

Cost-effectiveness of childhood tonsillectomy compared to watchful waiting: impact of economic productivity loss caused by parents' work absenteeism.

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Introduction and aim

Tonsillectomy is one of the most commonly performed surgical procedures in children. The main reason for performing this surgery is recurrent episodes of acute tonsillitis. Economic loss of productivity caused by parents' work absenteeism is an underestimated factor in the total cost linked to children's illness. The aim of this study was to investigate the cost-effectiveness of tonsillectomy compared to watchful waiting in children with recurrent episodes of acute tonsillitis and the role of economic productivity loss in this calculation.

Materials and methods

Two hundred seventy-five parents of children undergoing tonsillectomy in Ziekenhuis Oost Limburg provided information about their work absenteeism caused by their children's surgery. Information about the work absence for an episode of acute tonsillitis was provided retrospectively. Information was assessed by a self-administered questionnaire. Socio-economic costs caused by the parents' productivity loss were assessed based on the total labor cost calculated by the NIS in 2000 and converted to the year 2008. Costs of surgical procedure and hospital stay were calculated on resource use and personnel input in the participating Hospital. Hospitalization risk after tonsillectomy was considered to be comparable to hospitalization rate for acute tonsillitis.

Results

An episode of acute tonsillitis in the child results in a longer period of parents' work absenteeism (mean:3.79 days, 95% CI:3.27-4.31) compared to tonsillectomy (mean:2.97 days, 95%, CI:2.61-3.31) leading to a higher cost of economic productivity loss caused by tonsillitis (746.06€) compared to tonsillectomy (584.65€). The general costs linked to surgical procedure correspond to 605.45€ per child. The general costs linked to an acute tonsillitis are estimated at 186.46€.

Conclusions

In children suffering from recurrent episodes of acute tonsillitis, watchful waiting results in a higher economic loss of productivity compared to tonsillectomy. At the level of cost-effectiveness, 1.2 episodes of acute tonsillitis per year justify a tonsillectomy.