Background

- 40-60% of prescribed opioids unused
- Unknown how patients use opioids in the real world
- Excessive unused opioids; source for nonmedical use
- Opioid/heroin addiction, transition to substance abuse, infectious diseases

Methods

- Patients with acute fracture pain being discharged from the Emergency Department
- Trained to use the digital pill compounded with oxycodone as needed for pain
- Semi-structured interview on:
  - Use of digital pills
  - Attitudes/beliefs
- Return to the hospital at 1 week or at orthopedic follow up to return equipment

Results

- Recorded 112 ingestion events of 134 possible events (84% accuracy)
- 1 individual did not complete study (pain was too great to operate the digital pill)

Discussion

- Digital pills are acceptable to Emergency Department patients with acute pain.
- They are easy to operate in real-world settings.
- Acceptance of digital pills in patients with chronic pain, and in outpatient pain management settings need to be assessed.
- Optimal “just-in-time” behavioral interventions in response to real-time ingestion patterns should be developed and assessed.

Selected quotes:

- “I thought it was kind of cool. Every time I took my medication I got a message saying that I just took my medication.”
- “I liked getting the message though, because it showed me that the device was working.”
- “I thought it was easy. And it helped me, because I had a routine of just take that thing off the charger and go get the medicine.”

Conclusion/Future Directions

- Digital pills are acceptable to Emergency Department patients with acute pain. They are easy to operate in real-world settings.
- Acceptance of digital pills in patients with chronic pain, and in outpatient pain management settings need to be assessed.
- Optimal “just-in-time” behavioral interventions in response to real-time ingestion patterns should be developed and assessed.

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