

# Walking Clinic in Ambulatory Surgery – A patient based concept

## A Portuguese pioneer project

### Abstract

**Introduction:** *Walking Clinic* is an innovative, efficient and easily reproducible concept adapted to ambulatory surgery. It consists of a preoperative single day work-up, with a surgeon, an anesthetist and a nurse. The aim of this study was to evaluate patient satisfaction and its determinants. **Methods:** A survey was applied to 171 patients (101 of the *Walking Clinic* group and 70 not engaged in this new concept). Patient satisfaction was assessed evaluating five major questionnaire items: secretariat (quality of the information and support given), physical space (overall comfort and cleanliness), nurses and medical staff (willingness and expertise), and patients (waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery, surgery day waiting time and postoperative pain control). Furthermore, overall assessment of the received treatment, and probability of patient recommending or returning to our ambulatory unit were also analyzed. **Results:** *Walking Clinic* group had overall better results in the five major questionnaire items assessed, with statistical significance, except for the physical space. It also showed better results regarding the sub-items postoperative pain control, waiting time until being scheduled for surgery and surgery day waiting time. **Discussion:** The results confirm better patient satisfaction with this new concept. **Conclusion:** The *Walking Clinic* concept complements all the tenets of ambulatory surgery, in a more efficient manner.

### 1. Introduction

Ambulatory Surgery is currently a nearly perfect example of efficiency and quality in the treatment of surgical patients (2). However, when patients are referred to an ambulatory unit, several steps have to be taken until they can get to the surgical theater, greatly interfering with their lives.

*Walking Clinic* (W) is an efficient and easily reproducible concept that overcomes this problem, complementing all the tenets of the ambulatory surgery. It has been created and embedded in the ambulatory care unit of Hospital Pedro Hispano since March 2012.

It consists of a pre-surgery clinical appointment with the physical presence of a surgeon, an anesthetist and a nurse, allowing all the pre-operative work-up, medical, social and psychological preparation to be made in a single day. This is a unique opportunity to clarify patient doubts.

The aim of this concept is to augment efficiency, centering all the process in the patient. Patients referred to the ambulatory care unit, by their family doctors or from the outpatient general surgery consults, have to go only once more to the hospital and the information is given in a more coherent, unified and detailed manner. In this way, patients feel more secure, protected and more willing to collaborate in all the process. If any further pre-operative evaluation is necessary (e.g. laboratory testing, electrocardiography, chest radiography) it is undertaken and assessed in the same period of time. Once patients get past this circuit they are ready for surgery.

To support this concept, specific conditions were created: the space was organized, consisting of three offices, one for each professional (surgeon, anesthetist and nurse), so that the patient is observed successively by each of them; a logotype was created; an easily applicable form was instituted to include all the relevant information of each patient; and a special flyer, delivered to all patients, where all the information and instructions for surgery were gathered, was created. It is of capital importance to have a group of motivated professionals to carry out this one-stop pre-assessment clinic.

Another advantage of the W is the fact that closely interacts with the primary health care system, allowing the direct referral of patients from the health clinics to the hospital (1).

This study was designed to ascertain if this new concept achieved better satisfaction scores and to establish the determining factors of its success.

## **2. Material and Methods**

To understand the determinants of patient's satisfaction with this new concept, the authors developed a survey which was administered telephonically by three doctors (the first three authors), without acknowledging patient's group and regardless of it. Overall, 171 patients submitted to general surgery procedures in the ambulatory care unit, between the period of January 2011 and January 2013, were randomly selected, 101 patients of the W group and 70 patients of the non-Walking Clinic group (non-W group). In the latter group patients and their caretakers had to come at least two times to the hospital for surgical and anaesthetic consultations, and pre-operative tests, without involvement of the nurses.

The surgical procedures were performed by similar teams, in both groups (W and non-W), although the professionals responsible for the pre-operative assessment weren't the same. The secretariat, in the first line welcoming the patients and dealing with the necessary paperwork, is part of the ambulatory care unit and was the same for both groups (W and non-W), except for the outpatient consults that have a specific secretariat.

The questionnaire included 24 items and the patients were asked to rate them using a *Likert* scale (1 = bad, 5 = very good) (10). The items studied were: quality of the information and support given by the secretariat (on the pre-operative consultations and on the actual day of surgery); overall comfort of the physical space (on the pre-operative consults, on the day of surgery and regarding the post-anaesthesia care unit) and overall assessment of cleanness; willingness of the nurse staff (on the W appointment (for the W group) and on the day of surgery (before and after the procedure)) and patient's trust in nursing expertise; willingness and expertise of the medical staff (regarding the first appointment with a surgeon, the pre-anaesthetic consultation (for the non-W group), the W appointment (concerning the surgeon and the anaesthetist evaluation, for the W group)), information given by the surgeon after the procedure and patient's trust in doctor's expertise; waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery (between the last pre-assessment appointment and the surgery), surgery day waiting time (in the actual day of surgery) and postoperative pain control. In addition, the overall assessment of the received treatment, comparing it to other similar experiences, probability of the patient recommending or returning to our ambulatory unit, were also measured.

All the included patients were informed about the aims and the nature of the survey. Patients were also informed that its participation was voluntary and that they could withdraw at any time.

Statistical analysis of this sample was carried out using the SPSS STATISTICS® VERSION 21. Statistical data are presented as mean and standard deviations, or relative and absolute frequencies and the tests performed were the Mann–Whitney *U* test and the chi-square test. The significance level was set at 0.05.

### **3. Results**

The 171 patients included in this study had an average age of 48 years (min 15; max 84). Demographic information, comparing the two groups (W/non-W) is presented in Table 1.

**Table 1.** Baseline Characteristics.

Patient satisfaction was assessed by evaluating average rates in the five major questionnaire items: secretariat (quality of the information and support given), physical space (overall comfort and cleanliness), nurses (willingness and expertise), medical staff (willingness and expertise) and patients (waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery, surgery day waiting time and postoperative pain control). Table 2 presents the comparative results

between both groups. Statistical significance was achieved in all the analyzed items, except for the physical space.

**Table 2.** Average rates in major items.

Due to the particular relevance of some points (postoperative pain control, waiting time until being scheduled for surgery and surgery day waiting time) they were analyzed individually. Given the low frequencies in the lower rates of the assessment scale we aggregated data in three levels (reasonable or less, good and very good) to ensure the validation of the statistical methods. The W group had overall better assessments (chi-square test p-value of 0.04%, 0.08% and 5.38%, respectively) and there is statistical association between the W group and the higher score (very good). Considering that a score of “good” or “very good” meant satisfaction, these items have satisfaction rates of, respectively, 94%, 88% and 97% (Graphics 1 – 3).

**Graphic 1** - Postoperative Pain Control Satisfaction.

**Graphic 2** - Waiting time until being scheduled for surgery.

**Graphic 3** - Surgery day waiting time.

Concerning the major items (secretariat, physic space, nurses, doctors, patients) satisfaction rates were, respectively, 98%, 99%, 96% and 89% in the latter two (Table 3).

**Table 3.** Major questionnaire items and rate of satisfaction (W: non-W).

A global satisfaction of 99% was achieved; 96% patients would return to our ambulatory unit in case of need and 98% would recommend it to a friend in a similar situation (Graphic 4).

**Graphic 4** - Global evaluation.

## **4. Discussion**

Quality improvement in healthcare is essential, and the ambulatory surgery is a model of that urge (2). In spite of this, there are still some details to work out, in order to improve patient experience. For this to happen is essential to have their feedback (3-9).

Being aware of this, the W concept was created and its advantages became readily evident. It became a place where patient doubts were answered and surgery scheduled. In this way, it brought greater efficiency by minimizing/abolishing every event that could lead to surgery postponement. Patients and caretakers trips to the hospital were diminished and absenteeism lessened. Overall, practice suggests that patient anxiety diminished, the disruption on its normal family and working life was minimized, postoperative pain control was improved and, at the end, costs decreased (1).

Both groups analyzed (W and non-W) were similar, in terms of their demographic data. The W group had overall better assessments, which confirms patient satisfaction with this new concept.

It was achieved statistical significance in all the major questionnaire items analyzed, except for the physical space, partly due to the already high satisfaction rates of the non-W group. Moreover, all the surgical procedures were performed in the ambulatory care unit and only the physical space of the pre-operative consults was different in the two groups; the latter was only one of the four sub-items analyzed regarding the physical space.

The W group also had overall better results regarding the sub-items postoperative pain control, waiting time until being scheduled for surgery and surgery day waiting time. It was found statistical association between the W group and the higher score (very good). All the differences achieved were only due to the different preparation of the patients. It is important to note that the time patients actually had to wait and the pain management protocol used were the same.

Notwithstanding, it was not possible to reach statistical significance regarding the global satisfaction evaluation, due to the already high satisfaction rates regarding the ambulatory surgery unit and due to the sample size.

The W concept is currently in broad application in our ambulatory surgery unit. At the present time, it's also being applied to the inpatient procedures, while maintaining the aforementioned benefits and adding others, like decreasing the length of hospital stay in one day.

## **5. Conclusion**

The W concept can be easily implemented using the structure and professionals already existent,

however reorganizing the work teams and the way all the different steps patients have to take before surgery are lined-up and chained. The results, measured by patient satisfaction, are outstanding.

## 6. References

1. Gouveia P et al. *Walking Clinic – Surgical pre-admission logistic platform*. Rev Port. Cirurgia Ambulatória. 2010; 11: 39–42.
2. Comissão Nacional para o Desenvolvimento da Cirurgia de Ambulatório, Portugal. *Relatório Final – Cirurgia de Ambulatório: um modelo de qualidade centrado no utente*. October 2008.
3. Bate SP, Robert G. *Bringing user experience to health care improvement: the concepts, methods and practices of experience-based design*. Oxford: Radcliffe Publishing; 2007.
4. Thurairatnam RR, Mathew GS, Montgomery J, Stocker M. *The Role of Patient Satisfaction Surveys to Improve Patient Care in Day Surgery*. Clinical Journal of the IAAS. 2014; 20: 13-15.
5. Shaikh BT, Rabbani F. *Health management information system: a tool to gauge patient satisfaction and quality of care*. East Mediterr Health J. 2005; 11: 192-8. Clinical Journal of the IAAS.
6. Rashid AA, Amina A. *Patient Satisfaction Survey as a tool towards quality improvement*. Oman Med J. 2014; 29: 3-7.
7. Fitzpatrick R. *Surveys of patient satisfaction – Important general considerations*. BMJ. 1991; 302: 887–9.
8. Cleary PD. *The increasing importance of patient surveys*. BMJ. 1999; 319: 720–1.
9. Lemos P, Pinto A, Morais G, Pereira J, Loureiro R, Teixeira S, et al. *Patient satisfaction following day surgery*. J Clin Anesth. 2009; 21: 200-5.
10. Carifio J, Perla R. *Resolving the 50-year debate around using and misusing Likert scales*. 2008; 42: 1150-2.