AAOS
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ORTHOPAEDIC SURGEONS

Shoulder & Elbow Registry
Improving Orthopaedic Care Through Data

Getting Started with the Shoulder & Elbow Registry

www.aaos.org/registries/ser

Speaker Introductions
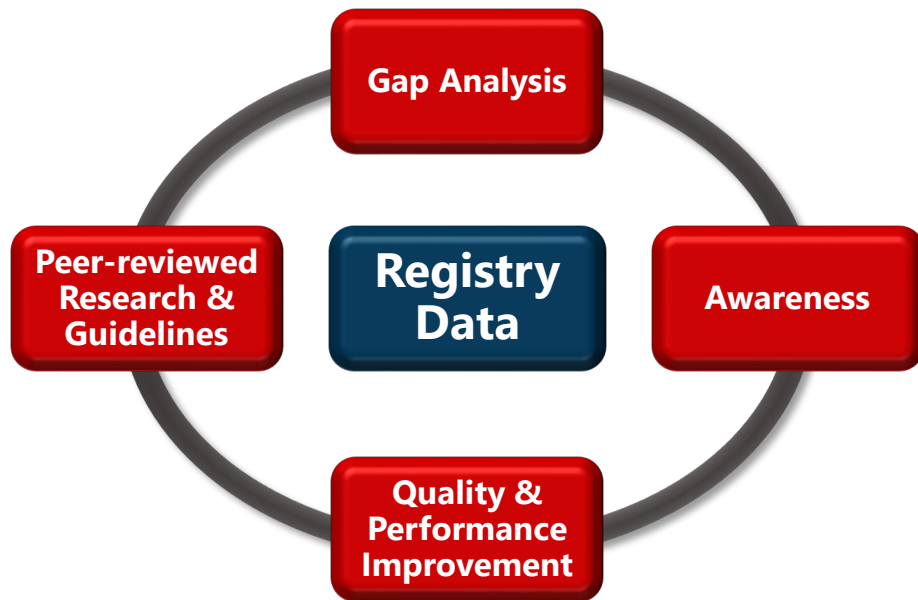
Amanda Bagus, MS, ATC
- Registry Program Manager

Kristine Sizemore, MPH, RRT
- Registry Engagement Associate

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Webinar Agenda

- AAOS Registry Program Introduction
- Overview of the SER
- RegistryInsights® Dashboards
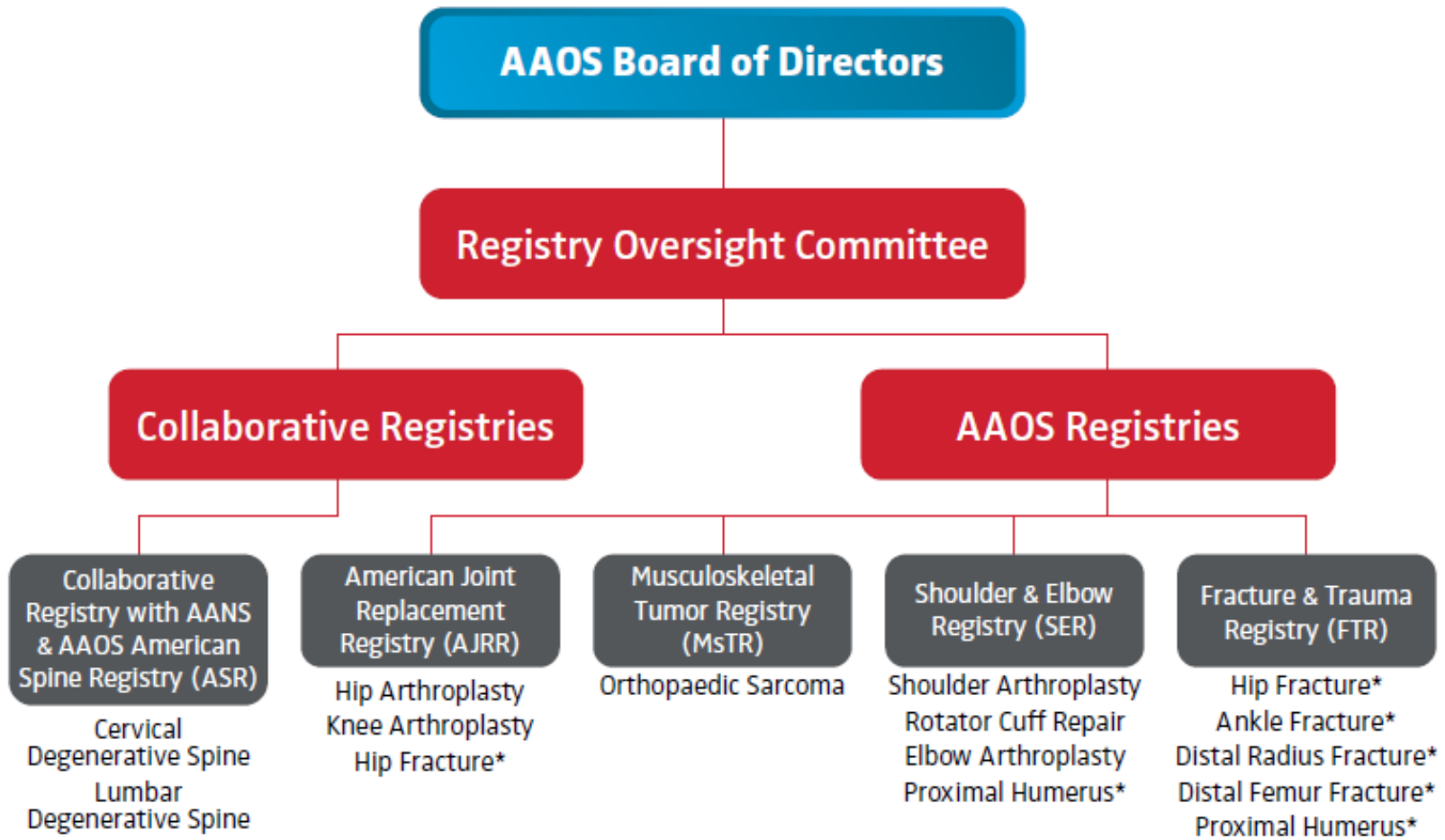- Accessing the SHARP Model
- Getting started with SER
- Q&A

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At the Core of Academy Strategy

Gap Analysis

Peer-reviewed Research & Guidelines

Registry Data

Awareness

Quality & Performance Improvement

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*

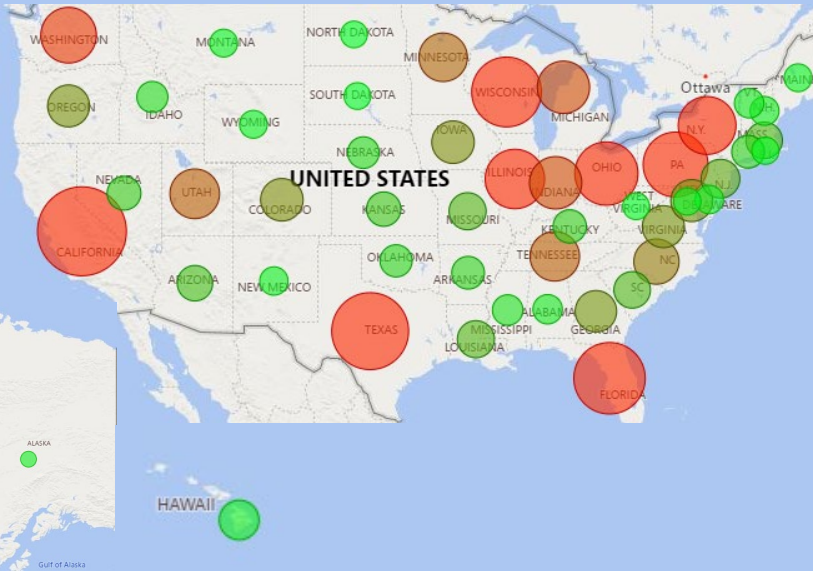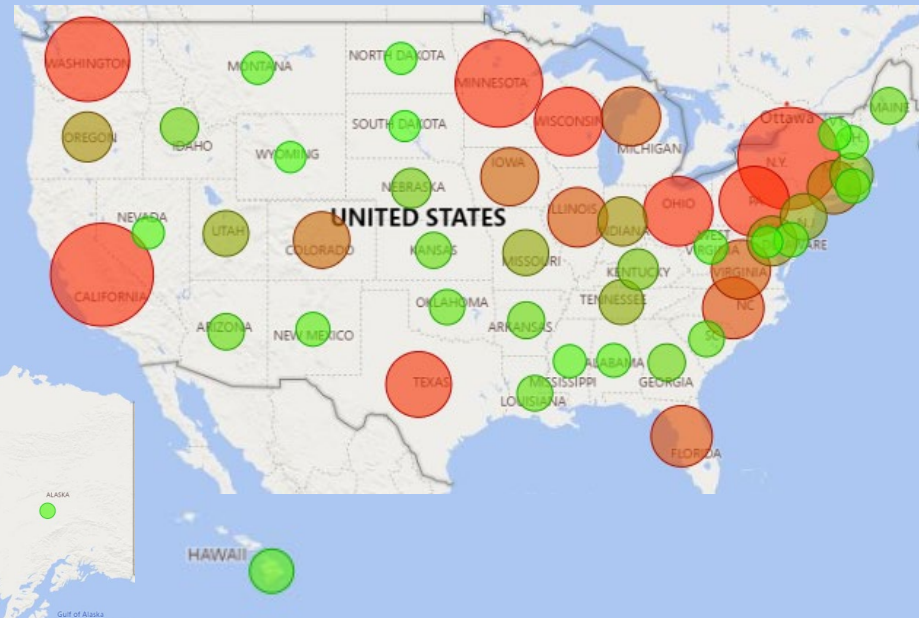# AAOS Family of Registries

AAOS Board of Directors

Registry Oversight Committee

Collaborative Registries

AAOS Registries

| Collaborative Registry with AANS & AAOS American Spine Registry (ASR) | American Joint Replacement Registry (AJRR) | Musculoskeletal Tumor Registry (MsTR) | Shoulder & Elbow Registry (SER) | Fracture & Trauma Registry (FTR) |

Cervical Degenerative Spine
Lumbar Degenerative Spine

Hip Arthroplasty
Knee Arthroplasty
Hip Fracture*

Orthopaedic Sarcoma

Shoulder Arthroplasty
Rotator Cuff Repair
Elbow Arthroplasty
Proximal Humerus*

Hip Fracture*
Ankle Fracture*
Distal Radius Fracture*
Distal Femur Fracture*
Proximal Humerus*

*Modules in development

Participation Across the Registries

Sites by State

Over 1,600 participating sites contracted and 12,500 registered surgeons across all 50 states.

Procedures by State

Data representing over 2,300,000 procedures capturing approximately 40% of all US TJA volume annually.

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Registry Program
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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

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Integration of Medicare Data

- Access to **Medicare claims** inclusive of inpatient (148 data elements), outpatient (122 data elements) & National Death Index
- Linked by full identifiers for longitudinal tracking
- 2012-2019 Medicare data for all patients represented in Registry with quarterly updates
  - Medicare files ~ 1 year delayed
  - National Death Index ~ 2 years delayed
  - National Inpatient Sample (NIS) integrated as reference data for representative analyses
  - NPPES dataset incorporated for NPI validation
- Access to custom reports that compare their site to the national Annual Report analyses, show migration trends, etc.

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
- The Joint Commission Advanced Certification in Spine Surgery (ACSS)

About SER

- Working in collaboration with the specialty societies, the Academy created this Registry to collect shoulder and elbow procedural data across the United States.

- National data allows for establishing survivorship curves, tracking revisions, and improving the quality of patient care.

- Individual data can be accessed and used for performance improvement and quality initiatives on RegistryInsights® for site and surgeon users.

SER Steering Committee

- **Gerald R. Williams Jr., MD, Chair**
  The Rothman Institute
- **Oke A. Anakwenze, MD, MBA**
  Duke University
- **Mark E. Baratz, MD**
  American Society for Surgery of the Hand
  (**ASSH**) Representative
  Orthopaedic Specialists-UPMC
- **Stephen F. Brockmeier, MD**
  American Orthopaedic Society for Sports
  Medicine (**AOSSM**) Representative
  University of Virginia
- **Grant E. Garrigues, MD**
  American Shoulder and Elbow Surgeons
  (**ASES**) Representative
  Midwest Orthopaedics at Rush
- **John E. Kuhn, MD**
  Vanderbilt University Medical Center

- **Ronald A. Navarro, MD**
  Kaiser Permanente South Bay
- **Carolyn M. Hettrich, MD, MPH**
  Brigham and Women's Hospital
- **Joaquin Sanchez-Sotelo, MD**
  Mayo Clinic
- **Richard Seiden, Esq.**
  Public Advisory Board (PAB)
  Representative
- **Patrick St. Pierre, MD**
  Arthroscopy Association of North America
  (**AANA**) Representative
  Desert Orthopedic Center
  Eisenhower Health
- **Samuel A. Taylor, MD**
  Hospital for Special Surgery
- **Stephen C. Weber, MD**
  The Johns Hopkins School of Medicine

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SER Progress

- 130 contracted sites
- Over 14,500 procedures submitted across the US
- Representing over 13,000 unique patient cases

Sites by State
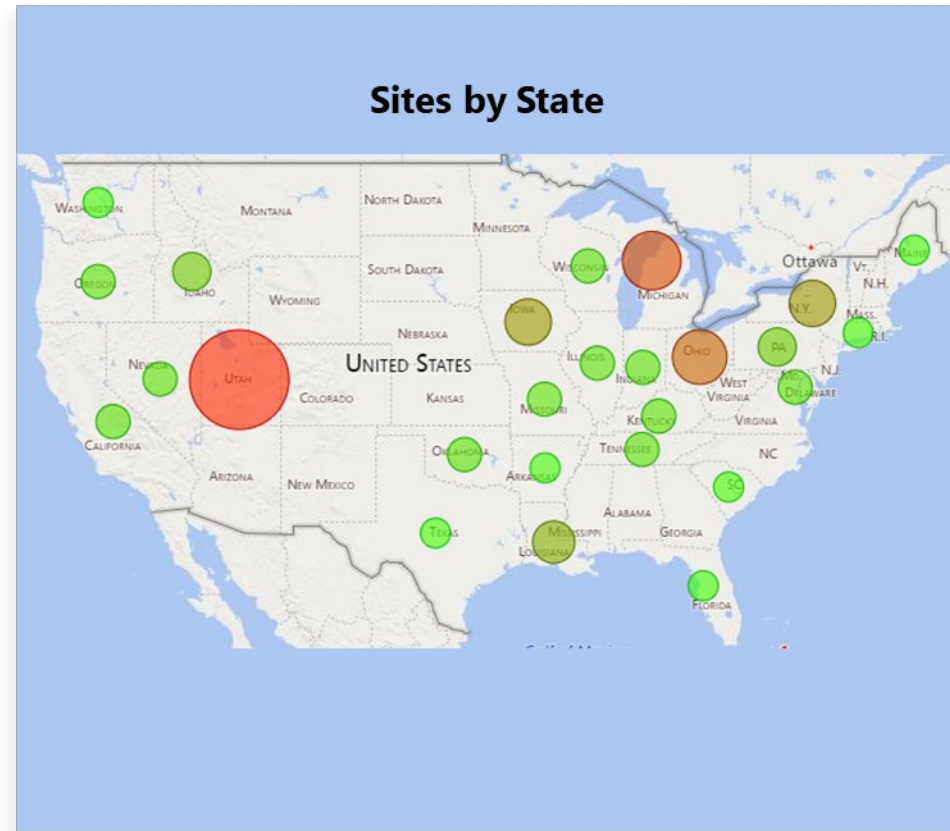
SER Data Element Overview

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.

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
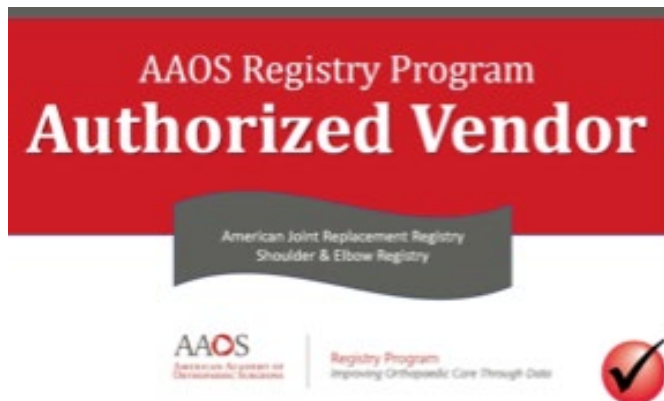
Three Ways to Access Data

RegistryInsights®
Dashboards

Custom
Reports

Registry Analytics
Institute®

RegistryInsights® Dashboards
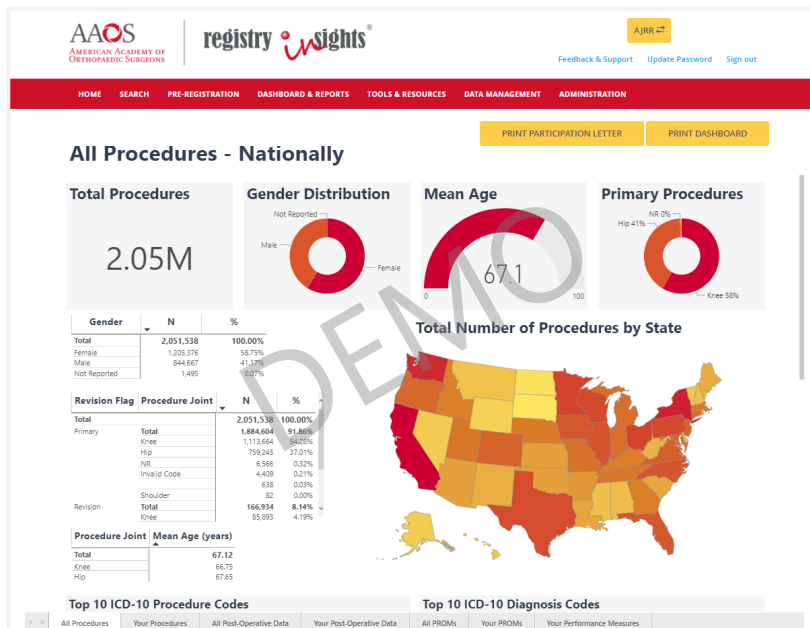
On-demand practice specific dashboards

Compare your practice to national performance benchmarks

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

PROM Management

PROM submission can occur via existing site systems/technology, via manual upload, or through the SER PROM solution

Surgeon Dashboards

Authorized Surgeon Users

- View their procedural, post-operative and PROM data

- National benchmarks for comparison measures

- Print participation letter for ABOS MOC credits

- Access the Shoulder Arthroplasty Predictive (SHARP) Model
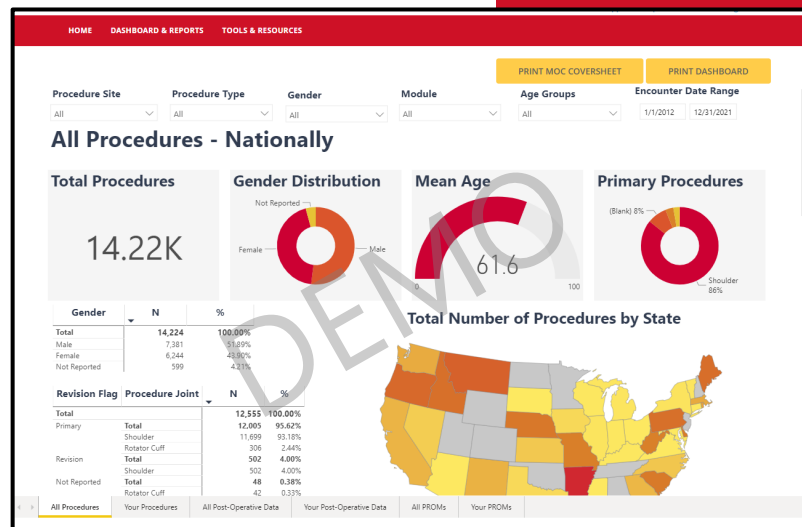
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Shoulder Arthroplasty Predictive Model (SHARP)

Input Variables

- Surgery age in years

- Pre-op ASES score

- Disability **status**

- COPD status

- Alcohol use

- Anatomic or reverse arthroplasty

- Primary or revision arthroplasty

Output

- 2-year predicted ASES Score

- Created to help surgeons predict post-operative shoulder arthroplasty outcomes based on individual patient health

- Guide preoperative patient conversations and set expectations around surgical outcomes

- Available exclusively to SER registry participants

Accessing the SHARP Calculator

Accessing the SHARP Calculator

This video was created in a demo environment and does not contain real patient information

Accessing the SHARP Calculator

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*This video was created in a demo environment and does not contain real patient information

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 & AAAHC

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

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

Questions?

RegistryInfo@aaos.org

www.aaos.org/registries/ser

Contact the AAOS Registry Program

General: RegistryInfo@aaos.org

Technical Support: RegistrySupport@aaos.org

Contracts, Invoicing, & Onboarding: RegistryEngagement@aaos.org

Custom Analytics: RegistryAnalytics@aaos.org

Registry Analytics Institute: RegistryAnalyticsInstitute@aaos.org

Phone: (847) 292-0530

Business Hours: Monday through Friday, 8 a.m. to 4 p.m. Central Time

Upcoming Webinars

- Opportunities with American Joint Replacement Registry

  - Speakers: Dr. Springer and Dr. Duwelius

  - Date/Time: Wednesday, 7/14, at 7:15 p.m. – 8:15 p.m. Central

- Shoulder & Elbow Registry: Introduction and 2019 Annual Report Highlights

  - Speakers: Dr. Kuhn and Dr. Navarro

  - Date/Time: Wednesday, 7/21, at 7:15 p.m. – 8:15 p.m. Central

Webinar Recordings

- Recordings and slide decks from past webinars can be found on [this page](#) of the AAOS website.

- If you would like to view a recording of a webinar held before October 2020, please visit [learn.aaos.org](#).

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Thank You!

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