

Disconnected: Electronic Patient-Reported Outcome Measure Collection is Low Among Orthopaedic Patients at an Urban Safety-Net Hospital

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INTRODUCTION:

Collection of patient-reported outcome measures (PROMs) in orthopaedic patients at safety-net hospitals is challenging. The purpose of this study was to evaluate the success of electronic PROM (E-PROM) collection in this setting.

METHODS:

A retrospective review identified 207 consecutive orthopaedic patients undergoing 77 elective arthroplasty procedures and 130 trauma procedures. E-PROMs were collected via automated e-mails from an online patient-engagement platform at 2-weeks, 6-weeks, and 3-months postoperatively. Trauma patients received the percent of normal (PON) single assessment numerical evaluation (SANE) and the Patient-Reported Outcomes Measurement Information Systems - Physical Function (PROMIS-PF). Arthroplasty patients received the Hip/Knee SANE, the Hip/Knee Disability and Osteoarthritis Outcome Score, Joint Replacement (HOOS Jr./KOOS Jr.), the PROMIS global physical health (PROMIS-G-PH), and the Veterans RAND 12 item (VR-12).

RESULTS:

Compared to trauma patients, arthroplasty patients were older (median difference (MD) 18.0 years; 95% confidence interval (CI) 12.0 to 22.0; $p<0.0001$), more likely to be Hispanic/black (proportional difference (PD) 16.9%; CI 2.8 to 30.3%; $p=0.02$), more likely to have non-commercial or no insurance (PD 34.0%; CI 23.2 to 43.0%; $p<0.001$), and did not differ in Area Deprivation Index (ADI) or E-PROM completion at each timepoint. E-PROMs were completed at 2-weeks, 6-weeks, and 3-months by 25.1% (52/207), 24.6% (51/207), and 21.7% (45/207) of all patients, respectively. Trauma and arthroplasty patients had a similar rate of partial E-PROM completion. Patients who completed a 3-month E-PROM were less likely to be Hispanic/black (PD -16.4%; CI -31.0 to -0.2%; $p<0.04$), less likely to have non-commercial/no insurance (PD -20.0%; CI -35.5 to -4.5%; $p=0.01$), and did not differ in age, gender, ADI, or procedure type.

DISCUSSION AND CONCLUSION:

The low collection rate of E-PROMs from orthopaedic patients at safety-net hospitals should be weighed against their costs. E-PROM collection may exacerbate disparities in PROM collection among certain patient populations.