

The Impact of Clinical Pharmacist-Led Initiatives in HIV Care

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- Authors of this presentation have the following 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.
 - DeMaurian Mitchner Nothing to disclose
 - Lauren Richey Nothing to disclose

Learning Objectives



- Describe the different roles of pharmacists for people living with HIV (PLWH) and review the published evidence supporting pharmacist-based interventions for people living with HIV.
- Discuss the outcomes of two different successful pharmacy based interventions in an academic medical center to improve care amongst PLWH.

Optimal Treatment Model



- HIV treatment has drastically change over the last 10 years
 - Convenient therapy but no less complicated
- Management of HIV requires a multidisciplinary approach to ensure treatment of the patients is comprehensive
- Pharmacists medication expertise make them a vital member of the treatment team
 - Ensuring safety and efficacy of medication therapies

Pharmacist Training and Qualifications



- HIV specialized pharmacists usually have advanced training including:
 - Post doctorate residences
 - Infectious disease fellowship programs
 - HIV-specific fellowship programs
- Others acquire their knowledge through experience and certifications programs:
 - American Academy of HIV Medicine's HIV Pharmacist (AAHIVP) certification
 - Board of Pharmacy Specialties in infectious diseases (BCIDP), ambulatory care (BCACP), or pharmacotherapy (BCPS)

My Professional Journey





The Pharmacist's Role



Institutional Inpatient Setting

- Daily patient rounds
- Antiretroviral stewardship
- Education and training
- Concomitant disease management (i.e. opportunistic infections)
- Transitions of care

Ambulatory Care Setting

- Regimen optimization
- Drug interaction management
- Insurance navigation
- Patient counseling
- Medication dispensing

Pharmacists Improve Patient Outcomes



Study	Objective	Intervention	Results
Rathbun, et al. Clinc Ther, 2005	Examine the impact of a pharmacy operated adherence clinic on	Pharmacist visit at start of ART; phone follow-up for weekly to assess for adverse	Viral load < 50 at week 16: 63% vs. 35%
	adherence to HAART and viral suppression	effects vs. standard of care of education only during primary visits	Median increase in CD4 from baseline: 142 vs. 97
Henderson, et al. AIDS Patient Care STDs, 2011	Before-after comparison to assess impact of adherence activates in pharmacist- managed clinic by measuring proportion with >95% adherence before and after referral to the program	5 pharmacist visits tailored to patient over 6 months (at referral, 2 weeks, 1 month, then every 2 months)	15% increase in the proportion of patients with undetectable viral load

University Medical Center New Orleans (UMCNO)



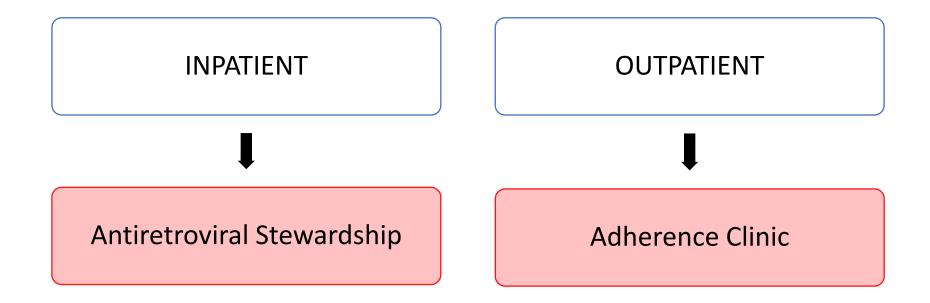
- HIV care providers at University Medical Center New Orleans noticed antiretroviral errors during transitions of care, particularly during inpatient admissions.
- A clinical pharmacist was hired to improve the quality of HIV care, both in the inpatient and outpatient setting.



- Level 1 trauma center
- Academic Medical Center
 - Inpatient and ambulatory care services
- Provides the majority of inpatient care to patients living with HIV in the city of New Orleans

UMCNO Pharmacy Initiatives







A Clinical Pharmacist Intervention is Successful at Decreasing ART Errors in the Inpatient Setting

Study Design



Objective

- To decrease number of ART errors amongst PLWH during inpatient admissions
- Project Design
 - An electronic medical record (EMR) alert was created for a pharmacist to review any patient with HIV who was admitted to the hospital

Pharmacist Review Process

 The clinical pharmacist reviewed the ART orders of patients profiles alerted through EMR and provided recommendations to the inpatient teams

Study Design

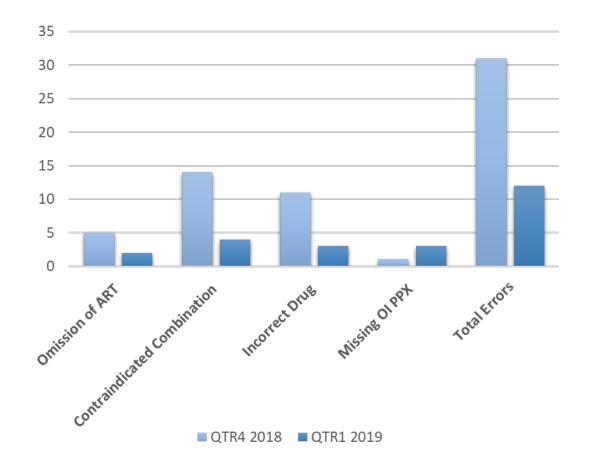


- Data Collected:
 - Gender
 - Type of error
 - Frequency of errors
 - Consult to ID service
- Data was collected for 3 months prior to intervention, October 2018 to December 2018, and 3 month after January 2019 to March 2019

Results



- A total of 148 PLWH were admitted during the review period
 - 40% of patients admitted during the first
 3 month period had an ART-related error,
 (Total N = 79)
 - 20% of patients admitted during the second 3 month period had an ARTrelated error, (Total N=69)
 - 25% had a consult to an HIV Specialist





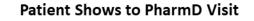
A Pharmacist-led Adherence Clinic Improves Clinic Attendance Rate

Study Design



- Objective
 - To create access to appointments in a timely manner as well as decrease no show visits, resulting in more available appointments for all patients
- Project Design
 - Upon failing to attend two medical visits in a row, that patient is scheduled to meet with the clinic pharmacist
- Pharmacist Intervention
 - During visit the pharmacist would address barriers to care, medication adherence gaps, and the patient's general motivation to stay in care
 - Labs and medication refills were done if necessary

Adherence Clinic Algorithm



- 1. Adherence assessment is completed
- 2. Refills and labs as needed

Patient No-Shows MD/NP Visit

2nd Time

with PharmD prior to scheduling

1. Patient is required to meet

of next MD/NP visit

- 3. Patient scheduled with MD/NP
- 4. PharmD will notified MD/NP of complete adherence visit

Patient No-Shows to PharmD Visit

- 1. MD/NP determines course of therapy
- 2. PharmD visit rescheduled

Patient Shows to 3rd MD/NP Visit GOAL

Patient No-Shows to 3rd MD/NP Visit

1. MD/NP determines course of therapy

2. PharmD visit rescheduled

Discuss patient with PCP to determine ways to engage back in care PharmD Appointment Rescheduled

VIRTUAL

RYAN WH





- Since the beginning of this initiative in October 2019, 76 pharmacist appointments have been scheduled with an attendance rate of 63%
 - Follow up data of patient's MD/NP visit attendance pending
 - Beginning March 2020 clinic transition to primarily telehealth appointments due to COVID-19 pandemic
- Reported barriers to care were:
 - Transportation
 - Mental well-being
 - Lack of support
 - Fear of stigma
- Viral Suppression rate amongst group was 33%





- Pharmacists are a great way to expand the HIV care services and ensure continuity of care amongst PLWH.
 - Antiretroviral stewardship
 - Education
 - Research
 - Transitions of Care
 - Regimen Optimization
- Pharmacists caring for PLWH in the hospital or in ambulatory care settings have an integral role in patient care and can have a significant, positive impact on patient outcome.

Implementing Pharmacy Services



- Although the addition of pharmacy services has a cost, there is data to support cost savings related specifically to a pharmacist's work with HIV patients
 - In a study from 2015, for each dollar spent on pharmaceutical care, there was a benefit of \$2.51.
- Pharmacists in some states have provider status and can bill Medicare for reimbursement of services
- Ryan White funding can be used to pay for pharmacy services



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