

INCREMENTAL COSTS OF ABROCITINIB COMPARED TO DUPILUMAB FOR THE TREATMENT OF MODERATE TO SEVERE ATOPIC DERMATITIS IN DENMARK

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BACKGROUND

- Atopic dermatitis is a chronic inflammatory disorder of the skin, characterized by the presence of red and itchy lesions that can occur anywhere on the body, in a persistent or relapsing manner¹.
- Atopic dermatitis is the most common chronic inflammatory skin disease in the developed world, with primary onset in childhood affecting up to 25 % of children. Atopic dermatitis is however also very prevalent in adults with rates of 7–10 %^{2,3}.
- Up to approximately 85% of adult AD patients have mild to moderate severity and up to 60% have moderate to severe disease worldwide^{4,5}.

OBJECTIVE

- The objective of this study was to estimate the incremental cost of introducing abrocitinib, an oral, selective JAK1 inhibitor, with faster onset on efficacy compared to dupilumab for the treatment of moderate to severe atopic dermatitis in Denmark.
- The efficacy and safety of both abrocitinib and dupilumab has been investigated in the head-to-head trial, JADE DARE⁶.

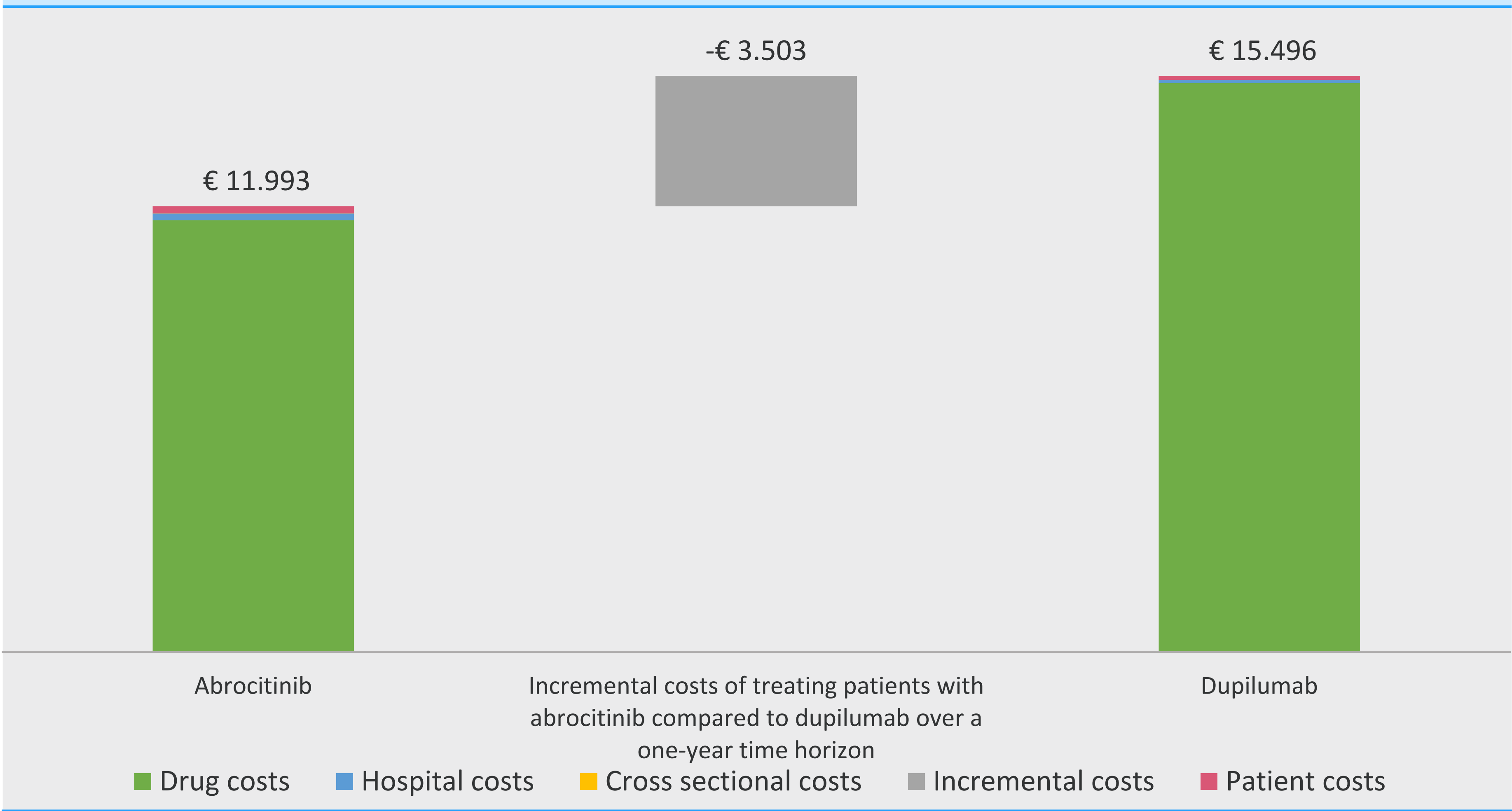
METHODS

- A cost-minimization analysis was performed to calculate the incremental costs per patient of treatment with abrocitinib compared to treatment with dupilumab. The cost-minimization analysis was chosen due to the comparable clinical efficacy and safety of both products⁶.
- A limited societal perspective was applied, and costs included in the model were those expected to differ for the two treatment options, including drug acquisition costs, administration costs, resource use and patient costs.
- Drug costs are based on pharmacy purchasing price. All prices are converted to Euro (DKK 1 = EUR 0.134)
- Hospital costs include costs associated with administration, monitoring and adverse reactions treated in a hospital setting.
- A micro-based cost approach was used to estimate hospital costs, including hourly costs for practitioners and examination rooms.
- Costs related to treatment of adverse events were included to incorporate the differences in the safety profiles between abrocitinib and dupilumab.
- In the base case analysis, the model has a time horizon of 52 weeks.

RESULTS

- The total costs per patient, including patient costs, of treatment with abrocitinib were EUR 11,993, while the total costs per patient including patient costs of treatment with dupilumab were EUR 15,496, which gives an incremental cost of DKK -3,503 (Table 1).

Figure 1. Incremental costs of treating patients with abrocitinib compared to dupilumab over a one-year time horizon, EUR



DIFFERENCES IN COSTS

- Drug costs are the primary driver for differences between abrocitinib and dupilumab.
- Hospital costs are primarily driven by monitoring costs for both abrocitinib and dupilumab. Monitoring costs includes costs related to treatment initiation, training in self-administration and blood tests.
- Due to the oral administration, patients treated with abrocitinib incur no administration costs while the average patient treated with dupilumab incur few administration costs due to the subcutaneous mode of administration which require facilitation of training in self-administration.
- Costs associated with treatment of adverse events in the hospital setting were very low. Few patients treated with abrocitinib incur costs due to treatment of herpes zoster (0.9% of patients), while no costs incurred related to treatment for dupilumab.
- Cross sectional costs include costs related to treatment of adverse events in the primary care sector, however cross sectional costs have a very little influence on the overall costs.
- Patient costs include costs of patient time and transportation in relation to administration, monitoring, treatment of adverse events and costs of prescription medicines. The majority of patient costs are related to monitoring for both abrocitinib and dupilumab, reflecting the time used on blood tests for treatment with abrocitinib and training in self-administration for treatment with dupilumab.

Table 1. Total costs per patient over a one-year time horizon, EUR

	Abrocitinib	Dupilumab	Incremental costs
Drug costs	11,611	15,305	-3,694
Hospital costs	184	81	103
Cross sectional costs	3	3	0
Patient costs	194	107	87
Total costs including patient costs	11,993	15,496	-3,503
Total costs excluding patient costs	11,799	15,389	-3,590

LIMITATIONS

- As the drug costs in this study was solely based on the public pharmacy purchasing prices, the results of this study could be highly influenced by confidential net-prices or rebate prices.

CONCLUSIONS

- Our study shows that, based on public available pharmacy purchase prices, abrocitinib was found to be a cost-saving alternative to dupilumab mostly due to lower drug costs
- Abrocitinib's flexible oral administration with no associated administrations costs, it is an attractive treatment option for both patients, hospitals, and the healthcare sector in general.

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DISCLOSURE OF INTEREST

LKS, STG and DSH are employees of Pfizer Denmark Aps., and both STG and DSH own shares in Pfizer Inc.

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