HCV Telehealth Training Program
Challenges and benefits of integrating hepatitis C care into a primary care setting

Takako Schaninger, MD
Program Director
Southern Central AIDS Education Telehealth Training Center
Learning objectives

• To understand the need for more HCV providers
• To understand the challenges and benefits of implementing a telehealth model of care for HCV in a primary care setting
• To review and understand a telehealth training model in HCV care: SCAETTC
• To review the implementation process of SCAETTC
Interferonologists

Headaches

Depression

Flu like symptoms

Myalgia Arthralgia
Interferonologists

Increased Irritability

Bone marrow suppression

Thyroiditis

Poor appetite
First DAA in 2011

Serious skin rash and more anemia
The second wave in 2013

[Image of approved stamp]
Milestones in HCV therapy

AASLD practice guideline: Hepatology, 39(4), 2004
<table>
<thead>
<tr>
<th>Genotype</th>
<th>DAA</th>
<th>Ribavirin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotype 1</td>
<td><img src="image1" alt="Image" /></td>
<td><img src="image2" alt="Image" /></td>
</tr>
<tr>
<td>Genotype 2</td>
<td><img src="image3" alt="Image" /></td>
<td><img src="image4" alt="Image" /></td>
</tr>
<tr>
<td>Genotype 3</td>
<td><img src="image5" alt="Image" /></td>
<td><img src="image6" alt="Image" /></td>
</tr>
</tbody>
</table>
A silver bullet for HCV
WHY SHOULD PRIMARY CARE PROVIDERS LEARN ABOUT HCV?
The Need

2.7-3.9 million Americans are infected with HCV

MMWR, 2012; 61(4): 1-32
Prevalence of HCV by year of birth

Ann Int Med 2006; 144(10):705-14

Baby Boomers
Current risk based testing is not working

#1 Increase Screening Rates
Recommendations for the Identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945–1965
CDC Recommendations

• Testing
  Adults born during 1945 to 1965 should receive one time testing for HCV without prior ascertainment of HCV risk

• Linkage to Care
  All persons identified with HCV infection should receive a brief alcohol screening and intervention as clinically indicated, followed by referral to appropriate care and treatment services for HCV infection and related conditions as indicated

MMWR 2012; 61(4): 1-32
80% of patients never make it to the specialist
Multiple barriers

A. Structural

– Not enough specialists
– Insufficient staffing: case managers and social workers
– Lack of integrated care models
– Limited reimbursement for HCV care
– High proportion of uninsured

NH Afdhal, MD, Viral Hepatitis Congress 2013
Multiple Barriers

B. Providers
   – Lack of knowledge and experience
   – Concerns about drug use and risk of reinfection

C. Patients
   – Lack of symptoms
   – Lack of knowledge/fears about treatment
   – Unstable: substance use, lack of social support, housing, and income
   – Lack of access to substance abuse treatment program
Multiple barriers

A. Structural

- Not enough specialists Primary Care Providers
- Insufficient staffing: case managers and social workers
- Much less resource intensive
- Lack of integrated care models Telehealth
- Limited reimbursement for HCV care
- High proportion of uninsured Affordable Care Act
Multiple Barriers

B. Providers
- Lack of knowledge and experience *simple nontoxic highly effective regimens*
- Concerns about drug use and risk of reinfection

C. Patients
- Lack of symptoms
- Lack of knowledge/fears about treatment *well tolerated therapy*
- Unstable: substance use, lack of social support, housing, and income *less relevant*
- Lack of access to substance abuse treatment program
#2 Increase access to treatment options for underserved patients
Natural history of HCV

- Normal Liver
- Chronic Hepatitis
- HCV Infection: 75-85%
- Cirrhosis: 20-30%
- HCC ESLD: 2-7% per year

Kerla Thornton, MD; Project ECHO
The peak of the impact is in 2030
Past

Multiple (2 or 3) visits were required before making a therapeutic decision

✓ HCV RNA levels
✓ HCV genotype
✓ Screening for Hepatitis A, B, and HIV
✓ Staging
✓ IL28B genotype
✓ Referral to psychiatry and ophthalmology
✓ Autoimmune diseases, DM, cardio-pulmonary condition
It took a very committed patient to make it from screening to initiation of therapy.

- **HCV ab test**
- **Taking history**
- **HCV RNA**
- **HCV genotype**
- **Host characterization**
- **Referral**
- **Therapeutic Discussion**

NH Afdhal, MD, Viral Hepatitis Congress 2013
Late 2014/2015

We need to assess

✓ Presence of HCV RNA
✓ HCV genotype
✓ Assess cirrhosis (biomarkers, cbc, US)
✓ Screening for viral hepatitis and HIV
✓ Hb/Hct, if ribavirin used
2016?

We need to assess

- Presence of HCV RNA
- Assess cirrhosis (biomarkers, cbc, US)
- Screening for viral hepatitis and HIV
#3 Cost effective care

- Rural patients can stay in their local communities and not travel long distances
- Patients can be diagnosed and treated earlier: improved outcomes and prevention of costly complications
Project ECHO

- 28,000 HCV in New Mexico
- In 2004, 6 months waiting for HCV clinic at the UNM
- Patients had to travel up to 250 miles

NEJM 2011:364(23):2199-2207
Method

• Use technology: video conference and internet
• Focus on improving outcome
  – Sharing best practices
• Case-based learning: co-management with specialists (learning by doing)
## Results

<table>
<thead>
<tr>
<th>HCV Genotype</th>
<th>ECHO Sites</th>
<th>UNM HCV Clinic</th>
<th>Difference between ECHO Sites and UNM HCV Clinic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All genotypes</td>
<td>152/261 (58.2)</td>
<td>84/146 (57.5)</td>
<td>0.7 (-9.2 to 10.7)</td>
<td>0.89</td>
</tr>
<tr>
<td>Genotype 1</td>
<td>73/147 (49.7)</td>
<td>38/83 (45.8)</td>
<td>3.9 (-9.5 to 17.0)</td>
<td>0.57</td>
</tr>
<tr>
<td>Genotype 2 or 3</td>
<td>78/112 (69.6)</td>
<td>42/59 (71.2)</td>
<td>-1.5 (-15.2 to 13.3)</td>
<td>0.83</td>
</tr>
</tbody>
</table>

*Table 2. Sustained Virologic Response According to Genotype and Site of Treatment.*
Integrated Primary Care Model

• Advantages
  – One stop shopping
  – Improving link-to-care (they are already linked)
  – No need for on-site expensive specialists
  – Increased trust helps patient be adherent to Rx
Integrated Primary Care Model

• Disadvantages
  – The workload is high
  – Specialists’ backup may be needed to answer questions
Southern Central AIDS Education Telehealth Training Center

A HRSA-funded program that is administered by the University of Kentucky, Division of Infectious Diseases
Mission

To expand access to care and improve the health care outcomes of hard-to-reach individuals infected with HIV in Kentucky and beyond

SCAETTC integrates a team of experts in the fields of HIV, HCV, HBV, and Behavioral Health to provide you with education and teleconsultation.
HCV death rates exceed HIV
Milestones in HIV therapy

http://depts.washington.edu/hivaid...case2/discussion.html
Single-pill HIV regimens

Coming soon
New HIV diagnosis in KY
How we do
Live distant learning sessions

15-20 min focused topic lecture
A variety of topics

− Case presentations by learners/instructor for consultation and discussion
− 15-25 min
− Learn from real cases
− Learn from others
− Co-management
  • Learning by doing
Topics

• HIV epidemiology and testing
• Care to newly diagnosed HIV+ patient
• Antiretroviral therapy
• Hepatitis C basis
• Hepatitis C treatment
• Hepatitis C management of adverse effects
• Mental health
• Illicit drug use
• Motivational interview
  – Improve adherence
  – Drug addiction
• Hepatitis B
• STD and management
• Metabolic complications
SCAETTC Speakers

Melissa Osborn (OH)
Warren Liang
Karen Krigger
Paula Peyrani
Stephen Raffanti (TN)
James Sacco (GA)

Frank Romanelli
Curtis Cary
Nicole Leedy
Derek Forster
Keith Haas
Jennifer Haven
Michael Lofwall
Andrew Hoellein
Lamis Ibrahim
Jonathan Moorman
SCAETTC Participants
Benefits

• No cost CEUs for MD, PA, NP, pharmacy, dentist

• Professional interactions with colleagues with similar interests
  – Less isolated, improve recruitment and retention

• Easier access to consultation with infectious diseases, hepatologist, pharmacy, psychologist, other subspecialists, SW

• Equipment for distance learning
Virtual Clinic

- 1 preceptor - 1 preceptee
- Real clinic observation and hands-on experience
- Co-management
Telehealth Training Process

- Increase knowledge and co-manage with experts
- Identify patient
- Manage patient
HCV care in future

**Primary Care Providers**
- Test HCV
- Manage easy-to-treat population by themselves
- Co-manage more complex patients with experts

**Specialists**
- Treat complex patients
- Determine an indication, initiate treatment, and refer back to PCP (a shared-care model)
- Surveillance and management of cirrhotic patients
THANK YOU