Interdisciplinary Hepatitis C Treatment Program in a Primary Care Setting

Presented by
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LT Neelam Gazarian. PharmD
Financial Disclosures

• LCDR Jonathan Owen
  ▫ None

• LT Neelam Gazarian
  ▫ None
Objectives

• Discuss the HCV virus and impact on Native American Population
• Discuss epidemiology of Hepatitis C in Indian Country
• Review screening methods and procedures when diagnosing between acute and chronic Hepatitis C
• Discuss new therapeutic options for treatment of chronic HCV
• Recognize and assess clinical significance of common drug-drug interactions
• Demonstrate how to establish a pharmacy managed HCV clinic
What is the Hepatitis C Virus?

A small, (55-65 nm) enveloped, single stranded RNA virus

7 major genotypes

Half life in serum ~ 45 minutes-3 hours

Each cell produces 50 virions daily
- $10^{12}$ virions produced each day, mainly in the hepatocytes of the liver

Utilizes phosphoprotein NS5A and viral RNA-dependent RNA polymerase NS5B
- Target molecules with current treatments

Hepatitis C As a Global Health Problem

HCV Incidence

• 30,500 estimated new infections
• IHS just over 2,000 per year
  ▫ Not a true incidence but rather ‘new diagnoses’
• 33,937 HCV+ patients
  ▫ 1,527 born before 1945
  ▫ 18,482 born 1945-1965
  ▫ 13,928 born after 1965
HCV Hospitalization

300% Increase in related Hospitalization for AI/AN – 1995-2007
(per 100,000 persons)

Byrd KK, et al Pub Hlth Rep 2011
HCV Related Mortality

By race/ethnicity, 2014

- White
- Hispanic
- Black
- AI/AN

Per 100,000
Epidemiology: Hepatitis C In the Great Plains NE, ND, and SD - Percent of Cases Per Year by Race (2012-2016)

Great Plains Area

- AI/Ans (n=1,084)
- Whites (n=1,239)

Nebraska Department of Health & Human Services, North Dakota Department of Health, and South Dakota Department of Health
Epidemiology: Percent of Cases Per Race & Sex by Age Group by Race (2012-2016)

Great Plains Area

Nebraska Department of Health & Human Services, North Dakota Department of Health, and South Dakota Department of Health
Risk Factors for HCV Infection

- Born between 1945-1965
  - 1 in 30 baby boomers has HEP C
- Blood transfusion or organ donation prior to 1992
- Current or former IV drug use
- Chronic hemodialysis
- Any known blood exposure to HCV-positive blood
- Persons with HIV
- Children born to HCV infected mother
  - 4-7%
Natural progression following Initial infection with HCV


Hepatitis C Genotypes

- Genotype 1
  - GT 1b different than GT 1a

- GT 3 associated with higher mortality

Signs and Symptoms

In absence of Cirrhosis

- Fatigue
- Impaired cognitive function (brain fog)
- Migratory arthralgia or myalgia
- Depression
- Decreased appetite/weight loss
- Acute liver failure rare

Extrahepatic Manifestations of chronic HCV

- Thrombocytopenia
- Renal disease
- Lymphomas
- Neuropathy
- Dermatologic manifestations
- Diabetes
- Neurological impairments
- False positive rheumatoid factor
- Pancreatic cancer
- Mixed cryoglobulinemia
- Psoriasis/Pruritus
Evaluations of Patients with Chronic HCV

1. Baseline exam and labs
2. Screening for other causes of liver disease
3. Vaccinations
4. Staging of Liver Disease
5. Special considerations for cirrhotic patients
   - Monitor for HCC
   - Evaluate for cirrhosis
   - Referral for liver transplant
6. Assessment and management of alcohol and substance abuse
   - Behavioral health referral
## Baseline Studies in Chronic HCV

<table>
<thead>
<tr>
<th>Basic blood tests</th>
<th>Comprehensive metabolic panel</th>
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<tbody>
<tr>
<td></td>
<td>Complete blood count with differential</td>
</tr>
<tr>
<td></td>
<td>INR</td>
</tr>
<tr>
<td></td>
<td>Vitamin D 25-OH</td>
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<td>Pregnancy test</td>
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<table>
<thead>
<tr>
<th>Liver function test</th>
<th>Liver enzyme function tests</th>
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<tbody>
<tr>
<td></td>
<td>total and direct bilirubin</td>
</tr>
<tr>
<td></td>
<td>serum albumin</td>
</tr>
<tr>
<td></td>
<td>Liver Fibrosis (Echosens) test</td>
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</table>

<table>
<thead>
<tr>
<th>Hepatitis and HIV tests</th>
<th>HCV genotype and subtype</th>
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<tbody>
<tr>
<td></td>
<td>Quantitative HCV RNA</td>
</tr>
<tr>
<td></td>
<td>HIV Antibody</td>
</tr>
<tr>
<td></td>
<td>Hepatitis A serology (IgG or total)</td>
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<tr>
<td></td>
<td>Hepatitis B serology (HBsAG, anti-HBs, anti-HBc)</td>
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<table>
<thead>
<tr>
<th>Miscellaneous and Imaging</th>
<th>Alpha-fetal protein (AFT)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Abdominal ultrasound</td>
</tr>
</tbody>
</table>
Baseline Studies

CBC w/differential

- Thrombocytopenia (<150 thousand)
- Neutropenia
- Cirrhosis causes BMS

Liver Panel

- AST or ALT
  - <30 IU/mL for men
  - <19 IU/mL for women
- ↑Bilirubin
- Synthetic function
  - ↓Alb  ↑INR
Baseline Studies

**HCV tests**
- GT and subtype
- Quantitative
- Decide duration
- Acute vs Chronic

**Hepatitis A&B**
- Revaccination
- HBV reactivation
  - 24 cases
  - Unknown mechanism

**Others**
- HIV Antibody
- AFP
- Abdominal u/s
  - Spleen size
- Cirrhosis
- HCC
Vaccinations

- **Hep A**: 0 and 6-18 months
- **Hep B**: 0, 1-2 and 6-28 months
- **Twinrix**: 0, 1 and 6 months
Staging of Liver Disease

- Suggestive of Advanced Fibrosis/Cirrhosis
- Presence or history of ascites or esophageal varices
- Low platelet count (<150,000 mm$^3$)
- APRI $\geq$ 1.0
- FIB-4 $\geq$ 3.25
- Fibrosure $\geq$ 0.72
- Imaging/scanning with evidence of cirrhosis
- Liver biopsy with F3 or F4 fibrosis
Staging of Liver Disease: APRI, FIB-4 Score

Staging of Liver Disease: Child-Pugh Classification of Cirrhosis

- **Class A: Mild dysfunction**
  - 5 to 6 points
  - 100% 1 year survival
- **Class B: Moderate dysfunction**
  - 7 to 9 points
  - 80% 1 year survival
- **Class C: Severe dysfunction**
  - 10-15 points
  - 45% 1 year survival

- Calculated only for patients with cirrhosis or suspected

<table>
<thead>
<tr>
<th>Factor</th>
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<td>Total bilirubin (µmol/L)</td>
<td>&lt;34</td>
<td>34-50</td>
<td>&gt;50</td>
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<tr>
<td>Serum albumin (g/L)</td>
<td>&gt;35</td>
<td>28-35</td>
<td>&lt;28</td>
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<tr>
<td>PT INR</td>
<td>&lt;1.7</td>
<td>1.71-2.30</td>
<td>&gt;2.30</td>
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<tr>
<td>Ascites</td>
<td>None</td>
<td>Mild</td>
<td>Moderate to severe</td>
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<tr>
<td>Hepatic encephalopathy</td>
<td>None</td>
<td>Grade I-II</td>
<td>Grade III-IV (or refractory)</td>
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Staging of Liver Disease: Liver Biopsy

- No longer considered gold standard
- Invasive procedure
- Expensive
- Poor patient acceptance
- Interpretation has significant variability
Staging of Liver Disease: Cirrhosis

Development of complications between compensated and decompensated cirrhosis

- Variceal hemorrhage
- Ascites
- Encephalopathy
- Jaundice
Staging of Liver Disease: Cirrhosis

- Median survival
  - Compensated: 9 years
  - Decompensated: 1.6 years
- Patients with a score of 15 or greater should be considered for evaluation of liver transplant
Alcohol and On-going Substance Abuse

• NOT indicated to withhold HCV therapy based on active alcohol or substance use
• Patients may be referred to behavioral health of substance abuse treatment before and during HCV management
Protecting the Liver

• Coffee and tea may be liver protective
• Statins may be hepatoprotective and even may decrease risk of HCC
• Tobacco: Can increase risk of hepatocellular carcinoma.
• Marijuana: chronic use associated with increased fibrosis
• Alcohol: hepatotoxic

Pastori et al. Digestive and Liver Disease. Volume 47, Issue 1, January 2015, Pages 4-11
HCV Therapy: Goals

Cure
- Defined as sustain Virologic response (SVR)
- No detectable viral RNA three months post completion of treatment

Improvements in liver function
- Decreased fibrosis, potentially reversal of cirrhosis

Improvements in extrahepatic manifestations of HCV

Improved glycemic control, decreased insulin resistance

Quality of life!
## HCV Therapy: Old vs New

<table>
<thead>
<tr>
<th>Interferon Based</th>
<th>Direct Acting Antivirals</th>
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<tr>
<td>• Injectable</td>
<td>• Oral</td>
</tr>
<tr>
<td>• Long duration of treatment: 6 to 12 months</td>
<td>• Shorter durations: 2-3 months</td>
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<tr>
<td>• High side effect profile</td>
<td>• Minimal side effects</td>
</tr>
<tr>
<td>▫ Fatigue, alopecia, neutropenia, insomnia, depression</td>
<td>▫ N/V, muscle weakness</td>
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<tr>
<td>• Low cure rate</td>
<td>• High cure rates: &gt;99%</td>
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<tr>
<td>▫ 10-50%</td>
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HCV Therapy: Old vs New

Adapted from the US Food and Drug Administration, Antiviral Drugs Advisory Committee Meeting, April 27-28, 2011, Silver Spring, MD.
# HCV Direct Acting Antivirals (DAAs)

<table>
<thead>
<tr>
<th>Target</th>
<th>NS3/4A: Protease Inhibitors (-previr)</th>
<th>NS5A: Replication Complex Inhibitors (-asvir)</th>
<th>NS5B: Polymerase Inhibitors (-buvir)</th>
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<tbody>
<tr>
<td>Glecaprevir</td>
<td>Ledipasvir</td>
<td>Sofosbuvir</td>
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<tr>
<td>Voxilaprevir</td>
<td>Pibrentasvir</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Velpatasvir</td>
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<td></td>
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</table>

- **Harvoni®** - Ledipasvir/Sofosbuvir
- **Epclusa®** - Sofosbuvir/Velpatasvir
- **Mavyret®** - Glecaprevir/Pibrentasvir
- **Vosevi®** - Sofosbuvir/Velpatasvir/Voxilaprevir
HCV Therapy: Ledipasvir/Sofosbuvir Harvoni®

- Treatment naïve
- GT 1 and 4
- Combination of NS5B polymerase inhibitor (Sofosbuvir) and NS5A inhibitor (Ledipasvir)
- Administration 1 tab daily

HCV Therapy: Ledipasvir/Sofosbuvir Harvoni®

Efficacy Summary
ION Studies

<table>
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<tr>
<th>Weeks</th>
<th>ION-1</th>
<th>ION-2</th>
<th>ION-2</th>
<th>ION-3</th>
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<td>97</td>
<td>96</td>
<td>99</td>
<td>93</td>
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</table>

N=214 Treatment naïve 16% cirrhosis

ION-1

ION-2

ION-3

ION-2

ION-3

Treatments experienced
20% cirrhosis

Treatments naïve
No cirrhosis

HCV Therapy: Sofosbuvir/Velpatasvir Epclusa®

- **Treatment naïve and treatment experienced**
- **Pangenotypic: 1,2,3,4,5,6**
- **Combination of NS5B polymerase inhibitor (Sofosbuvir) and NS5A inhibitor (Ledipasvir)**
- **Administration: 1 tab daily**

HCV Therapy: Sofosbuvir/Velpatasvir Epclusa®

Efficacy Summary
ASTRAL-1: SVR12 for all Genotypes

<table>
<thead>
<tr>
<th>Category</th>
<th>SVR12 Rate</th>
<th>Sample Size</th>
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<tr>
<td>Total</td>
<td>99%</td>
<td>618/624</td>
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<tr>
<td>Non-Cirrhotic</td>
<td>99%</td>
<td>496/501</td>
</tr>
<tr>
<td>Cirrhotic</td>
<td>99%</td>
<td>120/121</td>
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<tr>
<td>Treatment Naïve</td>
<td>99%</td>
<td>418/423</td>
</tr>
<tr>
<td>Treatment Experienced</td>
<td>99%</td>
<td>200/201</td>
</tr>
</tbody>
</table>

HCV Therapy: Sofosbuvir/Velpatasvir/Voxilaprevir Vosevi®

Treatment experienced with NS5A inhibitor

Pangenotypic: 1,2,3,4,5,6

Combination of NS5B (Sofosbuvir), NS5A (Velpatasvir), and NS3/4A (Voxilaprevir)

Administration
1 tab daily with food
HCV Therapy: Sofosbuvir/Velpatasvir/Voxilaprevir Vosevi®

**Efficacy Summary**

**POLARIS-1: SVR12 for all Genotypes**

- **All**: 96%
  - 253/263
- **No Cirrhosis**: 99%
  - 140/142
- **Cirrhotic**: 93%
  - 113/121

HCV Therapy: Glecaprevir/Pibrentasvir Mavyret®

- Treatment experienced with NS5A inhibitor
- Pangentypic: 1, 2, 3, 4, 5, 6
- Combination of NS3/4A protease inhibitor (Glecaprevir), and NS5A inhibitor (Pibrentasvir)
- Administration: 3 tabs daily with food

Mavyret [package insert]. North Chicago, IL: AbbVie, Inc.; 2017
HCV Therapy: Glecaprevir/Pibrentasvir Mavyret®

Efficacy Summary
ENDURANCE-1: SVR12 for GT 1 Non-cirrhotic

- 8 Weeks: 332/335 (99.1%)
- 12 Weeks: 331/332 (99.7%)

# Summary

## Side effect and Adverse Reactions of DAAs
- Well tolerated by most patients
- Most common
  - Headache
  - Fatigue
  - Nausea
  - Diarrhea
  - Muscle weakness

## Laboratory Abnormalities
- Not common
- Bilirubin elevations
  - DAAS can inhibit bilirubin transporters
- Initial slight increase in ALT
- Anemia with use of ribavirin
Drug Interactions with DAAs

• Mostly metabolized by CYP3A4.
  ▫ Inhibitors: grapefruit, macrolides, azoles, antidepressants, CCB, protease inhibitors
  ▫ Inducers: Anticonvulsants, barbiturates, hypoglycemics
• Transported by P-gp
  ▫ Inhibitors: Amiodarone, atorvastatin, carvedilol, digoxin, nifedipine, verapamil
  ▫ Inducers: Aspirin, cyclosporine
• Avoid herbals: St. John’s Wort and milk thistle (2C9)
• Acid suppressive therapy
  ▫ Greatest concern with Velpatasvir (Epclusa® and Vosevi®)
  ▫ Counseling point: avoid PPIs while on treatment
    • May take one dose of H2 antagonist at same time as daily dose
Summary

- Hepatitis C is an infectious disease that affects the liver that may ultimately lead to cirrhosis, hepatic carcinoma and death.
- New treatments highly efficacious with minimal side effects.
- Currently may be cost prohibitive but more information forthcoming and in poster presentation.
Summary

- Treatment algorithm available:
  - American Association for The Study of Liver Diseases
    - [https://www.aasld.org/publications/practice-guidelines-0](https://www.aasld.org/publications/practice-guidelines-0)
  - Project ECHO Training
  - University of Liverpool
    - [https://www.hep-druginteractions.org/](https://www.hep-druginteractions.org/)
    - Most comprehensive source available
Establishing a pharmacy managed HCV Clinic
Prior to HCV Clinic

**With Insurance (Pvt./Federal)**
- Referred to Medical Specialists
- $10,000-$15000/referral
- Distance
  - Lost to follow-up

**Without Insurance**
- Very Few Options
- Rationing Care
- Poor outcomes
Inter-collaborative Approach

- Primary Care Provider
- Pharmacist
- Laboratory Services
- Behavioral Health
- Public Health
- Benefits Coordinator

Patient
Identifying Patients with Hepatitis C

iCare
- 168 patients
  - 25% screening rate

VGEN
- 155 patients
EHR Documentation

Referral
- Consult from PCP
- Walk in

Initial Visit
- PHQ-9
- AUDIT-C
- Education
- Labs
- Immunizations

Comprehensive visit
- Project ECHO
- Start Medication Authorization

Treatment
- Counseling
- Labs
- Immunizations

End of Treatment
- Labs

SVR
- Patient is cured!
- Counsel about re-infection and prevention
Consult Template

Quentin N. Burdick Memorial Health Care Facility

HEPATITIS C TREATMENT PROGRAM

PCP:

DEMO PATIENT ARCELA (CC-00-00) is a 10 year old FEMALE being referred to the pharmacy managed hepatitis C treatment clinic at the Quentin N. Burdick Memorial Health Care Facility.

ALL THE FOLLOWING MUST BE ANSWERED BEFORE PATIENT WILL BE ACCEPTED INTO THE CLINIC:

Does the patient have a history of compliance and adherence with prescribed treatment plans?

- Yes  - No

Do you feel that the patient is ready to begin treatment for chronic HCV?

- Yes  - No

Does patient have recent labs within the last 3 months to establish a baseline prior to initiating treatment? Please see the Hepatitis C menu in the outpatient lab menu for a full list of required labs necessary for initiating treatment.

- Yes  - No

Do you want us to order required labs for this patient on your behalf? If not, lab orders will be sent to provider to sign off on.

- Yes  - No

Please evaluate and enroll patient into the program and treat for hepatitis c.
EHR Note Templates

- HCV Treatment Program: Initial Visit with Patient
- HCV Treatment Program: Comprehensive Visit with Patient
- HCV Treatment Program: Initiation of Treatment Visit with Patient
- HCV Treatment Program: Continuation of Treatment Visit with Patient
- HCV Treatment Program: End of Treatment Visit with Patient
- HCV Treatment Program: Three Months Post Completion of Treatment
Quentin M. Burdick Memorial Health Care Facility
Hepatitis C Treatment Program

PCP: __________

NAME, PATIENT AGE/GENDER (00-00-00) __________

CHIEF COMPLAINT: Invalid visit

OBJECTIVE:


120.00 lb (54.40 kg)

HCV Treatment Program: Initial Visit with Patient

- Patient is 10 year old FEMALE referred to the HCV clinic for hepatitis C treatment. Labs and vaccinations were reviewed and ordered if necessary. Patient is counseled about the disease, labs and vaccination required, the process of treatment and all other requirements before initiating. All concerns and questions by the patient are answered and explained.

- Patient verbalized understanding.

Project Echo presentation is tentatively scheduled for: __________

Patient's insurance is __________

All documents are requested from patient if necessary to enroll in patient assistance program.

Additional Counseling points or notes:

- Patient's best contact number is __________

PHQ-9 Questionnaire:

Over the last 2 weeks, how often has the patient been bothered by any of the following problems?

1. Not at all
2. Several days
3. More than half the days
4. Nearly every day

1. Little interest or pleasure in doing things. __________
2. Feeling down, depressed, or hopeless. __________
3. Trouble falling or staying asleep, or sleeping too much. __________
4. Feeling tired or having little energy. __________
5. Having trouble concentrating. __________
## Hepatitis C Labs Order Menu

<table>
<thead>
<tr>
<th>Hep C Screen</th>
<th>IF POSITIVE OR KNOWN HISTORY OF HCV DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCV RNA QT REFLEX GENOTYPE</td>
<td>Hep C PCR QUANT</td>
</tr>
</tbody>
</table>

Lab values required within past 3 months:

- Chem 14
- CBC/Auto Diff
- Fibrotest
- PT/INR
- Anemia Panel
- Vitamin D
- Alpha Fetoprotein Tumor Marker

- HIV Screen
- Hepatitis A Total Antibody
- Hepatitis B Surface Antibody
- Hepatitis B Core Antibody
- Hepatitis B Surface Antigen

- Hepatitis C 4 week ETR and SVR labs

- Hepatitis C 8 week labs
- All other labs

- Must have at least 2 UDS in last 12 months at least 3 months apart
- Urine Drug Screen
- Pregnancy Test
Hepatitis C Labs Order Set
Managing Patients

Snapshot of stage in treatment process drop down menus (these can be adjusted)

<table>
<thead>
<tr>
<th>Color</th>
<th>Stage Description</th>
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</thead>
<tbody>
<tr>
<td>White</td>
<td>Unable to contact</td>
</tr>
<tr>
<td>Green</td>
<td>Ready to present to ECHO</td>
</tr>
<tr>
<td>Blue</td>
<td>Started treatment</td>
</tr>
<tr>
<td>Yellow</td>
<td>Pending Appt need labs</td>
</tr>
<tr>
<td>Red</td>
<td>UDS Positive</td>
</tr>
<tr>
<td>Purple</td>
<td>Medication Approval Pending</td>
</tr>
<tr>
<td>Orange</td>
<td>Completed treatment, pending SVR labs</td>
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<tr>
<td>Grey</td>
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<td>Patient Name</td>
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</table>

- **Patient Panel**
- **Hepatitis C Patient Panel List**
- **Developed by: LT Neelam ‘Nelly’ Gazarian, PharmD.**
- **with LCDR Jonathan Owen, PharmD.**
- **email: neelam.gazarian@ihs.gov, jonathan.owen@ihs.gov**
## Individual Patient Data

<table>
<thead>
<tr>
<th>Labs to Order</th>
<th>Date Ordered</th>
<th>Select from Menu</th>
<th>Date Hep A Shot 1st</th>
<th>Date Hep B Shot 6 months</th>
<th>Date Hep 80 week</th>
<th>Date 2nd Shot 1 month</th>
<th>Date 3rd Shot 6 months</th>
<th>Date Twinrix Shot</th>
<th>Date Twinrix 2nd shot</th>
<th>Date Twinrix 3rd shot</th>
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<tbody>
<tr>
<td>HCV Screen</td>
<td>HCV Viral Load</td>
<td>Pick from drop down</td>
<td>6/28/1900</td>
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**Hep B Ab/Shot**, if no please give shot and f/u for series

Enter Date: MM/DD/YYYY

**HCV RNA Results**

**Link to Ongoing Patients**

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Navigating Insurance/Prior Authorizations

**Comprehensive Visit Clinic Notes**

**Project ECHO**
- Recommended regimen

**Lab Values**
- Chem 14, CBC, anemia panel, Vit D, AFT, HIV, Hep A & B, pregnancy
- Viral load and genotype
- Fibrosis Score: APRI, FIB4, Fibrotest

**Abstinence requirements**
- Urine drug screens and/or clinical notes

**Compliance**
Patient Assistance Program

Gilead’s Support Path

- Harvoni®, Epclusa®
- iAssist: https://www.assistrx.com/iassist/

AbbVie Patient Assistance Foundation

Mavyret®
Patient Assistance Programs

- Tribal ID card
- Income documents
  - Max income allowed differs by program
- Proof of no insurance
  - American Indians/Alaska Natives (AI/AN): Indian Health Coverage Exemption

- “American Indians and Alaska Natives (AI/ANs) and other people eligible for services through the Indian Health Service, tribal programs, or urban Indian programs (like the spouse or child of an eligible Indian) don't have to pay the fee for not having health coverage. This is called having an Indian health coverage exemption.”
Time Investment and Workload (Minutes)

- Initial Visit: 30 minutes
- ECHO: 30 minutes
- Prior Authorization: 30 minutes
- Treatment: 60 minutes
- Counseling: 30 minutes
Current Status

- Pending
- Project Echo
- Medication Approval Pending
- Treatment
- ETR
- SVR "cure"
Patients Enrolled in Clinic

AGE DISTRIBUTION

- Baby Boomers: 36%
- Non-Baby Boomers: 64%
HCV Screening Rate
Cost Analysis: Cumulative

- Total Retail Value: $1,831,608
- Cost of Meds to Clinic: $93,732
- POS Revenue: $369,116
- Total Return: $275,383

IHS Source
Medicaid/Exp
PAP
NICE PROJECT
NORTHERN TIER
INITIATIVE for
HEPC
ELIMINATION
NICE PROJECT
NICE PROJECT

• The mission of the NICE (Northern Tier Initiative for Hep C Elimination) Project is to provide comprehensive and patient-centered support for clinics with or in process of introducing HCV services at their healthcare facilities in the Norther Tier Areas including but not limited to Great Plains, Billings and Bemidji.
Northern Tier Hepatitis C – ECHO Training
Recorded Webinars

- [http://www.npaihb.org/hcv/#clinical-resources](http://www.npaihb.org/hcv/#clinical-resources)
  - How to create an iCare panel
  - How to create a quick order menu for required labs
  - How to use the NICE patient management tool
  - Hepatitis C clinic workflow
  - Medicaid Letter, appointment cards
ND Medicaid and Expansion
Success Story

- Drop minimum fibrosure score requirements
- No NS5A resistance test required unless prescribing Zepatier®
- 12-months abstinence requirements remains
Patient’s Story

• First patient enrolled in HCV clinic summer of 2017, achieved SVR mid-November

“I have been waiting for this for so long. I know I have made some mistakes in the past, but I had started to turn my life around. I am very thankful to them for not being judgmental and for treating me with respect. I am finally able to start a family. God bless you!”

- First patient to attain SVR in Belcourt HCV clinic
Acknowledgement

Quentin N. Burdick Memorial Health Care Facility Eliminate Hepatitis C Team:
- LT Neelam Gazarian, PharmD. USPHS MS Pharmacology/Toxicology
- LCDR Jonathan Owen, PharmD. USPHS. AE-C, CTTS
- Jordan Walker, PharmD.

- Thanks to:
  - Molly Steen, PharmD. Pharmacy Clinical Services Director
  - CDR Tyler Lannoye, PharmD. USPHS, Chief of Pharmacy
Special Thanks

• Jessica Leston, HCV/HIV/STI Clinical Programs Director for the Northwest Portland Area Indian Health Board

• Brigg Reilley, National HIV/AIDS Program

• David Stephens, BSN, RN, Case Manager for the Northwest Portland Area Indian Health Board.
Questions
Thank you

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  701-477-6111 Ext 8426