Sofosbuvir + Peginterferon + Ribavirin in Genotypes 1,4,5,6
ATOMIC

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**ATOMIC Trial: Study Overview**

<table>
<thead>
<tr>
<th><strong>ATOMIC Trial: Features</strong></th>
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<tbody>
<tr>
<td><strong>Design</strong>: Randomized, open-label, phase 2 trial investigating effectiveness and required duration of sofosbuvir, peginterferon, and ribavirin in treatment-naïve patients with GT 1, 4, 5, or 6</td>
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<td><strong>Setting</strong>: 42 centers in United States and Puerto Rico</td>
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<td><strong>Entry Criteria</strong></td>
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<td>- Chronic HCV infection with HCV genotype 1, 4, 5, or 6</td>
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<td>- Treatment-naïve</td>
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<td>- Age 18 or older</td>
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<td>- HCV RNA ≥ 50,000 IU/mL</td>
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<td>- Absence of cirrhosis</td>
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<td>- Absence of coinfection with HBV or HIV</td>
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<td>- BMI ≤ 18 kg/m²</td>
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<td><strong>Primary End-Point</strong>: SVR24</td>
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ATOMIC Trial: Design

**Drug Dosing**
Sofosbuvir (SOF): 400 mg once daily
Ribavirin (RBV) weight-based and divided bid: 1000 mg/day if < 75 kg or 1200 mg/day if ≥ 75 kg
Peginterferon alfa-2a (PEG): 180 µg once weekly

**Cohort A**
- n = 52
- GT 1
- GT4
- GT5
- GT6
- SOF + PEG + RBV
- SVR24

**Cohort B**
- n = 125
- GT4
- SOF + PEG + RBV
- SVR24

**Cohort C**
- n = 155
- GT5
- GT6
- SOF + PEG + RBV
- SOF
- SOF + RBV
- SVR24

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**ATOMIC Trial: Results, by Cohort (Regimen)**

**ATOMIC: SVR 24 by Cohort (Regimen)**

Patients (%) with SVR24:
- Cohort A: 46/52 = 89%
- Cohort B: 97/109 = 89%
- Cohort C: 135/155 = 87%

Patients with Genotype 1, 4, or 6

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ATOMIC Trial: Results, by Cohort (Regimen)

ATOMIC: SVR 24 by Genotype

Notes: (1) No patients with Genotype 5 enrolled in study
(2) All patients with Genotype 4 or 6 received 24 weeks of SOF + PEG + RBV
(3) The 2 patients with Genotype 4 and failure resulted from lost to follow-up at end of treatment

Interpretation: “Our findings suggest that sofosbuvir is well tolerated and that there is no additional benefit of extending treatment beyond 12 weeks, but these finding will have to be substantiated in phase 3 trials. These results lend support to the further assessment of a 12 week sofosbuvir regimen in a broader population of patients with chronic HCV genotype-1 infection, including those with cirrhosis.”
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](http://www.hepatitisc.uw.edu)

Hepatitis Web Study  

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