ASHP Best Practices Award

Expanding Pharmacist Prescriptive Authority to Advance Oral Chemotherapy Management

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Fred Hutch Cancer Center UW Medicine

Introduction

Fred Hutchinson Cancer Center (FHCC)

- FHCC serves as the cancer program for UW Medicine
- Independent, nonprofit organization with 50 years of innovative research and compassionate care
- 130,000 outpatient visits at FHCC per year
- NCI designated cancer center
- Over 50 clinical oncology pharmacists deployed across six ambulatory oncology FHCC sites
  - One flagship campus in downtown Seattle
  - Five community sites across western Washington

Background

- Rapid adoption of oral anticancer agents (OAAs) in cancer care has increased demands on providers and healthcare systems.[1,2]
- Clinical oncology pharmacists are uniquely positioned to meet these challenges.[3,4]
- An oral chemotherapy monitoring program (OCMP) was developed in outpatient oncology clinics in collaboration with oncology pharmacists, pharmacy technicians, physicians, advanced practice providers, nurses, and information technologists.
- Collaborative drug therapy agreements (CDTAs) allow clinical pharmacists to operate as licensed independent practitioners (LIPs) with prescribing authority.
- Pharmacist LIPs currently prescribe for two classes of OAAs
  1. Immunomdulatory agents (IMiDs) pomalidomide and lenalidomide for multiple myeloma (MM), including management of the Risk Evaluation and Mitigation Strategy (REMS) program
  2. Cyclin-dependent kinase 4/6 inhibitors (CDKi) abemaciclib, palbociclib, ribocilib for breast cancer
- To our knowledge, no previous CDTA has granted OAA prescribing authority directly to pharmacists.

Description of the Program

Purpose: Expand the scope of clinical pharmacist by granting independent prescribing authorities for IMiDs, CDKis, and supportive medications under the pharmacist's license.

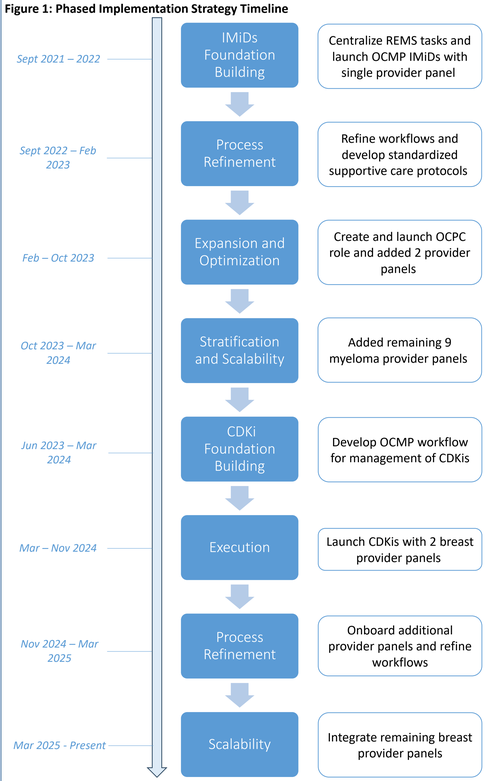
Phase Implementation Strategy:
The PDSA (Plan-Do-Study-Act) methodology was used to implement the LIP pharmacist model. Baseline data for the current OAA prescribing process was collected, including:

- Prescription volume
- Pharmacist intervention rates
- Evaluation of published literature of existing pharmacist-managed OAA programs.

Two distinct pharmacy roles were created to support OCMP

- LIP pharmacist
- Oral chemo program coordinator (OCPC)

Figure 1: Phased Implementation Strategy Timeline



Experience with the Program

IMiDs

Patient Adherence

- 295 IMiD patients enrolled into OCMP and managed by LIP pharmacists
- Median medication possession ratio (MPR)
  - Pre-OCMP implementation: 96%
  - Post-OCMP post-implementation: 96.55%

Time Savings

- Goal: to quantify the hours saved through the OCMP management of IMiDs

Table 1: IMiD FDA REMS Requirement and Estimated Resource Time

IMiD Prescribing/ Monitoring (n= number of IMiD patients)		Minutes per task	Hours x task per month	MD or APP	RN	Specialist Pharmacist	Future LIP Pharmacist
REMS (n=241)	Enrollment	60	13*			X	
	Prescriber Survey	15	60.25		X		X
Refill (n=241)	Patient Assessment	15 (2 to 45)	60.25		X		X
IMiD Prescribing/ Monitoring (n=241)	IMiD Prescribing and Order Entry	15	60.25	X			X
		15	60.25	X			X
	Total Time		254				

*For the time study, 13 new patients were enrolled into the REMs program this month; Rx: prescription; RN: nurse

Provider Satisfaction

- Survey of MM team including attending physicians, APPs, nurses (n=8)
- 100% reported "always" for recommending OCMP to other providers and patients
- 87.5% reported OCMP-managed patients received treatment benefits
- 50% and 12% reported that OCMP saved them 3-4 hours and more than 5 hours per day, respectively
- 75% reported "minimally concerned" when asked about potential adverse effects being addressed by the OCMP program

CDKis

Volume

- 226 CDKi patients enrolled into OCMP and managed by LIP pharmacists
- Patients were contacted on C1D1, C1D15, C2D1, and C2D15 per protocol. Some patients required more frequent touch points based on their clinical response and tolerability of their therapy

Table 2: CDKi-related Patient Outreaches Over 3-month Period

Role	Pre-OCMP	Post-OCMP	% Increase
Breast oncology specialist pharmacist	44	68	35%
LIP pharmacist	91	179	49%

Figure 2: CDKi-related Patient Outreach Volume Over Time

Discussion / Conclusion

- Innovative models like OCMP are essential for maintaining high-quality, sustainable cancer care.
- Creation of the LIP pharmacist model allows shift in OAA management from clinical reviewers to active prescribers and practitioners, managing adherence and adverse effects.
- Outcomes were individualized to clinical groups and chosen to address limitations of conventional cost-saving models, which rely heavily on modeling assumptions.
- Favorable results reached across all measured outcomes:
  - Patient adherence
  - Provider satisfaction
  - Time savings
- Pharmacist LIP model addresses healthcare challenges:
  - Workforce shortages
  - Provider burnout
  - Quality of patient-care
  - Operational efficiency
- OCMP model serves as a comprehensive guide for other institutions seeking to optimize their OAA management. LIP pharmacists are empowered to exercise:
  - Clinical decision making
  - Autonomous practice
  - Expertise in oncology care
- OCPC role leverages other healthcare team members, like medical assistants, to establish a scalable framework.
- Future directions include expansion to other OAA classes including but not limited to VEGF inhibitors, PARP inhibitors, BCR-ABL inhibitors.

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