Boceprevir in Treatment Experienced
RESPOND-2
**RESPOND-2: Study Features**

- N = 403 HCV-monoinfected, treatment-experienced patients
- Randomized, double-blind, placebo-controlled, phase 3 study
- All with chronic HCV and genotype 1
- Previously responded to treatment but did not obtain SVR
- Previous *null responders* excluded
- HCV RNA ≥ 10,000 IU/ml
- Phase III trial
- Age ≥ 18
- Randomized to 3 arms (1:2:2)

**Drug Dosing**

- Boceprevir = 800 mg three times daily
- Peginterferon alfa-2b = 1.5 μg/kg once weekly
- Ribavirin = 600-1400 mg/day (based on weight)

Boceprevir for Retreatment of HCV Genotype 1 Infection
RESPOND-2 Trial: Treatment Regimens

<table>
<thead>
<tr>
<th>Week</th>
<th>0</th>
<th>4</th>
<th>8</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HCV RNA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR48</td>
<td></td>
<td></td>
<td>Peginterferon + Ribavirin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B32</td>
<td></td>
<td></td>
<td>Boceprevir</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR36-48</td>
<td>Peginterferon + Ribavirin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B44</td>
<td></td>
<td></td>
<td>Boceprevir</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR48</td>
<td>Peginterferon + Ribavirin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Undetectable HCV RNA at week 8 & 12
Stop Therapy

Detectable HCV RNA at week 8, but Undetectable at week 12

Boceprevir for Retreatment of HCV Genotype 1 Infection
RESPOND-2 Trial: Results

RESPOND-2: SVR 24 by Prior Response and Regimen

- PR48
- B24/PR28-48
- B44/PR48

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Prior Relapse</th>
<th>*Prior Nonresponse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with SVR (％)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21/80</td>
<td>17/161</td>
<td>7/29</td>
</tr>
<tr>
<td></td>
<td>59/95</td>
<td>66/107</td>
<td>29/151</td>
</tr>
<tr>
<td></td>
<td>69/105</td>
<td>69/122</td>
<td>40/237</td>
</tr>
<tr>
<td></td>
<td>75/103</td>
<td>75/132</td>
<td>52/304</td>
</tr>
</tbody>
</table>

*Prior Nonresponse = decrease in HCV RNA of at least 2 logs by week 12, but detectable HCV RNA level during therapy period
SVR = Sustained Virologic Response; B = Boceprevir; PR = Peginterferon + Ribavirin

Boceprevir for Retreatment of HCV Genotype 1 Infection
RESPOND-2 Trial: Results Based on Initial Week 4 Response

RESPOND-2: SVR 24, by Initial Response and Regimen

*Poor Initial Response to PR = decrease in HCV RNA level < 1 log_{10} IU/ml after 4 week lead in
^Good Initial Response to PR = decrease in HCV RNA level ≥ 1 log_{10} IU/ml after 4 week lead in

SVR = Sustained Virologic Response; B = Boceprevir; PR = Peginterferon + Ribavirin

Conclusions: “The addition of boceprevir to peginterferon–ribavirin resulted in significantly higher rates of sustained virologic response in previously treated patients with chronic HCV genotype 1 infection, as compared with peginterferon–ribavirin alone.”