**Abstract**

**Background:**
- HCW BBF exposures pose a risk for the transmission of HIV and hepatitis viruses.
- In the event of either a percutaneous or mucous membrane BBF exposure, employees at our healthcare center are evaluated in real time by a member of the Post-Exposure Prophylaxis (PEP) Team via a hotline.
- Depending on the exposure risk, either two or three drug HAART was prescribed to the HCW pending the source patient HIV test result.
- HIV test results were typically available in 24-36 hours during the week and in up to 72 hours on the weekend.
- The purpose of this study was to evaluate the impact of real time rapid HIV testing on HIV postexposure prophylaxis of healthcare workers.

**Methods:**
- Exposure and HIV testing data were obtained from our Employee Health Service. All HCW BBF exposures since December 1, 2003 were reviewed. Costs were:
  - HAART (Combivir®/nelfinavir) at $14.38 per dose, rapid HIV test at $45.00 and standard HIV testing at $2.73.

**Results**
- There were 121 HCW BBF exposures. All rapid HIV tests on the source patients were negative. No HCW with a negative HIV test was offered HAART.
- There were 121 HCW BBF exposures in the 6 month time period.
- All rapid HIV tests on the source patients were negative.
- No HCW with a negative source HIV test was offered HAART.
- With the prior PEP protocol, 370 doses of HAART would have been offered pending standard HIV testing result.
- The cost of rapid HIV testing was $5445 with no cost for HAART.

**Conclusions**
- Rapid HIV testing for HCW BBF exposures did not result in significant financial savings.
  - The savings achieved by eliminating HAART were offset by the higher cost of rapid HIV tests.
  - If laboratory tests and Employee Health nurse/physician time associated with HAART were included, rapid HIV testing in real time would be more cost effective than standard testing with HAART PEP pending HIV test results.
- There were 121 HCW BBF exposures. All rapid HIV tests on the source patients were negative.
- There were 121 HCW BBF exposures in the 6 month time period.
- All rapid HIV tests on the source patients were negative.
- No HCW with a negative source HIV test was offered HAART.
- With the prior PEP protocol, 370 doses of HAART would have been offered pending standard HIV testing result.
- The cost of rapid HIV testing was $5445 with no cost for HAART.
- Cost in the prior strategy would have been $300 for standard HIV testing and $5320 for HAART (total cost=$5620).

**Table**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>HIV Test</th>
<th>HAART</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard HIV test</td>
<td>$330</td>
<td>$5320</td>
<td>$5620</td>
</tr>
<tr>
<td>with HAART PEP pending results</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapid HIV test in real time with HAART PEP offered only if HIV test positive</td>
<td>$5445</td>
<td>$0</td>
<td>$5445</td>
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</tbody>
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**Cost Comparison of Two HIV PEP Strategies in HCWs**