RAPID Analysis of Routes of Administration: Oral to Non-Oral Transitions

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RAPID Program Overview

• Researchers and Participants Interacting Directly (RAPID)
  • Subset of RADARS® System Survey of Key Informants Patients Program.
  • Over 700 currently registered.
  • Quarterly web-surveys (~350 responses in 1 month)
  • Adds context to RADARS® System research.
  • Quantitative AND Qualitative data.
  • Establishes two-way communication.
Routes of Administration of Prescription Opioids
Lifetime Routes of Administration (ROA)

- Swallowing pills/tablets intact: 95.6%
- Snorting: 72.5%
- Chewing then swallowing: 62.9%
- Injecting: 45.0%
- Dissolving under tongue or in cheek: 45.0%
- Smoking: 29.3%
- Other (please specify): 3.5%
Routes of Administration

- Motivations for choosing one ROA over another?
- Patterns of moving between oral and non-oral ROA?
- Are changes exclusively unidirectional (oral → non-oral)?
Routes of Administration

- Oral routes include swallowing, chewing and sublingual
- Non-oral routes include snorting, smoking and injecting
- Oral and non-oral use of prescription opioids common for both immediate and extended release formulations.
- Certain drugs used more frequently with one or the other.
Non-oral Use of Immediate Release Opioids

- Opana IR®: 69.8%
- Roxicodone®: 68.6%
- Dilaudid®: 63.1%
- Percocet®: 34.1%
- Vicodin®: 23.7%
Non-oral Use of Extended Release Opioids

- OxyContin®: 65.3%
- Opana ER®: 62.0%
- Other Extended Release Oxycodone Tablets: 42.4%
- Hydrocodone Extended Release Solution: 18.2%
Progression of Use
First use of prescription opioids

- Oral use: 88%
- Inhaled: 11%
- Injected: 1%
How do oral users adjust for tolerance?
Three Possibilities

• Take more pills
• Take pills with higher doses
• Switch routes of administration
Multiple Pill Abuse

- **67.7%** of prescription opioid abusers swallow four or more of the same pill at one time.
  - 51.8% of these did so at least **once a day** in the past month.

- On average, the maximum number of pills taken at one time was **10 pills**.
Why not use higher dose strengths?
Primary Reason: Accessibility
“I couldn’t find pills with a higher dose.”
“Only able to obtain a certain mg without paying higher rates.”
“I couldn’t get a higher dose from the doctors so I improvised and took more pills to get the desired high I was after.”
“I didn’t want my addiction to be obvious by asking my doctor for a higher dose.”
Next logical step: Transition from oral to non-oral use
Oral and non-oral use of Rx Opioids

- Oral only: 30.6%
- Oral to Non-oral: 57.1%
- Non-oral to Oral: 3.4%
- Non-oral only: 8.8%
Some only use orally due to fears of snorting/injecting.
“Swallowing had fewer unpleasant aspects (e.g., burning, irritated nose, scratchy throat, etc.).”
“I’m scared of injection and it burns waaaaay too bad to snort.”
Is the progression from oral to non-oral use unidirectional?
Impact of non-oral initiation on oral use

- Regular use of both oral AND non-oral ROA: 47.3%
- Stopped oral use: 35.3%
- Infrequent non-oral use (Oral use primary method): 16.8%
Why is the transition to non-oral use not a complete one?
Practical factors contribute to the choice of route of administration
Drug Type/Formulation
“With hydrocodone I needed to take them orally as my tolerance was high and the amount I was taking was too much to snort. But with stronger opioids in smaller milligrams, like oxycodone, I would snort.”
“It depended on the bioavailability of the drug.

Opana is useless orally but gets you very high using other methods.

Oxycodone is one that I feel gives a better high if used orally.”
“If the pill was big or had tylenol in it I would take orally. If it was small and able to be injected, then I would take it non-orally.”
Convenience/Accessibility
“It would be determined on how much time I had, where I was or what materials I had around me.
“If I could not get a certain type of opioid, I would just take it orally. Like if I could only get Vicodin I would have no choice but to take them orally.”
“Convenience....if I didn’t have a syringe I’d take them orally or a place to use. If I was trying to hide my IV use around certain people (parents) then I’d just use orally.

I could switch back & forth.”
Addiction to the ‘process’
“You start to enjoy the drip from snorting your pills, it becomes part of the enjoyment in your high.”
“Once I started injecting, it took my addiction to a whole different level....I didn’t want anything I couldn’t shoot. I was truly addicted to the needle itself.”
“I got addicted to the ritual of smoking it.”
Conclusions

• Most users start with oral use.

• Progression to snorting/injecting the most common pathway.
  • Tolerance to oral use
  • Seeking a better high
  • Dependent on drug type/formulation
Conclusions

• Not a unidirectional pathway

• Many persist in using opioids orally, even after starting non-oral use, for a variety of reasons.
  • Availability/Convenience
  • Fear of adverse events when using certain drugs non-orally.
RAPID Program

• Complementary quantitative data and qualitative data enriches results.

• Produces direct, immediate information relevant to a given topic.

• Overcomes limitations of standardized questionnaires and enriches data from other sources.
RAPID Publications

