

***Automated text messaging for gathering patient feedback to right-size opioid prescribing: creating scalable patient engagement for learning health systems.***

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Prescription opioids are a driving factor in the opioid epidemic. Despite a growing number of deaths, prescribers wrote nearly a quarter of billion opioid prescriptions in 2013. Quantifying the appropriate dose and duration of prescription opioids remains a major challenge in managing acute pain. Provider based interventions and state imposed legislation have aimed to limit prescribing; however, these approaches lack a patient centered approach. Our study team has shown the feasibility of using telephone outreach to gather patient data and inform provider prescribing. Though effective, this approach is laborious and time intensive. We seek to investigate an alternative, scalable approach. The objective of this proposal is to test the ability of using 'Way to Health's (WTH)' bidirectional text messaging platform to engage patients and collect patient reported data. We will accomplish this through a series of rapid cycle trials which translate our work from telephone to text and pilot the use of bidirectional texting. We plan to enroll patients undergoing elective outpatient orthopedic surgery or for outpatient acute fracture management in the emergency department (ED). We plan to measure patient-centered data (functional activity level, pain, and use of pain medication), patient engagement via text messaging, and prescribing patterns. The results from this pilot will help guide a scalable text messaging interface for patients and providers to engage, communicate, and rapidly collect data. A real-time text platform may provide health systems with a tool to efficiently manage population health by reducing low value care and providing data for patient informed guidelines.