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# Paediatric day-case tonsillectomy – parent satisfaction questionnaire

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## Main Article

Dr S Garry takes responsibility for the integrity of the content of the paper

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## Abstract

**Objective.** To assess parent or guardian satisfaction with a newly instituted day-case tonsillectomy programme at a tertiary paediatric institution.
**Methods.** After receiving ethical approval, an anonymous questionnaire was sent to the parent or guardian of every patient who underwent day-case tonsillectomy between July 2018 and December 2020.
**Results.** A total of 135 patients were included. The parent or guardian of each patient was sent a questionnaire to be filled in and returned. Ninety-two completed surveys were returned. There were high satisfaction levels, with 91.3 per cent of parents or guardians feeling comfortable bringing their child home, and 92.4 per cent of parents or guardians would recommend day-case tonsillectomy to another parent or guardian. Of the parents or guardians, 10.9 per cent needed to contact healthcare services in the 24 hours following surgery.
**Conclusion.** Day-case tonsillectomy has proven to be a safe, efficient service at our institution, with high satisfaction levels from patients and parents or guardians. Areas for improvement focused on communication at the time of discharge regarding follow up and analgesia.

## Introduction

Day-case procedures have been a staple of otolaryngology practice, in adult and paediatric services, for several years. Clinical, economic and social advantages,[1] and the excellent safety and low morbidity rates,[2] have made day-surgery popular in many countries. High levels of patient satisfaction have been achieved,[3] both in adult and paediatric practice.

Tonsillectomy is one of the most commonly performed otolaryngology procedures, especially in paediatric care. Day-case tonsillectomy has been described worldwide, and its ability to maximise the throughput of patients without competing for overnight beds has seen its popularity grow.[4]

The present study aimed to assess patient and parental or guardian satisfaction retrospectively following the introduction of a day-case tonsillectomy programme at our facility. Whilst there can be an understandable reluctance to bring children home after a general anaesthetic, day-case surgery is a staple of modern surgical practice. Day-case tonsillectomy is not a novel practice internationally; however, this was the first programme in Ireland and therefore it was important to audit our practice, for both patient and staff reassurance. In addition, there is a relative paucity of studies in the literature assessing parents' or guardians' experiences of day-case tonsillectomy and the challenges that are involved.

## Materials and methods

Local institutional ethical approval was attained to prospectively maintain a database of all day-case tonsillectomy cases over the first two years of the programme's existence. The data were collected from August 2018 to December 2020 at a single, tertiary, paediatric institution. Patient demographics, surgical technique, and rates of discharge failure and hospital re-admission were recorded. Some departments consider day-case tonsillectomy as discharge within the 24 hours after the procedure; however, in our study, it was defined as discharge after a 6-hour period of observation post-operatively. At the time of discharge, parents or guardians were supplied with an information leaflet with advice regarding analgesia and how to contact the ENT department if they were having difficulty in the post-operative period.

An anonymous questionnaire (Figure 1), along with a cover letter and a stamped addressed envelope, were posted to the parents or guardians of each child who underwent a day-case tonsillectomy during the study period. The cover letter explained the purpose of the questionnaire, and reassured parents or guardians that the questionnaire was anonymous, and that the child's care would not be compromised whether the questionnaire was completed or not. The specific outcomes examined concerned: parents' or guardians' satisfaction with the service, whether they needed to contact the hospital or general

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Day Case Tonsillectomy – Patient Satisfaction Questionnaire

- Were you comfortable taking your child home on the day of surgery?

  Yes□ No□

- Would you have preferred if your child stayed in the hospital for the night after surgery?

  Yes□ No□

- Did you need to contact the hospital or your GP with concerns during the first 24 hours after discharge?

  Yes□ No□

- Were you given an information leaflet going home?

  Yes□ No□

- Was this leaflet useful?

  Yes□ No□

- Would you recommend tonsillectomy as a day case to the parent of another child?

  Yes□ No□

*We are very keen to ensure that day-case tonsillectomy is a good experience for our patients and their parents/guardians. Have you any suggestions about how we could improve this service?*

**Your Suggestions**

**Fig. 1.** Day-case tonsillectomy patient satisfaction questionnaire. GP = general practitioner

practitioner in the 24 hours following the procedure, and whether they would recommend the service to other parents or guardians. Parents or guardians were also asked if they had received the information leaflet on discharge and whether they found it helpful. Blank space was left in the questionnaire for free-text suggestions regarding any improvements to the service. Six weeks after the initial questionnaire was distributed, a reminder questionnaire was posted. Parents or guardians were asked only to complete the questionnaire if they had not previously done so.

### Inclusion criteria

Strict inclusion criteria were applied when booking patients for day-case tonsillectomy (Table 1), with a minimum age of five years and living near the hospital as some of the essential considerations. All patients who underwent a day-case tonsillectomy were eligible for inclusion in our study.

### Exclusion criteria

Once the inclusion criteria for day-case tonsillectomy (Table 1) were met, the patient was eligible for the study. No patients who underwent day-case tonsillectomy were excluded.

### Data analysis

The de-identified database was stored on an encrypted file on a hospital desktop computer. Data were analysed using Microsoft Excel.

## Results

A total of 135 questionnaires were distributed to parents or guardians. There was a female preponderance in our patient cohort (with a female:male ratio of 75:60). The average age was 9.9 years (range, 5–16 years). All patients underwent a day-case tonsillectomy in our facility. One patient presented to the emergency department because of concerns regarding bleeding on the evening of surgery. The patient was kept in the hospital overnight for observation; however, there was no need for operative intervention. There were three failed discharges because of post-operative pain or nausea. Therefore, our cohort's overall effective day-case rate was 97 per cent ($n = 131$).

Fifty-six questionnaires were returned initially, yielding a response rate of 41.4 per cent. After the second reminder questionnaire was issued to the same patient cohort, an additional 36 questionnaires were returned, giving an overall response rate of 68.1 per cent ($n = 92$).

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**Table 1.** Inclusion criteria for day-case tonsillectomy

| |
|---|
| Age >5 years |
| Weight >15 kg |
| No history of obstructive sleep apnoea |
| No medical co-morbidities (except well-controlled asthma) |
| Patient must live <60 minutes away from hospital |
| 2 adults must be in house on 1st night of surgery (if other children at home) |
| Parents must be happy to give post-operative analgesia |

**Table 2.** Reasons parents or guardians would prefer a hospital stay

| Pt. no. | Reason |
|---|---|
| 1 | Bleeding – re-admitted same night |
| 2 | Vomiting & spitting blood |
| 3 | Nervous going home – no specific reason |
| 4 | No reason specified |
| 5 | No reason specified |
| 6 | No reason specified |
| 7 | Additional needs – ASD |
| 8 | Spitting blood, causing anxiety |
| 9 | Analgesia issues |
| 10 | No reason specified |
| 11 | No reason specified |
| 12 | Late discharge – caused anxiety |
| 13 | No reason specified |
| 14 | Analgesia issues |

Pt. no. = patient number; ASD = autism spectrum disorder

The majority of parents or guardians were satisfied with the service and their child's care. Despite having to manage analgesic requirements among other issues on the night of surgery, 91.3 per cent of parents or guardians (84 out of 92) felt comfortable bringing their child home on the evening of surgery. Many reported that the child's own bed was an additional comfort.

Fourteen parents or guardians (15.2 per cent) stated they would have preferred that their child had stayed in hospital overnight (Table 2 and Figure 2). Parents or guardians of 6 of these 14 patients did not give a specific reason for preferring an overnight stay for their child. Some cited analgesic issues or the fact that their child may have additional needs which were difficult to meet at home.

Ten parents or guardians (10.9 per cent) needed to contact their general practitioner or the hospital in the 24 hours following the procedure; typically, this related to questions regarding analgesia. Ninety-one parents or guardians (98.9 per cent) received the information leaflet at the time of discharge, and all but 2 per cent (90 out of 92) found it useful. Eighty-five parents or guardians (92.4 per cent) indicated that they would recommend day-case tonsillectomy to another parent or guardian (Figure 3).

## Discussion

In a hospital setting where competition exists for overnight beds, a patient's ability to safely undergo an intervention as a day-case procedure has become a necessary consideration. This need may be more pressing in adult hospitals, but the same issues exist in a paediatric setting. The benefits of day-case surgery for paediatric patients, and their parents or guardians, are arguably even more significant than for their adult counterparts.[5]

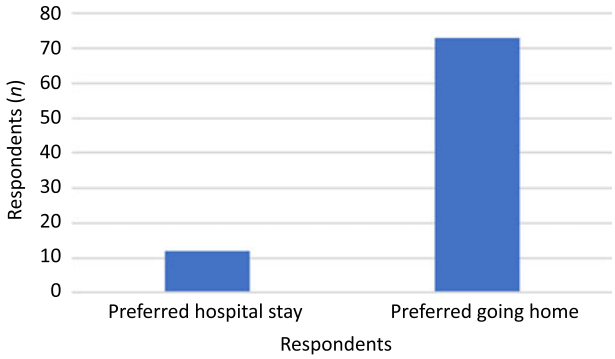



**Fig. 2.** Parents' or guardians' preferences regarding their child staying in hospital overnight or going home; 85.9 per cent of respondents were happier to take their child home on the evening of surgery than to remain in hospital overnight.

Tonsillectomy is one of the most commonly performed paediatric surgical procedures.[6] Safety is of paramount importance, and patient selection is critical when considering a day-case tonsillectomy. Strict inclusion criteria (Table 1) were applied before booking a child for day-case tonsillectomy. Every patient was observed for 6 hours post-operatively and was required to be on an oral diet before discharge home. One patient was re-admitted to the hospital on the night of surgery because of bleeding; however, this was not considered significant. The patient was kept overnight for monitoring, but did not require operative intervention. Failed discharges and re-admissions to the hospital on the day of surgery are not uncommon for day-case procedures; the low frequency of these events is a crude measure of service success.[5] No adverse outcomes were observed associated with the patient going home on the day of surgery.

Whilst day-case tonsillectomy may make sense from an efficacy and hospital throughput perspective, few studies have examined the parents' or guardians' point of view. Long waiting lists, among other pressures, do not allow for routine post-tonsillectomy follow up for each child; therefore, it can be difficult to appreciate whether the experience was a satisfactory one. Other studies have mentioned high levels of parental or guardian satisfaction despite initial hesitation.[7] Given that they are likely to experience a varying degree of pain overnight, bringing a child home after a tonsillectomy can be a daunting experience for some parents or guardians.

Our results indicated that most parents or guardians (91.3 per cent) felt comfortable bringing their child home post tonsillectomy. Much of the feedback received from parents or guardians focused on adequate communication, information regarding analgesic regimens and what to do in a case of emergency. Of the parents or guardians, 10.9 per cent needed to contact either the hospital or out of hours general practitioner the night of surgery for advice. These calls were usually regarding analgesia and/or vomiting on the evening of surgery. Norrington *et al.* found that there was a small, but significant, risk of greater baseline pain scores in day-case surgery in the first 24 hours compared to those having an overnight stay in hospital, which underlines the need for comprehensive pain regimens at the time of discharge.[8]

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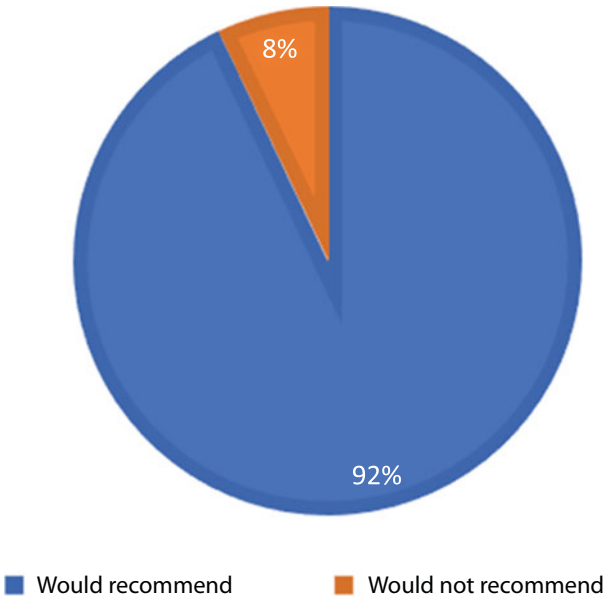



**Fig. 3.** Parents' or guardians' responses regarding whether they would recommend the service to another parent or guardian; 92.4 per cent of respondents said they would recommend day-case tonsillectomy to another parent or guardian.

The information leaflet, given to all except one parent/guardian (98.9 per cent), contains information regarding the procedure itself, post-procedure care, and how to contact our department if any queries arise. The majority of parents or guardians found this leaflet helpful, and we consider its distribution an essential part of the pathway.

During the study period, an improved information leaflet was distributed to parents at the time of discharge, which included specific analgesic regimens. Input from the pain management service and the anaesthetic department was sought in order to standardise the post-operative pain management; this reduced the frequency of queries in the initial hours after discharge. A benefit of standardising the regimen was the improved consistency of the information given to parents or guardians from all of the staff members that they encountered.

Fourteen parents or guardians (15.2 per cent) stated they would have preferred their child to stay in the hospital (Table 2 and Figure 2). Some of these parents or guardians cited that their child's additional needs were more challenging to manage (e.g. autism spectrum disorder) in the post-operative period. Other parents believed it would be challenging to manage analgesia on the night of surgery. These concerns are an essential consideration for the service, and prompted discussion regarding the inclusion and exclusion criteria. Whilst the inclusion criteria were strictly adhered to when considering day-case tonsillectomy, at the outset of the programme, behavioural and social issues were not included under 'medical co-morbidities'.

The feedback received resulted in an expansion to the medical co-morbidities criterion, thereafter allowing for consideration of additional needs (including behavioural and social issues). Parents were routinely offered an overnight hospital stay at the time of booking if they felt uneasy or uncomfortable at the thought of going home on the same day as surgery; however, the vast majority of parents were happy to proceed with day-case tonsillectomy. Blomgren *et al.* surveyed parents' preferred length of stay in hospital after a tonsillectomy and, interestingly, the majority favoured at least a 1-night stay in hospital; this underlines the level of anxiety from parents regarding day-case tonsillectomy.[9]

A parent or guardian questionnaire is a useful way of identifying service shortfalls and directing service change.[10] Measuring parental or guardian satisfaction is increasingly important and necessary, to facilitate quality improvement endeavours. If every questionnaire were returned and completed, it would have given an excellent representation of the cohort; however, this is unrealistic to expect. A return rate for the questionnaires of 68.1 per cent provided data for a good-sized sample of the overall patient group.

There may be an inherent outcome bias for patients, or parents or guardians, who did not have a good experience; such individuals may elect to not participate in the study and thus not return the questionnaire. The validity of forced binary choice questionnaires is also a limitation; future questionnaires should incorporate a larger variety of available responses to allow more accurate and detailed feedback. A further limitation is that the questionnaire was circulated at the end of the study period; therefore, there was large variability in the timeframe between the date of the operation and the date of survey completion. Parents' recollection may differ greatly the following few days after surgery compared to numerous months later, hence an element of recall bias cannot be excluded. Prospectively, parents will be asked to complete questionnaires at specific time points in order to reduce the heterogeneity of responses.

- Parent or guardian satisfaction questionnaires and surveys are useful for attaining feedback on quality improvement in paediatric practice
- Day-case tonsillectomy is an efficient, safe service with an increasing role in modern paediatric otolaryngology practice
- Most parents felt safe and comfortable taking their child home after day-case tonsillectomy
- Despite adequate information and communication, some patients will require access to healthcare in the 24 hours after day-case surgery
- Many suggested areas for improvement focused on communication at time of discharge and information regarding analgesia

It is possible to extrapolate conclusions with some degree of certainty given that most responses were unifying in their satisfaction with the service. This has been echoed in other published literature on the topic.[11,12] Some of the areas highlighted for improvement were: better communication regarding post-operative analgesia, and clarification regarding the need for follow up, which is not routinely offered.

## Conclusion

Day-case tonsillectomy was found to be a safe intervention, with no significant adverse events in our cohort. Parent or guardian satisfaction was high, with 92.4 per cent stating they would recommend day-case tonsillectomy to another parent or guardian. The areas suggested for improvement often focused on communication at the time of discharge.

**Competing interests.** None declared

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