

AAOS Registry Program: Opportunities for Data Re-use

www.aaos.org/registries

Introductions

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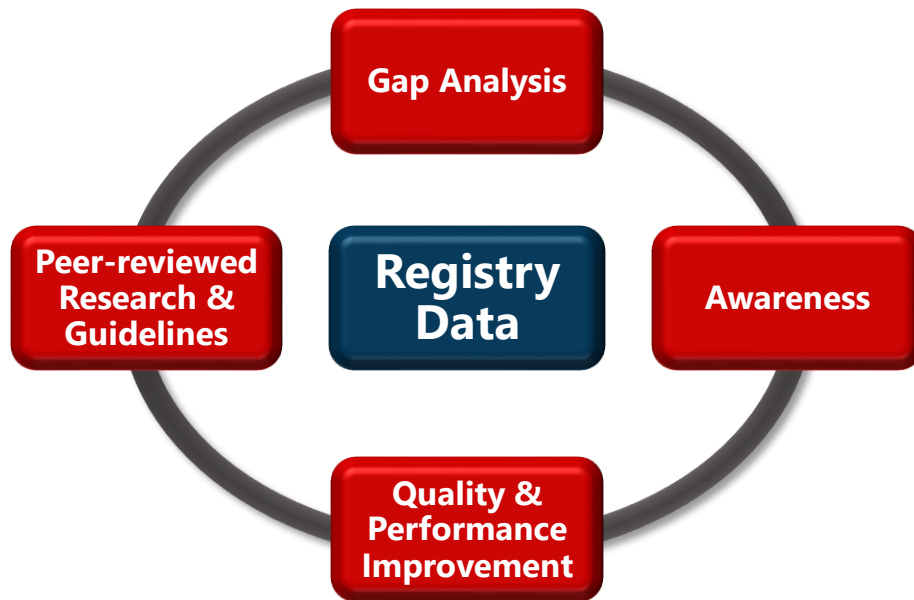
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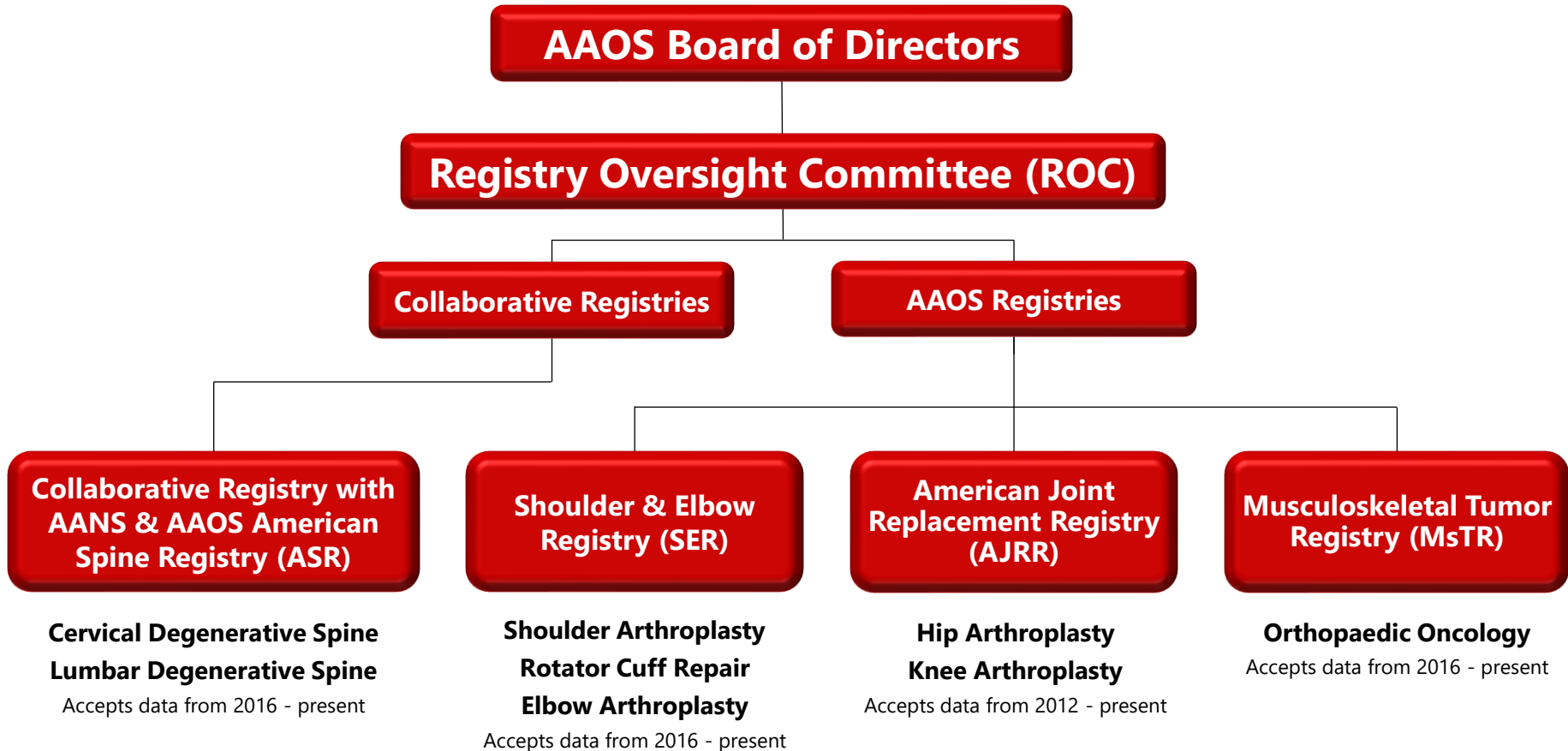
At the Core of Academy Strategy



Registry Effort Goals

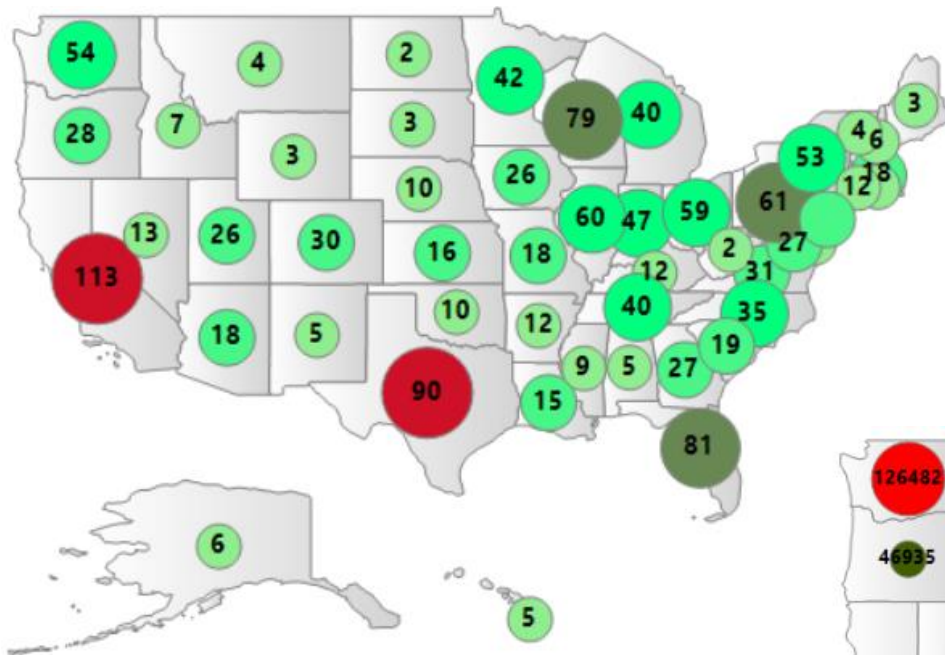
- ✓ Collect unique clinical information demonstrating ***real-world practice***
- ✓ Enable ***performance measurement*** by physicians for physicians
- ✓ Facilitate national registry-driven ***quality improvement*** programs
- ✓ Support novel scientific ***research***

AAOS Family of Registries



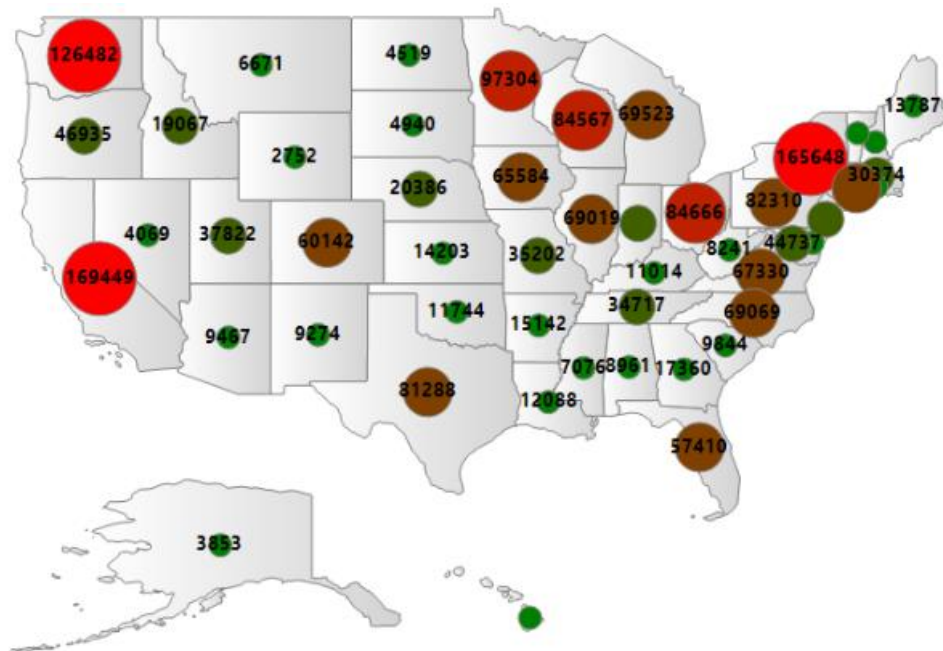
Registry Participation

Sites by State



Over 1,600 participating sites contracted and 12,200 registered surgeons across all 50 states.

Procedures by State



Data representing over 2,090,000 procedures capturing over 40% of all US TJA volume annually.

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



American Joint Replacement Registry



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

American Spine Registry



A partnership between

American Association of Neurological Surgeons

American Academy of Orthopaedic Surgeons

American Spine Registry



American
Association of
Neurological
Surgeons

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) / 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

ASR





Shoulder & Elbow Registry
Improving Orthopaedic Care Through Data

Shoulder & Elbow Registry



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

Musculoskeletal Tumor Registry



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

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



Each Tab
Includes Basic
Demographic
Information



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)

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

Participants have access to custom reports that compare their site to the national Annual Report analyses, inclusive of survivorship curves

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 sites 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

Submission Best Practices



Most participants submit monthly

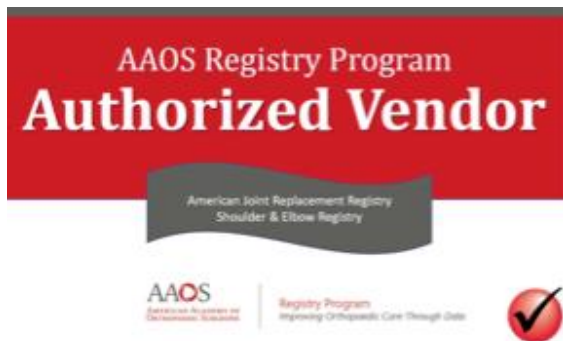


Ideally, uploads are automated



Monitor uploads through RegistryInsights®

Decrease Data Collection 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

Three Ways to Access Data



Custom
Reports



RegistryInsights®
Dashboards



Registry Analytics
Institute®

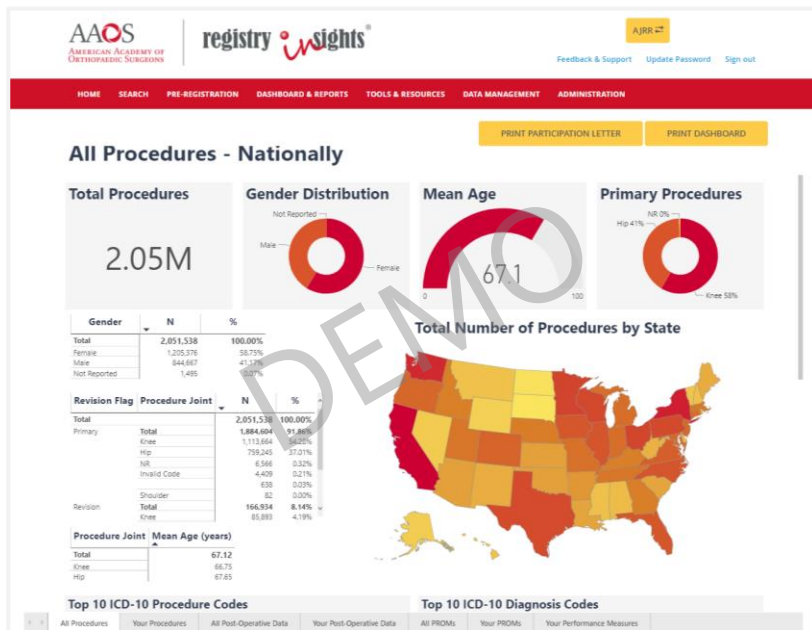
Custom Reports

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

RegistryInsights® Dashboards



On-demand practice specific dashboards



Compare your practice to national performance benchmarks



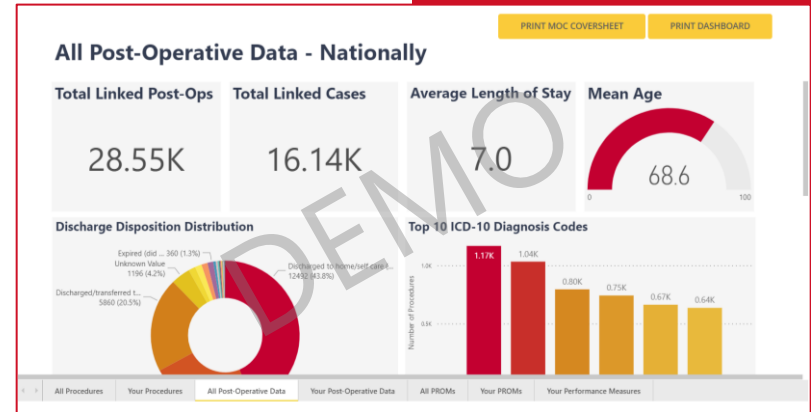
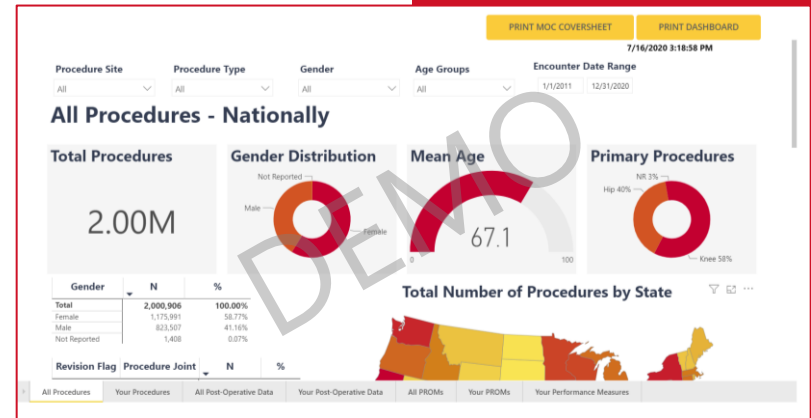
Unlimited surgeon accounts with access to system, site, and surgeon level dashboards



Surgeon Dashboards

Authorized Surgeon Users

- View their procedural, post-operative and PROM data
- National benchmarks for comparison measures
- Request custom reports
- Submit data for quality initiatives (e.g. ABOS MOC, ABNS CC, QPP, BPCI-A)



PROM Management

AAOS AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS | registry insights®

UNET Community Feedback & Support Sign out

HOME SEARCH PRE-REGISTRATION DASHBOARD & REPORTS TOOLS & RESOURCES DATA MANAGEMENT ADMINISTRATION

HOME / REPORTS

Procedure Reports

Count of Components by Type

Count of Procedures by ICD-10 Procedure Codes

Count of Procedures With C

Shoulder Procedures

Count of Procedures

Patient Reported Outcomes Reports

Assessment Summary

Patient Status Report

AAOS AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS | registry insights®

UNET Community Feedback

HOME SEARCH PRE-REGISTRATION DASHBOARD & REPORTS TOOLS & RESOURCES DATA MANAGEMENT ADMINISTRATION

HOME / REPORTS / PROM PATIENT STATUS REPORT

Entries 10

ACCOUNT ID	HOSPITAL/ASC NAME	PATIENT ID	PATIENT LAST NAME	PATIENT FIRST NAME	PATIENT DATE OF BIRTH	PATIENT EMAIL ADDRESS	PATIENT PHONE TYPE	PATIENT PHONE NUMBER	PROCEDURE	LATERALITY	PLANNED SURGERY DATE	
1041062	SER Test Hospital 1	PRP30258	ataAOS	johnny	1/1/1980				Shoulder Arthroplasty	Left	1/24/20	
1041062	SER Test Hospital 1	PRP30258	ataAOS	johnny	1/1/1980				Shoulder Arthroplasty	Left	1/24/20	
1041061	SER Test Hospital 5	PRP30261	Bobby	Ricky	7/16/2019				Rotator Cuff Repair	Left	2/28/20	
1041061	SER Test Hospital 5	PRP30261	Bobby	Ricky	7/16/2019				Rotator Cuff Repair	Right	2/28/2019	1619012200 Bi Ct
1041062	SER Test Hospital 1	PRP30246	Brown	Charlie	1/1/1980				Shoulder Arthroplasty	Left	1/20/2019	
1041062	SER Test Hospital 1	PRP30246	Brown	Charlie	1/1/1980				Shoulder Arthroplasty	Left	1/20/2019	
1041062	SER Test Hospital 1	PRP30235	butkus	dick	1/1/1980				Shoulder Arthroplasty	Left	1/20/2019	

PRE-REGISTRATION FORM PRE-REGISTRATION UPLOAD

This form allows AJRR Users to pre-register patients prior to surgery for pre-operative, patient-reported outcome measures (PROMs) data collection. Once the form has been submitted, a patient pre-operative case will be added to the Registry. The pre-registration process permits users to collect PROMs from patients via the AJRR platform through the patient kiosk or through manual entry of a patients' PROMs responses into the platform if collected by paper or clinician/surrogate administration.

PART 2: Pre-Operative Case Information

Please complete all applicable required and optional fields of the pre-operative case section. Case information is required for all cases to be added to the Registry. Please note that all case data requested pertains to future procedures.

Planned Proc Date

Procedure Site

Select One

Shoulder

Elbow

Institution

Select One

Surgeon

Select One

Payer Info

Select One

SUBMIT

PART 1: Patient demographic details

Please complete all applicable required and optional fields of the patient demographic section. Note: Email is conditionally required, however if you are administering assessments via email you must provide a patient email or the system will not be able to send the email to the patient.

If the Patient Social Security Number (SSN) is not available, please select the 'Not Available' option next to the Social Security field. Please note that the Registry also accepts the last 4 digits of the SSN. Patient SSN assists the Registry with achieving its mission through the ability to track longitudinal device information.

Social Security*

Not Available

Email

Registry Analytics Institute®

- 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 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 & Centers of Excellence



Qualify for **national distinction programs** such as the Joint Commission Advanced Certification & AAHC



Use for reporting to **quality improvement programs** such as MIPS, BPCI-A, ABOS MOC & ABNS CC



Early access to **surveillance alerts** for poorly performing implants



Improve the **value of care** delivered to Patients

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

Commitment To Quality

Partnerships/Collaborations

- The Joint Commission
- DNV-GL
- ASCA
- OrthoForum

Upcoming Registry Program Events

- An Introduction to the AAOS Registry Analytics Institute (**James I. Huddleston III, MD, FAAOS**, the Vice Chair of the AJRR Steering Committee)
 - Date: 10/12/20
 - Webinar Times: 8:15 pm to 9:15 pm ET; 7:15 to 8:15 pm CT
- AAOS RegistryInsights 101: An Overview of the Academy's Registry Platform
 - Date: 10/20/20
 - Time: 1:00 pm to 2:00 pm ET; 12:00 to 1:00 pm CT

Sign up here: [AAOS Course Calendar](#)

Questions?

RegistryEngagement@aaos.org

www.aaos.org/registries