


COBLATION[®] Intracapsular Tonsillectomy (CIT) was shown to be more cost-effective than extracapsular tonsillectomy (ECT) for paediatric patients


Chorney SR, Johnson RF, Mitchell RB. Cost-utility analysis of intracapsular and extracapsular techniques for paediatric tonsillectomy. *Laryngoscope*. Published online July 23, 2025.


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Available at: [doi:10.1002/lary.32448](https://doi.org/10.1002/lary.32448)

Overview

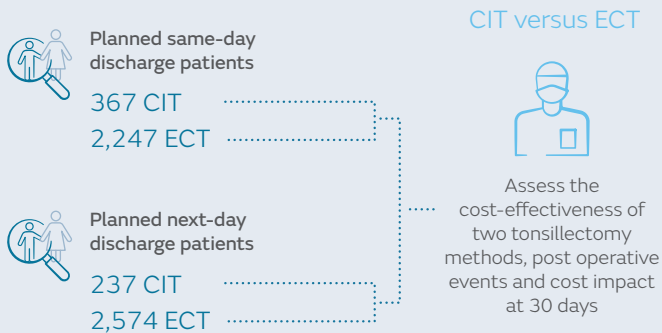
 Single-centre, multi-surgeon, prospective cohort study of paediatric patients undergoing CIT or ECT in planned same-day* or planned next-day* discharge setting between January 2020 and April 2024

 Primary objective: determine the incremental cost-effectiveness ratio (ICER) in 30 days of paediatric patients receiving CIT or ECT

 Secondary objectives: post-operative events, caregiver reported outcomes, obstructive sleep apnoea (OSA) improvements and cost impact analysis

Methodology

Paediatric patients (<18 years old):



Results

13.5%
cost reduction
($p < 0.001$)

CIT achieved health benefits at a lower cost compared to ECT for planned same-day discharge cases[†]
CIT has comparable costs versus ECT in planned next-day discharge cases^{††}

CIT was more cost-effective compared to ECT for planned same-day discharge cases, defined as cost per quality-adjusted life year (QALY)[§]



CIT remains cost-effective when revision rates are less than 14.5% in planned same-day discharge cases and 0.9% in planned next-day discharge cases[†]



Significant reductions in the odds of post-operative events for CIT versus ECT patients (planned same-day discharge cases)



No significant differences were observed in caregiver outcomes or OSA improvements for CIT vs ECT in either patient group

Conclusion

CIT was demonstrated to be more cost-effective than ECT for paediatric patients.[§] CIT patients also had significant reductions in hospital readmissions and calls related to post-operative problems compared to ECT, with no difference in caregiver reported outcomes and comparable outcomes in OSA.

Abbreviations: CIT = COBLATION Intracapsular Tonsillectomy; ECT = extracapsular tonsillectomy; ICER = incremental cost-effectiveness ratio; OSA = obstructive sleep apnoea; QALY = quality-adjusted life year.

*Planned same-day and planned next-day discharge cases are referred to as ambulatory (no planned 23-h admission) and observational (planned 23-h admission) cases, respectively, in the publication. [†]Mean planned same-day discharge cost was \$4,716 and \$5,400 for CIT and ECT, respectively. ^{††}Mean planned next-day discharge cost was \$9,462 and \$9,544 for CIT and ECT, respectively. [§]CIT dominated ECT with an incremental cost effectiveness ratio (ICER) of -\$100,141/QALY for planned same day discharge cases and -16,453 for planned next day discharge cases. [¶]Results of a one-way sensitivity analysis during the 30-day follow-up no CIT cases required revision in either setting.

Post Tonsillectomy Haemorrhage (PTH) is a potentially serious complication that has been reported in literature for both adult and pediatric patients.

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