

Press release

STUDY HIGHLIGHTS No. 6/2023

Cost-effectiveness of adding a homeopathic treatment to usual care for preventing recurrence of tonsillitis

21 July 2023 – **Cost-effectiveness of homeopathy** – several studies have investigated this subject during the last few years. In this sixth issue of our “Study Highlights series” we present a model-based economic evaluation that analyses the cost-effectiveness of a homeopathic medicine, when used alongside conventional treatment, for recurrent tonsillitis.

Topic and lead author

“Cost-effectiveness analysis of a homeopathic adjuvant treatment in recurrent tonsillitis” by Dr Thomas Ostermann, Department of Psychology and Psychotherapy, Witten/Herdecke University, Germany

What is the study about and the added value of homeopathic treatment?

Upper respiratory tract infections account for 60 per cent of antibiotic prescriptions in primary care, even though the vast majority of these infections are caused by viruses, for which antibiotics do not work¹. This is a critical issue because of the risk of antimicrobial resistance in today's health care: In 2019 there were 865,767 infections with antibiotic-resistant bacteria in the European Union².

Inappropriate antibiotic prescribing is also an issue in acute and recurrent tonsillitis³. To avoid this, using homeopathy alongside conventional treatment (i.e as ‘adjunctive care’) may be a therapeutic option¹. This approach is supported by a 2017 study which found that SilAto-5-90⁴ (a product containing a combination of several homeopathic medicines) given alongside conventional treatment, was effective in treating recurrent tonsillitis (TocTo study)⁵. Using the results from the TocTo study, the current analysis aimed to determine the cost-effectiveness of adding homeopathic treatment to usual care.

¹ Fixsen A. Homeopathy in the age of antimicrobial resistance: is it a viable treatment for upper respiratory tract infections? *Homeopathy* 2018;107:99-114.

² [Assessing the health burden of infections with antibiotic-resistant bacteria in the EU/EEA, 2016-2020 \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

³ Spinks A, Glasziou PP, Del Mar CB. Antibiotics for sore throat. *Cochrane Database Syst. Rev.* 2013;11; CD000023.

⁴ SilAto-5-90 is a complex homeopathic medicinal product composed of five single remedies, which are particularly suitable for the treatment of acute and recurrent tonsillitis.

⁵ Palm J, Kishchuk VV, Ulied A, Perotti Fernández J, De Jaegere S et al. Effectiveness of an add-on treatment with the homeopathic medication SilAto-5-90 in recurrent tonsillitis: An international, pragmatic, randomized, controlled clinical trial. *Complement. Ther. Clin. Pract.* 2017;28:181-191.

How was the study conducted?

- The primary aim of the study was to assess the incremental costs⁶ per acute throat infection that was avoided by adding homeopathic treatment to usual care.
- For this purpose, a model-based economic evaluation was constructed to compare the cost-effectiveness of SilAtr0-5-90 plus usual symptomatic care, with usual symptomatic care alone, in reducing the recurrence of acute throat infections. Estimates of this recurrence were drawn from the TocTo study⁷.
- The model represents a population of children and adults with moderate recurrent tonsillitis in Germany over two years.

What are the scientific results?

- For children under 12 years, the additional treatment with SilAtr0-5-90 is always cost-effective, i.e. it reduces the number of acute throat infections at a lower cost than using conventional treatment alone.
- For adults and children over 12, the additional treatment with SilAtr0-5-90 incurs additional costs of €157⁸ for preventing one acute throat infection. In this age category, the additional treatment with SilAtr0-5-90 becomes cost-effective if patients had more than three acute throat infections in the preceding year.

Why are the results of this study important?

The results indicate that for children under 12, adding SilAtr0-5-90 treatment to usual symptomatic care can be a valuable treatment option: It reduces the number of acute throat infections at a lower cost regardless of the severity of recurrent tonsillitis.

The study also shows that SilAtr0-5-90 may be a promising additional treatment option for adults and children aged 12 years and older with 'severe' recurrent tonsillitis. In these patients, who experience more than three acute throat infections per year, SilAtr0-5-90 can help avoid tonsillectomy – the most common treatment for such cases. Besides being expensive, tonsillectomy bears a small but significant risk of haemorrhage and is particularly painful for adults.

As well as benefiting individual patients by reducing the number of acute throat infections they experience, adjuvant treatment with SilAtr0-5-90 can also benefit the health care system and society: Each avoided throat infection reduces the use of antibiotics, which in turn reduces the threat of antimicrobial resistance.

What does this study add to the scientific evidence?

While several studies have examined the cost-effectiveness of tonsillitis treatment, this is the first study which analyses the cost-effectiveness of an additional homeopathic treatment for this condition.

⁶ The 'incremental cost-effectiveness ratio' is an important measure in health economics research, which assesses the cost-effectiveness. To calculate this, the additional costs incurred by adding treatment with SilAtr0-5-90 to conventional symptomatic treatment (HOM group) were compared to costs incurred by using symptomatic treatment alone (CON group); this value was then put in relation to the number of acute throat infections avoided in the HOM group compared to the CON group.

⁷ The TocTo study showed that the number of patients with at least one recurrent tonsillitis was significantly lower in patients who had received the homeopathic combination remedy SilAtr0-5-90 in addition to usual symptomatic care - compared to patients who had received usual symptomatic care alone. ⁸ These costs relate to society at large, including costs for health care insurers, and patients.

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Economic evaluations are needed for healthcare decisions and more high-quality studies are urgently required in this field⁹. The current analysis, using a modelling approach, makes an essential contribution to filling this gap. A recent literature review, examining the quality of 44 economic evaluations using a validated quality checklist described the study as a gold standard, model-based economic evaluation, and showed it to be one of the 12 evaluations with the maximum score¹⁰.

Where were the results published?

Ostermann T, Park A-L, De Jaegere S, Fetz K, Klement P, Raak C, McDaid D. Cost-effectiveness analysis for SilAto-5-90 adjuvant treatment in the management of recurrent tonsillitis, compared with usual care only. *Cost Eff Resour Alloc* 2021;19:60.

Press contact:

Homeopathy Research Institute, Berlin, Germany
Christoph Trapp
Phone +49 (0)170 9917 649
E-Mail presse@hri-research.org

About HRI

HRI is a UK-based charity dedicated to promoting high quality research in homeopathy at an international level. More information: www.hri-research.org

⁹ Viksveen P, Dymitr Z, Simoens S. Economic evaluations of homeopathy: a review. *Eur J Health Econ*. 2014 Mar;15(2):157-74.

¹⁰ Cannon JW, Wyber R. Modalities of group A streptococcal prevention and treatment and their economic justification. *NPJ Vaccines* 2023;8:59.