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## Using value-based health care principles to "fix" orthopaedic care delivery

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## SUMMARY

### What is already known on this topic

- Health care delivery systems globally are broken, with rising costs and inconsistent – and often unknown – clinical outcomes and quality; this is unsustainable.
- Value-based health care (VBHC), defined as health outcomes achieved per dollar spent, is a proposed strategic paradigm shift in how health care can be better delivered for patients, with improved incentive alignment and a greater focus on what is most important for optimal patient-centered care.
- To implement VBHC initiatives broadly, empirical research is needed to support the case studies and theoretical work done to date; while this has started, the literature is limited.
- With progress in “fixing” health care delivery worldwide, a focus must be on ensuring it helps to address well-documented health disparities; however, scholarly work in this area to date is promising but limited.

### What this PhD thesis adds

- Bundled payments, a core VBHC principle, can lead to small, but appreciable adverse patient selection (i.e., “cherry picking and/or “lemon dropping”) if not designed appropriately.
- Patient-reported outcome measures (PROMs), especially the Patient-Reported Outcomes Measurement Information System (PROMIS), capture the clinical symptoms and outcomes most important to patients in an efficient and comprehensive manner.
- PROMS can help quantify presumed health disparities.
- PROMs collection and discussion in a clinic setting can improve patient satisfaction and the patient experience in the right patient population but have the opposite effect in other patient populations; however, the exact

patient populations and how best to present PROMs based on certain patient populations is not yet known.

- The use of information technology (IT), such as a digital medical history, can help triage patients in an orthopaedic surgery clinic setting, providing an enabling platform for VBHC initiatives.

### **What the specific next steps are and areas for future research**

- The design of bundled payments is critical and how best to adequately (and fairly) risk-adjust is critical for VBHC to be widely adopted.
- We must move beyond the idea that PROMs are for clinical research only and utilize them routinely in clinical care pathways and shared clinical decision-making; determining how best to present PROMs scores to diverse patient populations to optimize care, satisfaction, and experience remains an area for future research.
- PROMs need to be used in quality improvement (QI) projects routinely to ensure a continued drive towards excellence and innovation in musculoskeletal care; future research into how PROMs may or may not be used in payment models must focus on the change (or delta) in PROMs and not a specific endpoint to avoid “cherry picking and/or “lemon dropping” of patients.
- Policy makers, health systems/hospital, payors, and other key stakeholders should work alongside health services researchers and practicing orthopaedic surgeons to design and implement practical, pragmatic, and fair changes to current health care delivery systems that are sustainable and focus on prevention and population health.

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