of PROMs in the Registry has doubled.

PROMs are increasingly being utilized to evaluate success of a hip or knee arthroplasty procedure. By the end of 2018, 61 sites out of 821 (7.4%) submitted PROMs, compared to 6.3% the year prior. As of June 30, 2019, this number has more than doubled to 155.

<table>
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<tr>
<th>Patient-Reported Outcome Measure</th>
<th>Patients with Preoperative Score</th>
<th>Patients with Linked Postoperative Score</th>
<th>Percentage of Patients Who Completed a Preoperative and 1-year Score (%)</th>
<th>Patients with Meaningful Improvement (%)</th>
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<tbody>
<tr>
<td>HOOS, JR (Hip Disability and Osteoarthritis Outcome Score, Junior)</td>
<td>16,508</td>
<td>3,284</td>
<td>19.9%</td>
<td>92.7%</td>
</tr>
<tr>
<td>KOOS, JR (Knee Injury and Osteoarthritis Outcome Score, Junior)</td>
<td>28,262</td>
<td>6,539</td>
<td>23.1%</td>
<td>88.5%</td>
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• New hip and knee arthroplasty analyses
• Download www.AJRR.net/publications
Integration of Medicare Data

Access to Medicare claims inclusive of inpatient (148 data elements), outpatient (122 data elements) & National Death Index

*****
2012-2018 for all patients represented in Registry with Medicare records

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Participants have access to custom reports that compare their site to the national Annual Report analyses, inclusive of survivorship curves.
Why Do Sites Participate?

- Compare your practice to **national performance** benchmarks
- Access to on-demand practice specific **quality reports and dashboards**
- Facilitate tracking and monitoring of **longitudinal** patient outcomes
- Facilitate site, practice-specific, **payer-incentivized performance improvement** programs such as Blue Distinction and Centers of Excellence
- Qualify for **national distinction programs** such as the Joint Commission Advanced Certification and AAAHC
- Use for reporting **to quality improvement programs** such as MIPS, BPCI-A & ABOS MOC
- Early access to **surveillance alerts** for poorly performing implants
- Improve the **value of care** delivered to patients
Questions?
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