



The pediatric sedation unit: A prospective analysis of parental satisfaction^{☆,☆☆}



Matthew P. Connor^{a,*}, Gregory R. Dion^a, Matthew Borgman^b, Stephen Maturo^{a,c}

^a Department of Otolaryngology, San Antonio Military Medical Center, Fort Sam Houston, TX, USA

^b Department of Pediatrics, San Antonio Military Medical Center, Fort Sam Houston, TX, USA

^c Uniformed Services University of the Health Sciences, Bethesda, MD, USA

ARTICLE INFO

Article history:

Received 25 June 2014

Accepted 4 October 2014

Available online 18 October 2014

Keywords:

Pediatric
Sedation
Anesthesia
Satisfaction
Survey

ABSTRACT

As financial pressures drive health care to be more cost-effective and efficient, performing procedures outside the main operating room (MOR) is becoming more common. Pediatric sedation units (PSU) have proven both effective and safe at providing anesthesia for children. However, there is limited data available regarding the PSU and its potential application in pediatric otolaryngology.

Objective: To evaluate the experience of performing pediatric outpatient procedures in a PSU through a parental satisfaction survey.

Methods: Pediatric otolaryngology procedures performed in the PSU were prospectively recorded in a database. A prospective survey analysis was performed that measured parental satisfaction with scheduling/registration for surgery, nursing care, surgeon care, facility environment, timing/duration, and overall satisfaction. Parents completed this survey for outpatient procedures performed in either the PSU or in the MOR. The same attending surgeon was involved in all cases, with the only independent variable being the location of the surgery. Fifty surveys were collected for each group, and the survey scores were statistically compared using nonparametric statistical analysis.

Results: Parental satisfaction was high in both the PSU and OR, with mean overall satisfaction scores of 4.8 and 4.9 (respectively) on an ordinal scale from 1 to 5. Parents reported greater clarity in preoperative information in the MOR (mean 4.8) compared to the PSU (mean 4.6) ($p < 0.006$). Also, parents reported that MOR procedures started on time more often than those in the PSU (90–64%, $p < 0.002$). There were no significant differences between locations in any other survey metrics, with mean satisfaction scores ranging from 4.5 to 5.0.

Conclusions: The PSU is a satisfactory patient experience for outpatient procedures in pediatric otolaryngology at our institution. However, this parent survey has identified education prior to surgery and timeliness of surgery as two areas to improve to meet the satisfaction standard provided by the OR.

Published by Elsevier Ireland Ltd.

1. Introduction

In the current economic and political climate, health care systems are under pressure to become more cost effective and efficient. Increasingly, performing procedures outside the hospital main operating room has become an important cost-cutting

methodology in otolaryngology. Previous literature established feasibility and practicality of performing in-office procedures in the adult otolaryngology population to include various laser treatments, balloon sinuplasty, and similar procedures that may only require local anesthesia and/or minor sedation. For procedures requiring general anesthesia or more specialized equipment and/or staffing, ambulatory surgical centers (ASC) provide a cost-saving and efficient alternative to a hospital-based operating room.

For the past 2 years, we used the more available Pediatric Sedation Unit (PSU) at our institution for certain outpatient pediatric procedures to prevent extended wait times for the main operating room (MOR). The PSU model has been studied and is accepted as a safe environment for treatment [1–3]. However, limited data exists regarding the PSU and its potential application in pediatric otolaryngology. The only study identified in a literature

[☆] This research was given a podium presentation at the Combined Otolaryngology Spring Meeting, Las Vegas, NV, May 17, 2014.

^{☆☆} The opinions expressed on this document are solely those of the authors and do not represent an endorsement by or the views of the United States Air Force, Department of the Army, the Department of Defense, or the United States Government.

* Corresponding author. Tel.: +1 210 916 2367.

E-mail address: stephen.c.maturo.mil@mail.mil (M.P. Connor).

search reported on conscious sedation for videolaryngostroboscopy in a PSU [1]. This study evaluates outpatient procedures in a PSU versus MOR setting through prospective parental satisfaction analysis. The MOR served as a benchmark for standard of care treatment.

2. Methods

The Institutional Review Board at San Antonio Military Medical Center approved this prospective study. Pediatric otolaryngology procedures performed in the PSU and MOR were prospectively recorded for the 2012 calendar year. A modified version of a validated survey was used to measure parental satisfaction with scheduling/registration for surgery, nursing care, surgeon care, facility environment, timing/duration, and overall satisfaction (Fig. 1). The 19-question survey was adapted from a 17-question retrospective survey previously published by Grisel and Arjmand [4]. Parents anonymously participated in the survey using a sealed envelope and completed the survey on the day of surgery in the post-anesthesia care unit (PACU). Only outpatient procedures were included for this study. The same attending surgeon was involved in all cases, with location of the surgery as the only independent variable. An independent research assistant handed out and collected the surveys. All approached parents completed the survey the same day for both the MOR and PSU groups. Fifty surveys were collected for cases performed each in the PSU and MOR. Chi Square and Mann Whitney U tests were used as appropriate. A $p < 0.05$ was considered significant.

2.1. Facility description

The hospital is a Department of Defense (DOD) tertiary care training hospital that treats active duty soldiers, their dependents, and retirees. The PSU has a single procedure room with four monitored recovery beds located adjacent to the Pediatric Intensive Care Unit and Pediatrics ward. It is staffed with three registered nurses with PACU training. The Pediatric Anesthesiology Department provides sedation and anesthesia. Depending on the case, they offer minimal, moderate, or deep sedation as well as general anesthesia.

Scheduling surgery begins with the Pediatric Otolaryngology service placing an electronic consult to the PSU schedulers. The PSU nurse then calls the parents to schedule a surgery date and take the patient's history. If children are American Society of Anesthesiology (ASA) status I or II, a patient history can be taken over the phone, and the patient can meet the anesthesiologist on the day of surgery. If the patient is ASA class 3 or higher, or has other potential anesthetic/airway risks, the schedulers will make a preoperative PSU appointment for an in-person evaluation. On the day of surgery, the patient is scheduled to arrive 30 min prior to their scheduled operation. Operations range from 15 to 30 min to complete, and their recovery time ranges from 30 to 60 min. Patients are typically given the same general anesthesia that they would have received in the MOR, only delivered in the PSU (hence, despite being labeled as a "sedation" unit, general anesthesia is frequently used). For example, ear tube cases typically utilize sevofluorane, nitrous oxide, intranasal fentanyl (2 mcg/kg) and Tylenol per rectum. Rigid bronchoscopy cases utilize propofol and fentanyl. The patients are discharged as soon as they return to baseline mental status and are tolerating an oral diet with stable vital signs, similar to the MOR PACU.

The MOR is a hospital-based facility supporting outpatient and inpatient procedures. All patients are required to schedule a pre-anesthesia appointment before MOR procedures regardless of ASA class, usually within a week of their surgery. This appointment last between 1 and 3 h depending on wait times. On the day of surgery,

Scheduling/Registration:

- 1) How easy was it to schedule your child's surgery?

Not at all easy	Somewhat easy	Moderately easy	Quite easy	Very Easy
-----------------	---------------	-----------------	------------	-----------
- 2) Was your child's surgery scheduled for a convenient date? Y/N
- 3) Was your child's surgery scheduled for a convenient time? Y/N
- 4) How clear was the information your child received prior to surgery (i.e. time of surgery, how to prepare)?

Not at all clear	Somewhat clear	Moderately clear	Quite clear	Extremely clear
------------------	----------------	------------------	-------------	-----------------
- 5) How helpful was the registration staff?

Not at all helpful	Somewhat helpful	Moderately helpful	Quite helpful	Extremely helpful
--------------------	------------------	--------------------	---------------	-------------------

Nurses:

- 6) How courteous were your child's nurses?

Not at all courteous	Somewhat courteous	Moderately courteous	Quite courteous	Extremely courteous
----------------------	--------------------	----------------------	-----------------	---------------------
- 7) How attentive were the nurses to your child's concerns?

Not at all attentive	Somewhat attentive	Moderately attentive	Quite attentive	Extremely attentive
----------------------	--------------------	----------------------	-----------------	---------------------
- 8) How confident did you feel about the skills of the nurses taking care of your child?

Not at all confident	Somewhat confident	Moderately confident	Quite confident	Extremely confident
----------------------	--------------------	----------------------	-----------------	---------------------

Surgeons:

- 9) How courteous were your child's surgeons?

Not at all courteous	Somewhat courteous	Moderately courteous	Quite courteous	Extremely courteous
----------------------	--------------------	----------------------	-----------------	---------------------
- 10) How attentive were the surgeons to your child's concerns?

Not at all attentive	Somewhat attentive	Moderately attentive	Quite attentive	Extremely attentive
----------------------	--------------------	----------------------	-----------------	---------------------
- 11) How confident did you feel in the skills of the surgeons taking care of your child?

Not at all confident	Somewhat confident	Moderately confident	Quite confident	Extremely confident
----------------------	--------------------	----------------------	-----------------	---------------------
- 12) Before the surgery, how clear was the explanation the surgeons provided about what the surgery would be like?

Not at all clear	Somewhat clear	Moderately clear	Quite clear	Extremely clear
------------------	----------------	------------------	-------------	-----------------
- 13) After the surgery, how clear was the information the surgeons provided about what happened during your child's surgery?

Not at all clear	Somewhat clear	Moderately clear	Quite clear	Extremely clear
------------------	----------------	------------------	-------------	-----------------

Facility:

- 14) How comfortable was the family waiting area?

Not at all comfortable	Somewhat comfortable	Moderately comfortable	Quite comfortable	Extremely comfortable
------------------------	----------------------	------------------------	-------------------	-----------------------
- 15) How comfortable was your child in the recovery unit?

Not at all comfortable	Somewhat comfortable	Moderately comfortable	Quite comfortable	Extremely comfortable
------------------------	----------------------	------------------------	-------------------	-----------------------
- 16) How clean is the surgical unit?

Not at all clean	Somewhat clean	Moderately clean	Quite clean	Extremely clean
------------------	----------------	------------------	-------------	-----------------

Personal Issues:

- 17) Did your child's surgery start on time? Y/N
 If no, how clear was the information you received regarding delays?

Not at all clear	Somewhat clear	Moderately clear	Quite clear	Extremely clear
------------------	----------------	------------------	-------------	-----------------
- 18) Think about the duration of your child's recovery room stay. Was it:

A lot shorter than needed	A little shorter than needed	About right	A little longer than needed	A lot longer than needed
---------------------------	------------------------------	-------------	-----------------------------	--------------------------

Overall:

- 19) How likely are you to recommend this surgical facility to others?

Not at all likely	Somewhat likely	Moderately likely	Quite likely	Extremely likely
-------------------	-----------------	-------------------	--------------	------------------

Additional Questions:

Date of surgery: _____
 Surgery performed: _____
 Patient age/gender: _____ / _____

Fig. 1. Parental satisfaction survey, adapted from Children's Hospital Ambulatory Questionnaire.

patients typically arrived 2 h before their scheduled operating room time, and recovery times range from 2 to 4 h in the PACU and same-day surgery recovery areas, depending on extent of surgery.

Download English Version:

<https://daneshyari.com/en/article/4111802>

Download Persian Version:

<https://daneshyari.com/article/4111802>

[Daneshyari.com](https://daneshyari.com)