Sofosbuvir + Ribavirin in HCV Genotype 1
NIH SPARE

Sofosbuvir and Ribavirin for Treatment-Naïve HCV GT 1
NIH SPARE Trial: Features

### NIAID/NIH Trial: Features

- **Design**
  - Randomized, open-label, 2-part, phase 2 study of sofosbuvir and ribavirin
  - Part 1: “proof of concept”
  - Part 2: low dose versus weight-based dose of ribavirin in GT-1

- **Setting**: Single center: NIAID

- **Entry Criteria**: HCV genotype 1; treatment-naïve

- **Patient Characteristics**
  - N = 60 HCV-monoinfected patients
  - HCV Genotype: 1A (70%), 1B (30%)
  - IL28B Genotype: 81% non-CC
  - Age and Sex: median 54 (range 48-57); 62% male
  - Race: 83% black; 13% white
  - Liver disease: 23% had advanced fibrosis (F3-F4 by Knodell-HAI scoring)

- **Primary end-points**: Efficacy (SVR24) and safety

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NIH SPARE Trial: Design

**Part 1**
N = 10
Sofosbuvir + RBV (wt-based) 24 weeks

**Part 2**
N = 50
Sofosbuvir + RBV (low-dose) 24 weeks

**Drug Dosing**
Sofosbuvir: 400 mg once daily
Low-dose Ribavirin (divided bid): 800 mg/day
Weight-based Ribavirin (divided bid): 1000 mg/day if < 75 kg or 1200 mg/day if ≥ 75 kg

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NIH SPARE Trial: Part 1 Results

NIH SPARE Part 1: HCV <12 IU/ml by Study Timepoint

All 10 patients in Part 1 received sofosbuvir plus weight-based ribavirin

Sofosbuvir and Ribavirin for Treatment-Naïve HCV GT 1
NIH SPARE Trial: Part 2 Results

NIAID/NIH Part 2: HCV RNA <12 IU/ml by Study Timepoint

<table>
<thead>
<tr>
<th></th>
<th>SOF + RBV (low dose)</th>
<th>SOF + RBV (weight based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 4</td>
<td>24/25</td>
<td>96</td>
</tr>
<tr>
<td>Week 24 (End of Tx)</td>
<td>22/25</td>
<td>96</td>
</tr>
<tr>
<td>SVR24</td>
<td>12/25</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>17/25</td>
<td>68</td>
</tr>
</tbody>
</table>

SOF = Sofosbuvir; RBV = Ribavirin

Sofosbuvir and Ribavirin for Treatment-Naïve HCV GT 1
NIH SPARE Trial: Part 2 Results

NIH SPARE Part 2: SVR24 by Fibrosis Stage

![Bar graph showing SVR24 by fibrosis stage](image)

<table>
<thead>
<tr>
<th>Fibrosis Stage</th>
<th>SOF +RBV (Low Dose)</th>
<th>SOF +RBV (Wt-Based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Stage (0-1*)</td>
<td>10/18 (56%)</td>
<td>14/19 (74%)</td>
</tr>
<tr>
<td>Advanced (3-4*)</td>
<td>2/7 (29%)</td>
<td>3/6 (50%)</td>
</tr>
</tbody>
</table>

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Sofosbuvir and Ribavirin for Treatment-Naïve HCV GT 1
NIH SPARE Trial: Part 2 Results

NIH SPARE Part 2: SVR24 by Baseline HCV RNA Level

<table>
<thead>
<tr>
<th>HCV RNA Level</th>
<th>SOF +RBV (Low Dose)</th>
<th>SOF +RBV (Wt-Based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;800,000 IU/ml</td>
<td>21/14 (15%)</td>
<td>63/16 (39%)</td>
</tr>
<tr>
<td>&lt;800,000 IU/ml</td>
<td>82/11 (75%)</td>
<td>78/9 (87%)</td>
</tr>
</tbody>
</table>

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**Conclusion**: “In conclusion, treatment with a 24-week regimen of sofosbuvir and ribavirin resulted in an SVR rate of 68% in the weight-based ribavirin regimen and 48% in the low-dose ribavirin regimen among patients with chronic HCV and unfavorable traditional predictors of treatment response who are representative of the demographics of the US HCV epidemic.”
This slide deck is from the University of Washington’s *Hepatitis C Online* and *Hepatitis Web Study* projects.

Hepatitis C Online  
www.hepatitisc.uw.edu

Hepatitis Web Study  
http://depts.washington.edu/hepstudy/

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