



# Assessment of Postoperative Pain & Narcotic Usage by Automated Mobile Phone Software: A Pilot Study

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## Introduction

No dedicated investigation of typical postoperative narcotic use following ambulatory hand surgery

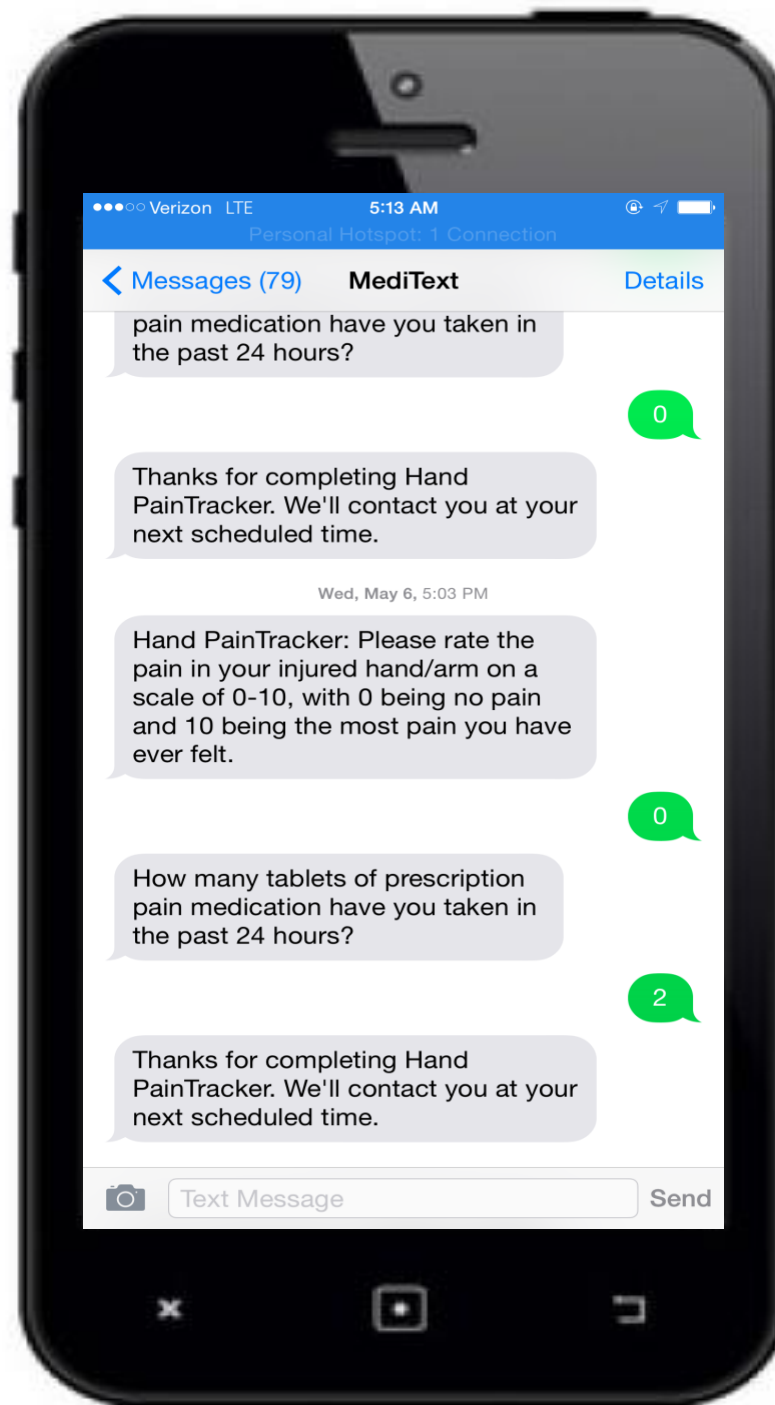
85% of the US adult population owns a mobile phone, 80% of this population engages in text messaging

Software algorithms allow automated delivery of predefined questions & reminders to patients via text messages and mobile phone technology

## Methods

Patients with a mobile phone capable of text messaging who underwent carpal tunnel release, cubital tunnel release, trigger finger release, ganglion cyst excision, thumb carpometacarpal arthroplasty, or ORIF distal radius fracture enrolled in study

- POD 0 Evening text message inquiring about pain level (0-10) and how many tablets of prescription pain medication taken in the last 24 hours
- POD 1-3 3 pain inquiries and a once daily prescription pain medication inquiry
- POD 4-6 Once daily pain and prescription pain medication inquiry



## Results

Twenty patients enrolled with an average age of 44.4 years (Range 22-70 yo)

**Total completion rate 91%** through 7 days

- Completion rate for pain questions was 93%
- Completion rate for prescription pain medication questions was 88%

Patients reported an average use of 33% (Range 0-83%) of their prescribed narcotic medication for that week

## Conclusions

Automated software delivery of text messages through mobile phones is a **feasible and cost-effective method to retrieve patient data**

Patients utilized a small percentage of the prescribed narcotic medication suggesting an opportunity to curtail narcotic over-prescription and reduce opioid diversion