Hepatitis C Universal Screening Implementation at a Hospital and Community Health Center

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Disclosures

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Objectives

By the end of this presentation, participants will be able to:

• Describe the universal screening guidelines for hepatitis C (HCV)

• Understand the need for identification and linkage to care for patients with HCV

• Identify best practices and practical strategies for implementing these guidelines in a community health center and a hospital
Background and Significance

• HCV is responsible for more deaths than the next 60 reportable infections combined, including HIV
• Approximately 4.1 million individuals in the US have evidence of prior or active infection
  – 2.4 million individuals with active infection
• 2010-2017: 3.8 fold increase in new HCV infections
• Most rapid increase in infection in young people using injection drugs, 20-39yo, men > women
• HCV is now curable with direct-acting antivirals (DDAs) in 8-12 weeks
2020 Centers for Disease Control (CDC)
HCV Screening Recommendations

1. **Universal Screening**
   Screen all adults ≥18 years at least once in a lifetime
   (except in settings where HCV RNA-positivity is <0.1%)

2. **Pregnancy**
   Screen all pregnant people during each pregnancy
   (except in settings where HCV RNA-positivity is <0.1%)

3. **Exposure**
   One-time testing among people with recognized conditions or exposures,
   regardless of age or setting prevalence
   (more info on [www.cdc.gov/hepatitis/hcv/guidelinesc.htm](http://www.cdc.gov/hepatitis/hcv/guidelinesc.htm))

4. **Periodic testing**
   Routine periodic testing for people with on-going risk factors
2020 US Preventative Services Task Force (USPSTF)
HCV Screening Recommendations

• Screen all adults (including pregnant persons) aged 18 to 79 years
  – One-time screening for most adults
  – Periodically screen persons with continuous risk (such as current injection drug use)

Read the full recommendations at https://jamanetwork.com/journals/jama/fullarticle/2762186
Recommendations For HCV Screening In Persons Less Than 18 Years Of Age

• One-time testing should be performed for all persons less than 18 years of age with behaviors, exposures or risk factors or circumstances associated with an increased risk of HCV exposure

Re-testing for Patients at Risk for HCV

• Periodic repeat HCV testing should be offered to all persons with behaviors, exposures or risk factors associated with HCV

• Annual HCV testing is recommended for all persons who inject drugs and for HIV-infected men who have unprotected sex with men

## Summary: 2020 HCV Screening Recommendations

<table>
<thead>
<tr>
<th>Adults</th>
<th>Under 18 years</th>
</tr>
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<tbody>
<tr>
<td><strong>One-time HCV screening</strong></td>
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</tbody>
</table>
| • All adults 18 to 79 years of age  
• All pregnant people during each pregnancy | • All children born to women infected with HCV  
• People under 18 with HCV risk factors |
| (CDC, USPSTF) | (AASLD, IDSA, IAS-USA) |
| **Repeat HCV testing** (e.g. annual) |  |
| Adults with HCV risk factors, including:  
• People with a history of or active injection drug use  
• HIV-positive men who have unprotected sex with men |  |
| (CDC, USPSTF, AASLD, IDSA, IAS-USA) |  |
Recommended Screening Methods

• For people of unknown HCV status
  – Screen using HCV antibody with reflex to HCV RNA testing

• For people with a history of HCV infection
  – Screen with HCV RNA
Implementing Routine HCV Screening at Brookdale Hospital, Brooklyn

Alexis Fields, MPH
Jessica Yager, MD, MPH
Brookdale Serves Nearly 100,000 Unique Patients

Main Hospital (Inpatient & Outpatient sites)

Emergency Department

Family Care Clinics (5 total)
Brownsville Resident Demographics

- Our health facilities are located in or near Brownsville
- Predominantly Black and Latino communities
- Nearly a third of residents are born outside the U.S.
- 28% of residents live in poverty

Source: NYC DOHMH Health Data / Community Health Profiles, 2018
Brownsville HCV Incidence

NEW HEPATITIS C REPORTS (per 100,000 people)

92.3 / 100,000 people
Ranked #9 of 59 NYC districts

Source: NYC DOHMH, Communicable Disease Surveillance Registry, 2016
Gilead FOCUS: Frontlines of Communities in the U.S.
Mission & Guiding Model

• Enables partners to develop & disseminate best routine screening and linkage practices for HIV, HCV, and/or HBV in accordance with national screening guidelines
• Public health initiative launched in 2010 focused on HIV screening/linkage; added HCV in 2013
• Over 300 partnerships (e.g., hospitals, health departments, CBOs)
• Prioritizes a systems change approach

FOCUS funding supports HIV and HCV screening and linkage to the first medical appointment. FOCUS partners do not use FOCUS awards for activities beyond linkage to the first medical appointment.
HCV Screening Process (Example)

**EMR**
- Indicates patients meeting criteria for opt-out HCV screening
- Automatically triggers EPIC pop-up or BPA to order HCV test

**Provider**
- Explains routine testing with opt-out consent

**Blood draw**
- HCV AB w/ reflex test sent with other ordered labs

**Lab**
- Positive HCV AB tests sent out for viral load testing

**EMR**
- Positive HCV AB test info sent to patient navigators for outreach and linkage
EPIC Best Practice Alert (BPA)

HCV Testing Algorithm/ Criteria

- Age 13 to 19 and has never had an HCV test
- Age 20 - 34 and has had no HCV test in the last 5 years
- Age 35 plus and has had no test in the last 10 years

EPIC BPA (simulated image)

Provider Prompt: To provide the best care for our Brookdale community, we aim to routinely test all patients for HCV. If you have your blood drawn today, you will be tested unless you decline. If you do NOT want to be tested today, please let me know.

Order HCV Test

Do Not Order HCV Test

Declination Reason:

- Patient already tested
- Confidentiality Concern
- Known Positive
- Patient unable to consent
- Patient DOES NOT want to know
- Prefer to test in another setting
Accomplishments

- Transitioned POC testers to linkage navigators
- Notified daily of POS HIV and HCV AB tests
- Link newly dx & OOC pts
- Provider driven testing - ambulatory clinics
- Improved workflow through training and feedback sessions
- Supports routine HIV and HCV testing for ages 13+
- Opt-out consent
- RNs can order tests as a standing order
- Developed and launched BPAs at all 5 clinics
- Updated ED STI Smartpanel to include HIV and HCV tests
- Supports routine HIV and HCV testing for ages 13+
- Opt-out consent
- RNs can order tests as a standing order
- Senior Leaders on Routine Screening Taskforce
- Modified EMR
- Integrated Testing into Clinic Flow
- Instituted Navigators & Linkage System
- Transitioned POC testers to linkage navigators
- Notified daily of POS HIV and HCV AB tests
- Link newly dx & OOC pts
# HCV Screening Implementation

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Challenges</th>
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<tbody>
<tr>
<td><strong>Engaged and Supportive Leadership</strong></td>
<td><strong>Lab Turnaround:</strong></td>
</tr>
<tr>
<td>• Routine Screening Taskforce</td>
<td>HCV RNA send out test (3-5 days)</td>
</tr>
<tr>
<td>(6 meetings/year)</td>
<td></td>
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<tr>
<td>• Adoption of org-wide screening</td>
<td></td>
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<tr>
<td>policies</td>
<td></td>
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<tr>
<td><strong>Dedicated Staff &amp; Funding</strong></td>
<td><strong>Staff Turnover:</strong></td>
</tr>
<tr>
<td></td>
<td>EPIC Analysts and &amp; ED Champion</td>
</tr>
<tr>
<td></td>
<td>• Delayed BPA builds &amp; reports</td>
</tr>
<tr>
<td><strong>Interdisciplinary Communication</strong></td>
<td><strong>Linkage:</strong></td>
</tr>
<tr>
<td>• Provider training &amp; feedback</td>
<td>Patient population difficult to</td>
</tr>
<tr>
<td>sessions</td>
<td>reach (unstable housing and/or phone</td>
</tr>
<tr>
<td>• Ongoing workflow meetings</td>
<td>access)</td>
</tr>
<tr>
<td></td>
<td>• Patient’s insurance may not be</td>
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<tr>
<td></td>
<td>accepted by their local hospital</td>
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Outcomes 2019 vs 2020

- Automated HCV screening (via BPA) active in all outpatient clinics by Sept 2020
- From Aug’20 to Sept’20 HCV testing increased 17%.
- Sept’20 vs. Sept ’19: HCV testing increased 54%
- Prior to BPA: Screened pts born between 1945 and 1965
- Now: Screen pts 13 and older (BPA automated algorithm)
Routine HCV Screening During COVID-19: Hospital-Wide

- Automated, routine HCV screening continued per protocol
- Unique patient visits decreased 42% from Jan to April
- Providers increased telemedicine use (also prompts screening)
- Linkage - patient navigators switched to remote work
  - Observed patients delay/avoid visits due to Covid-19 concerns

HCV Screening (Hospital-Wide), Jan to Aug 2020

- NYS Shelter in Place (March 20)
- NYC phase 1 reopening (June 8)

66% decrease
Routine HCV Screening During COVID-19: By Site

- Screening active in 5/5 outpatient clinics
  - Activation of automated screening at 3 sites corresponded with NYC’s phase 1 reopening in June
- Emergency Department
  - Enhanced STI panel to ensure more consistent HCV testing for pts with STI exposure
  - In-process of developing automated screening
- HCV Screening
  - From March to April screening decreased at all sites, except the ED
  - By August outpatient screening returned to pre-covid levels (partially attributable to BPA activation)
Implementation Resources

**Staff**
- Director
- Program Manager
- Data Manager
- 3 Patient Navigators - (HIV/HCV linkage)

**Lab Capabilities**
- In-house HCV Ab testing
- Added reflex testing

**Electronic Health Record**
- EPIC
Next Steps

- Develop and launch ED-specific BPA with nurse triage workflow to increase HCV testing
- Develop an inpatient setting testing workflow
- Continue to support and train staff
- Gather ongoing feedback to optimize workflow
Implementing Routine HCV Screening at Brownsville Multi-Service Family Health Center (BMS), Brooklyn

Jesi Ramone, MD, AAHIVS
HCV Screening in Patients 18yrs +

- Goal: 85%
- Test: HCV Ab with reflex to HCV RNA

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</thead>
<tbody>
<tr>
<td>%</td>
<td>85%</td>
<td>87%</td>
<td>86%</td>
<td>87%</td>
<td>75%</td>
<td>78%</td>
<td>81%</td>
</tr>
<tr>
<td>Numbers</td>
<td>2,749/3,233</td>
<td>2,801/3,236</td>
<td>3,027/3,536</td>
<td>3,024/3,485</td>
<td>12,082/16,051</td>
<td>11,793/15,103</td>
<td>11,980/14,733</td>
</tr>
</tbody>
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Performance Improvement Process

• Ongoing staff education to ensure that all clinical staff is aware of the new universal HCV screening recommendations reflected in BMS HCV Screening Policy
  – Policy was approved by Q&P Committee and shared with clinical team
• Consistent review of Quality tab in Athena to identify patients not screened at all visit types
Improvements Implemented

- PCAs and Nursing staff delegated to order HCV screening
- Order set created to ensure HCV screening is included in initial visit lab testing of all adult patients
- Continuing education on HCV epidemiology, morbidity and mortality and importance of HCV screening and treatment
Assessment of Effectiveness of Actions

• Since change in screening policy to universal screening, there was an apparent decline in screening as the denominator markedly increased 4 times
• Evidence of effectiveness: 6% increase in screening rate since 3/2020
Care Cascade and Demographics of HCV-Diagnosed Patients at BMS

### Care cascade

- Total Active: 32
- Attended Medical Visit: 29
- Medical Eval Completed: 29
- Treatment Candidate: 28
- Treatment Initiated: 28
- Treatment Completed: 15
- SVR/Cure: 6

### Patient demographics

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>%</th>
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<tbody>
<tr>
<td>Insurance: Medicaid</td>
<td>69%</td>
</tr>
<tr>
<td>Homeless/unstably housed</td>
<td>6%</td>
</tr>
<tr>
<td>Mental health issue</td>
<td>31%</td>
</tr>
<tr>
<td>Alcohol use in past year</td>
<td>34%</td>
</tr>
<tr>
<td>Drug use in past year (injection/intranasal)</td>
<td>28%</td>
</tr>
<tr>
<td>Methadone treatment</td>
<td>53%</td>
</tr>
<tr>
<td>Buprenorphine treatment</td>
<td>3%</td>
</tr>
<tr>
<td>History of Incarceration</td>
<td>59%</td>
</tr>
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</table>

### Comorbid Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>HIV positive</td>
<td>6%</td>
</tr>
<tr>
<td>Hep B positive</td>
<td>0%</td>
</tr>
<tr>
<td>Cirrhotic</td>
<td>31%</td>
</tr>
<tr>
<td>Liver cancer</td>
<td>0%</td>
</tr>
</tbody>
</table>
Comparative Table of HCV Screening Rates within Community Health Center Association of NYS (CHCANYS)

<table>
<thead>
<tr>
<th>CENTERS</th>
<th>RESULT</th>
<th>CHANGE</th>
<th>NUM</th>
<th>DENOM</th>
<th>EXCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Callen-Lorde</td>
<td>86%</td>
<td>+ 3%</td>
<td>13155</td>
<td>15234</td>
<td>0</td>
</tr>
<tr>
<td>APICHA Community ...</td>
<td>81%</td>
<td>+ 1%</td>
<td>3721</td>
<td>4573</td>
<td>0</td>
</tr>
<tr>
<td>VIP Community Servi...</td>
<td>79%</td>
<td>+ 8%</td>
<td>2121</td>
<td>2698</td>
<td>0</td>
</tr>
<tr>
<td>Brownsville Commun...</td>
<td>74%</td>
<td>+ 5%</td>
<td>9476</td>
<td>12783</td>
<td>0</td>
</tr>
<tr>
<td>Harlem United Health...</td>
<td>65%</td>
<td>+ 11%</td>
<td>2638</td>
<td>4010</td>
<td>0</td>
</tr>
<tr>
<td>Housing Works</td>
<td>65%</td>
<td>+ 6%</td>
<td>5513</td>
<td>8455</td>
<td>0</td>
</tr>
<tr>
<td>Acacia Network</td>
<td>63%</td>
<td>- 7%</td>
<td>6864</td>
<td>10933</td>
<td>0</td>
</tr>
<tr>
<td>Betances Health Cen...</td>
<td>62%</td>
<td>+ 3%</td>
<td>2516</td>
<td>4060</td>
<td>0</td>
</tr>
<tr>
<td>Bedford Stayvesant F...</td>
<td>61%</td>
<td>+ 1%</td>
<td>7269</td>
<td>11957</td>
<td>0</td>
</tr>
<tr>
<td>Morris Heights Heath...</td>
<td>55%</td>
<td>+ 3%</td>
<td>20202</td>
<td>36142</td>
<td>0</td>
</tr>
<tr>
<td>Health Care Choices</td>
<td>53%</td>
<td>- 2%</td>
<td>1936</td>
<td>3624</td>
<td>0</td>
</tr>
<tr>
<td>CHI Health Center</td>
<td>46%</td>
<td>+ 5%</td>
<td>1037</td>
<td>2255</td>
<td>0</td>
</tr>
<tr>
<td>Boriken Neighborhood...</td>
<td>45%</td>
<td>- 4%</td>
<td>3368</td>
<td>7445</td>
<td>0</td>
</tr>
</tbody>
</table>

5% Increase of screening across the network of 49 centers since July 2019

Source: Azara, July 2020
Resources for NYC HCV Capacity Building

• NYS HCV CEI Clinical Consultation Hotline: (866) 637-2342 (leading hepatologist will answer questions)

• NYC HCV resources: [www.nyc.gov/health/hepc](http://www.nyc.gov/health/hepc)
  - Free or low-cost referrals for care
  - Programs with supportive services
  - Patient education materials

• [HepFree.NYC](http://HepFree.NYC) – Citywide network building capacity to prevent, manage and treat hepatitis B and C in NYC
  - Telehealth capacity building resources
Contact Us

For CMEs or educational opportunities, contact:

Meg Chappell, MPH
Program Manager
Empire Liver Foundation
megchappell@empireliverfoundation.org
www.empireliverfoundation.org

For questions about resources, contact:

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