

Maximizing Cost Savings: The Impact of Specialty Pharmacist Interventions at a Community Oncology Center



Megan Rees, PharmD, BCACP, CSP; Carly Giavatto, PharmD; Ana Lopez Medina, PharmD; Jessica Mourani, PharmD; Casey Fitzpatrick, PharmD, BCPS

BACKGROUND

- Health system specialty pharmacy (HSSP) pharmacists embedded with oncology clinics can utilize their clinical expertise and promptly intervene when medication therapy issues arise.
- Pharmacist interventions have been linked to improved patient outcomes and have cost savings implications.¹
- Average cost savings per pharmacist intervention for oncology medications ranges from ~\$8,100 to ~\$11,000.^{2,3}
- Identifying cost savings practices by pharmacists within HSSP clinics is crucial to understand the benefits provided to patients and the healthcare system.

OBJECTIVE

To determine the impact of HSSP pharmacist interventions on cost savings of oral oncolytics at a community oncology center.

METHODS

Study Design

- Single center, retrospective, observational study that analyzed interventions made by an oncology pharmacist for patients who received at least one oral oncolytic from September 2019 to March 2023 at Summa Health Cancer Institute in Akron, Ohio.
- Physician-accepted interventions that resulted in dose reductions, held doses, changes in therapy, or changes in frequency were evaluated and total drug cost savings was calculated.
- Cost savings was calculated utilizing the average wholesale price of drugs listed on Lexicomp® as of May 31, 2023, by comparing the cost of drug that would have been dispensed if no intervention occurred versus the cost of drug ultimately dispensed.
- A 10% validation of cost savings interventions was completed using the National Community Oncology Dispensing Association (NCODA) Cost Avoidance and Waste Tracker.⁴

INCLUSION CRITERIA

- Patients with a cancer diagnosis as indicated by International Classification of Diseases 10th revision (ICD-10) codes
- Receiving clinical management by embedded HSSP oncology pharmacist
- Had ≥ one completed intervention(s) documented as adverse drug reaction (ADR), drug utilization review (DUR), lab, or regimen that resulted in dose reductions, held doses, changes in therapy, or changes in frequency

EXCLUSION CRITERIA

- ≤ 18 years of age
- Patients receiving clinical management for a cancer medication administered any route other than oral

DATA COLLECTION AND ENDPOINTS

Pharmacist interventions documented in Arbor® specialty pharmacy technology platform were extracted from integrated clinical dashboards.

Endpoints

- Intervention types
- Intervention recommendations
- Intervention reasons
- Total cost savings
- Average cost savings per intervention
- Total cost savings per intervention type
- Top 5 medications with highest cost savings

RESULTS

Interventions

- A total of 92 completed interventions was analyzed.
- 55/92 (59.8%) interventions resulted in cost savings for 44 different patients.
- Cost savings was associated with 24 unique medications.

FIGURE 1: Intervention Types (N=55)

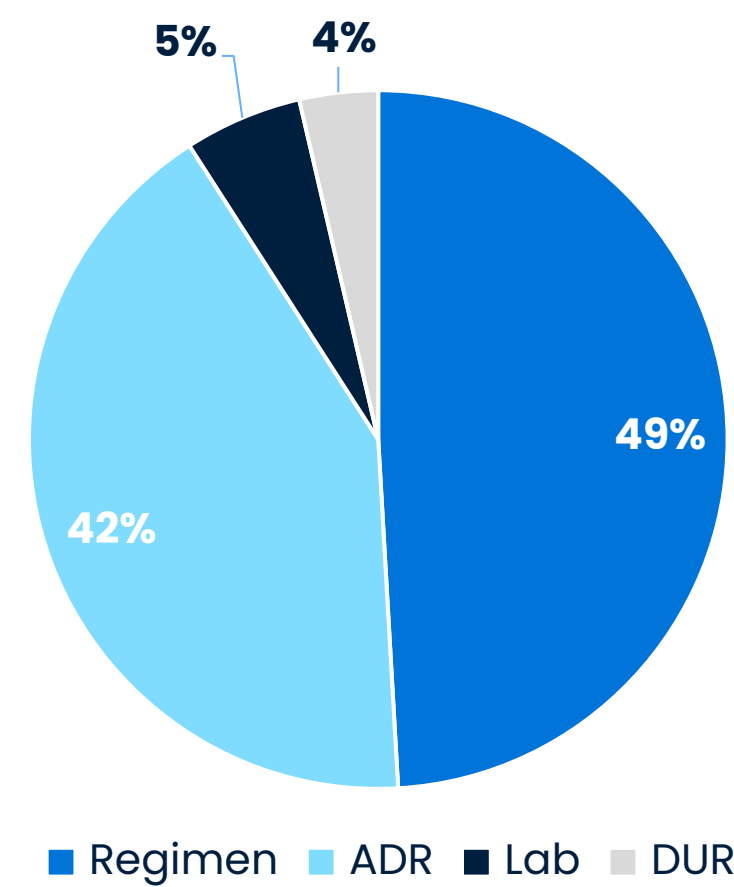
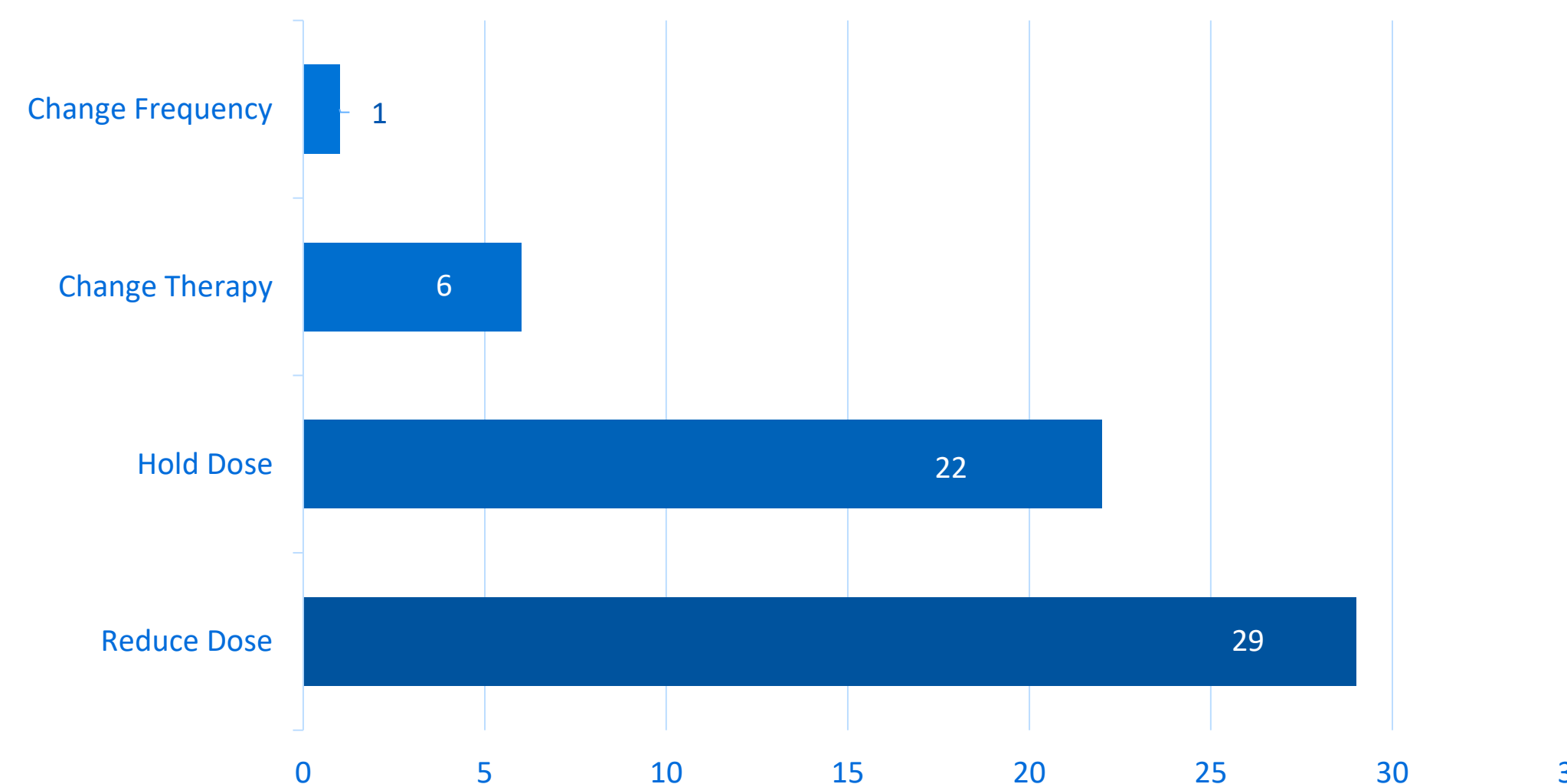


TABLE 1: Intervention Reasons (N=55)

Reason	Total
Side Effects	41
Renal Issues	7
Drug Interactions	2
Inappropriate Dosing Schedule	1
Wrong Indication	1
Therapy Inappropriate	1
Held Due to COVID	1
Uptitration	1

FIGURE 2: Intervention Recommendations (N=55)



RESULTS

Cost Savings

- The total amount of cost savings associated with pharmacist interventions was calculated to be \$700,503.
- The average cost savings per intervention was \$12,508.

TABLE 2: Total Cost Savings per Intervention

Recommendation	Cost Savings
Reduce Dose	\$399,994
Hold Dose	\$217,071
Change Frequency	\$65,501
Change Therapy	\$17,937

TABLE 3: Top 5 Medications with Highest Cost Savings

Medication	Cost Savings
Crizotinib	\$220,043
Venetoclax	\$83,462
Ribociclib	\$70,180
Palbociclib	\$37,048
Ixazomib	\$34,272

DISCUSSION AND CONCLUSION

- This study provides further evidence that pharmacists embedded within HSSP oncology clinics play a pivotal role in ensuring the appropriate use of oral oncolytics.
- As value-based health care delivery models become more of the norm, these types of interventions will be vital in demonstrating the value of pharmacist-embedded HSSPs.
- Additional research is needed to understand the impact of these interventions on patient outcomes, such as mortality, healthcare utilization, progression free survival, and quality of life.
- To replicate this study at other sites, utilization of available oncology cost savings tools (such as the NCODA) may be beneficial to simplify the process for prospective cost savings.

Limitations

- Many other pharmacist interventions that may have resulted in cost savings, such as those relating to adherence and hospitalizations, were not included in this study.
- Cost savings for external pharmacy fills were likely undercalculated due to unavailable durations of therapy and number of dispenses.

REFERENCES

- Trinidad DM, Patel PR. The impact of an embedded oncology pharmacist in an outpatient oncology center in the treatment of hematologic malignancies. *J Adv Pract Oncol.* 2022;13(7):673-82.
- Lankford C, Dura J, Tran A, Lam SW, Naelitz B, et al. Effect of clinical pharmacist interventions on cost in an integrated health system specialty pharmacy. *J Manag Care Spec Pharm.* 2021;27(3):379-84.
- Nguyen AL. Impact of oral chemotherapy pharmacists on cost avoidance of oral oncolytics in an integrated health system. *J Oncol Pharm Pract.* 2022;0(0). doi:10.1177/10781552221122034.
- National Community Oncology Dispensing Association. Cost Avoidance & Waste Tracker Tool <https://www.ncoda.org/add-a-new-expense/>. Accessed May 31, 2023.