**Background and importance**

**Intravenous** tocilizumab (an anti-IL6 receptor antibody) is approved for children ≥ 2 years with polyarticular juvenile idiopathic arthritis (PJIA). Recently, **subcutaneous** tocilizumab was labelled for the same indication, demonstrating similar efficacy and safety profile as intravenous administration.

**Aim and objectives**

To analyse **treatment costs** with intravenous tocilizumab (**IV-T**) vs subcutaneous tocilizumab (**SC-T**) in children with **PJIA**.

**Material and Methods**

- Cross-sectional study in a paediatric teaching hospital including all children with PJIA treated with IV-T.
- We analyzed the potential cost savings that can emerge if SC-T was used instead of IV-T.
- Costs were calculated using public prices provided by the health system.

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<thead>
<tr>
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<th>IV-T dose</th>
<th>SC-T dose</th>
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<tbody>
<tr>
<td>&lt; 30 kg</td>
<td>10 mg/kg monthly</td>
<td>162 mg every 3w</td>
</tr>
<tr>
<td>&gt; 30 kg</td>
<td>8 mg/kg monthly</td>
<td>162 mg every 2w</td>
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**Results**

- Twenty patients were included.
  - **Female**: 18/20.
  - **Median age**: 12.5 years (IQR: 9.5-14.5 years).
  - **Median weight**: 42.7 kg (IQR: 36.4-53.5 kg).

*In our sample, there are no patients weighing less than 20 kg, but it should be noted that in these patients, SC-T is more expensive than IV-T.*

*Monthly saving* in case of having used exclusively SC-T was **€ 4,205.45** (median monthly saving per patient: **€ 210.27**), which represents a **decrease of 30.9% in the cost**.

**Conclusions**

The use of subcutaneous tocilizumab in PJIA could represent a considerable saving. Furthermore, subcutaneous administration reduces treatment burden for patients, self-administration results in fewer absences from school as well as improve resource utilization at the treatment facility.