

A Pharmacist's Role in Alleviating the Economic Impact of Medication Waste

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Background

Medication waste is an ever-growing problem around the world. Evaluating how healthcare professionals, especially pharmacists, manage it is crucial to reducing wasted costs. Medication waste contributes to an estimated \$30 billion wasted in pharmaceutical spending each year in the United States [2]. Pharmacists are well-positioned in the healthcare system to combat these unnecessary expenses through a variety of methods.



During the summer of 2019 we traveled to Northern Ireland and Ireland and met with pharmacists in hospital and clinical faculty settings. This study was originally meant to be completed internationally with our colleagues there. However, due to the COVID pandemic and schedule conflicts, the study could not be completed as intended.

Purpose

- To discover and implement new methods and activities to reduce medication waste, alleviating a major cost to the health care system

Methods

- A 12-question survey was developed to determine pharmacists' knowledge of medication waste and actions they take to minimize it.
- The survey was administered through Zoom focus groups in groups of three to four.
- Meetings were recorded for analysis.
- PI asked each question to all participants in the meeting before moving to subsequent question.



Demographics

- Ten pharmacists participated in the study
- Years in practice: 8.7 (range: 2-24)
- # of pharmacists/practice setting:
 - Retail/community only: 4
 - Hospital only: 1
 - Both retail/community and hospital: 4
 - Outpatient (non-retail/community): 1

Results

- 100% of pharmacists believed that their patients have little knowledge of what to do with their unused medications.
- Perceived methods of medication disposal used by patients:
 - flushing (70%), hoarding (20%), burning (10%), garbage (10%)
 - More than one answer accepted
- Methods pharmacists use to reduce medication waste:
 - reducing the quantity dispensed for new-start medications (n=3)
 - keeping medications in factory packaging to maintain the original expiration date (n=3)
 - sending medications to nurses for administration immediately before the medication is due to be given (n=1)
 - sending medications to the hospital floors a predetermined number of times per day (n=1).
 - No activities (n=6)
- 90% of pharmacists say they place major emphasis on adherence when counseling patients.
- 100% of participants answered that they will follow up with patients to assess adherence.

Conclusions

While most pharmacists are utilizing an assortment of activities and methods to reduce medication waste, improvements can be made to further reduce waste. More research can be done in the future to expand on the ideas identified in this study as well as find new methods of reducing medication waste.

References

- Bekker, Charlotte L., et al. "Pharmacists' Activities to Reduce Medication Waste: An International Survey." *Pharmacy (Basel, Switzerland)*, vol. 6, no. 3, Aug. 2018. *PubMed*, doi:10.3390/pharmacy6030094.
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