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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.

	IV-T dose	SC-T dose
< 30 kg	10 mg/kg monthly	162 mg every 3w
> 30 kg	8 mg/kg monthly	162 mg every 2w

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.

	IV-T	SC-T
Total monthly cost (€)	13,611.00	9,405.55
Median monthly cost per patient (€)	628.20 (IQR: 628.20 - 767.80)	488.60 (IQR: 488.60 - 488.60)

➤ **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.