LEAVING NO ONE BEHIND- CASTING A WIDER NET TO INTEGRATE HCV CARE INTO PRIMARY CARE

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Treatment cascade for people with chronic HCV infection

- Chronic HCV-Infected*: 100%
- Diagnosed and Aware†: 50%
- Access to Outpatient Care‡: 43%
- HCV RNA Confirmed§: 27%
- Underwent Liver Biopsy‖: 17%
- Prescribed HCV Treatment‖: 16%
- Achieved SVR**: 9%

*Estimated 3,500,000 people in the USA.
†Diagnosis and awareness rates vary widely by location and may be lower in certain populations.
‡Access to care depends on many factors, including health insurance and local healthcare system capacity.
§HCV RNA testing is necessary to confirm infection, but access and uptake vary.
‖Rates of liver biopsy and treatment prescription may differ based on local healthcare practices and patient demographics.
**Success rates for antiviral therapy vary and depend on several factors including strain of HCV, age, and baseline liver health.
This represents 50% of those estimated to be living with HCV

*updated data via personal communication w/ Dr. Viner
Testing and Linkage to Care Protocol

OraQuick® rapid HCV antibody test reactive

Blood draw for confirmatory HCV PCR

HCV RNA Detected

Patient Navigator notifies patient and provides counseling + insurance assessment

HCV RNA Not Detected

Patient Navigator notifies patient and provides counseling

Uninsured

Patient Navigator facilitates appointment with clinical social worker

Insured with no known primary care provider

Patient Navigator facilitates PCP acquisition

Insured with a primary care provider

PCP Visit

Obtain Referral to subspecialist
Do One Thing Campaign HCV Testing and Linkage to Care Cascade n=1,301

Strategies for Enhanced Testing in Academic Primary Care Clinics

- EMR modifications
- Integration into clinic work flow
- Antibody with Reflexive confirmatory testing only
- Automated ordering

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Impact of EMR Prompts on Type of HCV Screening Test Ordered

2014
Impact of EMR prompts on Percentage of Eligible Baby Boomers Tested for HCV

*EMR prompts added July 2014
Philadelphia FIGHT

The Jonathan Lax Treatment Center
The Youth Health Empowerment Project
The John Bell Health Center

COMMUNITY BASED TESTING
- Syringe Exchange Program
- Drug Treatment Programs
- Homeless shelters
- Opioid substitution programs
- Philadelphia Dept of Prisons

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VIRAL HEPATITIS
Strategies for Enhanced Testing in the FQHC Primary Care Clinic

– High risk population ➔ consider universal annual testing
– Visit notes with prepopulated orders for HIV and HCV testing
– Provider education
– Quality control and improvement
Strategies for Enhanced Testing in the FQHC

Baseline rates of testing vs. Current rates of testing
Figure. Comparison of linkage-to-care cascade for patients identified with current HCV infection and showing improvement in linkage-to-care rates at five federally qualified health centers, Philadelphia, Pennsylvania, October 2012–June 2015.

<table>
<thead>
<tr>
<th>Steps in HCV care cascade</th>
<th>n = 313</th>
<th>n = 330</th>
<th>n = 243</th>
<th>n = 306</th>
<th>n = 154</th>
<th>n = 262</th>
<th>n = 121</th>
<th>n = 220</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with current HCV infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Patients informed of positive HCV RNA test result</td>
<td></td>
<td></td>
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<tr>
<td>Patients referred to an HCV care provider</td>
<td></td>
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<tr>
<td>Patients seen by an HCV care provider at least once</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Primary Care HCV Treatment

Outcomes of Treatment for Hepatitis C Virus Infection by Primary Care Providers

Sanjeev Arora, M.D., Karla Thornton, M.D., Glen Murata, M.D., Paulina Deming, Pharm.D., Summers Kalishman, Ph.D., Denise Dion, Ph.D., Brooke Parish, M.D., Thomas Burke, B.S., Wesley Pak, M.B.A., Jeffrey Dunkelberg, M.D., Martin Kistin, M.D., John Brown, M.A., Steven Jenkusky, M.D., Miriam Komaromy, M.D., and Clifford Qualls, Ph.D.
Primary Care Provider HCV Treatment Outcomes

Table 2. Sustained Virologic Response According to Genotype and Site of Treatment.*

<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 3. Odds Ratio for Sustained Virologic Response in Univariate and Multivariate Models.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Univariate Model</th>
<th>Best Multivariate Model†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
<td>P Value</td>
</tr>
<tr>
<td></td>
<td>for Virologic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Response</td>
<td></td>
</tr>
<tr>
<td>ECHO sites vs. UNM HCV clinic</td>
<td>1.03 (0.68–1.55)</td>
<td>0.89</td>
</tr>
<tr>
<td>ALT, per 10-unit-per-liter increase</td>
<td>1.05 (1.01–1.09)</td>
<td>0.01</td>
</tr>
<tr>
<td>White cell count, per 1000-cell-per-microliter decrease</td>
<td>0.86 (0.76–0.97)</td>
<td>0.02</td>
</tr>
<tr>
<td>APRI score, per 1-unit increase</td>
<td>0.43 (0.30–0.62)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Genotype 1, vs. genotype 2 or 3</td>
<td>0.40 (0.26–0.62)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Arora, S. 2011. NEJM. 364, 23
AASLD/IDSA: Who should be treated?

Treatment is recommended for all patients with chronic HCV infection, except those with short life expectancies that cannot be remediated by treating HCV, by transplantation, or by other directed therapy. Patients with short life expectancies owing to liver disease should be managed in consultation with an expert.

Rating: Class I, Level A
Current Challenges in HCV Care in the US

• Restrictive criteria for drug approval for many payers
  – Sobriety requirement
  – Prescriber requirement
  – Disease severity requirement
  – HIV may not be a mitigating factor

• Arduous prior authorization process for providers

Comparing 2014 & 2016 Medicaid FFS Prescriber Requirements


- [ ] No Restrictions
- [ ] By or in Consultation with a Specialist
- [ ] Specialist Must Prescribe
- [ ] Restrictions Unknown*

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VIRAL HEPATITIS
Clary, R & Greenwald, R. The State of Medicaid Access, AASLD, The Liver Meeting, November 14 2016
• Survey of 200 PCPs, 129 responded
• 22% believed that PCPs should provide HCV treatment
• 84% were interested in more training
• Willingness to provide treatment was linked to:
  – having a high proportion of HCV patients in the practice: >20% vs <20%, OR 3.9 [1.5-10]
  – Providing other services: HIV care, OR 6.5 [2.5-16.5], Substance abuse treatment, OR 3.3 [1.3-8.4], Mental Health treatment OR 4.9 [2.0-12.1]
Current Challenges in HCV Care in the US

- Restrictive criteria for drug approval for many payers
  - Sobriety requirement
  - Prescriber requirement
  - Disease severity requirement
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- Arduous prior authorization process for providers

- Training, support, education
  - HCV treatment in people actively using drugs
  - Harm reduction

Canary LA et al., Ann Intern Med. 2015;163(3):226-228
Thank you!

- C a Difference Team, Philadelphia FIGHT
  - Lora Magaldi, C a Difference Project Coordinator
  - Carla Coleman, Linkage Coordinator
  - Ta-Wanda Preston, Lead Outreach specialist
  - Ricardo Rivera, HIV/HCV tester and educator
  - Nabori Brown, HIV/HCV tester and educator
  - Students, volunteers, community partners
  - Patients
- Do One Thing
  - Amy Nunn, ScD
- HepCAP members and leadership
  - Alex Shirreffs & Jack Hildick- Smith
- Prevention Point Philadelphia
- Gilead FOCUS and Prevent Cancer Foundation