

Paediatric Walking Clinic – is it the future for ambulatory surgery?

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Abstract

Background/Purpose: Walking Clinic (WIC) is an innovative concept that consists of a step-by-step preoperative evaluation performed in a single visit. Our aim is to evaluate patient satisfaction in the paediatric population.

Methods: Evaluation of satisfaction levels and potential benefits through an anonymous questionnaire for one month.

Keywords: Paediatric Ambulatory Surgery, Single Preoperative Visit.

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Results: All patient's parents were satisfied with this modality resulting in numerous benefits including inferior costs for the parents, less absenteeism and better information about the ambulatory surgery.

Discussion: These results are consistent with the existing evidence for the adult population and support further research in order to widespread this innovative practice to paediatric population worldwide.

Introduction

Ambulatory Surgery is an integral part of surgery departments worldwide and accounts for more than 50% of all surgeries in many countries in North America, Europe, and Oceania [1]. It is a nearly perfect example of efficiency and quality in the treatment of surgical patients [2,3] and has numerous clinical, social and economical advantages contributing to patient safety and satisfaction.

In the paediatric population, daytime surgery has significant advantages allowing the child to spend less time away from their home environment while providing a quicker return to their daily activities, always guaranteeing their safety and a support network for any postoperative complication that may arise [4].

Despite the evolution and optimization of ambulatory surgery, pre-operative assessment still requires multiple visits to the hospital, before the patient is fit for surgery. This includes surgical and anesthesia consultations, patient education by a nurse and any complementary diagnostic studies deemed necessary. In the paediatric population this requires the child's absence from school but also the parent's absence from work.

In our institution all adult day surgery patients have been evaluated at a Walking Clinic (WIC) since March 2012 [2]. It consists of a pre-surgery clinical appointment with the surgeon, the anaesthesiologist and a nurse where all the pre-operative work-up, medical, social and psychological preparation can be made in a single visit [2,3]. The patients' response has been outstanding with increased satisfaction, reduced costs for the institution and for the patient [3].

From July 2016 we proposed that paediatric ambulatory surgery patients start being evaluated in the WIC. The circuit was the same as the adults, although with a much smaller population since paediatric surgical specialties are limited in our institution. Nonetheless, considering the positive aspects of the WIC in adults, our aim is to ascertain if this organizational change has advantages in terms of satisfaction, costs and other relevant issues to the children and their parents.

Methods

To understand if this change was relevant to the patients, the authors developed a written questionnaire which was delivered to the parents and answered by them at the end of the appointments. This was

applied during a period of 1 month and it was filled out by the adult accompanying the child. Verbal and written consent was obtained before distribution of the questionnaire.

The questions covered demographic variables, who was accompanying the child and the surgical specialty. It then determined and scored the patient's satisfaction in 4 degrees (1 - Unsatisfied; 2 - Slightly Satisfied; 3- Moderately Satisfied; 4 - Completely Satisfied). Finally, there were a few subjective questions relative to gains in one single visit which include time, absence from work and financial savings.

The results were processed and analysed in SPSS Statistics® Version 23. Categorical variables are presented as frequencies and percentages, and continuous variables as means and standard deviations, or medians and interquartile ranges for variables with skewed distribution. Normal distribution was checked using Shapiro-Wilk and Kolmogorov-Smirnov tests or skewness and kurtosis.

Results

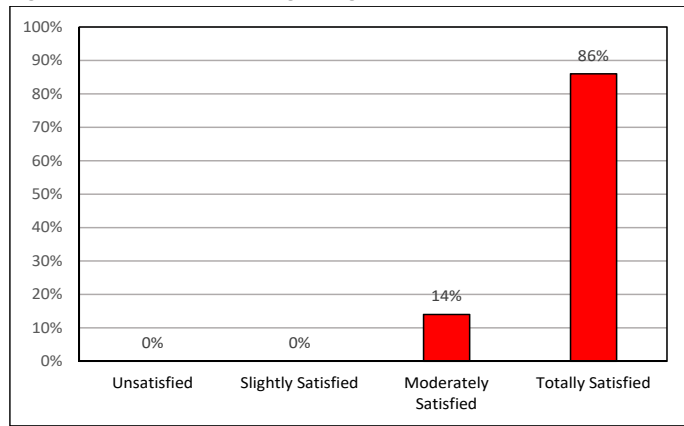
A total of 38 patients were evaluated in the WIC for this period. One was excluded because he didn't fill out the questionnaire. There were more female patients and the average age was 8 ± 4 years old. Demographic data is shown in Table 1.

Table 1 Demographic Data (Number and Percent)

Age in years \pm SD	8 ± 4	
Gender	Male	16 (43.2%)
	Female	21 (56.8%)
Relationship	Mother	27 (73%)
	Father	8 (21.6%)
	Grandparent	2 (5.4%)
Surgical Specialty	ENT Surgery	26 (70.3%)
	Ophthalmologic Surgery	1 (2.7%)
	Orthopaedic Surgery	10 (27%)

All parents considered a single visit beneficial over multiple visits for the various preoperative appointments. Overall parent's satisfaction scores were positive with 86.5% being totally satisfied (Figure 1).

Figure 1 Satisfaction Scores regarding WIC.

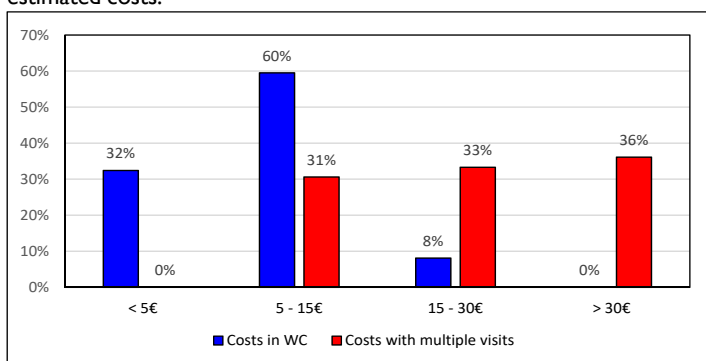


Along with satisfaction scores, the questionnaire attempted to identify other potential benefits of the WIC including time, money and information. In terms of time, approximately 92% of the parents believed they saved time with a single visit and the total of working parents mentioned missing work by 1 or less days. 13.5% of respondents were unemployed, retired or on sick leave.

In the same manner, 70.3% of the participants considered gaining more information about the procedure and ambulatory surgery in the WIC, 5.4% denied this benefit. A quarter of our population didn't respond to this question.

Finally, financial savings were explored in two different questions: money spent in one visit and eventual costs if the appointments required multiple visits to the hospital. These costs were categorized in 4 intervals: less than 5, 5 to 15, 15 to 30 and over 30 and presented in Figure 2. The intervals intended to include transportation, nourishments and other potential expenses and this was explained in the questionnaire for the participants. Regarding costs with a single visit to the hospital: 32.4% spent less than 5, 59.5% spent 5 to 15 and only 8.1% spent 15-30. The potential costs of the preoperative consultations being held in different days were: 29.7% 5 to 15, 32.4% 15 to 30 and 35.1% over 30.

Figure 2 Comparison between WIC's costs and multiple visits' estimated costs.



Discussion

Currently, ambulatory surgery is an exemplary model of quality and effectiveness [2] and continuous improvement is essential for its evolution and for better patient care.[5] Although multiple factors influence patients' satisfaction levels, their opinions are still a huge source of information and a valuable and essential tool to guide our changes and improvements in ambulatory surgery.[1] As evidence showed for the adult population, WIC is a pioneer model that improves efficiency while minimizing costs to the patient and the hospital, minimizing postponement of surgeries and absenteeism from work.[3]

With the focus in paediatric health care, the traditional models need to be enhanced.[4] WIC envisions to do this as it offers the convenience of a single visit to the hospital, lessening the time spent there, the days missing school and optimizing the process of preparing the children and their family for surgery.

Since 2012, WIC is widely used in our ambulatory surgery unit in the adult population. Despite the low volume of paediatric surgery in our hospital, the majority is being performed in ambulatory surgery. From July 2016, the WIC concept was progressively brought to this population and has outstanding results as showed by the questionnaire. Parents' satisfaction was the most important outcome evaluated that support the benefit for this change. Furthermore, financial savings and less time away from work, sustain this idea as well.

Notwithstanding these benefits, this study has numerous limitations including small sample size, questionnaire not validated and an absence of an organized and prospective trial. Further studies are needed in order to prove the theoretical benefits in the paediatric population.

Although our conclusions can't be extrapolated to other populations due to their limitations, WIC in our hospital is an excellent improvement in the paediatric preoperative setting of ambulatory surgery. It is easily applicable and will increase the quality and effectiveness and decrease the burden to the national healthcare system and parents.

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