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Impact of a Primary Care Clinical Pharmacist on the Management of Hepatitis C Viral Infection

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Interprofessional care including a pharmacist demonstrates a positive trend towards **increasing access to care** and improving **adherence to Hepatitis C management** in a primary care setting.

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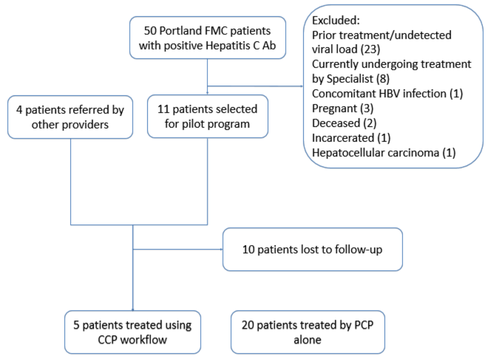
Introduction

- Hepatitis C viral (HCV) infection is a public health concern
- Patients with HCV can be treated by Primary Care Physicians without the need for a referral to a Specialist
- The primary care clinical pharmacist role in HCV management is not well-recognized in the literature[1-6]
- Pharmacists involved in HCV management amongst other specialties have demonstrated improved outcomes including:
  - Medication adherence[6]
  - Identification and management of drug-drug interactions[6,3]
  - Cure rates demonstrated by sustained virologic response (SVR)[4]

Methods

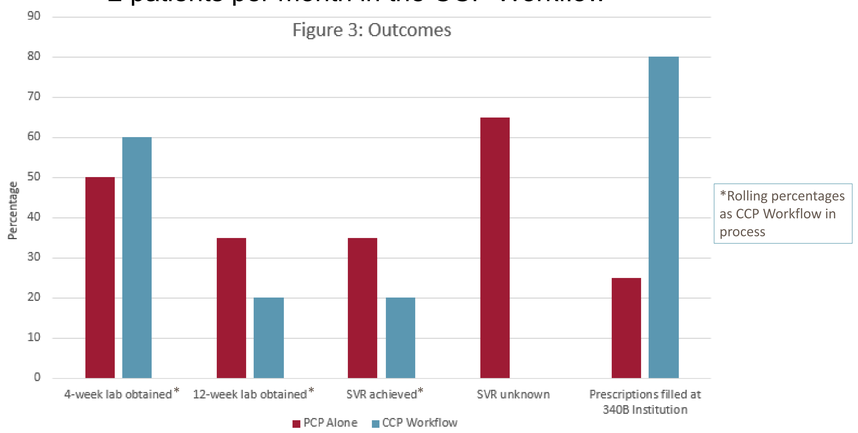
- Prospective quality improvement program at Maine Medical Partners – Portland Family Medicine
- Refer to Figure 1 for Interprofessional HCV Management Workflow
- Patients screened, enrolled and included in analysis as demonstrated in Figure 2

Figure 2: Inclusion Flow Diagram



Results

- Refer to Table 1 and 2 for baseline characteristics of included patients
- Pharmacist interventions during CCP Workflow implementation can be observed in Table 3
- There was a 150% increase in patients per month treated for HCV
  - 0.8 patients per month in PCP Alone method
  - 2 patients per month in the CCP Workflow



Abbreviations: PCP, primary care provider; CCP, collaborative care with pharmacist; SVR, sustained virologic response

Discussion

- Demonstrating trends towards increasing patient access to HCV treatment with involvement of clinical pharmacist
- Possible areas for improvement to current CCP workflow:
  - Involve the specialty pharmacy technician
  - Utilize e-consult to specialty providers for patients meeting exclusion criteria
- Identified barriers:
  - Eligible patients identified and lost to follow up due to inability to obtain updated labs
  - Limited demographic data as patients experiencing multiple social determinants of health

Take a picture to download the full poster

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Citations:

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2. Lasser KE, et al. *Ann Fam Med*. 2017;15(3):258-261.
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Graphs and Figures

Figure 1: Collaborative Care with Pharmacist (CCP) Workflow

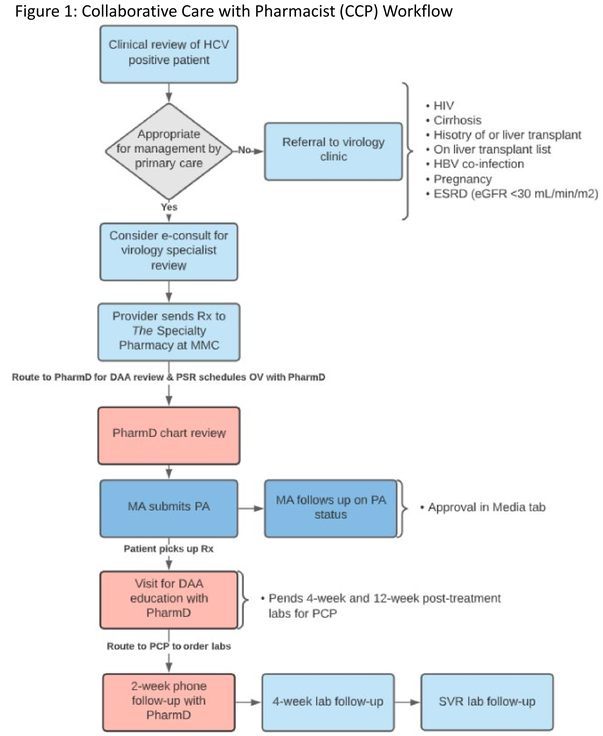

Table 1: Demographic and clinical characteristics of patients with Hepatitis C managed in primary care, stratified by type of workflow.

Variable	PCP Alone (n=20)	CCP Workflow (n=5)
Age (yrs) median (IQR)	39 (34.5-49)	46 (39-47)
Gender (male), n(%)	14 (70.0)	4 (80.0)
Race (white), n(%)	20 (100.0)	4 (80.0)
Insurance (Medicaid), n(%)	14 (70.0)	3 (60.0)
History of SUD, n(%)	20 (100.0)	5 (100.0)
Prior HCV Treatment, n(%)	2 (10.0)	0 (0.0)

Abbreviations: PCP, primary care provider; CCP, collaborative care with pharmacist; yrs, years; SUD, substance use disorder; HCV, hepatitis C virus

Table 2: Hepatitis- and viral-related characteristics of patients with Hepatitis C managed in primary care, stratified by type of workflow

Variable	PCP Alone (n=20)	CCP Workflow (n=5)
Hepatic Fibrosis stage		
F0	2 (10.0)	1 (20.0)
F0-F1	1 (5.0)	0 (0.0)
F1	1 (5.0)	1 (20.0)
F1-F2	2 (10.0)	1 (20.0)
F2	1 (5.0)	1 (20.0)
F3-4 (no cirrhosis)	1 (5.0)	0 (0.0)
Unlikely F3-F4	12 (60.0)	1 (20.0)
Fib-4 score	0.91 [0.78-1.18]	1.03 [0.78-1.22]
HCV Genotype		
1	4 (20.0)	1 (20.0)
1a	7 (35.0)	5, (100.0)
1b	1 (5.0)	0 (0.0)
2	4 (20.0)	0 (0.0)
3	2 (10.0)	2 (40.0)
Unknown	2 (10.0)	0 (0.0)
HAV non-immune	8/18 (44.4)	3 (60.0)
HBV non-immune	10 (50.0)	2 (40.0)

Abbreviations: PCP, primary care provider; CCP, collaborative care with pharmacist; HCV, hepatitis C virus; HAV, hepatitis A virus; HBV, hepatitis B virus

Table 3: Pharmacist Interventions (CCP Workflow)

Drug-Drug Interaction Mitigation			
Number of Drug-Drug Interactions	Drug Involved	Management	Prescriber Approved
1	Atorvastatin	Continue and increase monitoring	1/1 (100%)
HAV and HBV Immunizations			
Number of Patients Recommended for Vaccine	Number of Patients Vaccinated		Prescriber Approved
3	2/3 (66.7%)		3/3 (100%)