

KEY FINDINGS

- Overall, 5 of the 17 patients with left-over tablets chose to dispose of them
 - 3 used the provided disposal packet
 - 1 deposited them at the police station
 - 1 threw them in the trash as is

OBJECTIVE

Evaluate patient medication disposal behaviors and whether these behaviors are influenced by providing an at-home medication disposal kit

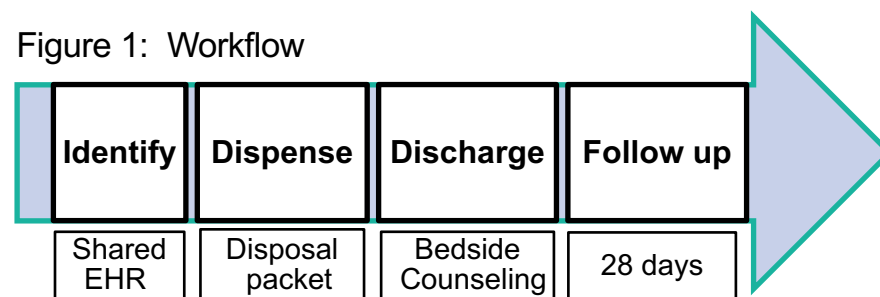
BACKGROUND

- 70% of the 50,000 overdose deaths in 2019 were opioid related¹
- A key contributor to this epidemic is an excess of prescription opioids circulating in our communities
- Opioids play an important role in the pain management of patients' recovery from surgery, but lack of proper opioid disposal has consequences
- Safe and effective disposal of unused or left-over opioids could help to prevent potential diversion, misuse, abuse, and even death due to overdose

METHODS

Setting: Outpatient pharmacy attached to hospital
Design: Prospective, randomized pilot evaluation
Participants: Adults receiving an opioid prescription for acute pain following an outpatient surgery
IRB: Quality improvement

Figure 1: Workflow



RESULTS

Table 1: Patient and Prescription Characteristics (N=45)

Characteristic	N (%)	Mean (SD)
Woman	25 (55.6)	--
Age	--	61.9 (14.5)
Hydrocodone 5/325mg	32 (71.1)	--
Oxycodone 5mg	12 (26.7)	--
Hydromorphone 4mg	1 (2.2)	--
Quantity	--	41.4 (21.8)
Days supply	--	5.6 (2.8)
Finished Rx	14 (31.1)	--
Did not finish Rx	17 (37.8)	--
Lost to follow up	4 (8.9)	--
Waiting for follow up	10 (22.2)	--

Table 2: Storage of Medication Upon Follow up (N=12)

Location	N (%)
Cabinet (kitchen/bath)	4 (33.3)
Table/counter (kitchen/bed)	8 (66.7)

Table 3: Findings for Patients with Left-over Tabs (N=17)

Location	N (%)
>5 tablets left	16 (94.1)
Appropriately disposed	4 (23.5)
Had prescription refilled	3 (18.8)

Table 4: Non-disposal Reasoning and Planned Action (N=12)

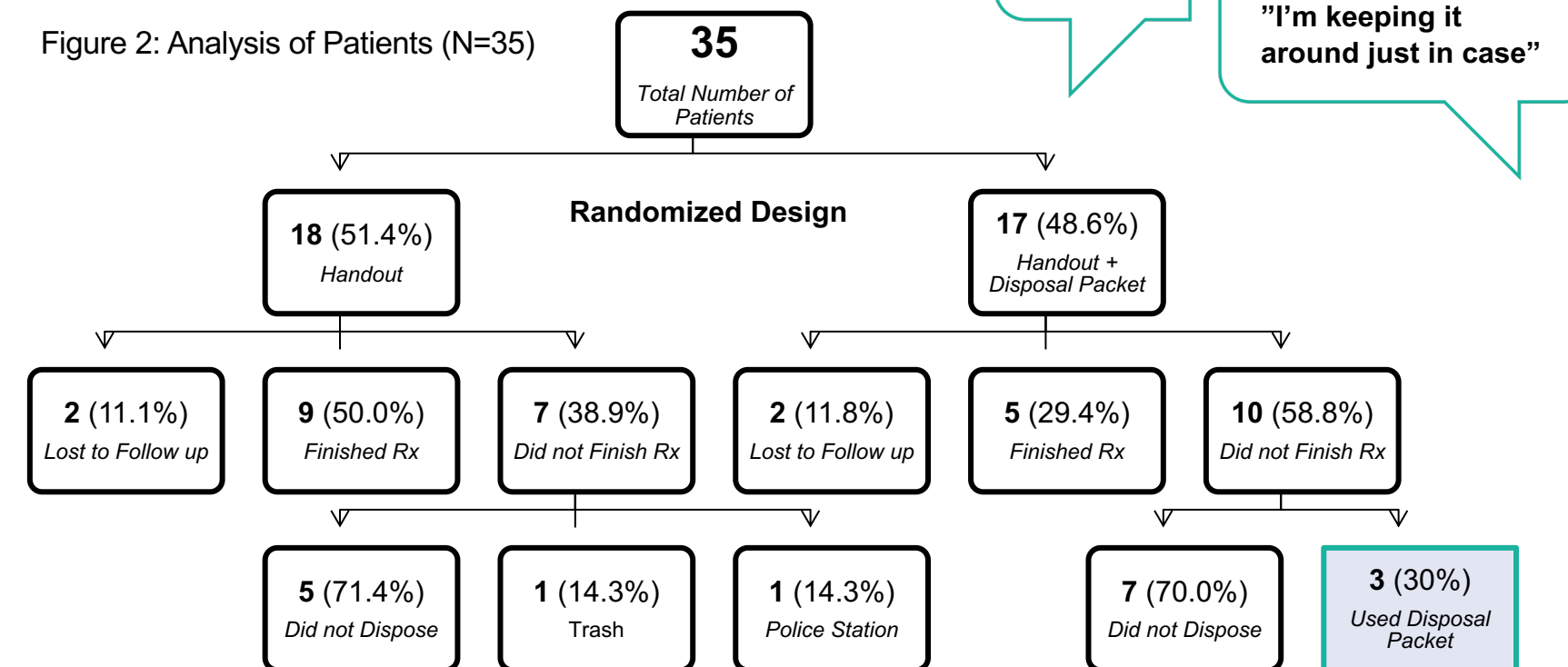
Reason	N (%)
Keeping "just in case"	6 (50.0)
Still need	1 (8.3)
Forgot	2 (16.7)
Haven't had time	3 (25.0)
Plan to dispose in the next 7 days	5 (41.7)

*Patients able to provide multiple reasons

Table 5: Past Methods of Disposal (N=31)

Method	N (%)
Pharmacy drop box	12 (38.7)
Toilet	2 (6.5)
Trash	2 (6.5)
Incineration	2 (6.5)
Annual take-back program	2 (6.5)
Drug repository program	1 (3.2)
No prior disposal	10 (32.3)

Figure 2: Analysis of Patients (N=35)



DISCUSSION

- Half of the patients with left-over opioids that did not dispose, stated that they were keeping them just in case they are needed later
- Patients that denied a plan to dispose of their unused tablets in the next 7 days expressed a lack of urgency to do so
- All but one of the patients with left-over opioids at follow up had >5 tablets left
- 10 of the 31 patients that were asked about prior methods of disposal never had a reason to seek disposal options in the past
- 3 of the 17 patients with left-over tablets had sought out and acquired a refill prior to the follow up call
- Some rural patients incinerate unused meds
- Patients and hospital staff were pleased with the implementation of this new service as some mentioned that this is often an untaught subject
- Some patients were surprised to hear the potential consequences for not properly disposing and were appreciative of the counseling by the pharmacist
- Workflow process was more time-consuming than initially expected

Limitations

- Omicron (SARS-CoV-2 variant) surge resulted in fewer elective surgeries
- Only Iowa residents qualified for free disposal packet and other state residents not eligible

REFERENCES

- Understanding the Epidemic | CDC's Response to the Opioid Overdose Epidemic | CDC. Cdc.gov. <https://www.cdc.gov/opioids/basics/epidemic.html>. Published 2021. Accessed August 10, 2021.

FUNDING

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