Patient Reported Outcomes Platform
Informational Webinar

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Introduction

- AJRR is a not-for-profit 501(c)(3) tax-exempt organization for data collection and quality-improvement initiatives for total hip and knee replacements
- AJRR’s goal is to provide a centralized system for its members to collect, store, and access their orthopaedic data (i.e., clinical information, device data, and PRO data) so that participants have the ability to compare their data to aggregate, national benchmarks

**Why it’s important to collect PROs**

1. To Define Outcomes Based on Patient’s Viewpoint
2. To Review Comparative Benchmarks
3. To Comply with Federal Initiatives
4. Conduct Internal Research (quality improvement, clinical trials, etc)
Participating Institution Types

- Hospitals
- Academic Medical Centers
- Multiple Health Systems/Networks
- Ambulatory Surgery Centers
- Private Practice Groups
- Solo Practitioners

- Hospital bed count
  - Small = 1-99 beds
  - Medium = 100-399 beds
  - Large = 400+ beds
# Types of PROs we offer

<table>
<thead>
<tr>
<th>Health-related Quality of Life Measure Acronym</th>
<th>Measure</th>
<th>Number of Items</th>
<th>Available as an AJRR Patient Portal Form</th>
<th>National Benchmarks Available via AJRR Dashboard</th>
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</thead>
<tbody>
<tr>
<td>VR-12</td>
<td>Veterans RAND 12 Item Health Survey</td>
<td>12</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>PROMIS-10 Global</strong></td>
<td>Patient Reported Outcome Measure Information System - Global Health Scale</td>
<td>10</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>SF-12</td>
<td>Medical Outcomes Study 12-Item Short Form Health Survey</td>
<td>12</td>
<td>No, AJRR only accepts final scores</td>
<td>No</td>
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<tr>
<td>SF-36</td>
<td>Medical Outcomes Study 36-Item Short Form Health Survey</td>
<td>36</td>
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<td>No</td>
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<tr>
<td>EQ-5D</td>
<td>EuroQol Index and Visual Analog Scale</td>
<td>6</td>
<td>No, AJRR only accepts final scores</td>
<td>No</td>
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<tr>
<td><strong>Joint-Specific Measure Acronym</strong></td>
<td>Measure</td>
<td>Number of Items</td>
<td>Available as an AJRR Patient Portal Form</td>
<td>National Benchmarks Available</td>
</tr>
<tr>
<td>HOOS, JR.</td>
<td>Hip Disability and Osteoarthritis Outcome Score (HOOS), JR.</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>KOOS, JR.</strong></td>
<td>Knee Injury and Osteoarthritis Outcome Score (KOOS), JR.</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>HOOS</td>
<td>Hip Disability and Osteoarthritis Outcome Score</td>
<td>42</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>KOOS</td>
<td>Knee Injury and Osteoarthritis Outcome Score</td>
<td>42</td>
<td>Yes</td>
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<tr>
<td>Oxford Hip</td>
<td>Oxford Hip Score</td>
<td>12</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Oxford Knee</td>
<td>Oxford Knee Score</td>
<td>12</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>KSS (Pre- and Post-Op)</td>
<td>Knee Society Knee Scoring System</td>
<td>44</td>
<td>Yes</td>
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<tr>
<td>Harris Hip Score</td>
<td>Harris Hip Score</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>WOMAC</td>
<td>Western Ontario and McMasters University Osteoarthritis Index</td>
<td>24</td>
<td>No, AJRR only accepts final scores</td>
<td>No</td>
</tr>
</tbody>
</table>
How AJRR can accept data

- Electronic submission of PRO scores (already captured at your hospital/clinic)
  - AJRR will provide a data specification file – you submit data to us (similar to Level I submission)
  - Selected EHR vendors can submit to AJRR on your behalf

- Collection direct from patients (or facilitated by clinician) via AJRR’s Level III platform
How to start a PRO Program

1. Define your PRO team
2. Define your PRO goals
3. Determine the PRO measure/s you would like to use
4. Define the frequency for data collection
5. Develop workflow for data capture
Define your PRO team

- Most likely, a core group of colleagues have decided that including PROs in your practice of care for total joint arthroplasty may provide important information to improve patient outcomes. Beyond this core group, it will be critical to involve stakeholders at each level of patient care.

- Some groups to be considered:
  - Orthopaedic Department
  - Orthopaedic practice groups and clinics
  - Quality Department
  - Information Technology
  - Orthopaedic Service Line
  - Research
  - Rehabilitation
  - Hospital Administration
  - Patient Advocate/Patient Representative
  - Institutional Review Board (guidance/review)
Define your PRO goals

- For those interested in a PRO program, you and your colleagues will need to determine the reasons you would like to launch a PRO program.
- You may consider asking yourselves questions such as:
  - Are we launching a research initiative with specific aims?
  - Are we seeking comparative benchmarks to our peers?
  - Are we wanting to quantify our outcomes from our patients’ perspective?
  - Do we want to measure if patients have improved function or reduced pain?
  - Do we want to measure whether our patients’ overall health has improved?
  - What are the requirements of the payer-specific program for which we are hoping to qualify?
Determine the PRO measure/s

• Your reasons for implementing PRO program will direct your team to a certain instrument(s) that will allow you to meet your objectives.
  • For example, if your institution has decided to collect PROMs for research initiatives, you may choose an instrument that measures multiple domains.
  • However, if you are focused on measuring patients’ outcomes as part of your clinical care, a shorter instrument will suffice as long as it is able to detect change.

Consider:
1. What does the measure assess – quality of life or function?
2. What is the cost (licensing fee) to use the form?
3. What is the associated patient burden?
   a. What is the length of form?
   b. How easy/hard is the form to complete?
4. What is the associated staff burden (FTE time)?
Define frequency for PRO data collection

- PROMs guidelines from the International Consortium for Health Outcome Measurement (ICHOM) have recommended pre-op (baseline) and one-year follow-up as appropriate time points for data collection to provide meaningful data for comparing outcomes across providers.
  - The CJR Final Rule also advises that post-operative surveys be collected between 270 and 365 days post-surgery.
- AJRR’s platform will allow for other time points (e.g., three-month, six-months, etc.) to be submitted and stored in AJRR’s database. However, national benchmarks will only be reported for pre-op and one-year outcomes.
- Each time point will have a two-month window for data collection.
Develop workflow for data capture

Consider the following:

1. Points of patient contact
2. Staff responsibilities
3. Electronic completion versus paper capture of forms
4. Collection at clinic or allow patients to complete on their own
5. Will surgeon be using the measure responses during the patient encounter?
PROM Collection Workflow - Paper Format

Data Collection
- Patient visits clinic/hospital for pre or post-op assessment - Receives PRO form at that time
- Clinic/hospital staff calls patient to complete pre and post-op forms or mails pre and post-op forms to patient

Storage
- Paper Survey Completed (self-administered or clinician facilitated)
- Staff enters data in to AJRR platform
- Staff enters data in to their own EHR/charting system
- Staff enters data in to Excel file

Transmission to AJRR
- Data automatically saved and in AJRR system
- Monthly file upload to AJRR database

Access/Usage
- Data transmitted to surgeon office
- Real-time transmission
- Up to a month delay (or more)

*Bold lines indicate the most streamlined method for real-time data submission

PRO data usage during or outside of clinic visit:
- Discussion with patient (shared-decision making)
- Submission to CMS
- Hospital research effort
- Screen for pain management referrals or need for additional surgeon visits
- Evaluate quality improvement efforts
**PROM Collection Workflow – Electronic Format**

**Data Collection**
- Patient visits clinic/hospital for **pre or post-op** assessment – Receives PRO form at that time
- Patient visits clinic/hospital for **pre-op Joint Class** – Receives PRO form at that time (post-op surveys may use other modes of data collection)
- Patient receives PRO measure link at home via email prior to surgeon visit (for **pre and post-op**)
- Clinic/hospital staff calls patient to complete **pre and post-op** forms

**Electronic Platform**
- AJRR PRO Platform - Data saved directly in to AJRR platform once electronic form is completed
- Data saved to EHR/Charting system

**Transmission to AJRR**
- Data (both item responses and scores) automatically saved and in AJRR system
- Monthly file (PROM scores only) upload to AJRR database

**Access/Usage**
- Real time transmission
- Data transmitted to surgeon office
- Up to a month delay (or more)

**PRO data usage during or outside of clinic visit:**
- Discussion with patient (shared-decision making)
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*Bold lines indicate the most streamlined method for real-time data submission*
Other resources

- Patient-Reported Outcomes in Performance Measurement
- International Consortium for Health Outcomes Measurement - Hip & Knee Osteoarthritis Data Collection Reference Guide
  http://www.ichom.org/medical-conditions/hip-knee-osteoarthritis/
- National Quality Forum – Patient Reported Outcomes (PROs) in Performance Measurement
  https://www.qualityforum.org/Publications/2012/12/Patient-Reported_Outcomes_in_Performance_Measurement.aspx
- International Society for Quality of Life Research - User’s Guide to Implementing Patient-Reported Outcomes Assessment in Clinical Practice
Other resources

**Health-Related Quality of Life Measures**

- PROMIS-10 Global: [http://www.healthmeasures.net](http://www.healthmeasures.net)
- SF-12: [http://www.rand.org/health/surveys_tools/mos/mos_core_12item.html](http://www.rand.org/health/surveys_tools/mos/mos_core_12item.html)
- SF-36: [http://www.rand.org/health/surveys_tools/mos/mos_core_36item.html](http://www.rand.org/health/surveys_tools/mos/mos_core_36item.html)

**Joint-Specific Measures**

- KOOS: [http://www.koos.nu/](http://www.koos.nu/)
- KSS: [http://www.kneesociety.org/web/outcomes.html](http://www.kneesociety.org/web/outcomes.html)
What’s in store for AJRR?

- AJRR will release the HOOS, JR. and KOOS, JR. forms as soon as the related manuscript is published (TBD)
- If you already have a PROM dataset that you would like to submit, we can accept that now
- If subscribing hospitals plan to use our online platform, we will have training webinars starting in January
Thank You!
Questions?