Testing the 1945-1965 Birth Cohort for HCV at BIDMC/CareGroup

Camilla S. Graham, MD, MPH
Division of Infectious Diseases
Beth Israel Deaconess Medical Center
Boston, MA, USA
BIDMC/CareGroup Experience

• Network of academic hospitals, primary care practices, community health centers that share a common electronic medical record system
  – 5,500 clinicians and ~1.5 million patients

• Implemented a prompt in EMR for a one-time anti-HCV test in all patients born from 1945-1965 who had no prior record of testing, while continuing risk-based testing
  – Went live on June 4, 2013
  – In the first seven months, we tested a total of 13,890 people for HCV
### BIDMC HCV Dx in 1945-1965 Cohort

25% of the 1945-1965 cohort engaged in recent primary care already tested for anti-HCV

<table>
<thead>
<tr>
<th>Search category</th>
<th>Number of individual patients</th>
<th>Percent relative to all patients (+/- HCV) in specific category</th>
<th>NHANES estimate for specific category</th>
<th>Percent theoretically diagnosed in Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients age 47-67, at least one primary care visit (ICD-9 code V70 series) from 10/1/10 through 10/1/12 (Boomers in primary care)</td>
<td>40,410</td>
<td></td>
<td></td>
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<tr>
<td>Boomers in primary care with HCV diagnoses</td>
<td>955</td>
<td>2.4%</td>
<td>3.3%</td>
<td>73%</td>
</tr>
<tr>
<td>Male Boomers in primary care with HCV</td>
<td>587</td>
<td>3.2%</td>
<td>4.3%</td>
<td>74%</td>
</tr>
<tr>
<td>White male Boomers in primary care with HCV</td>
<td>258</td>
<td>2.9%</td>
<td>4.1%</td>
<td>71%</td>
</tr>
<tr>
<td>African American/Black male Boomers in primary care with HCV</td>
<td>134</td>
<td>8.0%</td>
<td>8.1%</td>
<td>99%</td>
</tr>
</tbody>
</table>
PCP Barriers at CareGroup

- Recommendations to test everyone born from 1945 - 1965 means testing too many people and this is too expensive
- There is no need to screen since clinicians can identify people who have clinically significant liver disease by their clinical presentation and will test for HCV at that point
- Patients will die with their HCV, not of it, and a lot of patients will be upset/harmed by this testing in an effort to identify the few who will actually develop significant disease
- There is nothing to do for HCV (if not aware that HCV is potentially curable) or, the treatment is more toxic than the disease
- Everybody with anti-HCV antibody seropositivity has active HCV infection
- There are too many electronic medical records prompts already and any more will overwhelm clinicians
Steps to Implement Birth Cohort HCV Testing

- Core team: Primary Care, Infectious Disease, Hepatology, Database Management, and Clinical Pathology
- Implement a one-time electronic prompt for anti-HCV antibody testing for all patients born from 1945 through 1965 who have no record of HCV antibody testing
- One-page educational tool for providers and one for patients, accessed at point-of-care via linkage to the HCV antibody electronic prompt.
- Email notification sent to 5,500 clinicians who use OMR for patient care
- Hotline, run by a HCV nurse educator based in the Liver Center at BIDMC
  - Answer patient questions about HCV
  - Help facilitate patient referral in the Liver Center and Infectious Diseases Clinic
- Slide deck for presentations to primary care providers about HCV
- Collaboration with Laboratory Services at BIDMC
  - Expand capacity for increased volume of HCV Ab and RNA tests
  - Added language to results page for all positive HCV antibody tests informing clinicians to order an HCV RNA test to determine the presence of active HCV infection
  - Generates a report of all positive HCV antibody tests every two weeks and provide it to the HCV nurse educator. She determines if these patients received appropriate HCV RNA tests, and if HCV RNA is detected, that these patients have been linked into specialty care. If not, a provider will be sent a reminder offering referral services or support if they are doing self-management
- InSIGHT core facility will provide regular reports of testing and diagnosis patterns by patient and practice demographics
Number of HCV Antibody Tests Performed In Four Week Intervals

Beth Israel Deaconess Medical Center, Boston, MA, Quality Outcomes Data, 1/22/14
HCV Antibody Test Volume Increased after EMR Prompt

- **EMR prompt**
- **Average = 438 tests/4 weeks**
- **Average = 1259 tests/4 weeks**
- **Average = 303 tests/4 weeks**

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Beth Israel Deaconess Medical Center, Boston, MA, Quality Outcomes Data, 1/22/14
Reactive HCV Antibody Tests

Mean prevalence of anti-HCV in baby boomers since prompt is 2.4%

Beth Israel Deaconess Medical Center, Boston, MA, Quality Outcomes Data, 1/22/14
Broadly Implement EMR Prompts for HCV Birth Cohort Testing

• Collaboration with CDC and EPIC to create a generic template configuration that could be adapted by any system

• EPIC users can post examples of prompts to an on-line user group