SER Annual Report Webinar

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Dr. Anakwenze

October 16th, 2023
Main Controls

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Use the Chat button to request assistance from AAOS Staff

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Disclosures

I (and/or my co-authors) have something to disclose.

All relevant financial relationships have been mitigated.

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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 Data Elements

**Procedure**
- 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**
- PROMIS-10 Global
- VR-12
- ASES
- SANE

*Modules Available*
- Shoulder Arthroplasty
- Elbow Arthroplasty
- Rotator Cuff Repair
Data Reuse Opportunities

- 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 *** 10 credits available annually
- 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
SER Progress

- Over 160 contracted sites
- Over 25,000 procedures submitted across the US
- Across 40 states
SER Annual Report & Publication

- Capturing data from 2015 - December 2022
- 424 submitting surgeons
- 82 participating facilities
- Download a copy of the SER Annual Report
Shoulder Arthroplasty

- 13,969 shoulder arthroplasty procedures
  - 44.7% were reverse TSA
  - 40.1% were anatomical TSA
- The most frequent primary diagnosis for total shoulder arthroplasty procedures was “other and unspecified osteoarthritis,”
  - this includes primary, secondary, and post-traumatic osteoarthritis

![Distribution of Shoulder Arthroplasty Procedures, 2015-2022 (N=13,969)](image)
Shoulder Arthroplasty Procedures by Age Group

![Graph showing the percentage of Shoulder Arthroplasty procedures by age group. The graph has data points for Anatomic Total Shoulder Arthroplasty, Reverse Total Shoulder Arthroplasty, and Revision Shoulder Arthroplasty. The percentages are shown for different age groups: <50, 50-59, 60-69, 70-79, 80-89, and >90. The highest percentage is for >90 years old, with values of 68.6%, 59.8%, 49.5%, 43.3%, 39.3%, and 64.4% respectively.]

@2023 AAOS Shoulder & Elbow Registry
# Rotator Cuff Repair

<table>
<thead>
<tr>
<th>Rotator Cuff Procedural Grouping</th>
<th>CPT Code</th>
<th>Frequency</th>
<th>% of Total</th>
<th>Mean Age</th>
<th>SD Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthroscopic Rotator Cuff Repair (N=5,488)</td>
<td>29827</td>
<td>5,488</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>w/ Subacromial Decompression</td>
<td>29826</td>
<td>3,821</td>
<td>69.62%</td>
<td>59.56</td>
<td>9.94</td>
</tr>
<tr>
<td>w/ Biceps Tenodesis</td>
<td>29828 or 23430</td>
<td>1,976</td>
<td>36.01%</td>
<td>58.59</td>
<td>9.75</td>
</tr>
<tr>
<td>w/ Distal Clavicle Excision</td>
<td>29824 or 23120</td>
<td>1,286</td>
<td>23.43%</td>
<td>59.81</td>
<td>9.74</td>
</tr>
<tr>
<td>w/ Debridement</td>
<td>29822 or 29823</td>
<td>1,453</td>
<td>26.48%</td>
<td>60.07</td>
<td>9.52</td>
</tr>
<tr>
<td>w/ SLAP Repair (Superior Labrum Anterior and Posterior)</td>
<td>29807</td>
<td>205</td>
<td>3.74%</td>
<td>54.19</td>
<td>11.79</td>
</tr>
<tr>
<td>w/ Lysis of Adhesions</td>
<td>29825</td>
<td>62</td>
<td>1.13%</td>
<td>60.99</td>
<td>8.55</td>
</tr>
<tr>
<td>w/ Capsulorraphy</td>
<td>29806</td>
<td>55</td>
<td>1.00%</td>
<td>52.00</td>
<td>16.97</td>
</tr>
<tr>
<td>w/ Bankart Procedure</td>
<td>23455</td>
<td>3</td>
<td>0.05%</td>
<td>52.62</td>
<td>6.89</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Rotator Cuff Procedural Grouping</th>
<th>CPT Code</th>
<th>Frequency</th>
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<th>Mean Age</th>
<th>SD Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Rotator Cuff Repair (CPT 23410 or 23412) (N=289)</td>
<td>23410 or 23412</td>
<td>289</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>w/ Arthroscopic Debridement</td>
<td>29823 or 29822</td>
<td>123</td>
<td>42.56%</td>
<td>60.19</td>
<td>11.01</td>
</tr>
<tr>
<td>w/ Distal Clavicle Excision</td>
<td>23120</td>
<td>63</td>
<td>21.80%</td>
<td>59.76</td>
<td>10.23</td>
</tr>
<tr>
<td>w/ Biceps Tenodesis</td>
<td>23430</td>
<td>91</td>
<td>31.49%</td>
<td>57.63</td>
<td>10.36</td>
</tr>
<tr>
<td>w/ SLAP Repair</td>
<td>29807</td>
<td>12</td>
<td>4.15%</td>
<td>55.35</td>
<td>9.92</td>
</tr>
<tr>
<td>w/ Bankart Procedure</td>
<td>23455</td>
<td>6</td>
<td>2.08%</td>
<td>49.92</td>
<td>15.40</td>
</tr>
<tr>
<td>w/ Capsulorraphy</td>
<td>29806</td>
<td>4</td>
<td>1.38%</td>
<td>46.71</td>
<td>15.75</td>
</tr>
<tr>
<td>w/ Acromioplasty</td>
<td>23130</td>
<td>5</td>
<td>1.73%</td>
<td>63.09</td>
<td>5.53</td>
</tr>
</tbody>
</table>

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<tr>
<th>Rotator Cuff Procedural Grouping</th>
<th>CPT Code</th>
<th>Frequency</th>
<th>% of Total</th>
<th>Mean Age</th>
<th>SD Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Rotator Cuff Repair w/ Acromioplasty (Reconstruction of Complete Rotator Cuff Avulsion) (N=191)</td>
<td>23420</td>
<td>191</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>w/ Distal Clavicle Excision</td>
<td>23120</td>
<td>132</td>
<td>69.11%</td>
<td>60.91</td>
<td>9.85</td>
</tr>
<tr>
<td>w/ Arthroscopic Debridement</td>
<td>29824 or 29822</td>
<td>133</td>
<td>69.63%</td>
<td>60.81</td>
<td>9.41</td>
</tr>
<tr>
<td>w/ Biceps Tenodesis</td>
<td>23430</td>
<td>26</td>
<td>13.61%</td>
<td>58.14</td>
<td>8.65</td>
</tr>
<tr>
<td>w/ SLAP Repair</td>
<td>29807</td>
<td>18</td>
<td>9.42%</td>
<td>58.64</td>
<td>9.72</td>
</tr>
<tr>
<td>w/ Capsulorraphy</td>
<td>29806</td>
<td>7</td>
<td>3.66%</td>
<td>60.67</td>
<td>9.36</td>
</tr>
</tbody>
</table>
Rotator Cuff Repair

![Image of a table showing rotator cuff procedural grouping with CPT codes, frequency, percentage of total, mean age, and standard deviation age. The table includes procedures such as Shoulder Arthroscopy, Extensive Debridement, Shoulder Arthroscopy, Subacromial Decompression, Capsulorrhaphy, Biceps Tenodesis, SLAP Repair, Shoulder Arthroscopy, Distal Clavicle Excision, Clavicular ORIF, Open Distal Clavicle Excision, Shoulder Arthroscopy with Lysis of Adhesions, and Other Upper Arm Tendon or Muscle Repair.](image-url)
## Patient Reported Outcome Measures (PROMs)

<table>
<thead>
<tr>
<th>Patient-Reported Outcome Measure</th>
<th>Interval</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASES (American Shoulder and Elbow Surgeons Score)</strong></td>
<td>Preop</td>
<td>253</td>
<td>42.7</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>12mo Postop</td>
<td>29</td>
<td>79.0</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>VR-12 (Veterans Rand 12-item Health Survey)</strong></td>
<td>Preop</td>
<td>268</td>
<td>38.2</td>
<td>13.8</td>
</tr>
<tr>
<td></td>
<td>12mo Postop</td>
<td>50</td>
<td>60.2</td>
<td>6.7</td>
</tr>
</tbody>
</table>
What’s Next for SER?

• Data element quality and coverage
• Updated dashboards
Contact the AAOS Registry Program

Technical Support: Please submit a help ticket to our Feedback & Support link on the RegistryInsights platform

Contracts, Invoicing, & Onboarding:

RegistryEngagement@aaos.org

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

RegistryInfo@aaos.org
www.aaos.org/registries/ser