Specialty Pharmacist Interventions at an Integrated Health System Specialty Pharmacy in Patients with Prostate Cancer

Bisni Narayanan, PharmD, MBA, MS; Terri Sue Rubino, PharmD, CSP; Tina Do, PharmD, MS, BCPS; Vinay Sawant, RPh, MPH, MBA
Department of Pharmacy, Yale New Haven Health

Background

- Androgen receptor pathway inhibitors (ARPIs)—including abiraterone, apalutamide, darolutamide, and enzalutamide—are key therapeutic options for prostate cancer across both pre- and post-chemotherapy settings.
- These agents are associated with a broad range of drug–drug interactions due to their metabolism via the CYP450 enzyme system.
- Given the high prevalence of polypharmacy among older adults with prostate cancer, the risk of clinically significant adverse drug reactions is substantial.

Objective

- To evaluate the impact of an integrated health system specialty pharmacy (HSSP) model on identifying and resolving medication therapy problems in patients with prostate cancer.

Methods

This retrospective chart review evaluated medication therapy interventions between Jan 2024- Dec 2025 among patients with prostate cancer treated with ARPIs

Only interventions categorized as medication interactions were extracted from the electronic health record

The primary outcome was the rate of acceptance of pharmacist recommendations

The secondary outcome included characterization of the type of recommendations provided

Results

75	79 yrs	70	99%
Evaluable Patients	Mean Age (Range 60-96)	DDIs Identified	Acceptance Rate

Figure 1: Patients with identified medication interactions (n=75)

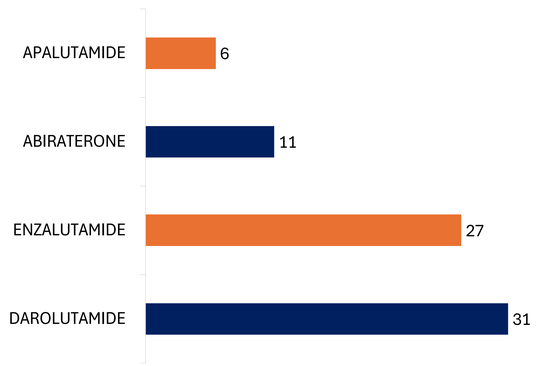


Figure 2: Offending Drug Classes

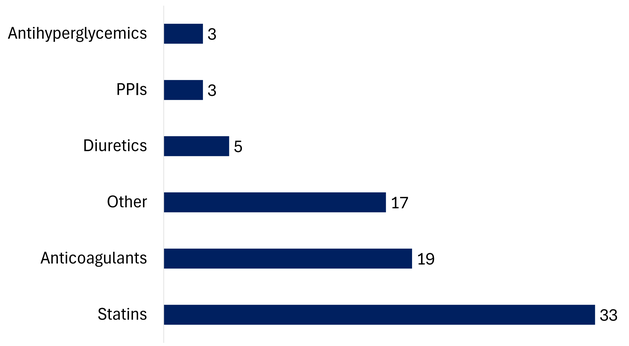
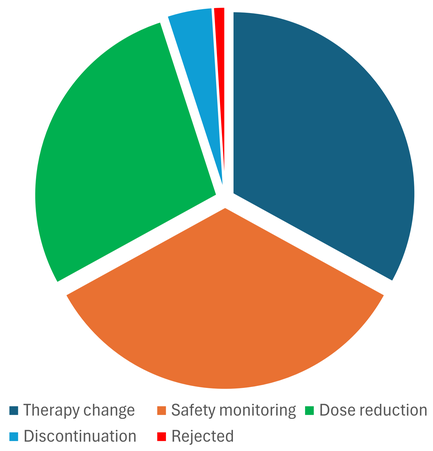


Figure 3: Pharmacist Recommendations: Acceptance and Intervention Types



33% Therapy Change

34% Safety Monitoring

28% Dose Reduction

4% Discontinuation

1% Rejected

Discussion

- Researchers have reported that patients with metastatic cancer take a median of seven medications (range: 1–17), with 81% using medications for comorbid conditions. These non-cancer therapies commonly include antihypertensives, anticoagulants, and lipid-lowering agents.[1]
- The predominance of statin and anticoagulant interactions in this analysis reflects the comorbidity typical of this population.
- About 65% of accepted recommendations involved active therapy restructuring with therapy change, dose reduction, or discontinuation of the offending medication.
- Darolutamide accounted for the highest number of identified interactions despite a favorable pharmacokinetic profile.
- This real-world analysis demonstrates that pharmacist-led DDI review in a specialty pharmacy setting identified clinically actionable interactions, with 99% recommendation acceptance rate.

Limitations

- As a single site retrospective review findings may not be generalized across different specialty pharmacy settings.
- Medication interaction identification and reporting was dependent on pharmacist documentation.
- Agent level medication interaction data also reflects prescribing patterns rather than individual patient data.

Conclusion

Pharmacist led interventions within an integrated HSSP demonstrated a high rate of provider acceptance and resulted in clinically meaningful dose adjustments, medication changes, and enhanced safety monitoring.

References

Cashman J, Wright J, Ring A. The treatment of co-morbidities in older patients with metastatic cancer. *Support Care Cancer*. 2010;18(5):651-655. doi:10.1007/s00520-010-0813-1

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.