Cost-effectiveness of Sofosbuvir-Based Hepatitis C regimens in Central and West Africa (ANRS 12342)

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Nothing to disclose
TAC project

Senegal

Côte d’Ivoire

Cameroon
What have we done?

• **Simulated disease progression in two identical cohorts**
  - One treated with Direct-Antiviral Agents (DAAs)
  - One without treatment

• **Compared clinical and economical outcomes in both cohorts**
  - Life Years Saved (LYS)
  - Quality Adjusted Life Years (QALYs)
  - Overall treatment costs
  - Incremental Cost-Effectiveness Ratio (ICER)
What are the results?

**Table 1 : Incremental effectiveness, incremental costs and cost-effectiveness of Sofosbuvir-based treatment in Senegal, Côte d'Ivoire and Cameroon (cohort = 10 000 mono-infected patients)**

<table>
<thead>
<tr>
<th></th>
<th>Senegal</th>
<th>Côte d'Ivoire</th>
<th>Cameroon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean difference in Life Years [CI 95%], per patient</strong></td>
<td>3.6 [3.0 – 6.6]</td>
<td>2.8 [2.1 – 4.9]</td>
<td>3.3 [2.4 – 5.2]</td>
</tr>
<tr>
<td><strong>Mean difference in QALYs [CI 95%], per patient</strong></td>
<td>2.2 [1.6 – 3.2]</td>
<td>1.8 [1.3 – 2.7]</td>
<td>2.0 [1.5 – 3.0]</td>
</tr>
<tr>
<td><strong>Mean difference [CI 95%] in costs (€), per patient</strong></td>
<td>1293.4 [1204.7 – 1411.6]</td>
<td>1263.6 [1204.6 – 1338.2]</td>
<td>1425.4 [1355.3 – 1508.3]</td>
</tr>
<tr>
<td><strong>ICER (Incremental Cost Effectiveness Ratio) [CI 95%] (€/QALY)</strong></td>
<td>590.3 [424.7 – 813.2]</td>
<td>685.6 [481.5 – 942.3]</td>
<td>700.5 [487.7 – 934.8]</td>
</tr>
</tbody>
</table>

- Costs are high for constrained healthcare systems
- Sofosbuvir-based treatment substantially reduces morbidity and mortality of CHC patients.
- It is cost-effective at the threshold of the GDP per capita (€1069.7, €1292.7, €1220.8).
What are the implications?

• Increasing access to DAAs is necessary.

• Expected reductions of DAAs prices will increase treatment cost-effectiveness.

• Development of generic drugs and use of licence agreements with manufacturers is a good option to greatly reduce overall cost of treatment.
Thank you very much

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