Unanticipated Admission after Ambulatory Surgery: 10 year retrospective audit

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Background and Goal of Study: Outpatient surgery is increasing in variety and number and is accepting higher risk patients. It's important to assess the unplanned admission rate to improve the quality of ambulatory surgical units. The goal of this study is to determine the number and reasons of unanticipated admissions in our surgical day care unit, to improve quality of care and avoid adverse events in the future.

Materials and Methods:

- A retrospective clinic audit of all unanticipated admissions over a 10-year period to was done.
- Ambulatory surgical unit (ASU) records and IBM SPSS statistics 22 were used.
- Unanticipated admission is defined as unplanned admission after a day procedure, excluding prior discharge.
- **Variables recorded:** demographic data, American Society of Anesthesiology (ASA) physical status classification, type of surgery and anesthesia, procedure duration and reasons for hospital admission.

Results and Discussion:

- Over the 10-year period, **210 unplanned admissions** were registered after ambulatory surgery, out of a total of 51097 patients operated in our ASU (**0,41%**).
- Patient median age was 58 years, with 67,5% being classified as ASA physical status II.
- The patients were operated in the following surgical specialties:

Fig 1: Unanticipated admission by surgical specialty

- Most prevalent surgical procedures among admissions were cataract surgery, inguinal hernia repair and ressetoscopy.

Fig 2: Most prevalent procedures

- In most cases, hospital stay was 2 days.
- Procedure median duration was 48 minutes.

- Gynecology had the highest relative rate of admission, followed by general surgery, neurosurgery, urology, and the remaining specialties.

Surgical Speciality	Unanticipated admission
Gynaecology	43 (1,67)
General Surgery	86 (1,08)
Urology	13 (0,98)
Gastreterology	18 (0,53)
Orthopedics	18 (0,43)
Vascular	7 (0,55)
Ophthalmology	21 (0,09)
Dermatology	1 (0,01)

Table 1: Relative rate of admission by surgical specialties.

Surgical Related	59%
More extensive surgery than planned	56
Other direct surgical complication	31
Bleeding	17
Acute retention of urine	13
Surgical observation	7
Anaesthesia Related	24,3%
Pain	18
PONV	14
Delayed recovery/symptomatic hypotension	11
Laryngospasm/ Bronchospasm	2
Allergic reaction/Anaphylaxis	2
Pulmonar aspiration	2
Social/Miscellaneous	16,7%
Unrelated medical problems	22
Further investigation / treatment	6
Syncope	3

Table 2: Reason for admissions

Conclusions: Our unplanned admission rate was 0,41%, which is lower than rates reported in the literature (2%). This result further supports that ambulatory surgery is a safe practice. It's essential to monitor unplanned admission rates to maintain a high quality of care, ensuring cost efficiency and patient satisfaction.