

Integration to improve electronic PROMs capture and utilization in total hip/total knee replacement population

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BACKGROUND

- Prior to the COVID-19 pandemic, pre-operative HOOS/KOOS survey capture at a large urban academic medical center which performs a large volume of total hip and total knee arthroplasties (THA/TKA) was largely paper-based with manual data entry into Visiontree Optimal Care: a cloud-based SaaS platform implemented in 2017 for patient-reported outcome data collection.
- Pre-operative in-person joint class at the hospital is now virtual – making paper-based collection obsolete.
- Survey completion rates fell related to this change in process and lower patient engagement.
- Clinicians expressed concern that survey data was external to their usual workspace: Epic EHR.
- **The objective of the HOOS/KOOS Epic integration is threefold: to drive patient engagement, improve efficiency, and enable clinicians to view and act on survey responses in real time.**

METHODS

With the VisionTree/Epic integration:

1. Patients can complete surveys via the secure passwordless link sent to their email, via Kiosk mode in-clinic using available devices and or via QR code in-clinic or during a virtual visit using their own device.
2. Patients receive Smart Reminder emails for any incomplete forms.
3. Clinicians can view survey completion status and survey responses within Epic Hyperspace.
4. Clinicians can communicate with patients regarding survey status and/or responses using Epic tools – MyChart, Messenger App.
5. Using Smart Clipboard functionality, survey responses can be copied into Progress Notes in the patient's Epic chart.
6. Survey status and responses information will be available in both web-based VisionTree and Epic Hyperspace.

INITIAL RESULTS

Increasing efficiency of data capture via patient portal

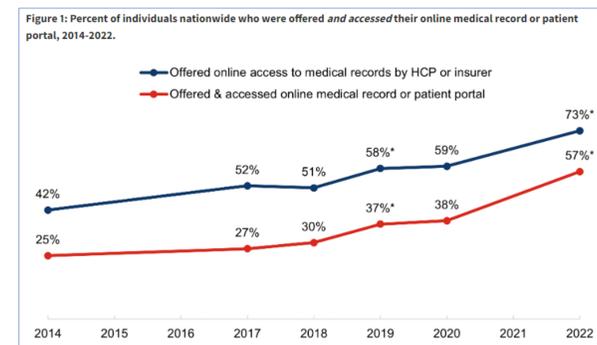


Figure 1. Increasing patient access to online medical records or patient portals provides opportunity for electronic patient-reported outcomes (PRO) capture.
Source: HINTS 4 Cycle 4 (2014); HINTS 5, Cycles 1-4 (2017-2020), HINTS 6 (2022).¹

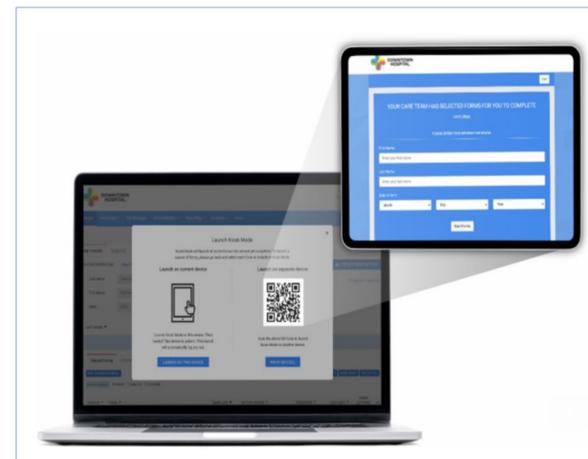


Figure 2. An example of kiosk mode and QR code functionality available within cloud-based Visiontree and also within Epic Hyperspace post-integration. This functionality aids clinicians and care coordinators with helping patients to complete survey forms.

Integration functionality to use survey results in clinical decision-making.

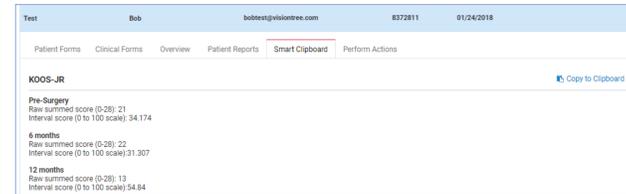


Figure 3. The Smart Clipboard functionality allows clinicians to view, copy and paste survey results from Visiontree (within Epic hyperspace) to a note in the patient's Epic chart – allowing patient PROMs to be part of the patient medical record and have the results available to discuss with patients during post-operative care.

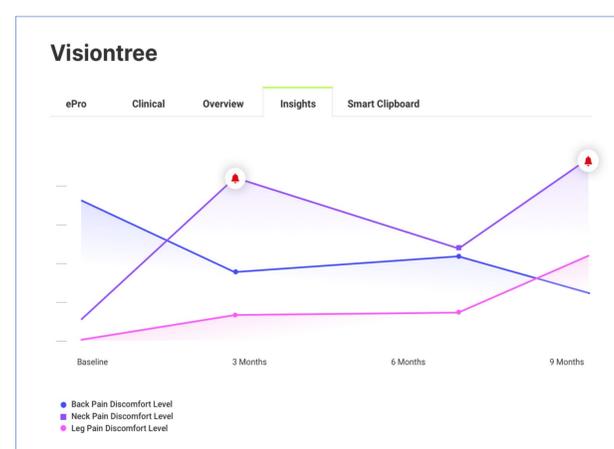


Figure 4. A sample trend chart of patient-reported outcome scores across timepoints. This type of trend chart can help clinicians evaluate how a patient is improving or not improving over time and can facilitate patient-clinician engagement and shared decision-making.

SUMMARY & CONCLUSION

While post-integration implementation is still underway, the integration has provided facilities who perform total hip and total knee arthroplasty procedures with the tools to more efficiently collect pre-operative and post-operative patient-reported outcome surveys from patients.

Patient-provided information on the function of their joints and their quality of life will be available to providers at the point of care – giving clinicians a fuller picture of how the patient is doing overall to help provide better quality care.

CMS is tying PROMs compliance for THA/TKA to inpatient reimbursement – making efficiency and flexibility in capturing patient survey responses an even higher priority. Facilities that do not provide complete PROMs for pre-operative and 1-year timepoints for at least 50% of their Medicare fee-for-service elective inpatient THA/TKAs will see penalties of 1-2% on all Medicare Part A claims (not just orthopedic).

Patient-centered measures are the future of quality measurement. As US healthcare continues to become more value-based, quality measurement has shifted from process measures to outcomes measures and now towards patient-centered measures – with the first mandatory CMS PROMs measure.

¹ <https://www.healthit.gov/data/data-briefs/individuals-access-and-use-patient-portals-and-smartphone-health-apps-2022>