

Juvenile idiopathic arthritis (JIA) is associated with considerable financial burden to society: results of a Dutch cost analysis

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Objective

JIA is the most common chronic **rheumatologic disease in childhood**.

Aim: to determine the **cost impact of JIA**, from a hospital and a societal perspective, and investigate cost differences between JIA subtypes.

Methods

Data analysed:

- Retrospective cohort of **884 JIA patients** (0-18 years), treated in the Wilhelmina Children's Hospital (NL), between 04/2011 and 04/2019.
- Including:** medication use, imaging, laboratory tests, admissions, operations, consultations, and emergency department visits.

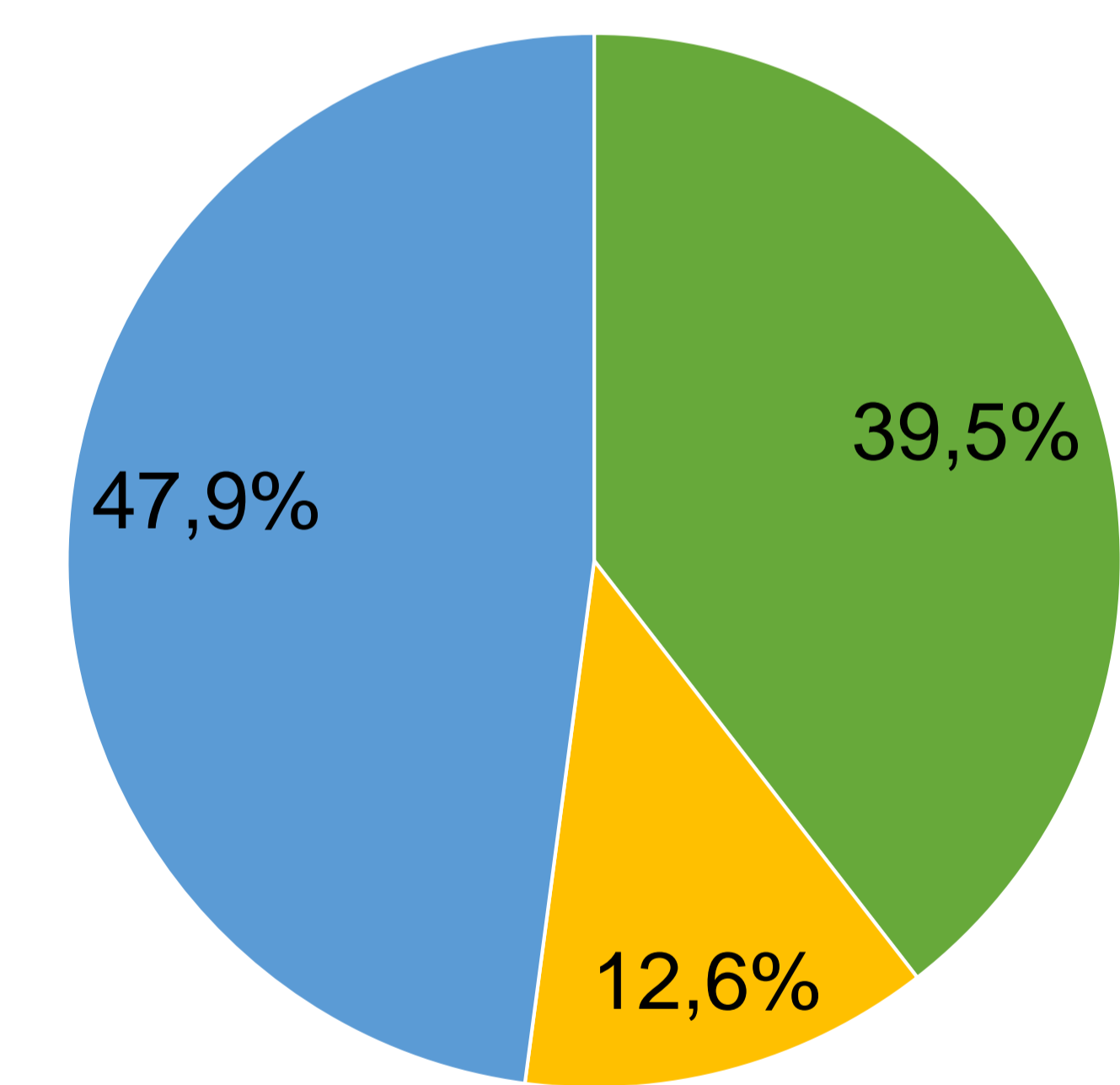
Costs of hospital-related resource were obtained from hospital tariffs, the Dutch Healthcare Authority, the Dutch Pharmacotherapeutic Compass, and the Dutch pediatric formulary.

Out-of-pocket costs (including other medical costs) and productivity losses were derived from studies identified in a literature review [1].

Results

- Mean annual hospital-related costs (including medication): €5361/patient.**
- Highest annual hospital-related costs (i.e. **€13,548/patient**) were found in systemic JIA (9.8% of patients):
 - €8676/patient** (i.e. 64%) is attributable to medication use vs. **€2583/patient** in other JIA subtypes.
 - High costs mainly due to using biologics as first-line treatment.
- Based on literature:**
 - Annual productivity losses of patients and parents: **€6491/patient.**
 - Out-of-pocket and other medical costs: **€1711/patient.**

Results



- Hospital-related costs €5361
- Out-of-pocket costs €1711
- Productivity losses €6491

Figure 1. Distribution of average yearly costs per patient into hospital-related costs (including medication), out-of-pocket costs (including other medical costs) and productivity losses (of patients and parents).

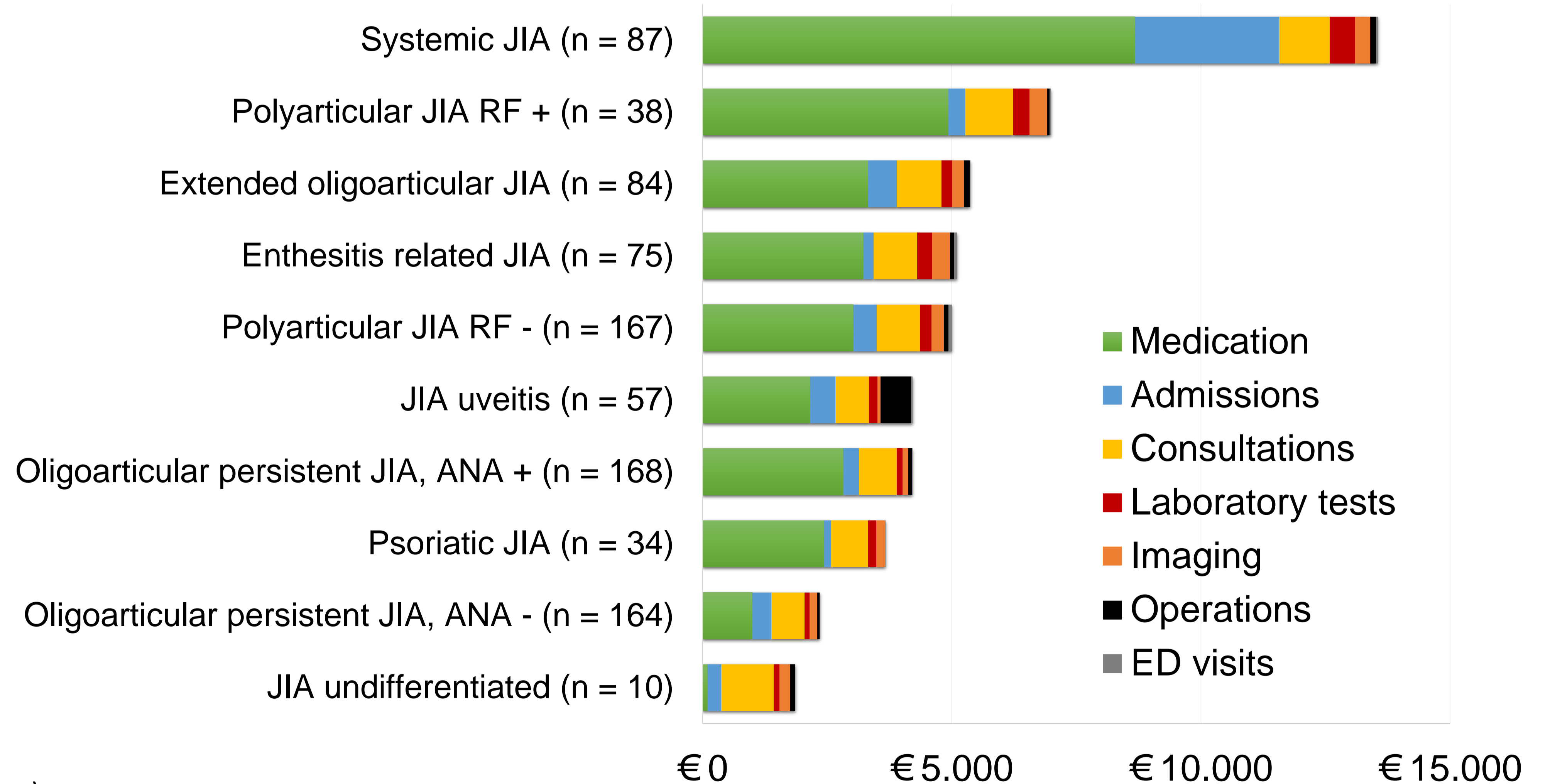


Figure 2: average annual hospital-related costs (including medication) depending on JIA subtype.

Conclusion and discussion

- Costs were found to vary substantially between JIA subtypes**
 - Annual hospital-related costs were highest among systemic JIA, largely attributable to medication use.
- When considering the **societal perspective**, productivity losses were the main cost driver.
 - However, **evidence in literature was limited and not specified per JIA subtype.**
- To **capture the full impact of JIA**, future research should also incorporate its **(wider) impacts on society.**

Questions or more information?

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[1] Kip, M.M.A., et al. (2019). *Pediatr Rheumatol Online J* 17(1): 20.