# Impact of Ambulatory Surgery in the daily life of patients and their caregivers

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#### Abstract

- **Aim:** To investigate the impact of ambulatory surgery in patients' and caregivers' daily life.
- **Methods:** Telephonic questionnaires, to ambulatory surgery patients and caregivers, performed during the postoperative period.
- Results: 220 telephonic questionnaires were done. Patients take, in average, 3days to acquire autonomy and 20days to return to work.

#### Keywords: Ambulatory surgery; Outpatient; Caregiver.

Working caregivers (65.2%), miss work a media of 5.1 days. Patient and caregiver prefer ambulatory surgery (87.0%;85.5%), but 13% of caregivers didn't feel up to the role of caregiver.

**Conclusion:** The preference for day surgery is unanimous, but result, not only in a patient and caregivers important daily life impact, but also a reasonable socio-economic impact.

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# Introduction

Ambulatory surgery is considered advantageous, safe and effective. As a result, in the past years, we have been assisting to a fast expansion, in the number and complexity of procedures done as day surgery. This results in an increase demand on patient self-recovery and availability of an adult caregiver.

Ambulatory surgery involves a transfer of care from the hospital to patients' homes, which implies the existence of a caregiver that interrupts his daily life to take care of the patient subjected to surgery. This support involves pain management, wound care, administration of drugs and the initial management of potential complications.

By accepting this responsibility patients and caregivers assume an extremely important role and their inability to deal with these demands compromises ambulatory surgery itself.

Usually the caregiver is a close relative, without any specific knowledge in health care. This requires that both, patients and caregivers, receive clear instructions for perioperative care.

But what kind of caregivers should we trust? Are they properly informed about what to do? Do they feel able to perform the job? What are the real difficulties they experience?

There is a lack of data regarding the impact of ambulatory surgery in patients' and caregivers' daily life [1,2].

The purpose of this clinical trial is to characterize the caregiver in the ambulatory surgery setting, evaluate the adequacy of information provided by healthcare professionals and identify the difficulties patients and caregivers' have at home during the perioperative period. Our goal is to contribute to the improvement in care of all the subjects involved in the day surgery process.

# Methods

This is a prospective, observational, transversal study.

The target population included adult patients, submitted to ambulatory surgery regardless of surgical specialty (General, Plastic, Orthopedic, Gynecologic, Ophthalmic and ENT surgery), during October 2009, in Ambulatory Surgery Unit of Pedro Hispano Hospital.

Patients under 18 years or submitted to surgical procedures without anesthesia were excluded from the study.

An independent telephonic questionnaire was made to recovering patients and their caregivers, during postoperative period.

The questionnaire included questions regarding population characterization (age, ASA Physical Status, type of surgery, occupational activity, previous knowledge about day surgery and relatedness between patient and caregiver), impact on the daily routine (number of days away from home, of labor absenteeism and dependence on the caregiver), follow-up (the need to call for unscheduled professional care, identification of difficulties) and preference between outpatient versus inpatient surgery.

#### Results

We performed 220 phone calls to 109 patients submitted to day surgery and 111 caregivers, between 7 days and 4 months after the procedure. Finally data from 78 patients and 71 caregivers were included.

The two following diagrams (1 and 2) explain the motives for exclusion and not performed questionnaires.

*Sample characterization:* Patients average age was 44.4 years, the majority were classified with a physical status ASA I and ASA II (44.9%; 46.4%) and 8.7% were ASA III; 57.9% were female. Most patients were workers (53.6%), followed by retired, domestics, unemployed and students (23.2%; 13.1%; 8.7%; 1.4%).

Caregivers average age was 44.4 years, 65.2% were females and 65.2% were workers followed by retired, unemployed and domestics (18.9%; 10.1%; 5.8%). 52.2% were spouses, 27.5% sons and 20.3% other relatives or friends. In 79.7% of cases they share the same household.

*Impact of day surgery in daily life:* 8.7% of the patients and 7.2% of caregivers had to move from home in the post-operative period, for an average of 10.8 days and 8.6, respectively (minimum of 1 and

maximum of 30 days).

An average of 3.5 days were necessary for patients to acquire autonomy from caregiver (minimum of 0 and maximum 60 days) and the working patients needed an average of 13.6 of days to return to work (minimum of 0 and maximum 90 days).

Working caregivers had to miss work in average 4.2 days (minimum of 0 and maximum 111 days), most of them in the day of surgery and during the early postoperative period.

*Adequacy of information:* 47.8% of patients had previous knowledge about day surgery. Most of them were from past experience (63.6%), and the remaining received information from the media, health professionals and family or friends (12.7%; 12.1%; 12.1%).

Both patients and caregivers reported feeling well informed about the postoperative care (97.4%; 85.9%), referring as the main source of information nurses on the day of surgery (67.9%; 63.4%).

*Follow-up:* 9% of patients needed unplanned professional health care after surgery, mainly due to pain (42.9%). 28.2% of patients had doubts and fears during the postoperative period related, in the majority of cases to pain control (40.9%).

Lack of experience and difficulty in dealing with the dressing were the main reasons why 12,7% of caregivers didn't feel able to perform their role.

Preference of surgical scheme: Both patients and caregivers revealed

preference for ambulatory surgery (87.2%; 85.9%), referring as main reasons simplification of the surgical process (41.0%; 36.6%) and patient comfort (42.3%; 33.8%). Patients and caregivers, that preferred inpatient surgery (10.3%; 14.1%), indicated as main reasons fear of complications (50.0%; 30.0%) and preference for professional care in the postoperative period (25.0%; 40.0%).

### Discussion

The preference for day surgery is unanimous, considerer by health systems economic advantageous, however the transfer of care to patient's home, can generate an important public socio-economic impact, resulting in two individuals temporarily non-productive instead of just one, by which can be for long periods of time.

The caregiver, who take responsibility for patients care after ambulatory surgery is in most cases, the spouse that cohabit with patient.

Only a minority of patients and caregivers, have to travel from home to receive or give care after day surgery, but when it happen it was for a long period of time.

Most patients and caregivers are active workers. The worker patient submit to ambulatory surgery take a long time to restart their professional life (median of 13,6 day). The worker caregivers had to miss work (media of 4,2 days) during day surgery and till patient acquire autonomy (media of 3,5 days).

 Table I
 Patients: number of days required to achieve autonomy from the caregiver and to return to work.

Time (days)	0	I	2	3–7	8-15	16-30	31-45	≥45
Acquire autonomy (n 78)	10 (13.0%)	13 (18.8%)	15 (20.5%)	16 (18.8%)	15 (18.8%)	7 (8.7%)	: (1.	2 4%)
Return to work (n 42)		10 (15%)		5 (12.5%)	8 (17.5%)	 (20.0%)	6 (15%)	9 (20.0%)

Table 2 Caregivers: number of days absent from work .

Time (days)	0	I	2	3-7	≥8
Miss job (n 47)	23 (48.9%)	9 (19.1%)	6 (12.8%)	3 (6.4%)	6 (12.8%)

 Table 3 Patients: average of days to acquire autonomy and to return to work for type of surgery.

Type of surgery	Acquire autonomy (n 78)	Return to work (n 42)	
Hernioplasty (n 15)	8.1	20.7	
Pilonidal cyst resection (n 10)	13.9	25.1	
Cholecystectomy (n 2)	3.5	21.0	
Superficial cutaneous lesion resection (n 3)	4.3	11.5	
Abdominal liposuction (n 2)	2.5	8.5	
Carpal tunnel release/Palmar fasciotomy (n 17)	11.8	45.0	
Knee/shoulder arthroscopy (n 3)	4.7	30	
Removal of bone implants (n 2)	22.5	45	
Hysteroscopy (n 17)	2.1	9.0	

Some other wise, consider minor day surgeries, like neurolysis median nerve, palmar fasciotomy, sacrococcygeal cyst resection, osteosynthesis material extraction and hernioplasty, cause patient debilitation and implies patients long periods of recovery ( $\geq 8$  days to acquire autonomy and  $\geq 20$  days to return to work).

Despite an anesthesia and surgical consultation, that all patients proposed to day surgery are obliged to go, the information provided by nurses at the day of surgery, was identified as the principal information source about care in ambulatory surgery. As consequence we must reflect about the adequacy of medical consultations before day surgery.

Despite the analgesic prescriptions done to all patients before discharge to home, the pain remains a disturbing factor in postoperative period. This results in stress for both patient and their caregiver, and it was identified as the main reason of doubts and fears during postoperative period.

This draws attention to the need of a better pain control in postoperative period and future investigation about possible reasons, like patient therapeutic failure or physician insufficient analgesia. It was also detected the need to clarify the caregiver preoperatively, about how to deal with the dressing and other possible complications. Perhaps we must consider the possible need of a preoperative nurse consultation.

In future studies it would be interesting to characterize the previous experience of caregivers in taking care of debilitated persons.

In our ambulatory surgery department is protocol a nurse phone call in first day after surgery, for monitoring the evolution of patient submits to surgery. But maybe an involvement of local primary health centers in the postoperative care monitoring would be helpful, for example the possibility of a home nurse visiting in postoperative period could reduced the stress felt be caregivers, clarify any doubts and allow caregivers early return to work.

#### References

- Mitchell M. Impact of discharge from day surgery on patients and carers. British Journal of Nursing; 2003;12 (7):402–8.
- Tousignent P, Soderstrom L, Kaufman T, Lavoie JP. The impact on patients and family of substituting day surgery for in-patient surgery. *Abstract Book Association for Health Services Research Meeting*; 1999;16:61.