

## The biologic treatment of psoriasis in Estonia

### Summary

**Objectives:** To evaluate the effectiveness and costs of biologic agents in the treatment of moderate to severe psoriasis. The aims were: to define the recommended treatment target and when the switch of the biologic agent is indicated, whether some biologic agents are more effective than the rest, and which sequence is the most cost-effective.

**Methodology:** The drugs under evaluation were adalimumab, etanercept, infliximab, ustekinumab, secukinumab, guselkumab, risankizumab and ixekizumab. Literature search for research papers on efficacy of biologic treatment and cost-effectiveness in psoriasis was performed in the PubMed database and 42 studies met the predefined selection criteria. The data about biologic treatment in psoriasis during 2019–2020 was obtained from three major hospitals, which had the monopoly to prescribe biologicals in Estonia, reimbursed by the Estonian Health Insurance Fund.

The impact on the budget of Estonian Health Insurance Fund in 2021-2025 was evaluated using 2 scenarios: the choice of the biologic agents remains the same, and there will be 2–3 additional agents. The assessment was based on the prices of the biologic agents as of 01.04.2021.

**Results:** There are very few clinical head-to-head efficacy and cost-effectiveness studies on biologic agents in psoriasis. Therefore the efficacy and the cost-effectiveness of the biologic agents in psoriasis cannot be reliably distinguished.

Drug use study in Estonia during 2019–2021 revealed, that 341 patients received treatment with biologic agents in Estonia: 20.5% of the patients switched the treatment, 5.3% discontinued and 3.5% stopped the treatment. The time covered by biologic treatment was more than 95%.

It was estimated that the number of patients receiving biologic treatment will increase 15% first year, 10% in the second year and 5% in the following years. According to the first scenario the estimate of cost increase is approximately 700 000 euros by 2025 and according to the second scenario the cost increase is 350 000 by 2025.

**Conclusions:** The choice and sequential use of the biologic treatment of psoriasis needs to be flexible to be effective and cost-effective. Suggestions regarding the changes in the criteria of treatment decision, assessing the treatment results and switching the drugs were made based on the guidelines and studies.

**Citation:** Ilves L, Uusküla A, Juus E, Kiivet R. *Bioloogilised ravimid psoriaasi raviks*. TTH47. Tartu Ülikooli peremeditsiini ja rahvatervishoiu instituut; 2020.