



Pharmacy-Based HCV Care

Melissa Bumgardner, Pharm.D., BCPS

Director of Pharmacy Services

West Hawaii Community Health Center

Kailua Kona, HI

Finding the Patients

- Universal Health Reminder – Aged 18+
 - HCV Antibody – reflex to HCV RNA – reflex to genotype
 - Monthly data analysis (DOH grant)
- Pharmacy Referral (CPA)

Test, Betty Bloop12 (Michele)
01/02/1951 68y F

Health Reminders


Reminder	Status	Next Date
Foot Exam (Sensory)	Overdue	Next: 08/26/18
Controlled Substance Contract	Overdue	Next: 12/16/17
LDL-C	Overdue	Next: 07/25/18
Annual Health Visit	Overdue	Next: 12/27/18
Urine Screening (Microalbumin)	Overdue	Next: 05/08/20
Dilated Eye Exam by Optometrist/O...	Overdue	Next: 05/19/20
Mammogram	Overdue	Next: 06/28/20
Foot Exam (Pulse)	Overdue	Next: 12/07/20
Hemoglobin A1c	Due	Next: 12/24/20
Creatinine	Due	
Hep C Screening	Due	
Medicare Annual Wellness - WHCHC	Due	

Patient 2 – HCV + OUD

- OUD intake 1/8/2020
 - Chronic HCV panel, no reflex
 - Last PCP encounter 6/2017
 - DOH data screen
- Telehealth treatment planning visit 6/2020
 - PCP/PharmD collaboration
 - Dr. Tsai review
 - PCP final approval

	01/08/20 10:47a
<input type="checkbox"/> All Items	
Chronic Viral Hep Panel	
<input type="checkbox"/> Hep B Surface Ag	Nonreactive
<input type="checkbox"/> Hep B Surface Ab	Nonreactive
<input type="checkbox"/> Hep B Core Ab Total	Nonreactive
<input type="checkbox"/> Hepatitis C Antibody	REACTIVE A

	06/04/20 11:45a
<input type="checkbox"/> All Items	
HCV Quant Rflx Geno	
<input type="checkbox"/> HCV RNA IU/mL	471,606
<input type="checkbox"/> HCV RNA Viral Log	5.67 H
<input type="checkbox"/> HCV RNA Interp	See Below

	06/04/20 10:25a
<input type="checkbox"/> All Items	
HCV Geno by Sequencing	
<input type="checkbox"/> HCV Geno by Sequencing	1a or 1b



Treatment Planning

- Labs
 - Hep A, Hep B, HIV screenings
 - CBC, CMP, PT/INR (FIB4/APRI)
 - AFP*
- Liver U/S
- Substance use
- Social determinants
- DDI screening

Treatment Planning Worksheet

hepatitis C Treatment Plan

Pt age: 41 gender: male - 32 100% Hb 16.14 - 17.00-20.00

Suspected source of infection: PWD from "long history" - released in 2015, now treated with suboxone

Test Name	Date of assessment	Result
HCV antibody (reflex to HCV RNA)	6/14/2020	471,600
Quantitative		
HCV genotype	6/14/2020	1b (2/3)
ALT	1/9/2020	Non-reactive
HBsAg Panel	1/9/2020	Non-immune
- anti-HBc		- anti-HBc - non-reactive
- anti-HBe		- anti-HBe - non-reactive
- anti-HBs		- anti-HBs - non-reactive
HIV Ab total	7/1/2020	Non-reactive (non-immune)
CBC (within 12 weeks)	1/9/2020	Platelets - 298k
Liver function panel: AST/ALT/ALP, TBL	1/9/2020	AST = 81 - 50 ALT = 45 - 40 ALP = 117 - 50
BUN (within 12 weeks)	7/1/2020	1.1
eGFR (within 12 weeks)	1/9/2020	eGFR = 111 - 94/min BUN = 11 - mg/dl Cr = 0.7 mg/dl Electrolytes WNL
A/P		Not assessed
A/P Score	7/1/2020	1.1 - unable to determine severity
FIB-4 Score	7/1/2020	0.96 points advanced fibrosis excluded
FibroScan		Not assessed
FibroScan Score		Median score 1.39 kPa Q1: 1.11
Substance use history		Heroin, treated with suboxone since 1/2020
IGT (within 12 weeks)	7/1/2020	Expected positive (sub/sof) - unexpected positive, 7%
Imaging	7/1/2020	Liver normal in size and echotexture, normal hepatogastric flow in portal vein. No masses are seen. 1.5cm cyst is within the left lobe. Spleen not imaged.
Drug/Drug interaction screening	7/1/2020	None present - only med is suboxone

Treatment Plan

hepatitis A and E vaccines: NEDD

Medication/Order/Directions: **Sofosbuvir** 1000mg Take 3 tabs one time daily with food for 8 weeks

Follow-up Plan:

- 4 weeks: **Cr, eGFR, LFT, HCV RNA**
- Completion of therapy: **CBC, BUN, HCV RNA**
- 12 weeks after completion of therapy: **LFT, HCV RNA**
- Patients with risk behaviors for HCV re-infection consider annual HCV RNA if patient is not actively engaged in therapy for 2nd

- Send to Dr. Tsai via email
- Charting update created

Charting Update

Medication Management 07/09/20

Provider: Surgeon, Melissa A. Paine, D. Status: Archived (Renewed)

Document Outline

ACTIVE PROBLEMS

- Arthralgia - Pelvis - Hip / Femur Right
- Cannabis Dependence - Continuous
- Chronic Headache
- Essential Hypertension
- Hepatitis C Virus
- Methylphenidate Dependence - Continuous
- Nicotine Dependence Continuous
- Opioid Dependence Continuous
- Overanxious Disorder

HISTORY OF PRESENT ILLNESS

Pt requesting treatment for chronic Hepatitis C infection with DAA therapy. Patient is treatment naïve. Source of Hep C infection is PWID heroin. Last use January 2019. Reports current substance use of TNC - attempting cessation / last use of TNC 2 days ago.

CURRENT MEDICATION

- Bupropione HCl-Naltrexone HCl 2-1 mg Sublingual Tablet Sublingual take one tab SL, TID, XP119000 Dependence, 30 days, 0 refills
- CeleBREX 200 mg Oral Capsule take one cap po BID, 30 days, 0 refills

ALLERGIES

- Penicillin G Benzathine 300000 UME Intramuscular Suspension - Reaction: Skin Rash, Hives, Swelling

ASSESSMENT

- Viral hepatitis C no known drug interactions present for Mavyret - patient current med regimen

PREVIOUS TESTS

- 01/09/2020 HCV1/C = Reflex Diff Nonreactive - Normal
- 01/09/2020 Platelet Count 299 HCV/L
- 01/09/2020 Albumin 4.4 g/dL
- 01/09/2020 Alb Phos 113 U/L
- 01/09/2020 ALT (SGPT) 40 U/L
- 01/09/2020 AST (SGOT) 41 U/L
- 01/09/2020 Bilirubin, Total 0.3 mg/dL
- 01/09/2020 BUN 22 mg/dL
- 01/09/2020 eGFR CKD-EPI Scr=48 Age 113 mL/min (75dL)



- **Prior Authorization Specialist**
 - Therapy often dictated by insurance formulary
- **Prescription Specialist**
 - Coordinate with specialty pharmacy
 - Store medication
- **Case management**
 - Internal
 - External
- **BH - MOUD**



Completing Therapy

- Paired visits with PCP/PharmD
 - Supply chain security
 - Patient education
 - Reminder calls
- Labs per protocol
- Vaccine timing – paired appt
- Coordination long-term follow up
 - SVR
 - Liver U/S, AFP, FIB4

Immunizations

View **Adult** Flowsheet Details

Immunizations	Order	Last	Previous
Hep A, adult		07/09/20	
Hep B Adult		09/30/20	07/09/20
HPV 9			
MMR			
Influenza	Refused		
PCV13			
PPSV23 Pneumococcal P...			
Td			

SVR Charting Update

• Z20.5

ACTIVE PROBLEMS

- Arthritis - Pelvis / Hip / Femur Right
- Cannabis Dependence - Continuous
- Cluster Headache
- Exposure To Hepatitis C - Completed 8 week course of Mavyret 9/27/2020. 12 week SVR confirmed 1/14/2021.
- Nicotine Dependence - Continuous
- Opioid Dependence in Remission - last use Dec. 2019
- Other Or Unspecified Stimulant Use Disorder, Severe, Sustained Remission - last use Dec. 2019
- Overanxious Disorder

HISTORY OF PRESENT ILLNESS

Completed 8 week course of Mavyret 9/27/2020. 12 week SVR confirmed as below:

CURRENT MEDICATION

- Celebreth 200 MG Oral Capsule TAKE 1 CAPSULE BY MOUTH EVERY DAY AS NEEDED, 30 days, 2 refills
- Exzio 2 MG/0.4ML Injection Solution Auto-injector Solution Auto-injector EXZIO follow automated instructions for opioid overdose. May use 2nd device after 2 to 3 minutes if needed., 30 days, 0 refills
- Suboxone 8-2 MG Sublingual Film/Film take one SL TID XT7880166, 90 days, 0 refills

ALLERGIES

- Penicillin G Benzathine Reaction: Skin Rash, Hives, Swelling

PREVIOUS TESTS

- Test: HCV QUANT W/ REFLEX TO GENOTYPE Report Date: 01/15/2021
HCV RNA, Quant NOT DETECTED

PLAN

Chronic HCV diagnosis changed to status resolved.
Exposure to HCV ICD-10 code added to problem list per protocol.

CARE TEAM

Brandon Kang, LCSW
Aren J Thompson, DO
Shannon Price, DO

Family Practice

Long Term Monitoring

DATE (q 6 months)	6/10/2019	1/13/2020	May-20	8/6/2020	Nov-20	Feb-21
	The parenchyma is echogenic consistent with fatty infiltration. The liver appears enlarged, measuring 22cm. Normal hepatopedal flow in portal vein. No masses are seen. IMPRESSION: fatty infiltration of liver and hepatomegaly			The liver is enlarged and more echogenic than adjacent kidney. Normal hepatopedal flow in portal vein. No masses are seen. Spleen enlarged measuring 14cm.		
LIVER U/S			Ordered 5/27/2020			DUE
METAVIR	2.04 m/sec (F2/F3)			1.82 m/sec (F2-F3)		DUE
AFP			5.5 ng/ml		DUE	
FIB-4	2.7 Advanced fibrosis likely	2.09 further investigation needed	1.47 further investigation needed		1.42 further investigation needed	
					sent task 11-4-2020	

Outcomes

- Patient 2 – Pursuing SUD Counselor career through BISAC
 - 2020 Data
 - HCV Antibody screen = 1972
 - HCV Antibody positive = 65
 - Chronic HCV = 37
 - Connected to care = 36
 - Program Data
 - Total patients screened (2019-2020) = 2962
 - Total patients treated (or in progress) = 53
 - Completed therapy = 42
 - SVR confirmed = 25/33 (75%)
 - LTFU = 6
 - Declined labs = 1
 - Hospice (brain cancer) = 1
 - 13 of 15 eligible providers have treated at least one patient (80%)
- 