HCV and HBV Testing Acceptability and Knowledge among Urban Emergency Department Patients and Pharmacy Clients

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Background: Hepatitis in the US

- 3.2 million chronic HCV infections
- 800,000 chronic HBV infections
- 150,000 deaths projected between 2010-2020
- Majority of cases remain undiagnosed
- High HCV prevalence in urban populations
- New therapies able to cure more HCV-infected individuals in less time
- Recently developed rapid, point-of-care HCV test
- Existing infrastructure of rapid HIV testing programs
Study

- **Objective:** Assess knowledge, testing history and acceptability of a hepatitis B/C testing during an emergency department (ED) or pharmacy visit

- **Design:** Prospective study on a convenience sample of ED patients and pharmacy clients aged 18+ in 2 urban EDs and 2 community pharmacies in Bronx, New York between June 2010 and May 2011
  - Anonymous written surveys (English and Spanish) measuring acceptability of hepatitis B/C testing
  - Hepatitis B/C knowledge measure adapted from Balfour et al. (2009)
### Participant Demographics (n=2,122)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>38.9 ± 15.0 years</td>
</tr>
<tr>
<td>Female</td>
<td>54.7%</td>
</tr>
<tr>
<td>Hispanic ethnicity</td>
<td>47.1%</td>
</tr>
<tr>
<td>Black</td>
<td>42.0%</td>
</tr>
<tr>
<td>White</td>
<td>8.7%</td>
</tr>
<tr>
<td>Previously tested for HCV*</td>
<td>36.3%</td>
</tr>
<tr>
<td>Previously tested for HBV*</td>
<td>47.7%</td>
</tr>
</tbody>
</table>

*Self-reported*
## Hepatitis Knowledge

<table>
<thead>
<tr>
<th>5-Question true/false knowledge measure* (n=2,047)</th>
<th>% responding correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B and C can be given to someone during sexual intercourse. (T)</td>
<td>44.8</td>
</tr>
<tr>
<td>People can live with hepatitis B and C for many years without knowing that they have been infected. (T)</td>
<td>59.1</td>
</tr>
<tr>
<td>People living with hepatitis B and C can damage their liver if they drink alcohol. (T)</td>
<td>60.9</td>
</tr>
<tr>
<td>There exists a vaccine that can be used to prevent people from getting infected with the hepatitis B virus. (T)</td>
<td>43.9</td>
</tr>
<tr>
<td>There exists a vaccine that can be used to prevent people from getting infected with the hepatitis C virus. (F)</td>
<td>19.8</td>
</tr>
<tr>
<td><strong>Aggregate correct</strong></td>
<td><strong>45.8</strong></td>
</tr>
</tbody>
</table>

* Adapted from Balfour et al. (2009)
Test Acceptability

If you were offered a free hepatitis B/C test in the ED or pharmacy, would you take it?

- Total (n=2,105):
  - Yes: 72.1%
  - No: 27.9%

- ED (n=1,873):
  - Yes: 71.2%
  - No: 28.8%

- Pharmacy (n=232):
  - Yes: 79.3%
  - No: 20.7%
Integrated Testing Preference

If YES, would you prefer to be tested for just hepatitis or for hepatitis and HIV?

- **Hepatitis alone** 30.9%
- **Hepatitis & HIV** 69.1%

**Total (n=1,485)**

- **ED (n=1,310)**
  - Hepatitis alone 31.7%
  - Hepatitis & HIV 68.3%

- **Pharmacy (n=175)**
  - Hepatitis alone 25.1%
  - Hepatitis & HIV 74.9%
Limitations

- This study was conducted at public hospitals and community pharmacies that serve a low-to-moderate income population and may not be generalizable to other populations or settings.

- Acceptability of a non-free hepatitis screening cannot be determined from the current study.

- We did not differentiate between hepatitis B and C.
Conclusions

- Urban ED patients and pharmacy clients were largely receptive to the idea of free hepatitis B/C testing.
- Most interested individuals would elect to be tested for hepatitis in conjunction with a test for HIV.
- Hepatitis knowledge was poor.
- Integration with existing HIV testing programs may expand hepatitis testing efforts. The success of such programs will depend on cooperation of providers, patients, and social institutions.
Contact

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<table>
<thead>
<tr>
<th>Participant group (n)</th>
<th>Aggregate score (% ± SD)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willing to take a hepatitis B/C test (1,483)</td>
<td>44.2 ± 32.9</td>
<td>.134</td>
</tr>
<tr>
<td>Unwilling to take a hepatitis B/C test (564)</td>
<td>46.5 ± 30.8</td>
<td></td>
</tr>
<tr>
<td>Self-reported knowledge of HCV and/or HBV (1,092)</td>
<td><strong>55.7 ± 27.8</strong></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Self-reported knowledge of neither HCV nor HBV (934)</td>
<td><strong>34.5 ± 31.5</strong></td>
<td></td>
</tr>
<tr>
<td>Previously tested for HCV and/or HBV (1,009)</td>
<td><strong>55.4 ± 28.5</strong></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Previously tested for neither HCV nor HBV (1,010)</td>
<td><strong>36.2 ± 31.1</strong></td>
<td></td>
</tr>
<tr>
<td>ED patients (1,817)</td>
<td>45.8 ± 31.4</td>
<td>.826</td>
</tr>
<tr>
<td>Pharmacy clients (230)</td>
<td>46.3 ± 31.4</td>
<td></td>
</tr>
</tbody>
</table>
ED-based integrated testing pilot data

Test or tests accepted (n=158)

Both HIV and HCV 141; 89.2%

HIV only; 7; 4.4%

Neither test; 6; 3.8%

HCV only; 4; 2.5%

Reason for HCV test refusal (n=13; multiple responses permitted)

- “I do not want to have my finger stuck.” 7
- “I don’t feel that I am at risk of having hepatitis C.” 7
- “I don’t have time to test.” 4
- “I am worried that the test will slow my care.” 1