Q1: What is a clinical performance measure?

At a high level, clinical performance measures are indicators of the quality of care rendered by clinicians. The National Quality Forum (NQF) describes performance measures as a way to calculate whether and how often a healthcare system does what it should. Measures are based on scientific evidence about processes, outcomes, perceptions, or systems that relate to high quality care. The Centers for Medicare & Medicaid Services (CMS) considers high quality care to include effective, safe, efficient, patient-centered, equitable, and timely care. Performance measures are also used by health payers, such as CMS, to incentivize providers to improve quality of care.

Anatomy of a measure:

For example, the ratio or percent of deep vein thrombosis (DVT) in total joint arthroplasty patients who were appropriately prescribed anticoagulation at hospital discharge, out of the total population of DVT patients undergoing total joint arthroplasty. The result allows for comparison to other providers and benchmarking against national and local performance.
Q2: How do performance measures relate to clinical quality improvement?

Measuring performance can tell you what you are doing well and reveal areas of improvement. Quality improvement encompasses all of the work to improve healthcare and the health of individuals and populations. It is both systematic and ongoing. Healthcare professionals and providers, consumers, researchers, employers, health plans, suppliers, and other stakeholders all contribute to effective quality improvement. Clinical quality improvement is a type of quality improvement specifically designed to improve patient outcomes. Clinical performance measures should be patient-centered and outcome-oriented whenever possible. Clinical performance measures should also address a performance gap where there is known variation in performance.

Q3: Do clinical performance measures affect Orthopaedic surgeons?

Yes. Although performance measurement has been in existence for a long time, it has become of interest to orthopedics for four reasons:

1. **Quality Improvement**
2. **Public Reporting**
3. **Quality Payment Program**
4. **Accreditation, Certification, Credentialing, and Licensure**

As private and public payers, including CMS, look to move healthcare delivery from volume to value, performance measures are a key component of the value-based payment model. CMS' Quality Payment Program, or QPP, began on January 1, 2017, and part of compliance with the QPP includes provider reporting on clinical performance measures for Medicare patients. The AAOS Performance Measures Committee (PMC) identified orthopaedic-related 2017 QPP measures in order to assist members comply with the program. This Orthopedic Preferred Specialty Measure Set, or OPS, will be posted to the website shortly. For more information on the QPP, including eligibility requirements, click [here for the QPP website](#).
Q4: What are the types of clinical performance measures?

<table>
<thead>
<tr>
<th>Type of Measure</th>
<th>Definition</th>
<th>Example</th>
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<tbody>
<tr>
<td>Structural</td>
<td>Assesses healthcare infrastructure; i.e. the characteristics of a care setting, including facilities, personnel, and/or policy.</td>
<td>The percentage of physicians in a practice who have systems to track and follow patients with a high number of falls.</td>
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<td>Process</td>
<td>Assesses steps that should be followed to provide good care, i.e. if the services rendered to patients are consistent with routine clinical care.</td>
<td>The percentage of women age 50-85 who suffered a fracture and who either had a bone mineral density test or received a prescription for a drug to treat osteoporosis.</td>
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<td>Intermediate Outcome</td>
<td>Assesses the change in a person’s physiologic state that leads to a longer term health outcome.</td>
<td>A reduction in the number of patient falls is an intermediate outcome that leads to a reduction in the risk for hip and knee fractures.</td>
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<tr>
<td>Outcome</td>
<td>Assesses patients’ health as a result of the care received.</td>
<td>The percent of surgical site infections occurring within 30 days after the operative procedure. There is a strong movement from CMS and private payers towards developing outcome measures because process measures on their own do not directly improve care.</td>
</tr>
<tr>
<td>Patient Reported Outcome Performance Measures (PRO-PM)</td>
<td>Assesses patients’ perspective on their care, including their assessment of any resulting change in their health.</td>
<td>Percent of patients with &gt;20 points in difference in pre-and postoperative Hip Disability &amp; Osteoarthritis Scale scores.</td>
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<tr>
<td><strong>Composite</strong></td>
<td>Combines the results of two or more component performance measures, each of which individually reflects quality of care, into a single quality measure with a single score, to provide a more comprehensive picture of quality care. Composite measures can simplify and summarize a large number of measures or indicators into a more succinct piece of information.</td>
<td>Measuring in-hospital mortality indicators for select orthopedic conditions.</td>
</tr>
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</table>

Q5: **What is the process for developing a performance measure?**

1. Measure Topic Selection
2. Work group Member Solicitation
3. Measure Conceptualization
4. Measure Specification
5. Measure Testing
6. Public Comment
7. Measure Approval / Communication / Dissemination / Implementation

For more information on each phase of the measure development cycle, please visit the CMS blueprint on measure development (to access, scroll to the bottom of the page under “Downloads”).
Q6: How are performance measures implemented?

Once a measure is finalized it will have instructions for how a provider can capture and report data for the measure. Implementation from the measure developer perspective means getting the measures used in federal and private payer value-based payment models, including pay-for-reporting and pay-for-performance quality programs. CMS identifies and selects measures it is considering for use in its quality programs; when considering a measure for a topic already measured in a different program, CMS prefers to use the same measure or a harmonized measure. To ensure the utility of their measure, measure developers must provide strong evidence to CMS that the measure adds value to quality reporting programs.

Q7: What is AAOS doing in way of performance measures?

Through the PMC, the AAOS is leading the development of Orthopaedic performance measures. Each measure topic focuses on developing the highest quality evidence-based performance measures. The below visual shows current measure development topics underway, and in the queue for the future. For more information on measures stewarded by the AAOS and measurement sets in progress, click here.
Q8: What are some of the challenges with creating clinical performance measures?

There are many challenges, including:

- Defining the right outcome/performance gap.
- Determining appropriate statistical risk-adjustment models.
- Engaging patients in the measure development process.
- Robust feasibility, reliability and validity testing.
- Developing measures that reflect and assess shared accountability across settings and providers.
- Leveraging data collection and measure production infrastructure such as risk-adjusted patient-reported outcome measures and EHRs.
- Reduction of provider burden and cost to reporting measures.
- Length of time it takes to develop measures

Q9: How can I get involved?

For more information on submitting a topic for measure development click here.

There are several ways members of the orthopedic community and other interested stakeholders can contribute to the development of performance measures. You can:

- Volunteer to serve on a measure development work group.
- Participate in the peer review process by testing draft measures in your practice using real data, and letting us know if the draft measures need to be revised.
- Review proposed measures and submit public comments.
The AAOS Board of Directors approved a funding program to support quality and patient safety efforts by member societies of the Board of Specialty Societies (BOS). The BOS Quality and Patient Safety Action Fund will award matching funds up to $50,000 per project to BOS member organizations that meet prescribed grant criteria. For more information contact Paul Zemaitis at zemaitis@aaos.org.

Q10: Where can I find additional information about performance measures?

- CMS blueprint on measure development: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/MMS-Blueprint.html (to access, scroll to the bottom of the page under “Downloads.”)

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vi Ibid.
vii Ibid.