Registries 101:
Benefits for ASCs and Private Practices

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Introductions

Phil Dwyer, Engagement Manager
dwyer@aaos.org

Kristine Sizemore, Engagement Associate
sizemore@aaos.org

Tiffany Reed, Engagement Associate
reed@aaos.org
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
Registry Informed Advocacy

- Real-world data about orthopaedic care
- Participation in both Fee-for Service (FFS) and Fee-for-Value (FFV) based payment models
- Providing for data re-use opportunities
AAOS Family of Registries

AAOS Board of Directors

Registry Oversight Committee (ROC)

Collaborative Registries

AAOS 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
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.
American Joint Replacement Registry
Shoulder & Elbow Registry
Musculoskeletal Tumor Registry

Musculoskeletal Tumor Registry

Improving Orthopaedic Care Through Data
American Spine Registry

A partnership between
American Association of Neurological Surgeons
American Academy of Orthopaedic Surgeons
A Need for Spine Data

- Degenerative spine disease is one of the most prevalent and costly disease states worldwide. In the U.S. alone, the total direct cost of treating low-back pain is estimated at $100 billion.

- Nationally, more than 1.2 million spinal surgeries are performed each year, including spinal fusion and decompression, or discectomy, surgery, according to the National Center for Health Statistics.

- The fastest-growing types the past decade have been lumbar spinal fusion surgeries that range from $60,000 to $110,000 per procedure.

- Medicare Part B Physician Data:
  - **Allowed charges** for spine procedures performed by ortho/neurosurgeons in 1991: $211 million; in 2018: $882 million.
  - **Frequency** in 1991: 199,860; in 2018: 1.2 million (*Note the total costs to Medicare, including non-surgeon services such as PT, chiropractic, injections, etc. are obviously significantly higher*)
How Do Sites Participate?

Collect, Submit, Access
AJRR Data Element Overview

**Procedure**

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

**Two Modules Available**
- Hip Arthroplasty
- Knee Arthroplasty

This page is a summary of the AJRR data elements and is not all inclusive.
**SER Data Element Overview**

**Procedure**
- **Patient**
  - Name, Date of Birth, SSN
  - Diagnosis (ICD-10, CPT)
  - Gender
  - Race/Ethnicity
  - Height + Weight/Body Mass Index
  - Payer Status
- **Site of Service**
  - Name and Address (TIN, NPI)
- **Surgeon**
  - Name (NPI)
  - Trainee
- **Procedure**
  - Type (ICD-10, CPT)
  - Date of Surgery, Length of Stay
  - Surgical Approach
  - Surgical Technique
  - Laterality
  - Implants (Manufacturer, Lot #)
  - Anesthesia

**Module-specific Procedural Elements**
- Shoulder Arthroplasty Module: Includes codes for replacements, revisions, and fractures
- Elbow Arthroplasty Module: Ulnar Nerve Management
- Rotator Cuff Repair Module: Expanded ICD-10 and CPT options for shoulder, including muscle, tendon, and arthroscopy codes

**Comorbidities & Complications**
- Comorbidities (ICD-10, CPT)
- Height + Weight/Body Mass Index
- Length of Stay
- American Society of Anesthesiologists Score
- Charlson Index
- Operative and Post-operative Complications

**Patient-reported Outcome**
- PROMIS-10 Global
- VR-12
- SANE
- ASES

**Three Modules Available**
- Shoulder Arthroplasty
- Elbow Arthroplasty
- Rotator Cuff Repair

*This page is a summary of the SER data elements and is not all inclusive.*
ASR Data Element Overview

**Procedure**

**Patient**
- Name (Last, First), Date of Birth, SSN
- Diagnosis (ICD-10, CPT)*
- Gender
- Race/Ethnicity

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

**Surgeon**
- Name (NPI)

**Procedure**
- Type (ICD-10, CPT)*
- Date of Surgery
- Spinal Approach
- Implants and Grafts
- Comorbidities (ICD-10, CPT)
- Height + Weight/Body Mass Index
- Length of Stay
- American Society of Anesthesiologists Score

* Vanguard sites utilize an operative form for additional procedural & diagnosis detail

**Post-Operative**

- Operative and Post-operative Complications
- Secondary Surgical Procedures
- Anticoagulation

**Patient-reported Outcomes**

* Recommended
- Numeric Rating Scale (NRS)
- PROMIS Physical Function or Oswestry Disability Index (ODI) 2.1/ Neck Disability Index (NDI)
- PROMIS-10 or VR-12

* Additional Options Accepted
- PROMIS-29 or PROMIS-CAT
- PROMIS Emotional Distress – Depression
- PROMIS Emotional Distress – Anxiety
- PROMIS Pain Interference
- EQ-5D

* Vanguard sites pursue longer PROMs post-operative follow-up (min 1 year) compared to standard sites (min 90 days)

Two Modules Available
- Cervical
- Lumbar

This page is a summary of the ASR data elements and is not all inclusive.
Musculoskeletal Tumor Data Element Overview: Baseline

Patient
- Name, Date of Birth, SSN
- Diagnosis (ICD-10, CPT)
- Gender
- Race/Ethnicity
- Height + Weight/Body Mass Index
- Payer Status

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

Surgeon
- Name (NPI)
- Trainee

Surgical Intervention
- Procedure Type (ICD-10, CPT)
- Date of Surgery
- Implants
- Details surrounding surgery type
- Comorbidities (ICD-10)

Non-Surgical Intervention
- Chemotherapy
- Radiation
- Clinical Trial

Tumor Baseline
- Size
- Metastasis at diagnosis
- Margins
- Tissue Type
- Biopsy Type

One Module Available
- Orthopaedic Oncology

This page is a summary of the MsTR data elements and is not all inclusive.
Musculoskeletal Tumor Data Element Overview: Encounters & PROs

Encounters
- Comorbidities (ICD-10, CPT)
- Hospital Admission
- Procedure (ICD-10, CPT)
- Diagnosis (ICD-10, CPT)
- Recurrence
- Chemotherapy
- Radiation

Patient-reported Outcomes
- PROMIS-10 Global
- VR-12
- MSTS
- TESS

Patient
- Name (Last, First)
- Date of Birth
- Social Security Number
- Diagnosis (ICD-10)
- Gender
- Race/Ethnicity
- Payer Status

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

Surgeon
- Name (NPI)
COVID Impact & Response

▪ All registries will **capture COVID-19 confirmed diagnosis, U07.1, as a preoperative comorbidity or prior diagnosis present on admission**

▪ All registries will **capture COVID as a reason for readmission**

▪ Tracking this information will help your site and the registries analyze
  o the impact of COVID-19 on outcomes
  o trends of surgery based on the pause in elective surgery
  o the trends of patient-reported outcomes (PROMs) due to delayed operations
  o if COVID has an impact on CMS Value-Based Payment Models with forgiveness of penalties due to COVID

▪ AAOS Registries are **for surgeons by surgeons**
  o AAOS is here to support our members to ensure registry participation does not cause burden
  o Capturing U07.1 does not change your site’s workflow; it is added as an accepted value

▪ If you have any questions about submitting the new code, please reach out to AAOS Registry Support at [RegistrySupport@aaos.org](mailto:RegistrySupport@aaos.org).
Submission Best Practices

• Most participants submit monthly
• Ideally, uploads are automated
• Monitor uploads through RegistryInsights
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
Integration of Medicare Data

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

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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
Three Ways to Access Data

- Registry Insights® Dashboards
- Custom Reports
- Registry Analytics Institute™

Registry Program
Improving Orthopaedic Care Through Data
RegistryInsights® Dashboards

- On-demand practice specific dashboards
- Compare your practice to national performance benchmarks
- Unlimited surgeon accounts with access to system, site, and surgeon level dashboards

![Dashboard Image]

Registry Program
Improving Orthopaedic Care Through Data
PROM Management
Custom Reports

Custom reports created by our analytics team to help understand and package your site data in an actionable format.

Custom reports can include site specific metrics and shape continuous improvements to the canned dashboards provided.

Aggregated reports and national benchmarks for every metric across all data submitted including procedural, post-operative and PROMs data can be provided at your site level.
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.
Why Sites Participate
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
Commitment To Quality

Partnerships/Collaborations

- The Joint Commission
- DNV-GL
- ASCA
- OrthoForum
Qualified Clinical Data Registry

- AAOS maintains a QCDR designation
- Specialty society driven participation in the Merit-Incentive Based Payment System (MIPS)
- QCDR provides participants access to Promoting Interoperability (PI) and Quality Payment Program (QPP) credit
- Additional opportunities for alternative reporting for the bundled payment through BPCI-A episodes
## Steps to a Successful Start

### Contract & Welcome
- Execute contract
- Schedule a Welcome call to identify your site's key contacts and roles with the Registry

### Data Collection & File Build
- Walkthrough file development and file build
- File submission (SFTP/HTTPS) account creation

### Test File Submission
- Two rounds of test file submissions

### Live File Submission
- Final production set up and first live data submission

### RegistryInsights® Walkthrough
- Once data has been submitted, sites will have a walkthrough with staff to review dashboards, reports, PROMs and other platform functionality
Participation Fee Structure

- $3,500 annual fee
- One-time $750 configuration fee
- Assessed at the site level, not per surgeon or per procedure
- Includes access to all Registry features:
  - RegistryInsights platform
  - RegistryInsights PRO Platform
  - Access to onboarding and ongoing support
Questions?

RegistryEngagement@aaos.org

www.aaos.org/registries