

ASHP BEST PRACTICES AWARD

Improved Access and Outcomes for Patients with Interstitial Lung Disease in a Pharmacist-Led Medication Management Program

Amber Lanae Martirosov, Pharm.D., M.S., BCPS, BCACP
 Jamie Alex, Pharm.D.
 Krishna Thavarajah, M.D.
 Alaa Abu Sayf, M.D.
 Hannah Ferrari, Pharm.D.
 Heather Bachert, A.N.P.
 Amanda Soyad, Pharm.D.

Henry Ford Health
 Detroit, MI



Authors of this presentation disclose the following relationships with commercial interests related to the subject of this poster:

Amber Lanae Martirosov: Nothing to disclose
 Jamie Alex: Nothing to disclose
 Krishna Thavarajah: Nothing to disclose
 Alaa Abu Sayf: Nothing to disclose
 Hannah Ferrari: Nothing to disclose
 Heather Bachert: Nothing to disclose
 Amanda Soyad: Nothing to disclose



Introduction

Henry Ford Health (HFH)

- Established in 1915
- Integrated, not-for-profit health care organization
- 30 outpatient medical centers
- Robust pharmacy service lines across specialty areas
- Multidisciplinary, team led projects that target improvements in quality measures and evidence-based standards
- Major referral center for pulmonary diseases
 - Pulmonary Fibrosis Care Center (PFCC) designation

Background

- Interstitial lung disease (ILD) is a complex group of rare disease states that cause inflammation and fibrosis of the lungs¹
- Most medications used in ILD have serious adverse effects that result in high rates of therapy discontinuation or non-adherence
- Prior to March 2020, the ILD program at HFH consisted of two pulmonary physicians, a nurse practitioner, and a nurse coordinator
- Concerns for missed labs, unclear patient adherence, lack of support for poor access to medications, low thresholds for side effects, and lack of patient follow-up led to the addition of an ambulatory care pharmacist to the multidisciplinary team

Purpose

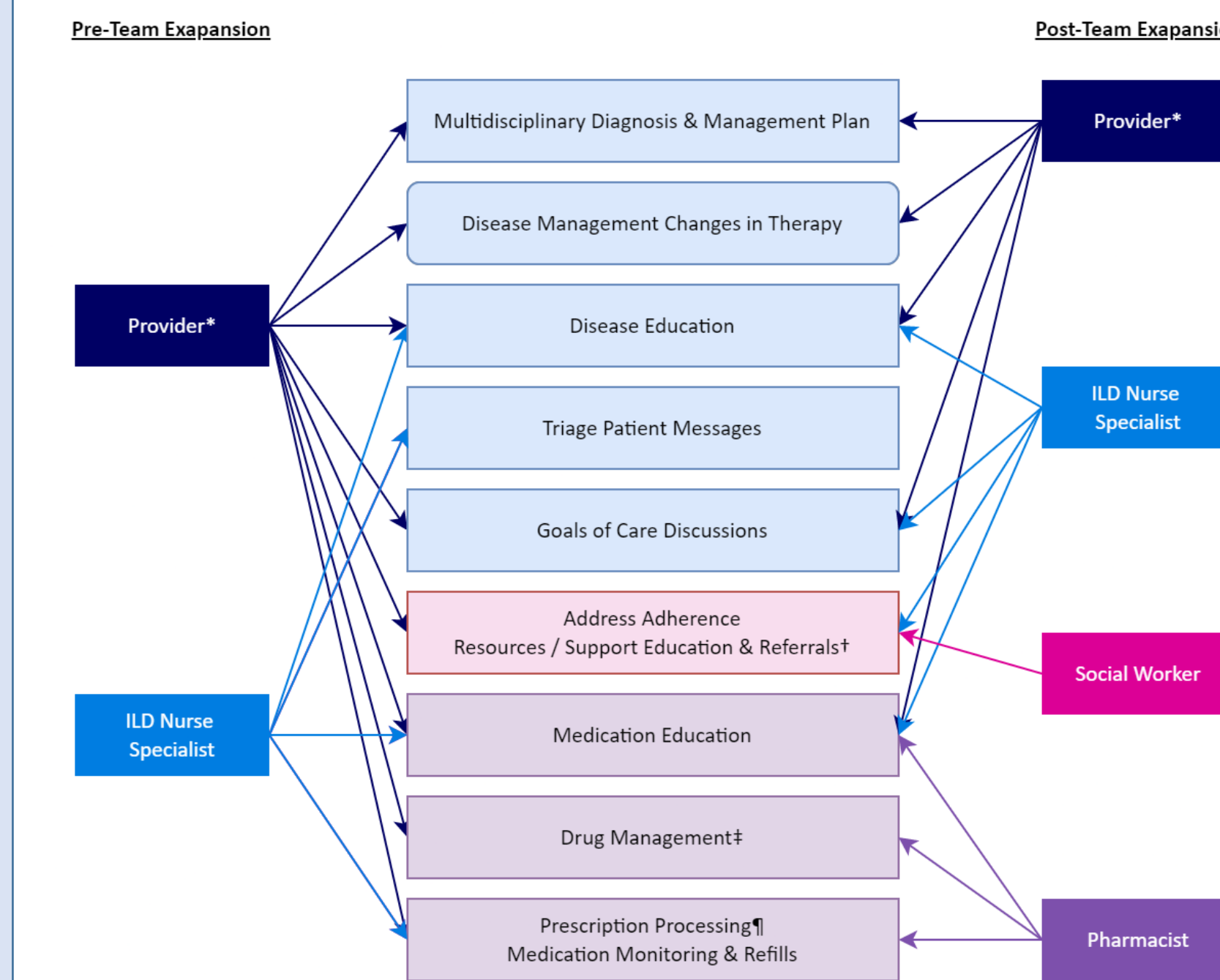
- Improve the management of patients with ILD by allowing the ambulatory care pharmacist to lead medication management efforts for these patients in the PFCC.
- Goals of this expansion were to:
 - Improve patient access to and initiation of ILD medications
 - Improve medication therapy management

Description of the Program

Innovation

- In March 2020, the ILD team integrated and positioned an ambulatory care pharmacist as a therapy expert and developed the ILD Multidisciplinary Team
- The ILD team reevaluated and redefined team roles to ensure patients with ILD received quality and timely care through the ILD Monitoring Program workflow
- This novel workflow enabled team members to bring the best of their training and expertise to provide patient care

Figure 1. Redefining ILD team member roles after expansion



* Provider = ILD physician or nurse practitioner
 † Resources / support education & referrals = transportation, home care, community resources, and care plan creation
 ‡ Drug Management = therapy initiation, monitoring, and adjustment/discontinuation as required, assistance with prior authorizations as needed, and ensuring medication adherence
 § Prescription Processing = prior authorizations, assistance in patient financial assistance foundation applications, and delivery of medication

Workflow Overview

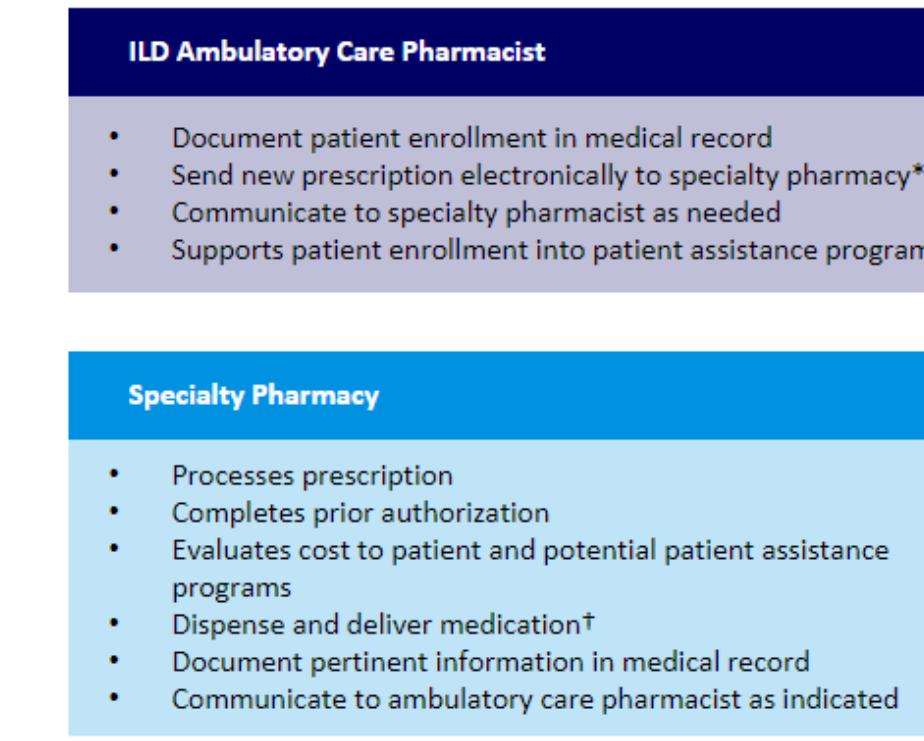
- Implemented a standing weekly meeting as evidence suggests that having a multidisciplinary meeting at least every two weeks improves outcomes²
- Developed necessary protocols and workflows for the ILD Multidisciplinary Program
- Established a collaborative practice agreement (CPA) for the Pharmacist-led Medication Management Program
 - Positioned the pharmacist as a prescriber on the team with the ability to initiate therapy, order necessary labs and testing, and provide comprehensive medication management for complex therapies
 - Expanded the pharmacist's responsibilities to integrate patients with outpatient pharmacies and promote enrollment into patient financial assistance program
- Created note templates to standardized the information presented in the electronic medical record
- Developed a medication-use database to standardize pharmacy's approach to patient evaluation

Experience with the Program

Interventions and Services Provided

- Patients prescribed high-risk medications were enrolled into the ILD Pharmacist-Led Medication Management Program starting in July 2020
- The ambulatory care pharmacist assessed each patient individually to determine if there were any contraindications, potential drug interactions, or abnormal baseline labs
- The pharmacist educated the patient on the new therapy and ensured that all questions were addressed before the patient started the medication
- Follow-ups were scheduled with the patient in 2-week intervals for the first two months of therapy or more frequently if needed
- If the patient developed any side effects or adverse drug events, the pharmacist provided an individual approach
- An intentional collaboration was established with our institutional specialty pharmacy, Pharmacy Advantage (PA_ in August 2020

Figure 2. Ambulatory Care and Specialty Pharmacy Collaboration



* Unless patient declines
 † Unless insurance mandates use of another specialty pharmacy

Patient Outcomes

- Since July 2020, 266 patients have been enrolled into the ILD Pharmacist-Led Medication Management program. A total of 205 patients were initiated on therapy between July 2020 and July 2022

Table 1. Therapy Initiation

	2020 (Jul – Dec)	2021	2022 (Jan – Jul)
Antifibrotic	19	60	29
Steroid-Sparing Agent	16	59	22
Total New Starts	35	119	51

- 53% of patients were initiated on an antifibrotic
- The pharmacist provided 32% of patients with a drug holiday
- Discontinuation rates for nintedanib and pirfenidone were 8.5% and 16.3%, respectively
- A total of eleven patients (18.6%) required a dose reduction on nintedanib and two patients (4.1%) required a dose reduction with pirfenidone.
- Six patients on antifibrotic therapy required a change from one agent to another (nintedanib to pirfenidone)
- Ten patients (10.3%) were unable to tolerate steroid-sparing therapy and two patients (3.09%) required a dose reduction

Financial Outcomes

- Since the collaboration was formed, PA has captured over 900 prescriptions for ILD therapy
 - The volume of antifibrotics dispensed increased by 116%; this is a 118% increase in revenue
 - The volume of NSIS increased almost 147%; a 268% increase in revenue
- The approval percentage for prior authorizations increased to greater than 90%
- Average initiation time for therapy decreased to less than two weeks
- Over \$525,000 total cost savings for the patients
- Patients more likely to recommend HFH due to the care provided by the ILD pharmacist and the ILD team

Discussion / Conclusion

Significance of Program

- Previous studies demonstrated the vital role of the pharmacist in managing ILD³⁻⁴
 - Our analysis is the first to evaluate the direct impact of the pharmacist on discontinuation and dose reduction rates
 - Discontinuation and dose reduction rates for antifibrotics were lower than in the primary literature
- The intentional collaboration and improved workflow transformed our specialty pharmacy practice and improved communication, documentation, and ultimately the care of the patient at our integrated institution
- Our program model aligns with what patients and caregivers identify as 'the essential components of an ILD clinic' (i.e., assistance and coordination of medications)²
- The addition of a pharmacist has also improved the time devoted to patient-centered care within a team members' expertise and enabled the program to grow

Conclusion

- Adopting this multidisciplinary team dynamic is a best practice because it allows each team member to practice more efficiently and ultimately optimize patient care and management
- The program design enables pharmacists to provide comprehensive medication management and patient-centered care within an integrated delivery network

Acknowledgements

- Patrick Gasso, Pharm.D.
- Asif Abdul Hameed, M.D.
- Louise Hurick-Miles, R.N.
- Elizabeth Kozmor

References

- Interstitial lung disease. Interstitial Lung Disease | American Lung Association. (n.d.). Retrieved July 15, 2022, from <https://www.lung.org/lung-health-diseases/lung-disease-lookup/interstitial-lung-disease>
- Graney BA, He C, Maril M, Matson S, Bianchi P, Cosgrove GP, et al. Essential Components of an Interstitial Lung Disease Clinic: Results from a Delphi survey and patient focus group analysis. CHEST. 2020.
- Naqvi M, D'Ancona G, West A. Impact of a specialist respiratory pharmacist in the management of interstitial lung disease. European Respiratory Journal Sep 2018; 52 (suppl 62) PA3667.
- Satsuma Y, Ikesue H, Kusuda K, et al. Effectiveness of Pharmacist-Physician Collaborative Management for Patients with Idiopathic Pulmonary Fibrosis Receiving Pirfenidone. Front Pharmacol. 2020 Nov 26;11:529654.