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# Abstracts of session 2a

# Organizational and management issues: a multidisciplinary approach

**2a1**

## Co-operation between Belgian Association of Ambulatory Surgery and Royal Belgian Society for Surgery: better development of ambulatory surgery in Belgium in the future

L Van Outryve

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In Belgium the organization of ambulatory surgery was developed independently from existing surgical societies.

So called 'small' surgical specialistic fields like ophthalmology, oral surgery, ENT, urology seemed to have a higher interest for ambulatory surgery. The anaesthesiologic field also showed a big interest.

Ambulatory surgery turns out tot be mainly an organisatory concept which also involved the nursing staff, the hospital administration, the home-care workers etc.

All surgical disciplines in Belgium are united in the R.B.S.S. Many surgeons are members of the R.B.S.S.

The structure of the R.B.S.S. was recently changed. Specific sections were established with the possibility of cooperation with existing surgical societies of which the B.A.A.S. is one. This will enable us to organize a better service to patients. A better and more cast-saving cooperation with the government will also be possible.

**2a2**

## The development of ambulatory surgery in Poland — organizational models and issues

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Paediatric surgery was practically the first specialty in Poland that paid as early as in 1972 special attention to the provision of a day-based service for elective operations on children. Until the mid-1990s public hospitals controlled nearly all ambulatory surgery in Poland. Exceptions to the rule were dental and plastic surgeons, gynecologists, some ophthalmologists, ENT surgeons, and urologists who performed many procedures on an outpatient basis. Day-case surgery (DCS) has been undertaken mainly in private practice and medical cooperatives. The purpose of this paper is to review the development of ambulatory surgery in Poland during the last decade. The data have been gathered from very scarce official sources, the press, medical publications as well as from the Internet. There are still no statistical data on ambulatory surgery in Poland available. Although the concept of DCS is not new, its practice in Poland has only recently become more widespread. Within the last 3–4 years 43 new day wards for quick diagnostic procedures and 48 new day surgery units were established, making a total of 226 day care wards with 2638 beds in the country. The majority of them are hospital based units (usually containing day beds in standard surgical wards). There are also at least 20 private free-standing day surgery centres (clinics). Since the purpose of day surgery is to provide surgical care that is as good, and preferably better, than inpatient care, in order to prepare for achieving this goal a list of procedures suitable for DCS, national guidelines and standards for day-case general surgery, pediatric surgery and urology, and the practice of anesthesia have already been developed.

**2a3**

## Day surgery reform in Australia

P Callanan

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The incidence of day surgery has increased dramatically over the years and statistics in Australia show the complexity of procedures capable of being performed as day surgery in the public and private sectors is increasing. This paper is primarily concerned with reforms to day surgery health insurance provisions, in the private sector, in Australia.

In Australia prior to 1989, only limited private health insurance benefits could be paid for acute procedures that did not involve an overnight stay in hospital. Subsequent legislative changes enabling health insurance benefits payable for a range of day surgery procedures have eventually led to a definitive distinction between services provided on a day only basis.

Most surgical based hospitals undertake day surgery on a regular basis. Within the last 10 years there has also been a rapid development of a new type private acute facility, the free-standing day (surgery) hospital.

The time has come for further changes to be made to the controls over same day procedures and facilities providing such services. Little change has occurred in recent times and any change proposed needs to encourage substitution for overnight stays, cost-efficiencies and also the quality and safety of patient care.

There are currently a number of reforms in the Australian private health industry, which directly impact upon day procedures. The Commonwealth of Australia Government is keen to broaden the scope of private health insurance to cover out of hospital care


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including extending the application of hospital-in-the-home services for patients and examining the feasibility of using limited care accommodation and extended (overnight) recovery services for step-down recovery for more advanced day only surgery.

The Government is developing the option of categorizing facilities to encourage a 'step-down' of procedures to more cost effective settings and further support the use of day facilities as efficient and safe alternatives to overnight hospital care. The Government is also trialing the feasibility of a professional employed by the hospital involved in the treatment of the patient, in the absence of the treating medical practitioner, to provide overnight hospital certification for those patients who, for medical or social reasons are unable to return to their normal domicile following a day surgery procedure.

The apparent increase in day surgery has the hallmarks for providing an effective and safe alternative instead of an overnight stay at a higher cost to funders/payers.

**2a4**

**Ambulatory surgery as activity. Experience and results of Fundación Hospital Alcorcón**

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INTRODUCTION: Ambulatory surgery (AS) has developed in Spain in the last few years, in most cases as independent units, inside or outside of hospitals. In our center, AS has designed like an integrated activity inside of each surgical specialty. We present our experience after 2 years.

METHODS: Before the opening of the hospital, we designed guidelines for AS. This included selection criteria of patients, list of surgical pathologies amenable for AS, types of surgical and anesthetic procedures, pre-anesthetic visit, asistencial pathways and post-operative follow-up. Surgery Department enclosed General Surgery, ENT, Ophthalmology, Urology and Vascular Surgery. We have registered all the activity between March 1998 and October 2000, with special emphasis in General Surgery, where we registered too cancellation index and unexpected admissions.

RESULTS: We have performed 9331 elective surgical procedures in this period and 4694 were in ambulatory basis (50.3%). Ophthalmology was the unit with the highest activity in AS (75% of all elective ophthalmologic surgery), followed by Vascular Surgery (52%), General Surgery (48%), ENT (41%) and Urology (16%). Substitution index for some pathologies like pterigium and pylonidal cyst was of 100 and 95% for septoplasty and varicose veins.

In General Surgery we have operated on 1695 elective procedures in ambulatory basis, 464 inguinal hernias; 400 vascular access for hemodialisis; 376 pylonidal cyst; 95 anal pathology; 90 umbilical hernias; etc. Local anesthesia was used in 53% of cases, regional anesthesia in 30% and general anesthesia in 17%. Unexpected admissions were 132 (7.8%), and almost 50% of them were due to anesthetic causes (urinary retention, hipotension, vomiting). There were 167 cancellations (8.9%) and 61% of them due to the patient did not come to hospital on the scheduled date.

CONCLUSIONS: We think that the design of AS like an integrated activity inside of each specialty allows the participation of all the staff members, with better use of resources and excellent substitution index and high percentage of AS. In General Surgery, we must improve cancellation index and unexpected admissions.

**2a5**

**Surgical short-stay scenarios: Case studies from the U.S.**

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The presenters will discuss up to 4 scenarios during this session to include: (1) the integrated, single-speciality, short-stay campus (with a focus on either orthopedics or gynecology); (2) the Emerging Surgical Facility remote from the hospital campus, including (a) the short-stay addition to an existing ambulatory surgery center ("ASC") and (b) the new, multi-specialty ASC/postsurgical recovery center; and (3) the short-stay, community hospital. Selected scenarios will be examined in accordance with key indicators, including: a) population, demography and demand characteristics; b) key characteristics of each scenario's proponents; c) prevailing marketplace conditions; d) regulatory and payor incentives and obstacles; e) key performance statistics (e.g., patient mix, procedure mix, patient satisfaction, payor mix, financial variables, outcomes); and f) risk assessment of each scenario to date.

**2a6**

**The role played by ambulatory surgery in the reorganization of the surgical activity in a public regional hospital**

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The increased possibilities to cure, in addition to a more effective technology, have permitted to perform some interventions and procedures without the necessity of a prolonged post-operative observation. This has allowed the introduction of new and performing organizing models, as ambulatory surgery in surgical departments, and as Day Hospital in medical departments. For an example in the United States more than 65% of interventions and procedures follow such surgical care.

Also in Italy, the general ageing of the population has increased chronical illness, resulting in a prolongation of waiting lists and hospital stays.

Day care models can represent a solution to these problems since they are able to reduce waiting lists and can cope with the requirements of patients who possibly prefer short hospital stays.

At world level, there are three models of application of ambulatory surgery, free standing units, dedicated units and bed place part of the ordinary recovery stay. In Italy, especially in public hospitals tbe most practiced modality is the last one, although not being the gold standard for a good organization of the in and out-flow patients.

The employment of the ambulatory surgery has allowed the thinning of time dedicated to certain pathologies through a larger use of resources, both of money and time devoted by medical and nursery staff to the cure of primary and serious illnesses.

An other important goal of the ambulatory surgery is to satisfy the patient's request of humanizing the medical activity.

One of the fundamental goals of the ambulatory surgery is the achievement rationalization and sparing of surgical care costs.

On the other hand, the Diagnosis Related Group system (DRG), which is actually employed in our country for the reimbursement of the hospital medical assistance, is not always satisfactory, penalizing the development of the ambulatory surgery.

ASO S. Giovanni Battista of Turin, has more than 20 000 daily incomings, and almost 21 501 surgical interventions (since the 1st of January 1996 to the 31st of December 1996), the 46% of which have been performed with a recovery duration shorter than 1 day; for these reasons it can stand among those structures that could develop a free standing unit for ambulatory surgery.

The aim of this study is to understand through a detailed analyses of surgical activities, of our Hospital, the structural role and the organizing potentials for the creation of a free standing unit.

The first step has focused on the analyses of the surgical activity carried out by the ambulatory surgery unit of Oncological Surgery Department (ASO S. Giovanni Battista, Molinette Hospital, Turin). Our unit since 1994 has created an ambulatory surgery staff, based on the utilization of bed places in the context of the ordinary recovery. Up to now, over 1200 interventions have been here performed once per week. A diligent management of accepting and dismissing procedures, added to careful selection of surgical pathologies have decreased the complication up to 4.6%, while increasing the satisfaction rate up to 98%. We have to remark that 35% of patients needs overnight care, since surgical interventions take place only in the afternoon.

The economical analyses, used for both establishing the total per day cost of the stay and the cost of an ambulatory surgery intervention, in relation to the number of hours involved in such activities, has been carried out through the detailed reconstruction of the cost matrix for each centre of productivity and the determination of the global cost of our ambulatory surgery service.

The comparison between the total cost of hernioplasty carried out in ambulatory surgery (948.298 Euro, reimbursed by a DRG 162, of 1263.67 Euro) and the cost of the same intervention performed in ordinary recovery (1399.029 Euro, reimbursed by a DRG of 1805.0168 Euro), has shown that the profit is similar for the two operative modalities.

In conclusion, the bed place model inside an ordinary recovery unit is not always a source of profit since a major efficiency can be found in an increased turnover of patients and as consequence of reduction of acute illness bed places.

Afterwards an analyses of organizing potentials of the surgical activity at ASO S. Giovanni Battista, has been carried out. The study is based in the description of the current organizing situation of the surgical units and of day hospital, in order to define the evolutive possibilities of the construction of a free standing unit within such a structure.

On the basis of the examination of the activity of the surgical units, in 1996, turn out 44 500 ordinary admissions with 597 395 days of recovery, of which 24 712 in surgical units and 29 749 in day hospital units, 2423 of which with a surgical DRG.

The analyses of the surgical activity carried out in 1996 on SDO (Schedule of Hospital Dismission), according to defined methodological choices which reduced the number of selected interventions from 24 712 to 15 978, refers to inpatients both in ordinary recovery and in day hospital recovery, in order to value the surgical activity potentially transferable in ambulatory surgery regimen.

It has been therefore valued the surgical activity in ordinary recovery stay by analyzing the percentage of cases with 24 and 48 h (41.7%) post-operative stay in surgical units.

In 1996, in our Hospital have been performed 13 906 interventions mainly focusing on the operative units of general surgery, otolaryngology and urological surgery with 5805 cases with 24 and 48 h (41.7%) post-operative stay, of which 3112 dismissed after 24 h (22.3%). Moreover, 22.3% of the analyzed interventions is performed with a 24 h post-operative stay.

The further analyses of the procedure has outlined that also in 24–48 h post-operative stay the most frequently performed interventions are those transferable in ambulatory surgery.

Among the intervention with a post-operative stay $< 48$ h, 2726 intervention have been carried out with a $< 48$ h post-operative stay.

Out of the 15 978 selected interventions, 6942 (43.4%) can be potentially performed in ambulatory surgery. Moreover, to this amount, it is necessary to add 2218 Day Hospital interventions.

Ambulatory surgery sector can, therefore, be still largely developed in our Hospital in order to allow the diversification of in and outflow surgical patients, achieving an improvement of quality, number of bed places, human resources and technologies, dedicated to seriously sick patients.

The final result of this study can be described as an increasing productivity and rationalization of costs.

**2a7**

**Day-surgery organization in public settings**

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INTRODUCTION: Day-surgery is not a new surgical technique, but a particular organizing modality for the handling of the surgical patient. It does not foresee pre-operative stay, while post-operative stay is limited to a few hours (Day-Hospital setting) or 24 h at most, including the night spent at the Hospital.
PURPOSE: Drastic reduction in hospital-stay costs; increased turnover of patients with reduction of booking lists for surgical interventions.
METHODS: A day-surgery organization in a public setting requires the formation of a dedicated specific surgical team. This kind of team, in which an anesthetist is a fundamental element, has the purpose of selecting patients (anxiety, loneliness, distance from the hospital structure are contraindications to this organizing model), of preparing them to surgery with the necessary pre-operative examinations, of operating them, and of handling them on an out-patient basis in the post-operative course.
RESULTS: More than 90% of phlebologic surgical interventions can be performed in a day-surgery regime. This requires an accurate selection of patients, a correct pre-operative diagnosis, allowing us to plan with great precision the kind of operation to perform. On the other hand, the combination of advanced anesthesiological techniques, mini-invasive surgery, and a reduction of surgical trauma, allow for an easy-to-handle, outpatient based post-operative course.
CONCLUSIONS: Due to its modest need of post-operative assistance and therapy, phlebologic surgery is well adequate for a rapid dismissal of surgical patients, which can thus be handled in a day-surgery setting.

**2a8**

**Developing the emerging surgical facility: freestanding ambulatory and short-stay centers**

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A methodology for establishing new surgical programs in a variety of hospital and non-hospital settings will be depicted. Issues to be addressed include: feasibility determination; financial considerations; operational matters including clinical protocols and 'policies and procedures'; regulatory conditions; medical staff development; facility planning and design; and organizational/business configurations. In addition, a timeline will be proposed for typical Emerging Surgical Facility development. Global private healthcare investment will nearly triple in the next 10 years. As more countries' health care financing policies shift their emphasis toward private sector alternatives for health care delivery, those in the ambulatory surgery community must be prepared to lead the development of those surgical settings most likely to be both responsive to and predicative of these trends. ASC/short-stay surgical settings offer an alternative to a public healthcare system quandary by providing access, high quality and customer service in a resource-efficient manner.

**2a9**
**New surgery for a new millennium**

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In many centres in the UK day case numbers are in decline and day surgery beds remain empty.
AIM: To identify factors contributing to a decrease in day surgery procedures.
METHOD: A 10 year retrospective audit of day surgery in a District General Hospital.
RESULTS: From 1 July 1989 to 30 June 1999 a total of 38 466 patients underwent a day case procedure. Peak numbers occurred in 1995/1996 and there has been a steady decline since. Many procedures considered suitable as day cases a decade ago are no longer performed in the day unit. Some have decreased in number due to the introduction of new techniques (diagnostic arthroscopy replaced by MRI scanning and D & C replaced by outpatient hysteroscopy) while others have decreased due to overt government rationing (varicose vein surgery). Many minor 'lumps & bumps' surgery is now performed by primary care practitioners due to the introduction of financial incentives.

| Procedure | Peak number/ year | Number in 1998/1999 | Decrease (%) |
|---|---|---|---|
| Diagnostic atrthroscopy | 203 | 38 | 81.3 |
| D & C | 455 | 186 | 59.1 |
| Varicose veins | 143 | 63 | 55.9 |

CONCLUSIONS: While newer and more major procedures (e.g. laparoscopic cholecystectomy and partial thyroidectomy) are being introduced to the day surgery environment the pace of change of surgical practice may not be sufficient in the UK to fill the void in day surgery numbers. Without the rapid introduction of such procedures the future of day surgery will remain uncertain.

**2a10**
**A French survey of ambulatory surgery (as): a view from general practitioners (GPs)**

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INTRODUCTION: Poor implication of GPs to the development of AS in France may be explained by a bad opinion, a lack of interest and, subsequently, by a poor motivation. The aim of the study was to report GP's opinion on AS, their satisfaction, their fear and their expectations on this specific activity.
PATIENTS AND METHODS: A questionnaire including more than 100 items was sent in 1998 to 1709 OPs in the south of France (Gard and Hérault states).
RESULTS: Replies were obtained from 388 GPs (22.7%).

Satisfaction regarding AS according to self-experience.

| | Good (%) | Mean (%) | Bad (%) | No opinion (%) |
|---|---|---|---|---|
| From GPs | 80.1 | 12.1 | 0.7 | 7.1 |
| From patients | 78.8 | 14.5 | 0.3 | 6.4 |

On a 100-mm visual analogue scale (median value [5th; 95th percentile] in mm), from 'nothing' to 'very significantly', GPs have reported their pre-operative (60 c[25–94]) and post-operative implication (71 [41–95]), patient's benefit from the ambulatory modality (70 c[41–97]), and economic benefit (74 c[45–98]). The motivation for a larger development of AS, between 'any' and 'very strong' was 68 c[36–97]. The greater the experience of AS, the greater were those values (Kniskal–Wallis test, $P < 0.05$). The risks of AS was perceived as, greater (14.9%), identical (60.4%), lower (16.5%).

Cost of AS for

| | More expensive (%) | Identical (%) | Cheaper (%) | No opinion (%) |
|---|---|---|---|---|
| The patient | 6.0 | 20.3 | 60.4 | 13.3 |
| Medical insurance | 0.6 | 1.3 | 90.8 | 7.3 |
| The ambulatory centre | 5.7 | 13.0 | 60.4 | 20.9 |
| Society | 0.9 | 1.6 | 88.6 | 8.9 |

GPs (51.3%) thought that surgery must be performed on an ambulatory basis as often as possible, 68.7% wished to send more patients for AS (vs. 7.9% who did not). Percentages increased with the experience of AS ($\chi^2$-test, $P < 0.05$).
CONCLUSION: GPs reported a positive medical, social and economic experience of AS and thought they can offer a positive contribution to a greater development of this activity.

**2a11**
**Ambulatory surgery in specialized doctor's offices — day clinics and praxis clinics**

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In 1993 the law SGB V regulated ambulatory surgery in Germany: ambulatory surgery can be performed in all hospitals and in specialized doctor's offices, so-called day clinics. In ordinary doctor's offices only minor surgery like wound stitching etc. is allowed. The law specifies in § 115 b SGB V the structural, technical, hygienical and staff requirements as well as the extent of quality assessment for ambulatory surgery in day clinics and hospitals.

In 1999 a third category of doctor's offices was introduced, the so-called 'praxis clinics' with overnight facilities for patients.

Practically all three types of doctor's offices are privately owned in contrast to hospitals, 94% of which are under public law (57% public, 37% non-profit-making organizations).

In the years 1996–1998, 97% of all ambulatory surgery in Germany was performed in free-standing day clinics and only 3% in hospitals. The quality of day clinics is high.

The presentation will focus on the legal requirements for day clinics and praxis clinics and on aspects of quality outcome in these specialized offices.

**2a12**

**Model day surgery complex with expanded recovery and medi-motel**

Lindsay Roberts

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Day Surgery in Australia continues to expand in both the private and public health care sectors.

There has been a remarkable development of free standing day surgery centres over the past 7 years, the great majority of them being in the private sector. As of January 2000 there were 191 such centres and this compares with 326 private hospitals and 774 public hospitals.

These free-standing centres are both multi-disciplinary and uni-disciplinary, however, they are all of the 'same day' type, i.e. patients attend for their operation/procedures and are discharged on the same 'working' day with the further expansion of day surgery to include more major operations, day surgery centres with extended (overnight) recovery services are now being developed. A further initiative is post-discharge convalescent accommodation (Medi-Motel) which can be connected to day surgery centres.

A model plan of a day surgery/procedure centre, which includes extended recovery and a Medi-Motel will be presented. The model also includes important design features such as a community nurses centre, a pre-operative assessment clinic and education/conference room. The various features of the design will be discussed with comment on capital cost.

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# Abstracts of Session 2b

# Nosocomial and iatrogenic infections

## 2b1
## A postoperative infection in ambulatory procedures—how bad is the situation?

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Same popular layman and even medical profession opinion is that due to less optimal conditions during the procedures, there is higher frequency of postoperative wound infections following ambulatory surgical procedures compared with in hospital settings. This survey presents the rate of postoperative infective complication in our ambulatory setting in comparison to in hospital rate of postoperative infections ministry of Health-1999.

Two thousand, four hundred and twenty one surgical interventions concluded in ambulatory operating theater of Netaya Leumit health fund during the period of 1/1/1999–31/12/1999 are included in this survey.

The results of the survey are presented in the following table:

| Procedure classification | Number of procedures | Number of postoperative infections | % Ambulatory postoperative infections | % Hospital postoperative infections |
|---|---|---|---|---|
| Clean | 1215 | 9 | 0.74 | 1.1 |
| Clean contaminated | 922 | 5 | 0.54 | 0.6 |
| Dirty infected | 284 | 3 | 1.056 | 6.7 |

Present survey results show lower rate of infective complications in our ambulatory setting compared with in hospital postoperative complication rate.

In our opinion there are three main different causes of lower rate of ambulatory postoperative infections.

1. High professional competences of operators — senior doctors only perform the interventions in our ambulatory setting.
2. Differences in patient case mix-ambulatory procedures are performed only if the patient's physical condition is 1–2 according to American anesthesiology association classification.
3. Short stay in setting — our postoperative patients stay shortly in the ambulatory setting as compared with in-hospital patients with longer stay and higher rate of contacts with other and severely ill patients.

## 2b2
## The mycobacterium infection detected in a surgical hospital outpatient centre

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The great part of mycobacterium tuberculosis infection (MTI) is attributed in less developed countries, but from 1986, is increasing. We wished to check MTI observed in a surgical outpatient centre. Case 1: Z.E., 57 years, F. Earlier left nefrectomy for MTI. The patient presents a right sub-mammary lump D. $7 \times 5$ cm. Removal, drainage of an abscess of chest wall (histology MTI). Case 2 $Cp_2$ K.A., 79 years, F., Roundish lump D. 5 cm, in mammography and ecography compatible as mali moris breast lesion. At the operation abscess and pleural fistula, which spreads to the breast tissue (histology MTI). Case $3Cp_2$ D.T., 30 years, M., coloured, back abscess, and lump near left latissimus dorsi muscle, D 10 cm. Cultural exams identify MTI, without bronchopleural connection. Case 4: Removal of squamous carcinoma of the wrist. Chest X-ray shows cavitation without bronchial communication, treated with chemotherapy. Considering 24374 patients treated in the outpatient centre, in the period 93–98, and that before we have not noticed MTI, and that these patients were not HIV positive, MTI represents 0.016%, can be identified with cultural and histological exams, is benign and increasing in industrial countries. Patients at risk are immunodepressed old, also if HIV negative, immigrates and with precedent infection.

## 2b3
## Advantages of the oral antibiotic prophylaxis

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We thought it right to experiment and encode a new method of antibiotic oral somministration, taking into account both the high overall cost for infection of a surgical wound and the absence in Literature of the absolute usefulness of antibiotic prophylaxis in Day Surgery. The choice of oral somministration has been made considering its low cost and its ease of somministration. From 1 January 1999 to 31 October 2000, 407 patients with different pathologies (hernias, varices, sacrococcygeal cysts, small incisional hernia, breast tumor, adipomas of wide dimension, gynecomastias) were submitted to surgical treatment in Day Surgery at 'B' surgical Department of the Hospital of Biella. The oral antibiotic prophylaxis has been performed using a cyprofloxacin suspension (Ciproxin) 1.5 h before the


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surgical treatment, taking into account the peak value of the drug. In any case the somministration has been repeated during the afternoon subsequent surgical treatment, or on the following days. Two daily temperature measurings at the patients home have been performed as well, as controls of wounds, which have been carried out 2 days after surgical treatment and on the removal of the stitches. In case of secretion from the wound cultural exams have been performed, always with negative results. Under an objective exam neither infected wounds nor relevant rises in temperature have ever been found in the 407 treated cases. Oral somministration has proved as effective as parenteral somministration, in our experience. The cost of the somministration is the lowest, which can be obtained (Lit. 2220 total per patient). There is no need of syringes, needle, phleboclysis, disinfectant, moreover, time spent by paramedical staff is shorter than time spent when parenteral somministration is used.

**2b4**
**Guidelines for antibiotic prophylaxis in day surgery**

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INTRODUCTION*:* Surgical wound infection is one of the most frequent and dangerous postoperative complications, which can interfere with the patient's recovery.

The aim of this work is to propose guidelines for antimicrobial prophylaxis appropriate for this kind of surgical operation.

METHODS AND MATERIALS*:* Applied in our Day Surgery are: Urological Surgery (phimosis, hydrocele, varicocele); Proctologic Surgery (anal papilla, anal fistula, anal rhagade, hemorrhoid, pilonidal cystis); lymphonodus' biopsy; central venous catheter, peridural subarachnoid catheter: usually no antibiotic prophylaxis.

Breast tumour (nodule excision, quadrant excision, simple mastectomy, galactophore excision); sentinella lymphonodus' biopsy; neoformation excision; usually no antibiotic prophylaxis; after 2 h Cefazoline 2 g i.v., in allergic patients: Cotrimoxazole (two phiales in 250 ml of Dextrose 5%).

Hernia repair (inguinal, crural, epigastric, exumblication) without prothesis: no antibiotic prophylaxis; with prothesis: Cefazoline 2 g i.v. and 6 h after the first dose Cefazoline 1 g i.v.; in allergic patients Cotrimoxazole or Ciprofloxacine 200 mg i.v.

Vascular Surgery (varicous vein, saphenectomy, arterio-venous fistula), totally implanted central venous port Systems, totally implanted peridural and subarachnoid systems; spinal cord stimulator: cefazoline 2 g i.v.; in allergic patients Ciprofloxacine 200 mg i.v. or Clindamicine 600 mg i.v.

CONCLUSIONS*:* In the first 10 months, since the start of the Day Surgery Unit, 730 patients have been operated on and there has been only 3.2% of infections. As a consequence, these guidelines can be considered valid.

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# Abstracts of Session 2c

# Free papers on proctology and phlebology

**2c1**

**Outpatient proctological surgery: experience of the last year**

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Many proctological surgical procedures can be considered on an outpatient basis. These concern the anal margin, anal canal and lower rectum. Patient selection is mandatory. At the I Surgical Clinic University of Turin, during the last year (November 1999–October 2000) 259 surgical procedures involving the anal canal were performed on outpatient basis. The diseases treated were subdivided as follows. Haemorrhoids 43 cases (II degree: four pts; III:15 pts; IV: 24 pts); skin tags 24 pts; incision of external trombosed piles in six pts; anal fissures 34 pts; pilonidal sinus 16 pts; anal fistulas 26 pts (mainly low-medium inter-trans-sphincteric ones); abscesses incised in seven cases; cryptitis one case; condyloma acuminatum 56 cases; polyps neoplasms 21 cases; stomal stenosis polyps three pts; anal papilla 18 pts; others four. All patients were positioned in Sims' position and were submitted to a local anaesthesia with Lidocame or Marcaine. In all cases except 2 (0.7%) the treatment was complete. In one case, a rectal polyp, the lesion was removed only partially and needed a second look in operating room. In a second case during the excision of the first haemorrhoidal pile the patient had an important bradicardya that requested the control of a cardiologist the recovery in our Department and the end of the surgical treatment in operating room. Complications were observed in 7 patients (2.7%): one Fourniere's gangrene; one haemorrhage (treated as outpatient procedure); one infection (after SLI); three delayed healing; one minor incontinence (in a high fistula treated with seton). No case of urinary retention was recorded and no mortality. All patients were followed in our ambulatory for 1–2 h and then discharged with a paper on postoperative period including drugs and the personal telephone number of the surgeon. In conclusion ambulatory surgery offers advantages as the patient's life is only minimally disturbed and anxiety is diminished; patients return earlier to normal activities and the time off work is reduced; the cost of outpatient surgery is less than inpatient one; and the hospital beds can be occupied by more severe cases all assuring the same safety and radicality in the treatment of the diseases.

**2c2**

**Outpatient haemorrhoidectomy: our experience**

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Haemorrhoids are the most frequent disease seen in a coloproctological Department. We suggest that only symptomatic haemorrhoids should be treated, and this could be conservative or surgical and in our experience is also guided by the worldwide accepted classification based on the four degrees. In I and II degrees, conservative treatment or outpatient procedures (rubber band ligation, infrared coagulation, etc.) are suggested while in IV and advanced III degree surgical treatment is advocated. Surgery is the most radical treatment and presents a low incidence of recurrence. Many techniques are proposed: closed hemorrhoidectomies or open ones. Economic policy and long waiting list induced our Department to perform an office haemorrhoidectomy. At the I Surgical Clinic University of Turin from January 1989 to October 2000, 2831 pts suffering from haemorrhoids were visited. Of these, 1811 pts (63.9%) were treated with conservative therapy or with minor operative procedures, while 1020 pts (36%) were treated surgically: 578 pts (56.7%) as an outpatient procedure and 442 pts (43.3%) as an inpatient one. We performed Milligan Morgan technique in almost all patients. All patients treated in office were submitted to a local anaesthesia: lidocaine 2% in 944 of them. The injection of anaesthetic was performed in the intersphincteric space and subcutaneously. All patients were located in left lateral position. Outpatient treatment was excluded in patients affected by psychiatric diseases, coagulopathy, major disorders of heart, kidney, liver, lung, metabolic disorders, obesity and those with referred episodes of allergy to local anaesthetics or great complete circumferential haemorrhoidal prolapse. Complications occurred in 11 pts (1.9%): six hemorrhagies; two urinary retentions; one infection; one important bradicardia; one delay in healing. Median healing occurred within 3–4 weeks after surgery. Postop. pain was treated with oral or i.m. analgesics. In conclusion we suggest outpatient haemorrhoidectomy as the gold standard in treating haemorrhoids in well selected patients, considering its radicality (equal to operating room) and the same frequency of complications with an important reduction of costs.

**2c3**

**Impact of circumferential mucosectomy with stapler for hemorrhoid and/or anorectal prolapse on day surgery**

Shunji Kawamoto, Yasuhide Huduno, Tsuyoshi Kotoli, Kazuo Inada

*Department of Surgery, Fukuoka Tokushukai Hospital*

BACKGROUND: Less postoperative pain and complication is vital as well as achieving symptoms control for day case haemorrhoidectomy. We have adopted the technique of circumferential rectal mucosectomy with stapler (Longo's technique) (CM) for third degree haemorrhoids and incomplete prolapse of anus, and compared with conventional haemorrhoidectomy (Milligan-Morgan) (MM) on degrees of postoperative pains and recovery.


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METHODS: We assigned 85 patients to CM (38 patients) or to MM (47), as either day surgery (24 patients; 15 patients in CM, 9 in MM) or inpatient (61; 23 in CM, 38 in MM) after the interview. We used a stapling device (PROXIMATE, HCS) for CM. Patients went home on the same day or were discharged when free of pain, took analgesic tablets for 3 days. Degree of postoperative pain was divided into complete pain free (grade 1), pain existed with self-limited (grade 2) and pain requiring supplements (grade 3). They were assessed at 1 and 4 weeks postoperatively.
RESULTS: In day surgery, patients with CM experienced significantly less pain, compared with MM (87% with grade 1 and 2 vs. 22% with grade 1 and 2), and returned to normal activities including occupation sooner (3.1 vs. 6.9 days). There needed no washing nor cleansing on every defecation in CM group. In inpatients, mean inpatient stay was lower in CM group, as opposed to MM (2.9 vs. 4.8 nights), with less pain (92% with grade 1 and 2 vs. 16%). CM controlled symptoms of bleeding and original pain in all with haemorrhoid, and prolapse in most patients (10 of 12).
CONCLUSION: Circumferential mucosectomy with stapler advanced haemorrhoid with anal prolapse in day surgery.

**2c4**
**Ambulatory phlebosurgery**

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INTRODUCTION: The basic part of the patients with varicose veins has got the treatment in hospital, smaller part — on ambulatory base. Our experience showed that with contemporary organisation could get radical treatment in one of medical structure — centred of ambulatory surgery.
PRESENTATION OF THE PURPOSE: Indications have been developed for types of treatment in the conditions of 'one-day surgery' for primary varicoses: sclerotherapy, phlebectomie ambulatoire (methode de Muller), short stripping, endoscopic dissection of the incompetent perforating veins (EDIPV).
MATERIAL AND METHODS: During last years in CAS RAS 1400 patients have got surgical treatment of varicose veins, which consist of crossectomy, dissection of perforating veins (K. Storz — endoskope), catheterisation of short or long safenous veins with injection of 1–2% Aethoxysclerol under permanent compression. The diagnostic, pre-, intra- and postoperative control were performed by ultrasound method (SonoSite, USA).
RESULTS: Varicose vein disease was successfully treated in the all courses. There were no complications during operation and in postoperative period, there was absence of safenous nerve injury. Skin hyperpigmentation after injection of Aethoxysclerol disappeared during the first year. Small sections and intracutaneous sutures obtain high cosmetic effect. Duplex scanning control showed absence of blood flow in veins, low level of relapses.
CONCLUSION: Vascular surgical treatment of the primary varices at the centre of out-patient surgery is a reasonable combination of an operation and sclerotherapy, which provides for the disease elimination radically. Ambulatory phlebosurgery is the mini-invasive cosmetic method also is economically effective.

**2c5**
**Minimally invasive surgery (ambulatory phlebectomy) in the treatment of varicose veins**

D Mili, A Karanikolic, M Radojkovic, D Todorovic, S Zivic

Ambulatory phlebectomy is a relatively new method in the treatment of varicose veins. Using this protocol, an atraumatic small headed stripper is turning the vein inside out and is basically peeled out from soft tissues of the leg. No trauma is afflicted to the surrounding soft tissues.

The aim of our work was to show results in the treatment of varicose veins using ambulatory surgical protocol during the period from 1.1.1999 to 30.6.2000 at our Department of Vascular surgery, Clinical Centre Ni{.

Prospectively we have analysed a group of 36 patients who underwent his surgical procedure. Male:female ratio was 1:2 with median patients age of 49.3 years (22–66 years). All patients (100%) were operated in loco-regional anaesthesia. We have analysed: operating time, postoperative complications, recovery time and return to work, the need for postoperative analgesia and the cosmetic effect.

The average operating time was 50 min per leg (40–100 min). We have registered no postoperative complications. The average hospitalisation was 8 h (6–14 h) and most patients went back to work after 7 days (3–14 days). A number of 12 patients (33%) did not need any postoperative analgesia and the cosmetic effect was much improved compared with standard procedures.

The advantages of ambulatory phlebectomy are simplicity, practically no postoperative complications, short hospitalisation period and early return to work.

In conclusion, ambulatory phlebectomy is a minimally invasive procedure and by avoiding general anaesthesia, hospital setting and convalescence it is also a very cost efficient procedure as well.

| Type | Oral communication | Poster | Video | Other |
|---|---|---|---|---|
| Tools needed | 35 mm slide | Video | Overhead projector | Computer |

**2c6**
**Duplex power phlebography (DPP) in ambulatory phlebosurgery practice**

TV Alekperova, ED Donskaya

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INTRODUCTION: Is to show the necessity and efficiency of DPP in diagnosis and ambulatory surgery of varicose veins.
PRESENTATION OF THE PURPOSE: Our data indicate that DPP is an efficient and accurate method for depicting pathogenetic mechanisms of varicose veins disease and should be used in routine practice of phlebologist.
MATERIAL AND METHOD: Was developed simple and miniinvasive method (sclerosurgery, SS) for outpatient treatment of primary varicoses. SS includes crossectomy, Cocket-procedure (SEPS) and catheter sclerotherapy of long or short saphenous veins by Aethoxysclerol (Kreussler). Diagnosis of disease was carried out by means of duplex power scanning (B&K Medical, Panther-2002, SonoSite, USA) with 7–8 MHz transducers sensitive for low velocity of blood flow. The operated limbs were evaluated by DPP in all stages of treatment: pre-operative mapping, intraoperative visualisation and post-operative dynamic control. We performed 2190 DPP in 730 patients.
RESULTS: The pre-operative DPP allows: (a) to diagnose pathogenic mechanisms of varicosity; (b) to detect anatomical variations of incompetent perforants and junctions; (c) to make the cartography of the reflux-mode of primary varicoses. Intra-operative step ensures visualisation of catheter moving and controls sclerosant introduction in superficial venous system. Post-operative dynamic control evaluates the quality of surgical manipulations and superficial vein obliteration.

CONCLUSION: Together with miniinvasive surgical and sclerotherapy treatment, DPP helps to ensure radical and its aesthetic result of treatment varicose veins in the centre of Outpatient Surgery.

**2c7**
**One-day surgery of varicose veins — early results**

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Varicose veins resection is one of the most common procedures a vascular surgeon performs today. Surgical treatment of varicose veins on a day–case basis has the advantage of the early return of the patient to his usual activities, thus also reducing the cost and occupation of hospital beds. The purpose of our study is to evaluate the early results of the one-day surgery of varicose veins.

Between 1996 and 1999, 1910 patients with primary varicose veins in 2500 legs were operated as outpatients. From these patients 357 (18.7%) were males and 1553 (81.3%) were females. The diagnosis was based mainly on clinical examination, while further investigation included doppler ultrasound, triplex scanning and/or phlebography. The type of operation was based on the localisation morphology and stage of the disorder. The surgical therapy was depended on two principles: resection of affected segments only, and functional operation according to the hemodynamic parameters. The patients were admitted in the hospital the day of the operation and operated on with epidural anaesthesia. The average operation time was 35 min. Two hours after the operation, the patients started walking freely and after the fourth postop hour, they were able to return to home.

Immediate complication were injury of the common peroneal nerve in one case and in another injury of the posterior tibial artery. Activation of coexisting lymphedema was noticed in two cases and in another patient edema was presented due to venous thrombosis (the patient received anticoagulant therapy). In nine patients showed pseudolymphatic fistulas, which subsided after elastic bandaging. At the end of the first trimester 1755 patients (91.9%) reported satisfactory results with of without additional sclerotherapy.

One-day surgery of varicose veins has good results, led to rapid rehabilitation and return of the patients to his usual working program.

**2c8**
**Operation for recurrent sapheno-femoral incompetence in a day surgery unit**

P. Pavei, G.F. Petrin, C. Castoro, E. Giraldi, G. Spreafico, U. Baccaglini

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INTRODUCTION: Operations for recurrent sapheno-femoral incompetence can be difficult and bloody procedures. The following technique, proposed by Nabatoff and Li, facilitates the re-ligation of the sapheno-femoral junction.
PURPOSE: To evaluate feasibility, safety and results of this operation in a day surgery unit.
METHODS: Consecutive patients (27), with recurrent varices have been treated in this department between 1993 and 2000. All patients had previously undergone flush ligation of the sapheno-femoral junction, associated with stripping of the long saphenous vein. All patients with recurrent varices underwent clinical and duplex examinations. We operated on symptomatic patients with a duplex scanning demonstrating reflux emanating from the femoral vein. All re-operations were performed under selective subarachnoid anaesthesia on a day surgery basis. In 15 patients, a longitudinal skin incision was made in the groin over the femoral pulse. In 11 patients an inguinal incision was done just above the previous one. The dissection is then deepened through the fascia to expose the femoral artery and directed medially to expose the femoral vein above and below the sapheno-femoral junction. The stump was ligated and the junction divided. All patients had multiple phlebectomies and were discharged on the same day of operation: seven ones subsequently underwent sclerotherapy for residual below knee varices.
RESULTS: Our follow-up varies from 1 to 108 months. One patient developed superficial infections, two hematomas in the groin wounds and one lymphorrea. A number of 25 limbs revealed no evidence of persistent sapheno-femoral incompetence both on clinical and duplex examinations. We observed no major complications. All patients were regularly followed up every 6 months and a simple questionnaire was submitted. A number of 26 (96.2%) patients were satisfied and observed clinical improvement; one patient had no benefit and none a worsening of the symptoms.
CONCLUSIONS: Operation for recurrent varices is a major surgical act. The technique described allows a dissection through normal tissue thus avoiding the scar and permits early control of the femoral vein. Good results can so be safely obtained on an outpatient basis.

**2c9**
**How to simplify post-operative controls and wound care on operated varicose veins**

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The objective of our study was to simplify post-operative care for the patient by offering a comfortable and secure dressing, which would limit post-operative visits to the centre.METHOD: Surgery was performed on 300 patients. Incisions were made in the inguinal regions and on one or both legs with a resorbable intra-dermic stitch. Steristrips® were placed on the leg incisions and covered with a semi-permeable film. A thin hydrocolloid dressing covered the inguinal regions.

All patients were controlled ensuring for each; one post-operative visit at 24 h where we evaluated wound and skin conditions, odor, pain and patient satisfaction. The same control was undergone on the tenth day to remove the Steristrips® and the dressings.RESULTS: Out of the 300 patients we found the following disadvantages in the use of such dressings for three cases; nauseating odor, blisters produced by tension on the setting of the film and maceration with pus.

Patient satisfaction was high, there were no complaints about pain. Comfort and security was appreciated as well as the possibility to have a shower.
CONCLUSIONS: This dressing technique clearly simplifies out-patient post-operative follow up for the medical and nursing teams. The reduction of health costs is a direct consequence. The following advantages were objectivated; eased visual control, a non-traumatic dressing change in a period of 10 days and finally, no stitches to take out! The quality of the scarring is good.

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# Abstracts of Session 3b

# Free papers: varia

**3b1**

## Significance of a dermatological service affering to day surgery unit.

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[b]*Medical Management, Hospital of Legnago (VR), Italy*

The management of neoplastic skin disease in hospital structures not provided with dermatological department could be difficult because of the impossibility to ensure to the patients a referring center for diagnosis and treatment.

For this purpose, a dermatological service was recently located in our Day Surgery facilities.

From January to October 2000, we treated 792 patients with cutaneous lesions diagnosed with clinical examination and dermatoscopy. All these patients were submitted to excisional biopsy, 156 in Day Surgery and 636 in ambulatorial regimen, and histological examination.

In 43 patients (17 males, 12 females; mean age 72.1 years, range 46–92), we diagnosed a malignancy as follows: 26 basalomas, eight melanomas, six spinocellular and two squamocellular carcinomas, one metastases from adeno-carcinoma.

Two patients with melanoma and one with squamocellular carcinoma underwent enlargement of excision because of infiltration of surgical margins at histological examination.

All patients suffering from malignant disease are submitted to clinical and instrumental follow-up.

Our experience allows us to point out several opportunities: screening and diagnosis of neoplastic skin disease in the population; availability of Day Surgery regimen in case of extended surgical procedure or risk patients; availability of hospital facilities for diagnosis and stadiation; referring center for the treatment and follow-up of these patients.

In conclusion, Day Surgery facilities could represent an ideal location for dermatological activity in absence of hospital structures appointed on.

**3b2**

## Outpatient laparoscopic fundoplication for gastroesophageal reflux disease

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*Department Anesthesiology, Ullevål Hospital, University of Oslo, Oslo, Norway*

BACKGROUND: Based on a series of successful outpatient laparoscopic cholecystectomies, outpatient laparoscopic fundoplication for gastrooesophageal reflux disease was introduced in January 1997. The results of the patient series are presented.

METHODS: Inclusion criteria were ASA grade I–II, living within 30 min travel from the hospital and adult company at home. Initially only selected patients were offered outpatient treatment, later it was adopted as routine. They had a general intravenous anesthesia with propofol and remifentanil, and were given ketorolac, propacetamol, droperidol and ondansetron as prophylaxis against postoperative pain and nausea. Surgical methods were Nissen Rosetti fundoplication or semifundoplication depending on esophageal manometric results.

RESULTS: Until October 2000, 71 patients were included, 30 females and 41 males, mean age 44 years, range 22–69 years. Nine patients were admitted. Sixty-two patients were discharged as planned 2–8 h postoperatively, mean 6.5 h. Eight of these patients were readmitted due to pain, nausea or inadequate nutrition. One underwent a reoperation due to necrosis of the gastric fundus. Another seven patients visited the outpatient department without need for admission. At follow-up 47 patients were satisfied with the outpatient treatment, nine were indifferent, and six were dissatisfied due to pain. In case of a similar operation in the future, 42 patients would have preferred and ten would have accepted an outpatient treatment, and ten would not.

CONCLUSION: Outpatient laparoscopic fundoplication is safe and well tolerated by the majority of the patients, and has now been established as our routine for patients fulfilling the selection criteria.

**3b3**

## Study on the optimization of ambulatory nasal surgery

M Pilgramm, A Weeber

*Praxisklinik Detmold*

Over the past few years, it has become increasingly evident that nasal septum surgery can be readily performed in an ambulatory operation.

Problems are, however, still encountered in some cases, both with sacuring the postoperative adaptation of the nasal mucosa to the nasal septum and in preventing postoperative bleeding through a nasal tamponade.

From October 1999 to September 2000, we investigated two tamponade materials in a randomized study with 80 patients:

- the Vaseline tamponade,


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- the foam-filled rubber tamponade.

All the operations were performed by the same operating surgeon employing the same anaesthetic technique and the same anesthetist.

The results show:

The use of foam-filled rubber tamponades leads to:

- less OP time,
- less post-operative change in the position of the tamponade,
- less of a psychological burden of the patient,
- lower consumption of post-operative painkillers,
- lower consumption of post-operative antibiotics.

It can be clearly shown, that the use of this new tamponade type makes the ambulatory nasal operation safer and more pleasant.

**3b4**

**Adenotomie, Tonsillectomie in ambulatory surgery in the doctors operation room**

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We present a report of 15 years of experience in ambulatory adenotomie and tonsillectomie done in private operation rooms of three ENT-surgeons during 1984 and 1999.

Adenotomie is done in children older than 2 years while tonsillectomie is done in patients older than 4 years.

Postoperative bleeding is the main complication and has to be treated most of the time in the hospital. After adenotomie, it occurs in about 0.5% and is most of the time an early week bleeding, that stops within 24 h. Operative revision is rarely necessary. Postoperative (late bleeding), bleeding after tonsillectomie occurs in about 3.5% and starts twice as much after 48 h than the early bleeding (until 48 h postoperative). About 33% of the patients with early bleeding had to be operated while 66% were with late bleeding.

This ambulatory procedure has a very high acceptance not only in adults but also in parents of the children to be operated. It is the procedure of choice and is done about ten times more than the operation in the hospital. A very routine anesthesia team is to our disposition. This procedure is possible, because the main complication is rare and occurs most of the time after some days postoperative and because we have a hospital to our disposition to treat these complications.

**3b5**

**Cataract surgery and anesthesia in a Spanish ambulatory surgical center**

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*Anesthesiology and Ophthalmology Service. Centre Quirurgic Ambulatori. Corporació Parc Tauli. Sabadell. Spain*

BACKGROUND AND GOAL OF STUDY: The use of phacoemulsification surgical technique in cataract surgery has allowed the use of new anesthetic techniques with minimum aggressiveness, carried out in many cases by the ophthalmic surgeon.

In our Center, we study cataract surgery with the aim of valuing if the anesthesiologist had to continue being present in this surgical procedure.

MATERIAL AND METHODS: Retrospective study of the cataract surgery in our center from the year 1998 until the present time, analyzing the following variables: age, sex, ASA criteria, associated pathology, surgical technique, anesthetic technique, substitution index, mean procedure time, unplanned admissions and cancellations rate.

RESULTS: From January 1998 to November 2000, 2890 patients were operated. Mean age 73–74 years; women's prevalence; distribution ASA 4% I, 52% II, 38% III and 6% IV. The most frequent associated pathologies were hypertension (25%), respiratory diseases (13%), cardiac diseases (12%) and diabetes mellitus (11%). The most frequent surgical technique was phacoemulsification; the anesthetic technique was retro/peribulbar block or topical anesthesia (only 0.7% general anesthesia), always with sedation. The substitution index was 97%, with a mean procedure time of 5.5 h. Unplanned admissions rate was 0.35%, and cancellations for any cause 2.29%.

CONCLUSIONS: Given the age, the great incidence of associated pathologies, and the quality results, we continue believing that the presence of the anesthesiologist is necessary in the cataract surgery, so much in its status of anesthetist (for anesthesia or intravenous sedation for anesthetic injections) or reanimation or informant, to maintain some appropriate quality levels.

**3b6**

**Is visual acuity a useful predictor of operative time in phacoemulsification cataract surgery in the ophthalmic ambulatory care department?**

Sandra Rayner FRCOphth (Specialist Registrar in Ophthalmology), V. Christopoulos, and Gilli Vafidis (Consultant)

PURPOSE: A reliable indicator of predicted operating time would be a useful factor in determining the optimum number of cataract cases to be scheduled in an operating session. Visual acuity (VA) is an easily obtained measure of ocular function that can be recorded by nursing or paramedical personnel without specialist knowledge or equipment. This study aims to investigate whether VA per se, can be used to predict operative time for cataract surgery in an ambulatory care setting

METHOD: Fifty consecutive patients scheduled for routine phacoemulsification cataract surgery under local anesthesia in the ambulatory care (ACAD) department were examined. The preoperative best-corrected VA was recorded. The operative time for cataract surgery from placing to removing surgical drapes was recorded. Surgery was performed either by consultant or by skilled junior staff. Operative time was compared with preoperative VA.

RESULTS: The mean operative time was 25 min. This did not vary statistically between operations done by junior or by consultant staff. Patients with VA 6/60 or less took statistically longer than those with 6/36 or better.

CONCLUSIONS: Visual acuity is a useful predictive factor in determining operating time for cataract surgery in cases where VA is severely impaired. In-patients with better VA (6/36 and better), operative time varies independently of the preoperative VA.

**3b7**

**The intra-operative experience of patients under-going local anaesthetic cataract surgery**

Mandy Cripps

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This study explores the experiences of day surgery patients who are undergoing local anesthesia cataract surgery. Existing research in this area tends to focus on preference for one anaesthetic and surgical technique over another. These studies inform the process of performing the surgery/delivering anesthesia rather than the experience of the patient in the specific intra-operative period. The need to investigate and understand the experiences of these patients reflects the importance of developing a sound knowledge base in preoperative care through systematic enquiry. Patients from two NHS Trusts in the south of England were included in this study, which had two distinct phases. Phase one involved qualitative interviews with a small cohort

(eight) of patients and findings revealed three main themes of importance to the patients, preparing the patient for the surgery; the intra-operative environment and the professionalism of the staff. Following this phase a survey was undertaken of 215 patients who had recently undergone cataract surgery. Findings revealed that 50% of the patients were unaware of the nursing presence in the operating theatre. That many patients, who experienced discomfort due to surgical and positional factors, did not report this to the staff and that the main strategy for 'coping' with the experience was to try and 'switch off' and relax. Recommendations include the need for operating theatre nurses to raise their profile in the experience of the patient, the development of pain/discomfort assessment and management strategies specifically for this group of patients. Further research should include replication of this study across a broader geographical area as well as more detailed research into the role of the nurse in the operating theatre and a more detailed understanding of patients coping strategies during local anaesthetic procedures.

**3b8**
**Non-laser canalicular endoscopic lacrimal surgery**

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PURPOSE: To evaluate retrospectively the 1 year success rate of a new approach to treat lacrimal obstruction by restoring the physiological patency of the lacrimal drainage system with miniature endoscopes and trephines introduced through the lacrimal puncta.
METHODS: Patients with acquired symptoms of epiphora and/or chronic dacryocystitis refractive to conservative treatments were referred for a lacrimal drainage system endoscopy. Under local anesthesia, 426 consecutive examinations (1997–1998) were conducted with a miniature endoscope (Ø: 0.9–1.3 mm, Karl Stortz, Germany) introduced into one of the horizontal canaliculi (after lacrimal puncta dilatation and/or ampullotomy). If an obstruction was visualized, the miniature endoscope was replaced by a Piffaretti lacrimal miniature trephine (Ø: 0.9–1.3 mm, Huco, Switzerland) and the obstruction removed. No tubing was used. Success was defined by a persistent and marked subjective improvement of the symptoms (retrospective chart review).
RESULTS: Using this approach, 215 canalicular and 126 nasolacrimal obstructions (partial or complete) were diagnosed and operated (JMP). In the remaining 85 cases, a simple ampullotomy was performed. The 1 year success rate was 70% for canalicular obstructions, 78% for nasolacrimal obstructions, and 90% for lacrimal punctoplasties. During or after the procedure, only minor, and no major, complications occurred, such as hematoma or edema (after lacrimal irrigation) of the surrounding soft tissues.
CONCLUSIONS: This new procedure aimed to restore the physiological patency of the lacrimal drainage system is safe, simple, and easy to perform in local anesthesia. The 1 year success rate appears to be remarkably high. This approach could represent a new option to treat symptoms of acquired lacrimal obstruction.

**3b9**
**Day case protrate surgery — how we do it**

S.N Lloyd — Consultant Urologist, S.M Lloyd Consultant Anesthetist, N Barker — ThachrayCare Nurse Specialist.

*Leeds teaching hospitals NHS trust*

Endoscopic prostatectomy is normally carried out as an inpatient procedure. Pressure on inpatient facilities along with the expectations of patients for short stay surgery, have contributed to this procedure being considered as a day case procedure. Gyrus bipolar technology produces tissue vaporization of the prostate with reduced bleeding and no risk of TUR syndrome because of the saline irrigant used. Careful patient selection and detailed pre-assessment and advice on catheter care is essential. Six patients treated as inpatients with this technology were discharged within 24 h of surgery voiding successfully. This gave us confidence to attempt to perform day case prostatectomy. Six patients have so far been treated and more are planned for day case prostatectomy. Patients are admitted the morning of surgery and the prostate is vaporized under general anesthesia. If the urine is clear enough for trial of catheter, it is removed by 18:00 h the day of surgery. Patients were deemed fit for discharge on the day of surgery but given the availability of a hotel facility, they were kept overnight and discharged within 23 h of admission. The nurse specialist visits the patient on the day of surgery and plans to remove the catheter as soon as the urine is clear. The nurse is equipped with a bladder ultrasound scanner to record voided volumes and is in direct telecommunication with the hospital specialist. Five of the six patients have been discharged as planned; the remaining patient was kept during the following day out of caution but was sent home with a catheter and underwent successful trial without catheter at home. All patients listed for elective prostatectomy are considered for day case prostatectomy. Given careful case selection and a motivated nursing and medical team day case prostatectomy is feasible.

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# Abstracts of Session 4b

# Free papers on pain and follow up

**4b1**

## Ambulatory anaesthetic evolution — 6 years experience in an independent hospital unit

Bazzolo Daniel, Guzzo Fernando, Martinez Hugo, Brandi Claudio, Sívori Enrique

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BACKGROUND: Ambulatory surgical procedures represent a large and increasing fraction of surgery being performed. In the USA, the percentage of outpatient surgery grew from 20% in 1981 to 69% in 1996. We made a total of 20 435 procedures at our Ambulatory Surgical Unit since 1993.

OBJECTIVE: To show the changes in our anaesthetic technique in 6 years.

METHOD: The anaesthetics techniques performed in our unit between January 1994 and December 1999 was analysed.

RESULTS:

| Anaesthesia | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Total | % |
|---|---|---|---|---|---|---|---|---|---|
| General | 66 | 730 | 1028 | 1117 | 1389 | 1687 | 1865 | 7882 | 38.50 |
| Blockades | 0 | 28 | 84 | 309 | 318 | 276 | 161 | 1161 | 5.60 |
| MAC | 0 | 0 | 103 | 374 | 525 | 879 | 1175 | 3056 | 14.95 |
| Local | 136 | 1335 | 1327 | 1177 | 1324 | 1188 | 1410 | 7897 | 38.65 |
| No/anaesth. | 0 | 1 | 39 | 77 | 90 | 88 | 129 | 424 | 2.30 |
| Total | 202 | 2094 | 2581 | 3054 | 3646 | 4118 | 4740 | 20 435 | 100 |

CONCLUSION: The increase in the number of procedures made us change the anaesthetic techniques; blockades delayed the post operative recovery time, that's why there is no significant increase in the use of this technique along the years.

There is an important growth in the use of general anaesthesia due to short recovery time, good analgesia, lack of side effects and discharge with efficiency and safety. Significant increase of MAC in patients with local anaesthesia.

**4b2**

## Guidelines on the pharmacological treatment of postoperative pain in ambulatory surgery

Collaborative study group on postoperative pain management.

*Spanish Association of Major Ambulatory Surgery (ASECMA). Spain.*

Adequate control of postoperative pain is one of the most important goals in ambulatory surgery success. In a recent multicenter survey jointly performed by the Spanish Pain Society (SED) and ASECMA, we were able to demonstrate that 57.6% of the patients suffered pain during the first 24 h after surgery. In view of the outcome, ASECMA formed a study group of experts on pain treatment, that elaborated simple guidelines, to address the problem.

Four basic concepts were taken into account in the guidelines. (1) Preoperative information and patient education (information about the pain intensity that could be expected, explanation of the methods of pain evaluation using a visual analogic scale (VAS), and the therapeutic methods available); (2) risk groups identification (pain intensity depending on the surgical procedure and patient personality); (3) multimodal analgesia and (4) follow-up protocols, to assess the efficacy of the treatment.

The guidelines recommend that in all instances systemic analgesics and infiltration of the surgical would with local anaesthetics (whenever possible) should be administered before the end of surgery. Moreover, if pain is present in the immediate postoperative period oral analgesics should be administered if the VAS $< 3$, intravenous non-opioids analgesics if the VAS 4–6 and low doses of intravenous opioids if VAS $> 7$. Among the other discharge criteria, a VAS $< 3$ should be present in all patients. At home, a fixed dose regime of oral or rectal non-steroidal analgesics or antithermic-analgesics is recommended, when the expected pain is low, and combinations of these with weak opioids for higher pain intensities. In all instance analgesic rescue medication should be made available.

During the postoperative period a follow-up telephone call will assess the fulfilment of the analgesic regime by the patient and the pain intensity. Analgesic protocols will be then modified according to the results obtained when evaluating pain intensity and patient satisfaction.

The implementation of pain treatment protocols in the Ambulatory Units, together with a periodic revision of the efficacy and their modification on the basis of the observed results, will hopefully contribute to improve the outcome of most ambulatory surgical procedures.

**4b3**

## Comaintenance of anaesthesia and planned awakening: a new technique for ambulatory surgery

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INTRODUCTION: Propofol and midazolam are synergistic for induction of anaesthesia. The induction dose of propofol can be reduced by 45% by the addition of 1/10 of the ED50 of midazolam (0.02 mg/kg) 1.

HYPOTHESIS: A similar reduction in the maintenance infusion of propofol from 100 to 50 μg/kg per min can be achieved by a


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simultaneous infusion of midazolam in subhypnotic doses. The concurrent use of two subhypnotic doses of propofol and midazolam will synergistically produce adequate anaesthesia for strabismus surgery, which can be antagonised with flumazenif, and patient will recover consciousness in less than 5 min. Additionally, the patient will be sufficiently alert to perform rapid saccadic eye movement within 10 min of the end of surgery, which will enable the surgeon to make final adjustments of the eye muscle in the operating room, instead of next day.

METHODS: Study design: 50 ASA, 1 + 2 consenting adult patients aged 18–65 undergoing strabismus surgery with adjustable suture were randomly induced with midazolam 2 mg, fentanyl 100 μg, and 1–1.5 mg/kg propofol followed by a stepped-down infusion of propofol 167, 133, and 100 μg/kg per min (P100) for maintenance or propofol 50 + 1 μg/kg per min of midazolam (P50). Patients breathed 65% N20 spontaneously with LMA. Five minutes after surgery the P50 group received 0.4 mg of flumazenil. Bispectral index (BIS) monitoring was used on all patients.

CONCLUSIONS: Comaintenance of anaesthesia with midazolam and propofol reduces the conventional maintenance infusion dose of propofol by approximately 50% and is a practical, realistic technique for ambulatory surgery. Control of recovery is predictable and consistent. Additionally, the patients have no recall for surgery or adjustment of suture 20 min after surgery. This is a cost effective technique for patient, surgeon and institution. BIS monitoring correlated well with hemodynamics, spontaneous respiratory rate and ETC02.

REFERENCE:1. Triple anaesthetic combination: Propofol–midazolam–alfentanil. Anesth Analg 1994;78:354–58.

RESULTS:

| | P50 | P100 |
|---|---|---|
| Duration of infusion (min) | 102 | 87 |
| Response to voice command | 8.1 | 9.7 |
| Response to voice command° | 3.1 | |
| Orientation (date of birth) (min) | 11.5** | 15.2 |
| Saccadic eye movement after 10 min | 90% | 0% |
| Midazolam (cumulative mg) | 9*** | 2 |
| Propofol (mg/min) | 7.8** | 10.4 |
| Recall % | 0 | 0 |
| Recall % (24 h) for adjustment | 0 | 100 |
| Nausea % | 12 | 4 |
| Retching % | 4 | 0 |
| Satisfaction % | 100 | 100 |

**, From end of infusion; ***, $P < 0.001$; °, after flumazenil; **, $P < 0.01$.

**4b4**

**Anaesthetic drug costs in a district general hospital day surgery unit**

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Recent advances within anaesthesia have included the introduction of propofol infusions for the induction and maintenance of anaesthesia and remifentanil infusions for intra-operative analgesia. These agents are associated with a low incidence of nausea and vomiting, rapid emergence from anaesthesia and hence shorter stay in the recovery ward, earlier discharge from day-area units and decreased admission rates [1,2,3]. However, in many units the cost of these drugs is thought to be prohibitive and hence limits their use. We have analysed the drug costs within the Day Surgery Unit of a District General Hospital over a 4-year period in order to quantify the cost of the increased use of these drugs. The unit is self contained, treats no inpatients and is able to identify its own expenditure and workload.

A list of the top 100 drugs used in the unit within a 4-year time period (1996–2000) was obtained from the hospital pharmacy department. Any drug not used by anaesthetists was excluded. The cost of each drug for each year being studied was recorded. Information about total numbers of cases done in this time period, length of cases, how many were under general anaesthesia and of these what percentage were anaesthetised using total intravenous anaesthesia was also retrieved from the unit database. We were not able to obtain costs for anaesthetic consumables.

Within the time period studied total theatre activity in terms of cases performed increased by 22.7%. However, cases performed using TIVA increased by 25%. This was associated with an increased cost of anaesthetic drugs per general anaesthesia case, but this was only an increase of 17.8%. It will be noted that during this time period the time per case has increased. This is due to a change in the case mix within the day surgery unit resulting in longer cases being performed here. When account is taken of procedure time within our calculations it can be seen that the cost of anaesthetic drugs measured per hour of theatre time has actually reduced over this period.

| | 1996/97 | 1997/98 | 1998/99 | 1999/00 |
|---|---|---|---|---|
| Total anaesthetic drug costs | £56 894 | £64 654 | £73 249 | £74 652 |
| GA cases | 4492 | 4933 | 4916 | 4843 |
| Anaesthetic drug costs/GA | £12.67 | £13.11 | £14.90 | £15.41 |
| TIVA (% of GA) | 2587 (58) | 3063 (62) | 3022 (61) | 3232 (67) |
| Hours/case | 0.47 | 0.47 | 0.48 | 0.52 |
| Total hours general anaesthesia | 1805 | 1870.4 | 2092 | 2228.5 |
| Anaesthetic drug costs/hour GA | £31.52 | £34.57 | £35.02 | £33.50 |

We have shown that the increasing use of agents often classed as expensive, has not resulted in increased anaesthetic drug costs when measured per hour of general anaesthesia. These drugs constitute a small percentage of the total cost of a day surgery procedure within our unit. It would, therefore, appear that the most effective way to reduce the actual cost per case would be to achieve more cases with the same overhead and staff costs. Using drugs, which aid faster, complication free recovery may contribute to an increased throughput of cases. We would, therefore, advocate the continued use and development of these techniques, which have been shown to have many advantages both to the patients and to the smooth and efficient running of theatre units.

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**4b5**
**A project to tackle pain following day case surgery**

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Contemporary literature continues to suggest that, despite recent advances in pain control, pain continues to be inadequately assessed and under-medicated following surgery. One of the main criteria for performing day case surgery is minimal postoperative pain that can be controlled by oral analgesics. However, we are still seeing patients experiencing moderate to severe postoperative pain, experiencing sleep problems related to pain or contacting their general practitioner because of inadequate pain relief. Despite research highlighting the efficacy of morphine, it would appear that myth and misconception continue to limit its use. In addition, a lack of knowledge often reduces effective application of 'balanced analgesia' that combines a range of pharmacological strategies. We are currently trying to improve the pain relief patients can obtain following day case surgery in three simple ways:

1. Training nursing staff to effectively assess pain reported by patients and then selecting from a preprescribed formulary of analgesia that includes titrated intra-venous morphine administered following an algorithm, oral morphine syrup, a non-steroidal anti-inflammatory drug and/or paracetamol.
2. We have added oral morphine syrup vials (which in a strength of 10 mg/5 ml are not controlled by statute in the UK) as potential take home medication for patients who experienced moderate to severe postoperative pain whilst in hospital.
3. Patients are screened at the preoperative assessment clinic for suitability for these drugs documenting contraindications, previous sensitivity or unacceptable side effects. Nurses will also endeavour to identify some of the potential patient barriers to effective pain management such as poor expectations, lack of knowledge regarding pain management options and over-emphasis of harmful drug side effects. It is unlikely patients will take analgesia effectively unless some of these concerns are identified and misconceptions addressed.

In order to improve pain management it is vital that nurses and patients are confident, well informed and in a position to initiate effective pain control without always referring to medical staff.

**4b6**
***Pain Rx for day surgery*©: effective pain management for surgical outpatients**

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Increasing numbers of outpatient surgeries have made pain management a challenge for day surgery. There is a growing awareness of the inadequate educational preparation of day surgery nurses regarding pain management. Time constraints have created further challenges to provide appropriate documentation to meet JCAHO Standards. These challenges have caused frustration for day surgery nurses and considerable dissatisfaction for patients. The vision of St. Joseph's/Candler Health System is to set the standards of excellence in the delivery of healthcare throughout the regions we serve. Success is evaluated by measuring patient and family expectations for relief of suffering, safe environment, restoration of function, reasonable cost and patient satisfaction. To provide adequate pain relief is the primary goal for relief of suffering of day surgery patients. Prior to development and implementation of *Pain Rx for day surgery* ©, a pain assessment team was formed to evaluate system pain management. Analysis of documentation practices, surveys, and interviews with anaesthesiologists, clinical nurse specialists, and clinicians indicated that there was a deficit in knowledge related to pain assessment, pharmacology and proper documentation. A comprehensive educational program to include pain management protocols and educational tools for post operative pain management for outpatients will be provided for day surgery nurses to increase their knowledge using a pre-test post-test comparison. A patient survey will provide patient satisfaction outcomes for the management of pain. *Pain Rx for day surgery*© is an effective means of providing the specific pain management education and resources for day surgery nurses to meet the health system goals and promote excellence in patient care delivery in day surgery.

**4b7**
**Is the follow up in outpatient surgery efficient and useful?**

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INTRODUCTION: In order to obtain the same quality of care in outpatient anaesthesia as for in patients, it is widely accepted that all outpatients should be contacted at least once after they have left the ambulatory center. This follow-up represents a challenge, which requires energy and motivation which are difficult to maintain. The purpose of this study was to evaluate the usefulness and the efficiency of such a follow-up.
METHODS: In our department, all patients who are anaesthetised on an ambulatory basis are contacted routinely by the recovery room nurses the day after surgery, in order to obtain informations on the outcome (pain level, side effects, etc.). For this study, all the data concerning ambulatory patients who underwent knee and upper limb surgical procedures were analysed during 1 year.
RESULTS: Among the 805 patients included, data were missing for 349 (239 patients could not be contacted after two attempts, and 110 files were missing). Thus, the analysis is on the effective follow up of 456 patients. Regional anaesthesia (spinal, axillary, and Bier's bloc) was performed on 383 patients (84%), and general anaesthesia on 73 (16%). Moderate to intense pain (VAS $> 3$) was noted for 25% of the patients, nausea was for 4% and debilitating sides effects for 5%. In addition, 16% of patients complained about difficulty of sleep.
CONCLUSION: Our results show that in our institution, valid data could only be obtained in 57% of the patients. As previously reported, insufficient analgesia was the most frequent problem. We conclude that our follow-up is useful but inefficient. Priority should be given to improved data collection.

**4b8**
**Total post-discharge complications following ambulatory surgery**

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INTRODUCTION: Ambulatory surgery accounts for a large proportion of the surgical workload of a hospital. This is the first prospective study to document all post-discharge complications.
METHODS: One thousand one hundred and forty seven patients undergoing ambulatory surgery took part in a prospective study over a period of 3 months. They were given a questionnaire on discharge

and asked to complete and return it after 28 days. Subjects were asked if they experienced any postoperative complications (bleeding, wound infection, constipation, nausea/vomiting or other) and whether they sought medical advice.

RESULTS: Three hundred and ninty eight completed questionnaires were returned (34.7%). 33.9% of the respondents were male and 66.1% female. A wide variety of surgical procedures were carried out by the following departments: general surgery, orthopaedics, gynaecology, dentistry, ENT, urology and anaesthetics. Complications were as follows:

| Complication | Number of patients (%) | Complications of specific procedures (%) |
|---|---|---|
| Bleeding | 74 (18.6) | Nasal ops. 44; tonsillectomy 38 |
| Wound infection | 27 (6.8) | Toenail surgery 75; tonsillectomy 25 |
| Constipation | 41 (10.3) | Lap. cholecyst. 50; minor anal ops. 44 |
| Nausea/vomiting | 45 (11.3) | Tonsillectomy 63; diag. laparosc. 33 |
| Wound pain | 22 (5.5) | |
| Headache | 8 (2.0) | |
| Tiredness | 4 (1.0) | |
| Wound ooze | 4 (1.0) | |
| Other | 32 (8.0) | |

Fifty six patients (14.1%) sought medical advice on one occasion, 15 (3.8%) on two occasions and 8 (2.0%) on at least three occasions. Commonest reasons for seeking help included pain, bleeding and wound oozing (11, 8 and 7 patients, respectively).

CONCLUSIONS: Minor complications of ambulatory surgery are relatively common. Most are self-limiting, but many patients seek further advice. Patients should be warned about minor complications. This would allay anxiety and reduce the need for patients to seek medical advice following discharge.

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# Abstracts of Session 4c

# Medicolegal implications

**4c1**

## Principles of civil liability as regards knowledgeable consent

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A surgeon's work is liable to the principles of civil law stating the duties of brainwork employees and of criminal law as regards a culpable behaviour. Various stages of professionale responsibility originate from a breach of the rules in the relationship between a physician and his/her patient. Assumption of this contract relationship is the capacity to engage so as to make the contract valid and lawful. Consequently, a basic condition to a contract-relationship regarding medical matters is a knowledgeable consent, e.g. the declaration 'by which a patient intends to bring about a relationship generating on the other side an obligation to treat and on his/her side the obligation to be treated.

In order to be aware of it, a patient must know the content of possible consequences to be expected; it means that for a contract to be valid it requires basically the suitable and consistent information about the disease, its treatement and possible consequences both of the disease and of its treatement. Lack of information can make the contract null and void causing a physician to act against the law.

For the consent to be valid, it has to be given by a subject in full possession of his/her faculties or aged to be as such.

The surgeon's obligation so established in the contract is the obligation of means or diligence in his/her performance and not an obligation of results. A surgeon, therefore, acts within the limits of a behaviour obligation and not an obligation of results. Nevertheless, this is an apparent distinction, as a fact, considered as a mean in respect of a subsequent aim, will be a result when assessed as such, and as the final stage of a limited sequence of facts.


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# Abstracts of Session 4d

# Interventional radiology

**4d1**

**Arterial revascularisation procedures in outpatient procedure — is it safe, is it useful, is it less expensive? A 6 year experience**

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INTRODUCTION: In April 1994, we started carefully with outpatient arterial revascularisation procedures from April 1994 till November 2000, we performed 317 arterial revascularisation procedures. From them, we performed 101 in combination with an interventional procedure.RESULT: Since April 1995, we performed 27 FEM-popliteal above knee bypasses. The patency rate after 6 month is 77.6%, which is very good. The procedures are performed in the supra-aortic, retroperitoneal and in the infra-aortic region.
We performed also extra-anatomic bypass procedures.

There are 17 complications in 317 arterial reconstruction procedures, 10 minor and 8 serious complications. In the minor complication group were nine superficial wound-infections and one heparin induced hamatoma.
In the eight serious complications, there were three graft infections, two deep wound infections, one lymphfistula and one postoperative bleeding.
The postoperative complication rate is with 5.67% very low.
All procedures have been performed in local anesthesia in combination with intravenous anesthesia in a spontaneous breathing patient. There were no cardiopulmonal complications the costs are less expensive, compared with clinical procedures.
CONCLUSIONS: Outpatient arterial revascularisation surgery, excluded transabdominal and transthoracal operations is very good possible and safe under some specific conditions.
Outpatient arterial reconstructions are undoubted more cost-effective.


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# Abstracts of Session 5a

# Controversies in ambulatory surgery

**5a1**

## Adding short-stay capability to the ambulatory surgery center: creating postsurgical recovery care programs

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This session will offer a definition of postsurgical recovery care ("PRC") within the ASC environment and will review the various configurations of this care delivery model that have emerged. The initiative to edd PRC to freestanding ASCs came about due in large part to the inability or unwillingness of US hospitals to create a 'user-friendly' product to deliver the changing nature of surgery, both ambulatory and short-stay. PRC emerged in the eighties via a demonstration project in California and is now being tested over a 5-yr term in the state of Illinois. These demonstrations, along with other individual efforts to establish short-stay in the surgery center taking place elsewhere, seek to test different models of PRC for the purpose of determining (a) its safety and eflectiveness, (b) its cost-containment potential, (c) which models tested had the best combination of these first two features, and (d) how patients perceived the care they we given in these non-institutional settings. Data and analysis will be presented depicting the various PRC models that have been or are being tested.

**5a2**

## Music in anaesthesia or anaesthesia in music a pilot study

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A main issue in managing day case surgery is the compressed patient course. In order to improve patient compliance, reduce stress response and maintain patient satisfaction music might positively influence these items significantly and subdue/calm/reduce patient anxiety. In order to get a comprehensive experience with music in a medical set up, we composed a study of 70 consecutive patients. The patients were admitted to hospital for routine surgical treatments (general s., gynaecological, ENT, orthopaedic). They were offered music by means of CD-player and earphones before induction of anaesthesia and the music was continued throughout the operation and discontinued after surgery in the PACU on the patient's demand. Anaesthesia time, lowest BP and HR in the OR and the PACU was recorded as well as pain score, PONV, dizziness as was general ratings by staff members and patients. Anaesthesia consisted of sevoflurane (Abbott) as induction and maintenance agent in combination with low dose remifentanyl (Glaxo Wellcome) according to patient needs.

None of the patients suffered major complications and all patients were discharged within 2 h of observation. Anaesthesia time varied between 17 and 135 min with a mean of 40. Lowest BP and HR during surgery was 77 and 44 respectively and after 30 min in the PACU (mean) 126 SBP, 64DBP and 68 HR. Twenty one Patients felt no pain and the remaining 59 made a mean VAS score of 4 (range: 0–10) all were treated with paracetamol and/or NSAID and left hospital scoring 0–2. Fifteen patients suffered some degree of PONV and three of these accepted treatment, no symptoms remained at discharge. Eight patients felt slightly dizzy, but none needed medication. The postoperative period was rated as good by $n = 63$, acceptable by 4 and bad by 3. The music was considered as good by 66, mean by 4 and bad by 0. Patients' comments were positive with a broad spectrum of opinions. The nurses rated music as good in 55 cases, mean in 5 and bad for one patient (nine were not rated).

DISCUSSION: So far, music is not a regular part of the hospital treatment. It is, however, well known that music may attenuate stress response by lowering bloodpressure as well heart rate and research postulate a positive influence on the perception of pain as well. We looked at a randomiy-selected group of orthopaedic-, abdominal-, ENT- and gynaecological-patients in order to get an overall experience with the use of music. By turning on music before induction of anesthesia and continuing it through out surgery, we might stimulate CNS reflexes that improve the patient's stress management.

There were no unexpected events registered during surgery and vital signs were in accordance with regular anaesthesia without music.

In the PACU we observed very relaxed patients and this was further documented as the vital sign recordings were within normal range. In most cases the patients gladly accepted the music for comfort. Our incident of PONV was very low with only three patients needing treatment, but this study allows us to make no conclusions with regard to the effect of music on PONV. However, there might be a positive effect on pain control as shown by others. Those in pain scored low on the VAS scale and all were easily treated with ordinary analgesics, no opiodes were required. Nursing care was considered to be easier as music made patients more relaxed and, generally, they needed less physical attention.


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# Abstracts of Session 6b

# Recovery and street versus home fitness criteria

**6b1**

## General anesthesia provoked a long-lasting shift in circadian sleep-waking rhythm

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In ambulatory surgery, delayed cognitive recovery may prevent the patients returning immediately to their preoperative level. In this field, tiredness and concomitant impaired vigilance the days following surgery are complaints widely reported by outpatients. We were wondering to which extent general anesthesia by itself could be in part responsible for such complaints. Given that general anesthesia is associated with modifications of multiple cerebral functions, it might theoretically alter biological rhythms controlled by the circadian clock (located in the hypothalamus). Therefore, we asked whether or not general anesthesia affects the circadian sleep-wake rhythm in patients. In a first approach to answer this question, we used a standard animal model to assess possible effects on the circadian timing system. In rats exposed to constant darkness, free-running circadian rhythm of locomotor activity (reflecting sleep-wake rhythm) was monitored before and after a short-lasting anesthesia (30–40 min) using propofol, an anesthetic agent frequently used for ambulatory surgery. Our results evidenced that, when administered at the onset of the daily active period, a brief propofol anesthesia was responsible for a 50-mm phase-advance in circadian sleep-wake rhythm. This chronobiotic effect was observed following propofol anesthesia performed during the activity phase in rats. Such a phase-advance could lead to a temporary desynchronization similar to that occurring during a jet-lag. The relevance for outpatients of this chronobiotic effect of anesthesia is certainly warranted and this is currently under investigation because recovery from ambulatory anesthesia may be improved by taking into account this phenomenon. Such an approach gives us the option of resetting the circadian pacemaker (resynchronization) using pharmacological or other (natural and artificial light) tools.

This project was supported by Institut Fédératif de Recherches 37, Neurosciences, ('Soutien aux sciences du vivant', MENRT/INSERM 2000).


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# Free papers on quality control in ambulatory surgery — Session 7a

## 7a1
## Permanent quality assurance in ambulant pacemaker implantation

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INTRODUCTION/METHOD: Since 1993, we have been recording at the Wetzikon Hospital our pacemaker implantation in a prospective study. In a first phase, the majority of implantations are made as a rule in an ambulant way (hospitalisation, less then 24 h, one night, telemetry).
RESULTS: Our report is based on 395 pacemaker implantations (140 stationary, 255 ambulant) in the period 1993–1999. Three hundred and twenty two first time implantations, 73 reinterventions had to be made (battery exhaustion, threat of skin penetration).
CONCLUSIONS: The ambulant implantation of a pacemaker system can be achieved in an easy and secure way. Our prospectively collected data allow us to perform a permanent quality assurance.

## 7a2
## Standards for ambulatory units accreditation. The first handbook

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After 12 yr, ambulatory surgery has good acceptation and large involvement in the Spanish hospitals.
Hospitals made self protocols, guides, pathways… and actually it is necessary to acreditate the ambulatory surgery units. The Spanish Ambulatory Surgery Association–ASECMA and the Health National Resources–FIS carried out until the last two years the first spanish accreditation handbook with standards about which. The standards are actually in validation.

## 7a3
## Total quality management in ambulatory surgery in Switzerland

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Since 1995, the Swiss Medical Association and the Swiss Accident Insurance companies have administered a quality assurance program for ambulatory surgery in private operating rooms. This program includes a certification of the facilities of the operating units, a quality assurance evaluation for the surgical procedures as well as the clinical outcomes. A committee manages and reports the results from this TQM-program. Nearly 120 private operating units in Switzerland participate with the insurance companies in this program. In case that a surgical operating room does not meet the standards of the TQM-program, sanctions can be taken. This means that poorly performing operating rooms can be excluded from the contract and furthermore will not receive sufficient payment for the cost of running their infrastructures. In the last 3 yr, none of the surgical facilities has been excluded.

## 7a4
## Quality and accredit: new frontier of day-surgery

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The existence of a day-surgery (DH) in an hospital, appears today as a fundamental organizational model.
As we still considered in the former DH world congress our surgical unit has been able to save, through such a model more than half a billion lire in two years. The aim in that of allocates resources without delay towards more important pathologies such neoplasmas. The autonomous unit is the top among the organizational possibilities of a DH. This autonomy can be reached at different levels such administration, structure and management. We consider the structural level as the most important. The possibility of realizing an organization with managing autonomy would allow developing other activities as quality control and accrediting. From such a point of view, we only need to consider the means that we own and lead then to the target funding our activity on quality. We consider basically three different proceedings: medical record, DH rules and information brochure these are part of quality index as well as the possibility of reaching data and the need of information. What we have above considered is never the less a high expression of administrative and managing capability that could strongly characterize a hospital. The second fundamental level on which we must insist is the accredit, the mean through which we may guarantee quality. As it allows the contemporary evaluation of professional capability, the resources allocation, the reaching of services, the risk and the satisfaction of the patients and of the surgeons.


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Only through a narrow link through accredit, quality, continuous improving programs and scientific severity will be possible to reach good results not only professionally but also clinically and humanly speaking.

**7a5**

**An exploratory study of patients' expectations and experiences of day care surgery in a single NHS trust in the UK**

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Literature suggests that little is known about the patients' expectations and experiences of day care surgery (Otte, 1996; Mitchell, 1997; Reid, 1997). Day care surgery will continue to increase in the future. This study's purpose is to provide knowledge to enhance nursing practice. The study had three aims: to identify expectations and experiences of day care surgical patients, to examine factors, which patients liked or disliked about their care, and in light of the findings to explore how nurses can improve practice. Data were collected in two stages: stage 1 involved a purposive sample of adult patients ($n = 152$). Self completed questionnaires were administered on two occasions to three categories of patients (General surgery $n = 48$, orthopaedic surgery $n = 55$, plastic surgery $= 48$); immediately after their first day care appointment before admission and no later than two weeks after surgery. Stage 2 involved semi-structured telephone interviews with a sub-sample of stage 1 patients ($n = 28$), selected to represent both positive and negative experiences. Preliminary findings indicate that the majority of patients found the process of day care surgery efficient but not necessarily effective. Men evaluated their experiences better than women. Methods of patient referral and preparation varied across surgical groups and were found to be influential, when patients reflected on their care experience. Experience of recovery at home appears to influence women more than men when considering day care surgery in the future. Analysis is not complete but suggests that the majority of patients approve of day care surgery. Improvements could be made to processes of referral and preparation of patients, especially, when planning care for women.

**7a6**

**A role for general practitioners in the management of ambulatory surgical patients: facts and wishes. A French survey.**

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INTRODUCTION: According to the literature, implication of general practitioners (GPs) is the key point for successful handling of ambulatory surgical patients. The reality does not seem to reflect this assumption. The aims of this postal survey were to collect information on the implication of GPs in the management of ambulatory surgery (AS) and to analyse the role they would like to play.
PATIENTS AND METHODS: A questionnaire including more than 100 items was sent in 1998 to 1709 GPs in southern France (Gard and Hérault states).
RESULTS: Replies were obtained from 388 GPs (22.7%). 81.4% were concerned by ambulatory surgery. *Experience with AS:* 94.0% of GPs followed patients having had ambulatory procedures. 50.2% proposed AS to their patients and referred them to a surgeon. 73.4% were active in the preoperative preparation and 89.6% visited their patients at home after AS. 31.0% have co-ordinated medical and nursing home care. Preoperatively, the main roles of GPs were to give information (75.2%), to adapt chronic treatments (73.4%) and to prescribe intestinal preparation if necessary (34.9%). Postoperatively, GPs visited patients at home on call (97.4%), because they were asked by the surgeon and/or the anaesthesiologist (65.0%) or systematically (33.8%). *Implications wishes from GPs:* GPs wanted to inform their patients on the possibilities, advantages and disadvantages of AS (83.9%), to choose the adequate ambulatory centre (56.0%), to choose surgeon (78.8%), to inform the anaesthesiologist on patient's problems (94.0%) and to participate to preoperative preparation (40.5%). Concerning immediate follow-up, 48.4% wanted a systematic visit, 49.4% only in case of problem and/or on patient's call and 1.6% do not want to play any role in AS, arguing this was the specific responsibility of the surgeon/anaesthesiologist. 62.0% wanted to co-ordinate postoperative home care.
CONCLUSION: GPs are implicated in the whole perioperative period of ambulatory procedures. A majority of them wanted to be responsible for their patients before and immediately after surgery.

**7a7**

**Use of a structured interview technique to obtain patient's perspective on the day surgery experience and identify changes to improve the quality of the service in line with these comments**

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Patient satisfaction with all aspects of day surgery is important for high quality care. The most common way of assessing this is by means of a structured questionnaire. While these form a useful audit tool and can be submitted to statistical analysis they have limitations in the range and content of questions and scope for comments. We designed a small prospective study to obtain an in depth descriptive impression of the day case experience from the patients perspective.
The study was undertaken by KB as part of her medical degree and had local ethics committee approval. Patients were recruited in the day unit by giving written consent. An agreed date and time for a telephone interview was made. Interviews were conducted 4–7 days after surgery and were structured to follow the course of the patient's treatment, topics were discussed using 'open-ended' questions.
Of 47 patients recruited 31 completed the telephone interview. This was a qualitative study and results are presented as a series of discussion points. Most patients were generally satisfied with their treatment as a day case. Areas of dissatisfaction included issues of privacy, unrealistic expectations of recovery, attitudes of staff and relatives/carers and the quality of information given. Many of these had not previously been identified or lacked specific detail. A 20-point action plan was produced and is being implemented, audit using a questionnaire designed to target the issues raised is planned. This technique can complement other types of patient satisfaction audit and be used to improve the quality of the day surgery service.

**7a8**

**The use of patient questionnaires and nursing care programmes in quality control at a day surgery unit**

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The day surgery unit at the ENT department, Danderyd hospital/Karolinska hospital, Stockholm, Sweden opened in 1996. Since then the degree of surgical complexity of operated patients has increased year by year. The experience of using patient questionnaires and nursing care programmes to maintain and improve nursing care quality will be presented. During the last years, yearly questionnaires have been given to 100 patients. We have produced the questionnaires ourselves, which has the advantage that they can focus on what we believe to be problem areas and stimulate to quality improvement actions. For example, focusing on information issues has led to improvements in the written information and focusing on the patient experience of their condition, when leaving the unit has stimulated improvements regarding prophylactic measures to decrease postoperative nausea and vomiting. Written nursing care programmes have been produced for each surgical procedure performed. These programmes include information on the most common postoperative problems and how to take care of them. The nursing care programmes makes it possible to standardise basic procedures and to analyse and improve these procedures.

**7a9**

**Analysis of the satisfaction level linked to the patient's state of anxiety in day surgery**

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INTRODUCTION: For the evaluation of the patient's level of anxiety in DS the following variables have been analysed: hospital facilities, service organization, nursing and medical treatment time, personal updating, information given to the patient, care and/or assistance of discharged patient.

AIM: To determine an optimum model in DS service.

MATERIALS AND METHODS: The study was carried out on a sample of 300 patients operated on in 3 different hospitals (Legnago, Zevio, Nogara) belonging to the same hospital administration ASL 21 Verona with superimposable procedures of acceptance, discharge, surgery and anesthesiology but with different features. The analysis was done through a questionnaire – survey given to the patient in the discharging phase and on the 30th day by external staff to the 3 DS services. In brief: Legnago hospital: intensive, ward with dedicated beds, general operating theatres, nursing staff without ward specific preparation, non dedicated operation nursing staff, non dedicated surgeons, waiting list from 1 to 6 months; Zevio hospital: reconverted reabilitative hospital, ward and operating theatres with dedicated beds, dedicated nursing staff, dedicated surgeons, one month waiting list; Nogara hospital: reconverted district hospital, ward and operating theatres with dedicated beds, dedicated nursing staff, dedicated surgeons, hospital staff with specific operator–patient updating, 4 months pre-arranged waiting list.

RESULTS AND CONCLUSION: In brief the satisfaction level and the state of anxiety are linked to waiting time, assistance time available, information given to the patient and organization in hospitalization phase, while positive results were evaluated concerning the surgical and anesthesiological treatment after the 30th day.

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# Abstracts of Session 7b

# Free papers on preoperative managament

**7b1**

**Organization of the pre-operative phase programming of patients in an out patient setting**

Christine Robin

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Our experience shows the need to establish a number of factors that have to be followed a respected:

- an operating grid with schedules specialities
- operating protocols
- selected surgery
- pre-operative anaesthetic visits
- pre-operative nursing visits (the goal being the achievement of a global patient approach).

Planning outpatients for surgery must take place in a dynamic, motivated medical a nursing team. Any modified plannification can cause difficulties for the patient, for example, a:

- special day off, planned at work;
- mother who organized someone to care for her child;
- prolonged absence from work.

To establish an operating out-patient schedule, certain priorities and criteria must be respected:

- age
- known illness
- type of anaesthesia
- patient anxiety
- travelling distance from the patient's home to the center
- mother living with very young children
- planned operating time.

A phone call to contact the patient on the eve of surgery to:

1. confirm the schedules time
2. avoid unnecessary witing time, which diminishes stress
3. manage patient circulation.

CONCLUSION: The planning of out-patient surgery must not be improvised. The patient must remain the center of all activities. Coherence between partners and the respect of plannification are key factors to succeed in ambulatory surgery.

The engagement of each actor is necessary and contributes to the success of a global and individualized management of the patient.

**7b2**

**National booked admissions programme – implementation at King's college hospital, London**

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The National Booked Admissions Programme was launched in 1998 as part of the Government's strategy for modernising the NHS. The programme is aimed at making the NHS more accessible and convenient to patients, and in achieving that; using resources more efficiently.

Ministers have said "they wish booking hospital appointments to become as easy as booking travel tickets and hotel reservations in the future".

The Government funded 60 pilot sites to implement 'Booked Admissions' from October 1999 to March 2001 and King's College Hospital was selected. The project has seven broad objectives:

1. Redesign systems so that patient's can get a date for treatment at the time the decision is made.
2. Improve communications between primary and secondary sector.
3. Give patients more choice and certainty about dates for treatment.
4. Simplify and speed up the patient process from referral to treatment.
5. Improve efficiency within the booking system.
6. Improve patient and GP satisfaction.
7. Prevent duplication in the referral to treatment process.

It has been demonstrated, by many pilot Trusts that it is easier to implement 'Booked admissions' for patients requiring day case procedures than it is for patients requiring in-patient admissions, particularly where day procedures/surgery are provided in units which are separate from in-patient beds.

This paper will explain our approach in implementing new systems at King's and discuss benefits and outcomes.

**7b3**

**Dogma or common sense – a review of exclusion criteria for day surgery**

Jeremy Church

*Salisbury, UK*

Day surgery has now developed into a front-line clinical service offering surgery to over 60% of all elective surgical procedures. It should no longer be considered as second best and it should no longer be provided in out-dated accommodation and undertaken by clinicians with limited experience. Unless the peri-operative environment is as good as that provided for elective in-patient surgery, it should not be offered at all. This being the case it is time to review the criteria for selecting patients suitable for day surgery.

This paper reviews the historical background to the adoption of clinical and administrative exclusion criteria. It suggests that much of the dogma surrounding the selection of patients is no longer applicable. It emphasises the importance of pre-operative assessment as a


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means of preparing the home environment rather than acting as a barrier to referral for day surgery. It supports the statement made by the President of the British Association of Day Surgery in his statement (BMA Review, August 2000) "General Practitioners and Surgeons have to stop asking themselves whether patients are suitable for treatment as day cases and consider instead what possible reasons there are for subjecting them to in-patient care".

**7b4**
**A safe triaging tool for pre admission**

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INTRODUCTION: In January 2000, a triaging process was introduced to the Pre admission Service at St. Vincent's Hospital Melbourne. Instrumental to this process was the design and implementation of a short Health Questionnaire. Most surgical elective patients complete the questionnaire and based on their answers are identified as either requiring a formal preoperative consultation in the designated pre admission clinic, or requiring no preoperative work up other than the Questionnaire prior to being admitted on the day of surgery. At St. Vincent's Hospital, Melbourne 82% of elective surgical patients (including Neurosurgery and Cardiothoracic patients) undergo a *pre admission process*. Of that number currently 36% are triaged as requiring no further assessment and the remainder attend the formal pre admission clinics.
PURPOSE: To assess the accuracy of a Health Questionnaire to identify patients requiring no further preoperative preparation.
METHODS: Study one was a retrospective descriptive study of 104 consecutive patients identified by the Health Questionnaire as requiring no further preoperative preparation. This study provided baseline data on gender, age, and smoking status and unit utilisation.
Study two was a Matched Pairs Cohort study, designed to test whether postoperative outcomes differed between patients triaged as requiring no further preoperative preparation, compared to similar patients who had attended a formal Pre admission Clinic. A random sample of twenty-three patients was used in the comparison.
Twenty-one categories affecting postoperative length of stay were used to capture information relating to post operative outcome of individual patients.
RESULTS: Use of the Health Questionnaire as a triaging tool is an effective and safe method for identifying patients that require no further preoperative preparation.

**7b5**
**Multidisciplinary meetings to optimise patient selection and preparation for day surgery – an audit**

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In our institution all patients scheduled for general anaesthetic procedures in the day unit are assessed 2–3 weeks prior to admission by specially trained nurses. The move to managing more complex cases and less fit (ASA 3) patients has presented a challenge to select appropriate patients and optimise their medical condition. A 1 h weekly meeting between the assessment nurses and a Consultant Anaesthetist were set up. The assessment nurses identified patients in whom there were problems that could not be resolved using current guidelines. The hospital notes and results of any investigations were taken to the meeting and the case presented to the Anaesthetist. The care of 103 patients was planned in 12 meetings over a 3 months period.
Care for 50 patients were decided at the time. In 53 cases further actions were taken, including referral to their GP or other specialists, request for investigations etc. The ASA grades of the patients reviewed were 37 ASA 2, 59 ASA 3 and 9 ASA 4. All the ASA 2 and 44 (75%) of ASA 3 patients were considered suitable for management as a day case. Plans for the remaining patients were: seven to have overnight stay on the day unit, 12 scheduled for the procedure as inpatients, five suspended from the waiting list pending medical management and one cancelled. Two-day cases have required admission to inpatient beds, one due to a prolonged reaction to anaesthesia in the other the surgical procedure was much more extensive than anticipated.
This model is an effective way of managing this group of high risk day surgical patients and optimises the use of the Anaesthetic consultants time.It also offers important opportunities for teaching and professional development for nurses in this field.

**7b6**
**Can patients be scheduled for day surgery operation by direct referral letters?**

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INTRODUCTION: In a well-functioning day surgery unit it is crucial that patients scheduled for operation have correct diagnosis and operative indication and that they are carefully assessed for anaesthesia fitness. In the Oulu University Hospital all referral letters sent for general surgery are reviewed by surgeons, who decide whether the patient needs the conventional visit to the outpatient department before surgery or is scheduled directly for operation. We wanted to evaluate the appropriateness and patients' experiences of this direct referral-practice.
PATIENTS: 401 randomly selected patients scheduled for day surgery were evaluated. Six patients were rejected due to missing data. Of the remaining 395 patients, 53% were scheduled for operation after a visit to the general surgery outpatient department (conventional patients) and 47% by direct referral letters (direct referral patients).
RESULTS: Five operations were cancelled in the direct referral group and four in the conventional group. The reasons for cancellations in the direct referral group were new injury, pregnancy, skin problem on the planned operation area and back problems.
In the remaining patients, 28 direct referral patients and 13 conventional patients had some problems with regards fitness for anaesthesia.
The diagnosis remained unchanged in 81% of conventional and 89% of direct referral patients. The procedures were carried out as originally planned in 85% of conventional and in 95% of direct referral patients. Procedures were respectively lager in 13% and 4% and smaller in 2% and 1%.
Unplanned admission rate was 8.6% among direct referral and 3.8% among conventional patients. 12% of direct referral patients stated that would have preferred to visit the outpatient surgery department before the operation.
CONCLUSIONS: Direct referral practice is appropriate and is not related to the cancellations of operations, but to some extent increases the unplanned admission rate in the unit. The problems with fitness for anaesthesia, which are not mentioned in the direct referral letter, increases the workload of the anaesthesia personnel, but does not cause cancellation or unplanned admission.

**7b7**
**Preoperative testing procedures for days units**

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The preoperative testing procedures for day surgery units are a basic step when considering the use of day surgery facilities in a hospital whether in terms of efficiency, effectiveness of the testing with regard to the clinical conditions of the patients, or in terms of informing the patients about operative procedures and anaesthesia. In this way there is a rational utilisation of resources for the patients (avoiding loss of time) and for the hospital (avoiding useless testing).
The purpose of this paper is to describe the pre-operatives procedures in the Carpi hospital (Modena – Italy) and to describe how the rationalisation of pre-operative testing procedures according to the criteria of the Italian Society of Anaesthesiologists allowed certain benefits for the hospital and for the patients.
In our experience the pre-operative route follow this steps:

1. The surgeon's examination of the patient to decide the necessary operation, whether the day surgery unit was adequate, and if the patient consented
2. The anaesthetist's check, which includes tests of the heart, lungs etc: then the patient fills out a questionnaire of his medical history and, (only in case of need), the patient is sent to take other routine laboratory tests such as blood, X-rays etc.
3. The anaesthetist informs the patient of the anaesthetic to be used in the specific surgical procedure.

The results and effective uses of the ISA (Italian Society of anaesthesiologists) recommendations allowed the following benefits:

1. Using lab-tests only when specifically required in the pre-operative step
2. Reducing unnecessary pre-operative testing procedures which reduced costs that we estimate in about 15 millions lira for X-rays and 15 millions lira for laboratory test.
3. Reducing of time loss for the patient, which we estimate in about 2 h for each patient.

**7b8**
**Routine preoperative testing in ambulatory surgery**

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INTRODUCTION: The custom of requesting preoperative examinations is a position very difficult to remove, in our centre.
AIM: Determine the uselessness of requesting preoperative examinations routinely.
MATERIALS AND METHODS: We performed a retrospective study over 500 patients with preoperative testing, randomized, operated in a period of 9 months, with age limits between 1 and 87 yr. The surgeries performed were of different kind, and the anaesthesia's was provided depending on the surgical procedures.
RESULTS: Over 500 patients, only 30 had abnormal results that frequently appeared in ECG, BUN, glucose and hematocrit; and the patients had pathologies diagnosticated that supported them. In all those patients was no necessary to cancel surgery, to change the kind of anaesthesia and there were no complications in the operative room or in the postoperative recovery.
CONCLUSIONS: This works leads the conclusion that preoperative testing in Ambulatory Surgery should be not required routinely. The medical consultant plays a significant role in the evaluation and management of patients before ambulatory surgery, to define the patient's medical conditions by a complete history and physical examination. Testing of asymptomatic healthy patients had not been found to be helpful and is not recommended. The basic idea of decision analysis is to model the options in a medical decision, assign probabilities to alternative actions, assign utilities to the various outcomes and then calculate with decision. All this results in a lot of benefits, mainly, to reduce healthcare costs.

**7b9**
**Flow chart for the pre-operative preparation of the patient in case of ambulatory surgical treatment**

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A good stay on a Day Surgery Unit largely depends on the way it was organised on the day itself, but also on the organisation of the pre-operative preparation.
Once the decision for ambulatory surgery has been taken, the patient needs a proper pre-operative check-up and management. In Belgium there is no such thing as a "pre-operative check-up fee" and so these check-ups are carried out in hospitals by physicians or even out of hospitals by the general practitioner. This requires very specific and clear arrangements.
A flow-chart in which all the necessary steps are set out is proposed.
If the patient had his pre-operative check-up in the hospital all the test-results finally go to the admission service the day before surgery.
The same happens if the patient was seen by his general practitioner for his pre-operative check-ups.
Assessment of the pre-operative check-ups and test results is done on the admission service who gets in touch with the patient if something is wrong.
This system proves to be satisfactory. It assures us that the number of incomplete files on the day of admission is minimal.

**7b10**
**"Words fly, writings apply": From oral convocation to written convocation?**

Bosson Benedicte

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Why this title? Why should we be concerned about the convocation of ambulatory patients in endoscopy?
These patients have to reconcile the fear of the examination with their familial and professional responsibilities. Hence, the importance of supplying all the necessary information to help them comply with the necessary technical instructions and limit their anxiety of an unknown procedure.
Since the appointments are given by telephone by the nursing staff, the transmission of oral information to the patient is unreliable. On the other hand the disposability of the endoscopist at a desired time schedule could be unknown to the nursing staff. This led to the project I realised at CASA [Cycle d'Approfondissement en Soins Ambulatoires (Continuing Education in Ambulatory Services)] in 1998, in order to improve and optimize the scheduling system. In order to handle the appointment schedule, the parties involved (endoscopist, patient, and examination room).
We chose the "Kronos" program, developed at GUH, which couples the patients' and physicians' agendas, and automatically handles the

examination room schedules and sends a personalised written instruction for preparation to the patient (ambulatory) or nursing station (inpatient) concerning the particular examination.
"Kronos" automatically takes into account the disposability of the endoscopist according to his/her own agenda.
The application of the system for inpatients and outpatients has been successful, confirming our impression that "Words fly, writings apply".Written convocations are here to stay.

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# Free Papers on Nursing Issues — Session 8a

**8a1**
**No lifting (a workplace innovation)**

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The lifting of heavy objects and the manoeuvring of patients in Day Surgery leaves staff open to real injury of the musculo-skeletal system. This results in considerable numbers of worker's compensation claims, time off work and sometimes, difficulty in returning to practice after an injury at work.
By implementing a 'no-lifting' approach to manual handling in the Day Surgery Unit, surgeons, anaesthetists, nurses and other day surgery personnel will have less injuries, less compensation claims and less time off for injury. Improved quality of care for day surgery patients will be achieved.
This paper outlines the 'no-lifting' approach to manual handling which can be utilised in day surgery and ambulatory care settings. The on-going costs are minimal, compared to the costs of:

- loss of work hours due to injury,
- insurance claims,
- rehabilitation of staff,
- potential harm to patients at the time of the worker's injury, and
- legal issues – compliance and duty of care issues (Common Law Rights; Code of Practice).

This paper will address the:

- 'No lifting' approach to manual handling.
- implementation,
- training suggestions,
- contemporary set of risk management principles – patient handling procedures, and
- care of protective equipment.

The adoption of best practice in the workplace in manual handling will ensure safety for both staff and patients in Day Surgery.

**8a2**
**Which nursing car for the ambulatory services? Presentation of a learning program for the nurses of the Geneva University Hospitals (HUG)**

Maria Vieira

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The evolution of the care system produces important questions concerning the reorganisation of the healthcare services.
In this framework, the development of ambulatory practices plays a major role. This healthcare approach requires new forms of co-operation between the actors and transforms the hospital into a true healthcare network.
This evolution requires for the nurses working in such a framework a review of their current practice and a development of new competencies.
The aim of this abstract is to present the nurses working duties in ambulatory services by the learning program organised by the Geneva University Hospitals for short stay patients.

**8a3**
**Day surgery within a large private hospital — an Australian story**

Wendy Adams

*HcoA, Mayne Nicolas, Australia*

Nurse Unit Manager

Waverley Private Hospital is one of 46 hospitals in Mayne Nicholas, the largest Private Hospital Group in Australia.
An extensive study has been completed at Waverley Private Day Procedure Centre by the Nurse Unit Manager over a 12-month period following the introduction of an outcome plan. Because of the staggering results of decreases in length of stay post operatively with implications for staffing needs and patient satisfaction, this outcome plan is being modified in order to implemented throughout the 46 hospitals. The purpose of this presentation is to show results and trends from both Waverley and across the Group. The method of this study is by collecting clinical data using a form, which accompanies each day procedure patient throughout the HCoA hospitals simultaneously.
Data collection includes procedures performed, pre-op length of stay, post-op length of stay (including length of stay in recovery as well as day ward), age, access to pre and post op phone calls, clinical indicators and variances.
It is anticipated that the study Australia wide will reflect the study at Waverley Private Hospital, which showed decreases in the length of stay post op over the 12 months since the outcome plan was introduced. The data collection will be completed Australia wide by February 28, 2001 and study with final conclusions completed by March 30, 2001.

**8a4**
**The organization of day surgery at Carpi Hospital (Italy)**

Anne Marie Pietrantonio, Adel Bezer, Giovanni Tonto, Monica Pini

*Public Health Administration at Carpi Hospital, Italy*

In November 1997, the administration of Carpi Hospital approved a project to initiate a day surgery unit of 10 beds in order to improve the efficiency of the surgery area.


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The model used guaranteed the start and finish of the patients' experience in the ward, including pre-surgery evaluation and post-surgery care. Guidelines were elaborated to also guarantee the professional quality of the patients' care.
The aim of this paper is to describe the impact of this project and to show its effects through a comparative analysis of the human resources and the surgical activities carried out in the surgery area before and after the introduction of the unit. Ours results showed many positive advantages created by the new facility.

1. The surgery personnel (4 nurses) was reduced by the elimination of the night shifts; then with the investment of one more doctor the general surgical activity was increased by 25% of operating room hours, from 4.234 to 5.702 h.
2. The day surgery unit allowed more light surgery and left more serious surgery cases to the specialist divisions.
3. Patients admitted to the unit and treated there caused a saving of 2804 days of stay from 1998 to 1999.
4. The benefits for the patients were numerous such as being able to go back to work sooner, being able to have the care and support of the family at home, etc., with the same guarantee of efficacious technical assistance.

CONCLUSIONS: The evaluation carried out confirm the importance of day surgery and in the general process of rationalization of resources, in particular in the surgical area, all this in an atmosphere of patients' satisfaction.

**8a5**
**An efficient nursing care support to assess and follow-up wounds in an ambulatory surgical department**

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INTRODUCTION: Each year our Surgical Policlinic Department of the Geneva University Hospital receives more than 7500 outpatients with wounds. These wounds are mainly of orthopedic, traumatic, plastic or visceral, postsurgical origin. The previous nursing documents offered inadequate written observations to daily wound assessment and follow-up.
AIMS:

- Global:
  - to optimise the quality of the wound evaluation and treatment as well as the follow-up by the introduction of a new written support that corresponds with the ambulatory Surgical Policlinic Department.
- Intermediary:
  - to share a common language and healthcare attitude,
  - to develop the nursing team performances by fixing aims and diagnosis in wound care, and
  - to collect relevant statements and items in order to computerise nursing files.

MEANS: The nursing team created a written document according to its specific needs and adaptable to all types of wounds. Several files were tested with pre-requested items. The final tool has been tried out during 18 months. The present period consists in analysing 100 files in order to evaluate the items as well as the nursing team behaviour.
CONCLUSION: This written tool for wound's follow-up shows up:

- a better follow-up of outpatients, and
- the weak and strong points of nursing statements.

It leads to introducing a new complementary support system (photos).
It helps to modify nursing behaviour. This tool increases the quality of wound care and opens up new fields for research.

**8a6**
**A new approach to references in outpatient care**

Sandy Decosterd, Anne-Christine Nichini, Marc-Claude Marti

*Outpatient clinic surgery, University Hospital, CH-Geneva*

INTRODUCTION: This project was created in the surgical outpatient Department of the University Hospital of Geneva. Over 10 000 patients are received each year in various specialities including visceral, orthopedic, plastic and traumatic surgery.
OBJECTIVES:

- Contribute to the acknowledgement of specific nursing skills.
- Situate the nurse as a "healthcare agent", element of change in the patient's and practician's mentalities.
- Develop the notion of physician–patient partnership.
- Include the professional's "art of being" into the unit reference documents.

METHODS: Creation of a reference book illustrating techniques used for healthcare in our unit, focusing mainly on:

- the objectives of care,
- the quality of care, and
- the patient's understanding of his/her disease to permit him/her to acquire new habits regarding his/her active participation in the treatment and follow-up.

CONCLUSION: In various specialised nursing literature, this specific "art of being" so precious to nurses does not come through. This project enabled to put this knowledge in the limelight. It is also the first written step towards a new nursing identity.

**8a7**
**The reception and care of the child before a planned operation in the child care unit of the children's hospital in Geneva**

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The announcement of an operation, even a minor one, represents great stress for the child and his parents. This can be an uncomfortable and worrying event for the child. In order to prevent the fear and anxiety of an operation, we have introduced into our unit a pre-anaesthetic consultation by the nurse responsible for the care of the child in order to establish and develop a relationship of confidence. At the children's hospital in Geneva, this pre-anaesthetic consultation takes place twice a week in the afternoon. It is organised into two parts. First, the family meets the anaesthetist who examines and checks the child. Then the family is welcomed by the nurse in the unit of ambulatory surgery. This consultation allows the family to meet the nurse who will be looking after the child on the day of surgery as well as to see the surroundings of the unit. The nurse at this consultation offers support and establishes a good relationship with the child. She provides the family with complete and precise explanations, adapted to the age of the child. She explains the events, which will take place during the day and shows a video of this. She emphasis on listening, dialogue and valuing of the child opinion. Care of the parents is also an important point in order to encourage them to participate in the nursing of their child. Thanks to this consultation, the child arrives on the day of surgery, well prepared and able to withstand the experience of hospitalisation under the best conditions and in a peaceful manner.
p.s. After the oral presentation, there is a possibility to view a video in french on the events of a day in the unit of ambulatory surgery, "Au delà de la peur" (13 min).

**8a8**
**Security and comfort: the role of the nurse anaesthetist in ambulatory care**

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INTRODUCTION: Ambulatory patient management assures security and comfort with the possibility for the same day discharge.
AIM: To describe the nurse anaesthetist's role in assuring security, comfort and facilitating the same day discharge.
METHOD: Patient security: The NAs role entails: The verification of materials to be used during the anaesthetic (monitors, anaesthetic delivery machines, intubation material, emergency equipment).
The verification that patients have conformed to medical orders concerning the continuation or omission of medicines, and have fasted from midnight.
Alerting the supervising doctor of any complications during anaesthesia (surgical or anaesthetic), that may modify the discharge plan for the patient.
An evaluation of patient autonomy, and how this has been affected by anaesthesia (walking unaided, eating and drinking without assistance, to have passed urine, and the absence of disorientation).
An evaluation of the ability of the patient to self-administer medications such as anti-coagulants and pain-relief. The verification that the patient is accompanied on discharge by a responsible person. A follow-up telephone calls the day after surgery to quantify patient satisfaction.
PATIENT COMFORT: The NA proposes simple initiatives that can improve patient comfort during local-regional anaesthesia such as background music for relaxation and is attentive to aiming at optimal comfort. Post operatively, the nurse helps the patient inform family members of the exact discharge time and offers a choice of refreshments.
The precautions pertaining to residual anaesthesia from peripheral nerve blocks are carefully explained.
CONCLUSION: The role of the NA entails security, comfort and a continual patient evaluation. Patient compliance with medication, and patient autonomy must be assessed to guarantee a safe discharge. An attentive approach to patient's anxieties allays many of their fears on discharge.

**8a9**
**Pain ratings at home after tonsillectomy – the effects of increased nurse contacts**

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Tonsillectomy and surgery involving the soft palate is known to have a very painful postoperative period. Since 3 yr we are performing adult tonsillectomy as a day surgery procedure at the ENT Department, Danderyd hospital/Karolinska hospital, Stockholm, Sweden. The day surgery procedure has stimulated us to improve a number of aspects concerning the care of these patients while in hospital, but it has also stimulated our concerns about how the patients are doing at home after surgery. To be able to evaluate improvements in our procedures with the purpose to reduce pain at home an instrument to measure pain at home is essential. The purpose of the present study was to evaluate and compare the use of VAS scales and the Melzack scale for measuring pain at home after tonsillectomy. Thirty-five adult patients were included after tonsillectomy or surgery involving the soft palate for ronchopathy. The reliability of the pain scales was evaluated by relating the results to telephone interviews regarding pain experiences. The effect on pain ratings by increased telephone contacts was evaluated by dividing the patients into two groups with a varying number of telephone calls by the responsible nurse. Preliminary results show that both scales could be used to register pain experiences at home as well as the effects of analgesic drugs. They also show that the patient group with increased nurse contacts reported lower average pain scores than the control group.

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# Abstracts of Session 8b

# Free papers on pediatric ambulatory surgery

**8b1**

## Experimental pediatric day-surgery in a general pediatric department

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Insertion of a Pediatric Day-surgery Unit in a General Pediatric Department arises from the lack of a Pediatric Surgery in the mother-childlike SS.Annunziata Hospital from Naples and in the entire ASL Na1, except an Organizational Unit of Pediatric Surgery created in the near Ascalesi Hospital for adults. Aims of this experimentation are: (a) to decongest Pediatric Surgery Centers able to perform "major" pediatric surgery, with possibility of performing "minor" pediatric surgical operations inside; (b) to eliminate the "improper admission" of children in surgical departments for adults, recovering the "escape of patients" toward other Hospitals; (c) to optimize minor pediatric surgical activity assuring continuity in assistance and reducing waiting list for such operations. Our pediatric day-surgery has been realized transferring to the SS.Annunziata Hospital the Pediatric Surgery Organizational Unit of the near Ascalesi Hospital, allocating it in the 1^ Pediatric Dept. There are two general pediatric surgeons and two otorhinolaryngologists operating inside; moreover one ophtalmologist, one orthopedist and one dentist work, at moment, in outpatient's activity. Surgical activity is made alternating use of operating room with the Obstetrical-Gynecolocical Operative Unit. Children are admitted in room dedicated inside the Pediatric Dept. Nurses are those of the Pediatric Dept. In 3 yr (1997–2000) they have been performed 1.798 surgical interventions (nearly three times those performed from Pediatric Surgery Unit at Ascalesi Hospital in 12 yr. Results are equal to the objectives. This model is appliable to all Pediatric Dept. so decentralizing activity of some Pediatric Surgery O.U. for "minor" surgery, leaving few of them for "major" surgery.

Pascotto R., Moscatiello M. – Esperienze di day-surgery in una U.O. di Pediatria Generale. – Atti 8° Congr. Naz. Gruppo di Studio di Pediatria Ospedaliera. OSPEDALE & TERRITORIO 2 (sl), 17, 2000.

**8b2**

## Thirteen years pediatric day surgery, possibilities, limitations

Seine Ekkelkamp

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"Children have not to be hospitalised if the care they need can be given in ambulatory treatment or in the outpatient office." (Statement one of the "Kind en Ziekenhuis – child and hospital – in The Netherlands) Day surgery is defined as: "An operative treatment of diagnostic investigations with local of general anaesthesia including the postoperative period." From 1987 till 1999 we treated 2331 of our patients in day surgery. 1779 Patients were boys, and more than 1300 operations were herniotomy or circumcision. 28% of all operated patients are now operated in day surgery, and the limitation is now lack of facilities. Three aspects play a role in the choice for day surgery: financial, quantitative and qualitative. All these aspects will be discussed. The indications and results of this kind of treatment will be discussed and the results of a questionnaire held with the participants whether they were satisfied with this kind of treatment will be reported.

**8b3**

## Pediatric age day-surgery: our experience with "soft" anesthesia induction

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INTRODUCTION: Surgical procedures in young children can generate a series of collateral undesirable side effects, ranging in seriousness from enuresis to tattering to personality alterations. We have developed an interactive "soft" anesthesia induction protocol, which is allowing us to decrease perioperative stress on the small patient, pharmaceutical load, and consequently post-operative hospitalization.

MATERIALS AND METHODS: From October 1999 until October 2000, we have evaluated the effects of an interactive anesthesia induction on 217 day-surgery pediatric patients, with ages ranging from 3 to 14 yr (average age 8.5; 157 males and 60 females). To be included in the study, patients needed to have, among other factors, a negative history for epilepsy or convulsions, a normal neurological, psychological and motor development and a good family compliance. During preoperative preparation, a doctor from the surgical team attempts to focus the child's attention with cartoon videocassettes or by means of television-based video games, depending on the child's age. During this time, the anesthetist induces sedation and subsequent anesthesia, prior to entrance in the operating room, with minimal child discomfort and stress.

After surgery, the child is fully awakened in the same room where induction was started with the same game and/or cartoon video, and bears no memory of the entire surgical procedure.


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A control group of 53 children (42 males, 11 females, and average age 8.2 yr) has been formed, encompassing children of various ages with the same characteristics, which have however been induced with the conventional method.
All children's families are contacted at regular intervals after surgery to enquire upon post-operative behavioral changes or reminiscence of the period spent in the hospital.
RESULTS: No behavioral post-operative alterations have developed in 87.5% of patients in the study group after three months. However, this percentage was only 53.4% in the control group. 2.5% of patients in the study group have participated to the game although showing late behavioral alterations, while 10.0% have shown clear signs of refusal of game play or cartoon watching.
Surprisingly, most (83.5%) of children interviewed after three months which have undergone "soft" induction actually refer to have lived the hospitalization as a holiday period, and repeatedly have asked their parents whether the "experience" could be repeated in the future.
CONCLUSIONS: Interactive "soft" anesthesia induction seems a reasonable, practical, functional and altogether easily feasible procedure for the treatment of the pediatric day-surgical patient, and shows an unexpected high rate of patient compliance. Results bring us to highlight the importance of game and serenity, even in a hospital setting, as the first approach to surgical distress in the pediatric age.

**8b4**
**Information video for children who are afraid of dental treatment**

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BACKGROUND: Paediatric patients are often admitted to our Unit for dental treatment under general anaesthesia. These patients are usually very apprehensive about their hospital admission. Their fears can be significantly reduced with appropriate preoperative information.
AIM: To produce a video aimed at preparing children for inpatient dental treatment under general anaesthesia.
METHOD: The local ethics committee approved the project and written consent was obtained from the parents of two children, both male, aged 5 and 6 yr. The patients were treated following the usual routines of our unit and a member of the nursing staff filmed their progress.
SUMMARY: At the day surgery unit, we frequently take care of children whom are afraid of dental treatment. These children and their parents may have concerns and fears that are made worse by lack of appropriate information. Therefore, we decided to produce a video about the way we take care of the children and their parents. The video runs through the whole clinical scenario starting with the dental assessment right up to the postoperative follow up call two days later. The film will be used as an adjunct to the information given in the preoperative visit. This video is designed to improve the level of information given to our young patients and their parents enabling them to have a more positive experience in hospital. It is also hoped to be a useful tool for non-Swedish speaking patients and children with language impairment.

**8b5**
**Outpatient laparoscopic appendectomy – a benefit for children**

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After developing the technique of laparoscopic appendectomy (LA) in 1982. I practised this method first in hospital, and since 1988 in out-patient technique.
As the diagnosis of appendicitis is particularly difficult in infants, one can therefore decide in favour of a diagnostic laparoscopy with simultaneous appendectomy in the slightest suspicion of appendicitis. Perforation of the appendix is a typical complication in children with a rate about 35%.
From 1988 until 1999 apart from LA in adults, we performed LA in 20 infants (6 boys, 14 girls aged from 8 to 16 yr); all children were discharged in the afternoon of the same day.
HISTOMORPHOLOGY: Acute, subacute and fresh phlegmonous or ulcerous appendicitis in nine cases and chronic recurrent infection of the appendix in eleven cases. *Complications* occured in two girls: a pelvis-inflammation was cured by drainage and antibiotics in hospital; the second girl with stump-leak one day postoperative had to undergo laparotomy in hospital as well.
CONCLUSION: outpatient laparoscopic appendectomy is a valuable method in pediatric surgery. The procedure is demonstrated by video.

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# Abstracts of Session 8c

# Free papers on hernia surgery

**8c1**

## Ambulatory treatment of primary inguinal hernia: 10 year review

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From January 1992 to October 2000, the authors performed on a total of 1915 abdominal hernia repairs, 1694 primary inguinal hernia repairs on 1562 patients in the Ambulatory Surgery Unit of Policlinico Hospital pad. Beretta Est in Milano. The authors intend to confirm both the reliability of plug and mesh repair and the safeness of ambulatory regimen in the treatment of primary inguinal hernia. Among 1562 patients 1444 were male (92.5%) and 118 were female (17.5%), the mean age was of 56 yr (range 8–89). The surgical approach was to use laparotomic plug and mesh technique (modified Trabucco's technique), in local anaesthesia in 1540 cases (90.9%), in epidural anaesthesia in 22 cases (1.3%) and in general anaesthesia in 132 cases (7.8%). Of the patients that underwent surgery in epidural or general surgery, 141 (92.7%) needed a one-night stay in hospital whereas, 13 (17.3%) had to stay two nights for minor complications (urinary retention, fever). The follow up was performed with two ambulatory visits, one week and six months from surgery and with a telephone call one year from surgery to control hernia repair. The authors reported 51 minor complications (32 seromas, 4 haematomas, 10 skin infections, 5 transient neuralgias), no major complication (postoperative bleeding, infection of prosthetic material) and 6 recurrences (0.4%). Only 65 patients were lost at follow-up. Primary inguinal hernia repair, with plug and mesh technique, local anaesthesia and in ambulatory regimen has been demonstrated to be reliable, safe and well accepted by patients.

**8c2**

## Liechtenstein's hernioplasty in ambulatory surgery

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The present work had the purpose to present an analysis of the inguinal hernioplasty, made in the ambulatory surgery's unit and the degree of satisfaction of the patients, submitted to this surgery.
It was made a retrospective study of 445 patients submitted to Liechtenstein's Hernioplasty, in the period between January 1994 and October 2000.
From these, 420 (94.3%) were male and 25 (5.7%) were female patients, and the average age was 46,5 yr (14–84).
An evaluation was made from the following parameters from each patient: residence, profession, origin, time of waiting for the first consultation, time of waiting for the surgery, pathological antecedents, surgical antecedents of the abdominal wall and distribution through the years.
In relation to the surgical procedure, it was analysed, the type and median duration as also the type of anaesthesia and antibiotic profilaxys used.
On the post-surgery, it was evaluated the medium number of consultations (2.5), the time of follow-up (6 months) and the rate of complications (12%).
The authors present the results of a telephone inquiry (made when the patient had one year of post-surgery), where it was evaluated the presence of complications and the post-surgical pain degree, the inability period for labour, the quality of attendance and the satisfaction degree of the surgical patient.
The conclusions of the study are based on the results obtained, mainly the early and the late complications and the rate of recurrence, that in the present study was of 5 cases (1.12%). The authors conclude that this technique is a good procedure for ambulatory surgery.

**8c3**

## PAD: a new technique for hernia treatment

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INTRODUCTION: a new technique is here proposed for hernia treatment. Two polipropylene layers, differently shaped, are superposed and fixed opposite, on one side only, to allow movement of muscular and aponeurotic structures of the inguinal canal so to avoid dislocation, wrinkles and tension. During the first 24 h the prosthesis are allowed to slide and to find the proper position according to the patient's anatomical situation, protecting the inguinal canal by the separate and different action of the two prosthesis.
MATERIALS: One hundred and ninety two patients with primary inguinal hernia have been subjected to PAD procedure since 1998, in local anesthesia and discharged the same day. None had problem or complications; one case of suppuration required local treatment with removal of the distal tail of the prosthesis with, anyway, no recurrence. No recurrence is actually evident and the use of analgesic was very poor; none patient required major analgesic and the assumption of tablet was mainly within the first 48 h. More than 50% of our series returned to normal day activities and to work within 7 days. The remaining within 8–15 days. None had orchitis or testicular atrophya, 6 patients required needle aspiration for seromas with recovery after 8–10 days, no hematoma.


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CONCLUSIONS: recurrence rate is very low in all technique and does not permit discussion on comparison (although our follow up at 1 and 2 yr on 60 patients, is really interesting, at least in the short time), so new data must be considered in choosing the technique, such as comfort, postoperative period and recovery.
We find that PAD is easy to perform, safe, easy to duplicate and avoids most of the problem related with other operations, giving a comfortable postoperative period with very reduced pain. It is suitable in local anesthesia and Day Surgery regimen. The patients asked were satisfied with their operation. (PAD: protesi autoregolantesi dinamica; self regulating dynamic prosthesis).

**8c4**
**The ambulatory performed open suturless inguinal hernia repair**

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AIM: Our aim was to evaluate the advantages and disadvantages of the ambulatory performed open suturless inguinal hernia repair.
METHODS: In the two last years, we performed 120 open suturless mesh-plug inguinal hernia repairs (1.7% for recurrences) in 120 selected (no high-risk) patients under spinal anesthesia. The suturless procedure was performed by utilizing a plug in addition to a mesh patch, which is placed into the subaponeurotic space. The hydrostatic pressure from both sides of the mesh scal it in place with no need of additional fixation. Thus total absence of tension is achieved. All patients were dismissed 3–6 h after the operation.
RESULT: All patients resumed their normal activities soon, the majority after 7 days. The complications included early superficial infections in 1 (0.8%), seromas in 4 (3.3%) and heamathomas in 7 (5.8%). There were no recurrences noted. Oral analgetics (ketoprofen and tramadol) were used for the first preoperative days.
CONCLUSIONS: The results prove that the ambulatory performed procedure was safe since only a few minor complications occurred and in no case hospitalization was required. It can be regarded as the appropriate choice of repair for selected (no high-risk) patients. Important advantage is also easy and inexpensive performance.

**8c6**
**Day surgery for primary inguinal hernia: personal experience**

Angelo Donati, F. Cardi, G. Brancato, A. Privitera, L. Gandolfo, M. Donati

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The authors report their experience in the treatment of primary inguinal hernias and introduce a modification of Trabucco's repair, which uses one or more plugs and a double layer polypropylene mesh. From January 1994 to May 2000, 1032 operations were carried out for inguinal hernia. 10008 patients received local anaesthesia (97.7%), 3 spinal (0.3%) and only 21 general anaesthesia (2%). The hernial defects were sized according to Gilbert's classification modified by Rutkow and Robbins: type I – 45 (4.4%), type II – 431 (41.8%), type III – 165 (16%), type IV – 156 (15.1%), type V – 20 (1.9%), type VI – 215 (20.8%). A classic Trabucco's repair was performed in 658 cases (63.8%); in the remaining 374, the larger defect required the use of two or more plugs (up to four). The posterior wall was reconstructed over the plugs with a continuous suture encompassing the transversalis fascia and a wing of the plug superiorly and the iliopubic tract inferiorly. The repair was immediately assessed by asking the patient to strain or cough. All patients operated on under local anaesthesia were up and about straightaway, had a meal shortly afterwards and were discharged within one day of operation. The following parameters were used to evaluate the method: analgesic requirements in hospital and at home (560 and 348 patients, 54.2% and 33.7%, respectively), postoperative complications (14 patients, 1.3%), driving and return to work of self-employed patients within five days (316 out of 419 and 107 out of 169 interviewed). During a follow-up of 3 to 74 months, only 2 recurrences have been recorded (0.19%). The proposed technique allows a calibrated reconstruction of the posterior wall associated with minimal pain, quick rehabilitation and early return to unrestricted work.

**8c7**
**Abdominal hernia repair in cirrhotic patients a safe approach in one day surgery**

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INTRODUCTION: The treatment of hernias in cirrhotic patients is a very important topic because of a high rate of hernias among this patients and high complications rate.
PURPOSE: Our aim is to demonstrate that the repair of abdominal wall hernias in cirrhotic patients in one day surgery is a safe approach.

METHODS AND PROCEDURES: Between January 1998 and October 2000, we repaired 22 abdominal wall hernias in these patients (3 incisional, 6 umbilical and 13 inguinal) using various devices to reduce morbidity and mortality. We suggest that the abdominal cavity must not be opened. As prosthetic mesh, we use polypropylene or polyester meshes because of the size of the pores, which seems to be less prone to infections.
We classify the cirrhotic patients by the Child–Pugh classification because the complication rate and the eventual use of adjuvant devices such as human albumin, fibrin sealant (Tissucol®, Immuno, Hyland), platelet concentrate and helasto-compressive bandage depends on the stage of the disease.
We suggest that it is better to perform a antibiotic prophylaxis, which will help to avoid intraoperative contamination. If platelet count is $< 40.000$ and INR $> 2$, we administrate an intravenous platelet concentrate infusion and we spread human fibrin glue in the operative field between the prosthesis and the abdominal wall in the case of umbilical hernia and between the prosthesis and the posterior wall of the inguinal canal. Return home was possible within maximum 24 h after admission.
CONCLUSIONS: We concluded that abdominal wall hernia repair in one day surgery with the use of some adjuvant devices is safe.

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# Free papers of Session 10b

**10b1**

## Breast cancer: prospective assessment of a french cancer institute for ambulatory surgical procedures

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INTRODUCTION: Ambulatory surgery (AS) in oncologic surgery is not yet well developed, in France. The purpose of this study is to show that AS under general anaesthesia for breast cancer is possible in the French social and medical context.
METHODS: From January to December 1999, 625 patients were eligible for AS: Diagnostic Surgery (DS) (Tumorectomy, lumpectomy, nipple surgery) (351 patients) or Therapeutic Surgery (TS) (Wide reexcision, partial mastectomy, with or with out axillary lymph node dissection) (274 patients).
RESULTS: AS were done in 418 patients (67%) and 207 patients (33%) had an In Patient Procedure (IPP). The mean reasons were more social and geographic factors 64% (living alone, personal wish, distance to hospital) than medical factors 16% (age, associated diseases). Conversion rate, in traditional postoperative cares, was 12.4% (DS:10%, TS:16.8%). AS rate was 58.6% (DS:69%, TS:45.3%). The main reasons of conversion were more medical (50%) or social (21%) than surgical factors: 23% (hematoma, superficial scar hemorragia). We had only one readmission during the first nigth (hematoma), and no major postoperative morbidity. Minor complication rate, except axillary seroma, was similar for AS and IPP (6% v 7.7%). The axillary seroma rate, requiring at least one axillary aspiration, was higher in AS than IPP (27.4% v 16.1%).
CONCLUSION: AS is a good alternative for IPP in breast surgery. This study outlines the feasibility of AS in France. More medical information to the patients and to the physician is needed to increase AS in France. Quality of life and patients satisfaction rate should also be evaluated.
*Keywords:* Ambulatory surgery; Breast surgery; Breast carcinoma

**10b2**

## Clinical research in ambulatory surgical removal of breast neoplastic recurrence

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Fourty four patients who presented recurrence after radical surgical therapy of breast cancer are examined. The recurrence is ambulatory exceeded and receptor determination measured in f.mol/ml; receptor phenotypes ($ER+PR+$, $ER-PR+$, $ER+PR-$, $ER-PR-$), the oestrogenic progestinic ratio, the grading correlated to the oestrogenic positive or negative receptors, are valued. The data are compared with an other group of patients, screened at the I stage and operated in hospitalization. The results show a different receptor percentage in recurrence of $ER+PR+$, $ER-PR-$, an increase of $ER+PR-$phenotype. The recurrence appears more frequently when the lesion at the first operation has an advanced stage, and when radiotherapy has not been included. The grade shows, in recurrence, a greater number of indifferentiated cells and a reduction of $ER+$. The oestrogenic progestinic ratio is significantly increased (12.7), $P < 0.01$, in recurrence, compared to the I stage (4.44). The cause of recurrence is due to neoplastic embolism, documented histologically. The recurrence does not necessarily indicate a poor prognosis, because the survival rates after 2 yr is 67% of the cases, treated by ambulatory excision and complementary therapy. This represents a useful model of tumour treatment and research in ambulatory surgery.

**10b3**

## Single stage breast reconstruction in day surgery

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For many years now procedures such as breast augmentation and subcutaneous mastectomy have been successfully performed as day surgery. Single stage breast reconstruction can be performed by a number of methods utilising the transfer of autologous tissue from the abdomen and back with or without the use of breast prostheses. These procedures are lengthy and involve the use of free or pedalled flaps. They are therefore unsuitable to be performed in a day surgery setting. A simple and most effective form of breast reconstruction involves the insertion of a combined silicone and saline tissue expander with a remote filling port. This tissue expander becomes the definitive reconstructive prosthesis and a secondary procedure is not required. This paper details the clinical efficacy of such a prosthesis in both simultaneous and delayed breast reconstruction following mastectomy. Because of the reduced operating time involved, these cases are ideally performed as day surgery.

**10b4**

## Ambulatory procedure for breast surgery: post-operative cares and patients' satisfaction, assessment of a French cancer institute

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PII: S0966-6532(01)00096-8

INTRODUCTION: The purpose of this study is the assessment of breast surgery in ambulatory procedure: patient satisfaction index, management of post-operative symptoms and cares at home.
METHODS: From January to December 2000, we give a questionnaire to all the women who had an ambulatory procedure. We get it back the day of post-operative consultation (7 days later). In this form, we ash for assessment about the information received, the state of health at the discharge from hospital during the first night and the first week. All the items was quantified, from 1 to 10 (1: none or very bad, 10: maximum or very good]. We done an average value [av] of these items. In final, we ask an overall satisfaction Index.
PRELIMINARY Results: We operated 236 women, average age: 50 yr [17–76]. We had 198 answers. The participation rate was 83.9%.

- *Informations:* Before surgery: av = 9.15. After surgery by nurse: av = 9.33. By surgeon: av = 8.90, Written instructions: av = 9.20.
- *Ambulatory procedure organization:* av = 9.25.
- *State of health at the discharge from hospital:* Tiredness: av = 4.66; Pain: av = 2.62; Anxiety: av = 2.35; Nausea-vomiting: av = 1.61.
- *State of health during first night:* Breast Pain: av = 3.26; Axillary pain: av = 2.4; Antalgic: 60.6% patients [mean quantity: 2.9]; Nausea: 14.1%; Vomiting: 7%; Quality of sleeping: av: 6.71; Phone to their General Physician: 1.5%; Phone to the ambulatory department: l.5%; Readmission during the night: 0%.
- *State of health during first week:* Breast pain: av = 3.30; Axillary pain: av = 2.56; Antalgic: 49.5% [mean quantity: 6.5 day]; Phone to their general physician: 14.1%; Telephone to the ambulatory department: 7.5%.
- *Overall assessment:* Satisfaction index: av = 8.94/10; Choose again ambulatory procedure: yes = 89.9% patients; Recommend ambulatory procedure for breast surgery: yes = 86.3% patients.

CONCLUSION: Ambulatory procedure is appreciated by the women for breast surgery. The patients' and the General physicians' information is very important for the management of the post-operative symptoms and cares at home. It is avoided too much telephone calls and the readmission during the first night.

*Keywords*: Ambulatory surgery; Breast surgery; Satisfaction assessment

**10b5**
**Infection rates in ambulatory gynaecological surgery**

Jost Brökelmann

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Since 1990 every patient of our free-standing unit receives a questionnaire regarding postoperative complications. In the average 62% of all patients, return the questionnaire. In addition, regular consultations take place with the gynaecologists who are in charge of postoperative care. Thus, we have a fairly good overview on complication rates after ambulatory surgery.
Between 1993 and 1999 ambulatory surgery was performed on 7456 gynaecological patients. The spectrum ranged from curettage to hysterectomy and axillary lymphonodectomy. After leaving the day clinic, patients and doctors reported an average complication rate for all surgical procedures of 0.64%. Infectious complication rates were 0.38% and wound infection rates were less than 0.1%. In 3 out of 7 yr including the last two ones no wound infection whatsoever was reported.
In 1994 seven gynaecological day clinics including the one in Bonn performed a multicenter study to assess complication rates after laparoscopy (Hennefründ et al., Zentralbl. Gynäkol 118 [1996] 113–116). In 1474 patients wound infection rates averaged 4% with a low of 0% and a high of 9.3% in different centres according to patient questionnaires. There was no detectable difference in wound infections in relation to surgical procedures but there was a statistical significant difference between the different surgical centers.
Whether wound infections are mainly due to nosocomial infections or to surgical skills will be discussed on presentation.

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# Abstracts of Session 10c

# Poster session

**P1c**

**Is excision of the hernia sac needed in laparoscopic repair of indirect inguinal hernia?**

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In the laparoscopic repair of indirect inguinal hernia, hernia sac is partially or completely excised in general.
From September 1997 to September 2000, laparoscopic TAPP hernioplasty have been performed for 30 consecutive patients with indirect inguinal hernia. In the first six cases, hernia sac was partially or completely excised. In the other 24 cases, hernia sac was incised but not excised. For this report the incidence of morbidity rate, recurrence and mean operative time in non-randomized consecutive patients following laparoscopic hernia repair of indirect inguinal hernia with and without excision of the hernia sac was compared.

| Results | Sac excised (partially or completely) | Sac not excised |
|---|---|---|
| Patients | 6 | 24 |
| Mean age (yr) | 38.4 | 37.6 |
| Mean operative time (min) | 128 | 68 |
| Subcutaneous amphsema | 1 (16.6%) | 0 |
| Seroma | 4 (66.6%) | 0 |
| Urinary retention | 1 (12.5%) | 3(50%) |
| Testicular discomfort | 1 (l6.6%) | 0 |
| Mean duration of hospital | | |
| Stay (days) | 1.1 | 0.6 |
| Recurrence (2–36 months in follow-up period) | 1(NS) | 0 |

In spite of the fact that there had been a recurrence in one of the cases (NS, Fisher's exact test) in the group in which hernia sac was not excised; the operation period and morbidity rate was relatively less ($P < 0.05$) in this group.

**P2c**

**Day surgery surgical hernia treatment and color-Duplex follow-up**

A De Martino, O Botta, W Testi, M Belcastro, FM Consigho, A Coratti

INTRODUCTION: The Authors describe a surgical variant of the modified Lichtenstein procedure, designed to maximally reduce the possibility for recurrency. The technique is based on the use of a polypropylene plug and mesh.
The work proceeds in the description, by means of color-Duplex imaging techniques, of the behavior of the prosthetic pillow-shaped plug and mesh with a 36-month follow-up of 50 patients who underwent surgical intervention with this procedure.
MATERIALS AND METHODS: In the 50 cases treated, we positioned a polypropylene pillow-shaped plug and a boat-shaped mesh on the internal oblique and transverse muscle and on the fascia trasversalis, 2 cm medially from the pubic tuberde and 4 cm laterally from the internal orifice of the inguinal canal. The mesh is securely anchored by a continuous suture.
Prosthetic positioning is confirmed by color-Duplex imaging which allowed us both to evaluate dimensional variations correlating to prosthetic connective tissue infiltration, and to verify correct prosthetic positioning compared to funicle and spermatic vessels.
RESULTS: From this study, we have observed that in the first post-operative day it is not possible to demonstrate either plug or mesh due to tissue edema. From the second week until 3–4 months both prostheses are well definable, while after this period they progressively less noticeable. This is due to fibroblastic tissue infiltration within the mesh network, which does not allow us to distinguish the synthetic structures that are encompassed in the surrounding tissue structures, all in favour of an increase local resistance to abdominal pressure.
CONCLUSION: The 36 month follow-up by means of color-Duplex imaging in the 50 patients who underwent this surgical procedure has allowed us to draw the following conclusions:

1. Total lack of early or late post-operative complications;
2. No recurrency at 36 months
3. Optimal fibroblast behavior in including the pillow-shaped polypropylene plug.

**P3c**

**Mesh plug hernioplasty: outcome indicators in the day surgery setting**

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OBJECTIVE: To assess the complications and quality indicators of the mesh plug technique.
METHODS: Over a three years period (1997–2000), we operated on 1115 inguinal hernia patients. 983 unilateral hernias and 132 bilateral. The mean age was 50.9 yr (range 17–89 yr) and the mean weight 74.7 kg (40–108). 1121 were men and 94 women. The anaesthetic ASA


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risk was 321 ASA I, 682 ASA II and 112 ASA III well compensated. Local anaesthesia with sedation was the standard anaesthesia technique in 982 of the patients. 1129 (90.5%) cases were primary hernias and 118 (9.5%) recurrent hernias. Surgeons and residents used the Perfix® plug. All the operations were performed at the day surgery unit. The patients are given appointments for one week, four weeks and one year later for clinical examination.
RESULTS: 1046 (93.8%) patients left the day unit within 4–6 h after surgery. The unplanned admission rate was 3.4% and 6.2% were previously planned with overnight stay. Immediate morbidity was 1.1%; the attendance rate to the emergency department was 1.1% and 6 patients need postoperative wound examination for bleeding. The one-month complication rate was 7.4%. The overall recurrence rate was 0.72%. The follow-up rate was 88.4% at one month and 64% in the first year.
CONCLUSIONS: The mesh plug technique is a safe and effective procedure highly suitable for most patients as day cases. The results are reproducible by the average surgeon. The standardisation of the anaesthesia-surgical technique improve the quality of care provided.

**P4c**
**Varicocele persistance aferr tauber's antegrade sclerotherapy – three years of experience**

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Tauber recently described the technique for varicocele antegrade sclerotherapy. The aim of this study was to present our experience with varicocele antegrade sclerotherapy.
120 dispermic patients with idiopathic varicocele were studied. Ten of this were secondary procedure after failed previous treatments done with different techniques. Preoperatively, all the patients underwent C.W. Doppler ultrasounds of the spermatic cord and semen analysis (by the same operator employing WHO Laboratory Manual 1992). All patients received a questionnaire assessing postoperative pain, satisfaction degree of the surgical procedure and resumption of normal activities. All the patients underwent a physical and a Doppler examination 1 week after the surgical procedure to evaluate the persistence of spermatic reflux.
We observed 8 reflux persistences (6,6%), all recurrence occurred in the group of patients undergoing primary treatment, while no persistence was observed after secondary treatment: 1 in grade I and type I, 3 of grade III and type I and 2 of grade III and type III. Average length of procedure was 25 min (max. 45 and min 10 min). Postoperative pain was low (0.7 in a scale 0–3) and the satisfaction index was high (24 in a scale 0–30); the average time for full recovery was 4 days. There was only a major complication: chemical orchitis caused by the sclerosing agent for a technical mistake.
In our experience, Tauber's antegrade scierotherapy is a safe technique. It is a short length procedure and causes minimal pain, high satisfaction indices and has low recurrence rate

**P5c**
**Outpatient treatment of condyloma acuminatum**

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The list of sexually transmitted diseases is lengthy, and among the many conditions condyloma acuminatum stands out and is worthy of separate consideration. Indeed, it has been considered the most common anorectal infection affecting homosexual men. It frequently causes emotional distress to patient and physician alike because of its marked tendency to recurrence. Condyloma acuminata occur more often in immunodepressed patients than in others. Condyloma acuminata continues to be a significant health problem, with 1 million new cases seen yearly. The presence of condyloma acuminatum mandates treatment. Many methods of treating condylomata has been employed, all with a high incidence of recurrence. At the I Surgical Clinic, University of Turin, from September 1999 to October 2000, 84 patients (pts.) (50 M/34 F) were treated surgically for anal condyloma acuminatum. Their mean age was 36 yr. 81 pts. were treated as an outpatient procedure; while 3 pts (1 drug addict and 2 HIV pts. with a complete anal substitution by lesions) were submitted to surgery in operating room. Associated sexually transmitted diseases were HIV in 5 pts, HBV or HCV in 4 pts and a soft ulcer in 1 case. Regarding sexual habits, we observed 67 eterosexual pts.; 15 homosexual and 2 bisexuals. In 20 pts. was performed a prior treatment (medical in 6 and surgical in 14). Symptoms were pruritus in 62 pts; bleeding in 39 pts.; rarely itching, anal wetness was observed. The localization of condiloma was perianal in 74 pts; endoanal in 46 pts and associated genital in 18 pts. Patients were treated with diathermocoagulation in 30 cases and with a complete surgical excision in 54 cases. 81 pts (96.5%), as referred were treated as outpatient procedure. In 2 cases of these was necessary a two step procedure for a complete substitution of anal canal by lesions. We observed 1 postop, hemorrhage. No others complications were observed. Regarding recurrences, we observed 6 recurrences after DTC (20%) and 12 after surgical excision (22%). In conclusion, we consider the outpatient surgical treatment of condilomata feasible and radical. It permits an early therapy without the major problems of an admission to the hospital with the risk of transmission between patients.

**P6c**
**Report of 100 cases with proctological pathology in night staying patients**

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The present work had the purpose to demonstrate the case analysis of 100 patients with Proctological Pathology (Haemorrhoids, Fissures and Fistulas), operated during the year 2000, in the regimen of a night stay in the hospital.
An evaluation was made from the following parameters from each patient: sex, age, residence, profession, origin, time of waiting for the first consultation, time of waiting for the surgery, pathological antecedents, surgical antecedents, time and type of symptoms, and degree of work missing.In terms of surgical procedure, it was analysed the type and median duration as well as the type of anaesthesia used.
On the post-surgery, the main complications and the degree of pain referred by the patient were analysed.
All patients were discharged from the hospital the morning after the surgery and no major problems were referred.
The number of consultations, time of follow-up and the rate of complications were also analysed.
The authors present the results of a telephone inquiry where it was evaluated the presence of complications and the post-surgical pain degree, the inability period for labour, the quality of attendance and the satisfaction degree of the surgical patient.
The conclusions of the study are based on the results obtained, mainly the early and late complications and the rate of recurrence.

**P7c**
**Gynaecological ambulatory surgery unit: results**

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1974 surgical procedures took place in our Gynaecology Service from July 1994, date of our Gynaecological Ambulatory Surgery establishment, until 2000. 1280 of them were with hospital admittance (65%). 568 in the Ambulatory Surgery Unit, and 126 in minor surgery (6%). During this period of time, we made the 8% of the 6941 procedures developed in the Hospital General Ambulatory Surgery Unit.
Our most frequent procedures were histeroscopy (203, 35%), laparoscopy (133, 35%), breast surgery (98, 17%), diathermic loop (45, 8%) and vulvar tumors (31, 5%). Quality control was made by satisfaction questionnaire, reception of phone calls (72, 13%), annulations (3, 0.5%), admittance (22, 4%), and re-admittance 4(0.7%). We have increased from 11% up to 40% of Ambulatory Surgery in our procedures, without any change in the complexity of our surgery. This fact has caused a significant decrease in the hospitalisation rate, so our waiting list for gynecological surgery has also decreased, and our productivity has increased.

**P8c**
**The gynecological ambulatory surgery in Catalonia**

P Deulofeu, JF Garrido, J Sentis, M Palau, JA Mulá, JP Polo, F Sanfeliú, E Genover

*The Workgroup in Ambulatory from The Catalonian Obstetrics and Gonaecology Society*

In November 1998, the Workgroup in Ambulatory Surgery stared to work, supported by The Catalonian Obstetrics and Gynaecology Society. Our objectives were (1) to know the real situation of this surgical procedure in Barcelona; (2) to define concepts and to establish protocols; (3) to show these activities and to try to get the figures from all over Catalonia; (4) to extend the objectives to the whole country, asking for the support of the Spanish Obstetrics and Gynaecology Society.
After some meetings with delegates from the four catalonian counties with experience in Ambulatory Surgery, we were able to offer all the statistic figures in our community, with 6.12 million people and 67 hospitals studied. We realized that 44 hospitals were performing Ambulatory Surgery (66%), and 27 Gynaecological Ambulatory Surgery (40%), and it was also practised in 5 private centers. Further conclusions are exposed in our communication.

**P9c**
**Use of various concentrations for low doses of prilocaine in ambulatory proctology and surgery of the perineum**

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Ambulatory surgery for proctology requires deep intra-operative anesthesia and post-operative pain control as well as prompt recovery. Dural block with prilocaine is a good choice as its pharmacological characteristics make it an effective and easy drug to use.
Sixty patients undergoing ambulatory proctological and perineum surgery were divided into two groups:
Group I: Dural block with 25 mg prilocaine 2% + local infiltration.
Group II: Dural block with 25 mg prilocaine 5% + local infiltration.
Dural puncture was performed on the sitting position between L5 and S1 and this position was maintained for five minutes. Later, the patient was placed on the neutral lithotomy position.
Demographic variables and hemodynamic changes were studied as well as the level of motor and sensorial block, when the first analgesic was given, when motor activity functions returned, when the patients could walk, when he has discharged as well as patient satisfaction during the whole process, was recorded.
There was no significant difference between the two groups although group I showed earlier return of motor functions standing with help during the immediate post-operative period) and a higher degree of comfort, probably because motor block is less intense in this group. Both techniques are useful in certain procedures and hospital stay was always under 5 h.

**P10c**
**Gynecologic procedures in ambulatory surgery units. Results of a multicentral survey in Catalunya (Spain)**

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A survey was sent to all private centers in the province of Barcelona that had a gynaecological department. We asked which centers had ambulatory units and which gynecologic procedures were performed. 23 of 43 centers province of BCN informed that they had AS Unit, but only 12 gave details of each procedure. Not all units began in the same year, the first was Viladecans Hospital in 1990, and 15 of 23 opened between 1997 and 1999. We only considered the procedures that had been performed since 1997 in the 12 centers whom had completed the dates. Between 1997 and 1999, 4202 gynaecological surgical procedures were done: Breast excision of fibroadenomas, tumorectomies, exc of papilomas(445)//Vulva-Vagina:excision of nodules, vaginal septum, vulvar fistula, Bartholin cyst(313)//Cone byopsi of the cervix (diatermic handle,cold knife,..)(465)//SurgicalHisteroscopy:polipectomy, myomectomy, endometrial ablation, asherman syndrome (1167)//Obstetric curettage, dilatation and curettage(267)//Diagnostic lanaroscopy (195V//Tubal sterelization by laparoscopy (1010)//Major laparoscopy surgery (cystectomies, ooforectomies,..)(340). Also, we evaluated the results of Tarragona Lleida and Girona. Ambulatory surgery is a well accepted procedure for a great number of gynecologic procedures without an increase of surgical morbidity.

**P11c**
**The economical advantage of outpatient versus inpatient for laparoscopic sterilisation**

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INTRODUCTION: One of the reasons for the development and the success of Ambulatory Surgery all over the world is the economical

impact of day surgery in the Health Care System. The aim of this study is to evaluate the costs of both outpatient and inpatient laparoscopic sterilisation, and to establish the cost difference between the two systems.
METHODS: The laparoscopic sterilisation is still a surgery done at our hospital as an ordinary hospitalisation in patients that could have been selected for day basis procedure. This prospective study included 24 patients, ASA I, proposed for that surgery. They were assigned to two groups, 12 patients each, according to the system used: day surgery (DS) basis versus ordinary hospitalisation (OH). All the direct costs were estimated, mean surgical time were recorded and comparisons with the values established by the Portugnese Financial Health System for these DRG (Diagnosis Related Groups) were made.
RESULTS: All patients were submitted to the surgery proposed by similar general anaesthesia. No major complications were recorded. All patients of the group DS went home on the same day of surgery. None of them needed to be admitted or readmitted during the 30 days after surgery. One patient of the group OH had to wait 4 days for the surgery owing to problems on the surgical schedule. None had to be readmitted. The values are in Euros.

| Group | Mean surgical time (min) | Mean stay (days) | Total cost (A) | DRG price (B) | (B)–(A) |
|---|---|---|---|---|---|
| DS | 26,75[a] | 1.0 | 35781 | 64844 | +29063 |
| OH | 45,42 | 2.8 | 951,03 | 918,79 | −32,24 |

[a] $P < 0.001$ (Mann–Whitney test).At our hospital, the cost savings of laparoscopic sterilisation when done as a DS are greater than 35% when compared to OH.
CONCLUSIONS: Besides other advantages, there is no doubt from our study that there are significant economical benefits when DS is developed more efficiency (less surgical time statistically significant) and total costs savings.

**P12c**
**Duration of hospitalisation in laparoscopic splenectomy: 1 day**

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When splenectomy was applied laparoscopically the patient is comfortable postoperatively, especially the duration of hospitalisation is short. This study was done and evaluated in 13 patients who have gone through laparoscopic splenectomy between the dates of March 1998 and November 2000. Nine of the patients were female, 4 were male and the average age was 38.8 (19–60). The rate of conversion was 25% (3/12) and the reasons for this is our coming across with 2 patients with massive splenomegaly bleeding, in 1 patient undetermined splenic artery aneurism in ultrasonography preoperatively.
In cases that have gone through laparoscopic splenectomy the spleen pathology; in 7 cases had ITP, in 1 case spleen hemangioma, in one case spleen cyst. In 2 patients with ITP accessory spleens determined and excised. The average spleen weight was 139 g (62–182 g), the duration of surgery was 106 min (90–240 min). In the fist 3 cases average 1.75 units (1–2 units) of blood transfusion was done. In the last 6 cases blood transfusion was unnecessary. The average hospitalisation period was 2.3 days (1–4 days), the hospitalisation period of the last 2 patients was 1 day. The benefit of the patients with ITP from splenectomy was found as 85.7% (1/7).
We belive that because the hospitalisation duration in laparoscopic splenectomy is short and the postoperative comfort of patients is good, it should be preferred to open surgery in suitable cases.

**P13c**
**VAS pain ratings at home after paediatric tonsillectomy**

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Tonsillectomy is known to have a very painful postoperative period. Since 4 yr, we are performing tonsillectomy in children as a day surgery procedure at the ENT department, Danderyds hospita1/Karolinska hospital, Stockholm, Sweden. The day surgery procedure has stimulated us to improve the care of these children while in hospital, but it has also stimulated our concerns about how the children are doing at home after surgery. To be able to evaluate with the purpose to reduce pain at home an instrument to measure pain at home is essential. The purpose of the present study was to evaluate the use of pain evaluation scales in at home after tonsillectomy. Two types of scales were used; one with faces for children 3–7 yr old, and a VAS scale with numbers for older children. 18 children were included. Pain was measured 3 times daily with one measurement before taking an analgesic drug and one measurement 1 h later. Additionally, a questionnaire including questions about i.e. eating, drinking and playing activities was completed daily by the parents. Questionnaires and pain evaluation scales were returned at a postoperative control visit 8–10 days after surgery when children and parents were also interviewed by the responsible nurse. The reliability of the pain scale results was evaluated by comparing it with the information obtained from the questionnaires and interviews. Preliminary results show that pain scales for children are a useful tool for measuring their experience of pain at home after tonsillectomy, that they give a reliable information of the effects of analgesic drugs and that a simplified protocol with only one measurement daily gives sufficient information.

**P14c**
**Tonsillectomy in day-surgery using bipolar diathermy scissors**

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To facilitate the recovery of patients after tonsillectomy in a day surgery unit short operation time, limited blood loss and small risk for primary postoperative hemorrhages are of great value. In 1998, bipolar diathermy scissors was introduced at the ENT Department, Danderyds hospital as a new technique for tonsillectomy in order to simplify the surgical procedure, joining two mechanisms, diathermy and scissors into one instrument to reduce time of surgery and to reduce per-operative hemorrhage. Since then more than 800 tonsillectomies has been performed using this technique, including both children and adult patients. In this retrospective study operating time and intraoperative bleeding was compared in groups of patients after tonsillectomy using bipolar diathermy scissors and after tonsillectomy using conventional technique at the same unit. The patients included in this study were three groups of children from 3 to 12 yr of age and one group of adult patients. Either tonsillectomy (T) or tonsillectomy and adenoidectomy (TIA) were performed. The results show a significant decrease in operating time as well as peroperative hemorrhages and a very low frequency of primary hemorrhages.

**P15c**
**Anesthesiology evaluation in saphenous vein stripping: intraoperative and postoperative complications**

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The lower extremity revascularization is an important part of the ambulatory surgery (AS). This surgery represents the 3.7% of AS programs in our hospital. The aim of this study was the descriptive analysis of anesthetic techniques and the intra and postoperative complications in 76 cases of saphenous vein stripping. METHODS: A 4 yr retrospective study was made. The statistical data analysis was performed with Statview 5.0 sofware. *Results:* The distribution of the patients was as follows: 13 were male (6.6%) and 63 women (83.3%) aged 49,5 $\pm$ 13,7 yr. ASA risk was: ASA I 58 patients (76, 36%), ASA II 16 (21, 5%) and ASA III 2 (2, 63%). The anesthetic techniques used were: 3 cases with epidural anaesthesia (3, 95%), 6 (7, 89%) general anaesthesia, 31(40, 7%) spinal anaesthesia and 36 (47, 3%) monitored anaesthesia care with sedation. Maintenance anesthetic drugs were: Bupivacaine in 28 patients, Mepivacine in 37,
Lidocaine in 4, Prilocaine in 1, Propofol in 1, Sevofluorane in 2, Desfluorane in 1 and Forane in 2.
Abstracts should contain no more than 300 words, including title, autor(s), country. Only a case of severe hypotension were detected such as intraoperative complications. The postoperative complications were: urinary retention in 2 patients (2, 7%) and local hematoma in surgical site in 2 patients (2, 7%). CONCLUSIONS: The preoperative selection of patients with venousdisease in AS reduces the number of intra and postoperative Brief description of the methods and procedures complications. The postoperative complications were independent of anesthetic techniques used.

**P16c**
**New instrument for phiebectomy: the saw-knife**

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PURPOSE: This study was designed to evaluate the results of a 25 yr ago introduced form of varicectomy by the saw-knife technique.
PATIENTS and methods: 2976 limbs were operated on with primary or postthrombotic long and short saphenous and perforating vein varicosities displaying saphenofemoral or saphenopopliteal junctional insufficiencies underwent operation in the period of the last 25 yr. 478 limbs had recent or healed crural ulcer. Surgeries were performed with the use of saw-knife phlebectomy in conjunction with intralurninal stripping of greater or lesser saphenous trunks and cross-ectomy. The saw knife consists of three parts: the blade is 3 cm long with saw teeth on one side, the handle is 10 cm long and between the former two parts is a 10 cm long, narrow shaft.
RESULTS: In the 2976 procedures performed, there were in every case suffusions disappearing within 4 weeks and 7% disesthesias diappearing within 3 months. Postoperative morbidity was non-existent, permitting all patients to walk following the disappearance the effect of the anaesthetics. The duration of the operation of a limb was between 25 and 72 (mean 41) min.
CONCLUSIONS: Saw-knife phlebectomy of varicose and incompetent perforating veins is easy and fast to perform and has very encouraging late results. This is an excellent method of varicose vein removal, eliminates the need for many incisions and stiches along the limb, suitable for cosmetic varicectomy in postthrombotic and postphlebitic limbs as well.

**P17c**
**Regional anesthesia in shoulder arthroscopic surgery in day hospital**

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In our institute arthrosoopic orthopaedic surgery is performed exclusively in the operating rooms reserved for day surgery. The evolution of endoscopic techniques and low impact anaesthesiology permit treating shoulder pathologies in a Day Hospital regime. In our DHC da quando é stato aperto nel giugno 1997 al marzo u.s. sono stati effettuati 836 interventi di attrosocpia di spalla. Ii 40% in DH puro ed il 60% in ricovero. In questo 60% sono compresi pz. che vengono da altre regioni, che per patologie associate richiedono monitoraggio per 24h, pz. Con motivi sociali.
II nostro obiettivo flituro é raggiungere l' 80% degli interventi in regime di DH. Per questo é fondamentale la scelta e la preparazione del pz ed il 1°step per raggiungere tale obiettivo é la visita anestesiologica; il 2°step é rappresentato da una stretta collahorazione tra l'equipe chirurgica ed anestesiologica.
La tipologia degli interventi riguarda tutta la patologia della spalla che trovat indicazione nella teenica a cielo chiuso.
L'anestesia di prima scelta é Ia locc-regionale ed in particolare il blocco del plesso brachiale per via interscalenica, il 58% degli interventi e stato eseguito in ALR pura, il 40% in ALR a cut é stata associata'ma sedazione ( + 1 profonda) 1'1.2% AG.
Le complicanze anestesiologiche nel postoperatorlo sono state assenti e solo 6 pz programmati in DH sono PO1 stati ricoverati per motivt ortopedici.
Per il controllo del dolore a domiciho nelle prime 24–48 ore abbiamo messo a punto un protocollo con tramadolo e ketorolac per Os che garantisce un buon controllo antalgico.
Complessivamente abbiamo registrato im alto grado di soddisfazione, sia per il risultato chirurgico che per il trattatnento anestesiologico, convalidato da questionari di soddislizione compilati dai malati
La nostra esperienza Si e' finora rivelata positiva non solo in virtu della teenica chirgica e di'ma corretta selezione del pz ma anche grazie alla stretta collaborazione chirurg anestesista e da un approccio anestesiologico adeguato tale da consentire una minimizzazione degli effetti collaterali e dello stress chirurgico.

**P18c**
**Day case open reconstruction of acromio-clavicular joint dislocation**

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Acromio-clavicular (AC) joint dislocation is typically an injury occurring in young fit patients. Operative repair may be considered in symptomatic grade three injuries. At less than six weeks post injury, an open coraco-clavicular reconstruction may be performed using PDS cord, whilst for later reconstruction this repair is augmented with a coraco-acromial ligament transfer (modified Weaver-Dunne procedure). We proposed that this can be performed on an ambulatory basis. We reviewed fourteen patients who underwent open reconstruction of AC joint dislocation in the Day Surgery Unit of a District General Hospital. In all cases general anaesthesia was supplemented with an interscalene nerve block. Patients were discharged with adequate oral analgesia, and an education sheet. Operative and anaesthetic complications as well as patient satisfaction were assessed. All patients were discharged home uneventfully on the day of surgery.

There were no complications relating to the surgery or anaesthesia and there were no re-admissions for pain control. All patients expressed satisfaction with day case management of their injury. Open reconstruction of AC joint dislocation using PDS cord can successfully be performed on an ambulatory basis under general anaesthesia with interscalene nerve block.

**P19c**
**Artroscopic acromionplasty in out-patients by using a modified parascalemc block**

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In 1994, in order to overcome side-effects and complications in traditional Dalens tecnique for the brachial plexus anaesthetic block in our open or arthroscopic shoulder surgery, we perfected a different approch to the plexus modifing the needle directions and contact points for injection of anaesthetic. Aim of the study is to evaluate our prelyminary results in arthroscopic acromionplasty in out-patients by using this anaesthesiologic tecnique.
MATERIALS AND METHODS: The patient is placed in a decubitus supine position with the head turned counterlaterally to the side to be blocked. The cutaneous access point is localized at the meeting-pont of a straight line between the lower margin of the cricoid cartilage and the Chassignac tuberde with the lateral margin of the strnocleidomastoid muscle. A Teflon needle of 25 G, length 35 mm, connected to elecrostimuletors, is inserted at an angle of 150 in respect of the cutaneos surface and directed towards the third medium of the clavicle. We locate the clones in the antero-medial section of the shoulder at the depth of 20 mm. The needle is then directed laterally to find the clones in the posterolateral section and those relating to the sovrascapular nerve, outside of the plexus sheath, but affecting the shoulder innervation. 5 ml. of ananaesthetic mixture (bupivacaina and mepivacaina), are injected for each of the clones located. During the operation we monitorized by ECG, blood pressure and p02. We performed more than 100 open or arthroscopic operations. We report here only the arthroscopic acromionplasties.
RESULTS: All the patients were evaluated by using the U.C.L.A. shoulder rating scale, before surgery and at the last clinical evaluation (mean follow-up: 22,4 months), we obtain the 88% of excellent or good result. Furthermore, we assessed the patients with an anaesthesiological chart, classifing the results and the complications. From a subjective point of view, they were contacted, again, to fill a thelephonic questionaire in order anaesthesiological and surgical compliance.
CONCLUSIONS: Our experience with parascalenic block has provided us with further procedures, which permits a more reliable approach in shoulder surgery. Our results have encouraged us to keep on treating patients by day surgery.

**P20c**
**Day case thyroid surgery: safe, feasible, and appropriate in selected cases**

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INTRODUCTION: Although many operations are increasingly performed as day cases, thyroid surgery has traditionally been considered an in-patient procedure in order to reduce potential morbidity and mortality arising from complications such as airway obstruction, haemorrhage, and hypocalcaemia.
PURPOSE of paper: This pilot study was designed to assess the safety and feasibility of thyroidectomy with discharge of the patient the same day, and with a view to performing a larger prospective study at a later stage to further assess cost savings.
METHODS AND PROCEDURES: Eight patients were prospectively selected for day surgery, according to patient age, anticipated operation, absence of significant co-morbidity, and presence of appropriate social and home circumstances. All operations were carried out under general anaesthesia by one surgeon with an endocrine interest between July 1998 and June 2000. All procedures were carried out in the day unit before midday, and each patient was required to remain in the department for six hours post-operatively. Patients were reviewed by the surgeon in person prior to discharge from hospital, and again routinely four weeks after surgery.
RESULTS AND CONCLUSION: All eight operations scheduled for day surgery were successfully accomplished without the need for overnight admission to hospital. There were no deaths and no complications, either immediately following surgery, or at review four weeks after surgery. All patients reported satisfaction with having their operation performed as a day case procedure. We conclude that day case thyroid surgery is safe, feasible, and appropriate in selected cases, and, in view of reduced overnight occupancy of hospital beds, also likely to present significant hospital cost savings.

**P21c**
**Optimising pain relief following oral day case surgery**

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INTRODUCTION: Surgical removal of impacted third molar teeth results in post-operative pain and swelling, sometimes with severe discomfort and significant patient morbidity, complicating successful ambulatory surgery.
METHODS: 50 adult patients attending for bilateral mandibular third molar removal under day case general anaesthesia were therefore recruited into a pilot study to characterise the effectiveness of different post-operative analgesic regimes.
Following standardised anaesthetic and surgical protocols, patients were randomised into 5 different study groups Group 1 received both pre-op Voltarol and pre-op LA block, Group 2 pre-op LA + post-op Voltarol, Group 3 post-op LA + post-op Voltarol, Group 4 post-op LA only, and Group 5 pre-op Voltarol only.
Visual Analogue Scale (VAS) pain scores and lip numbness scores (to confirm LA efficacy) were recorded pre-operatively (baseline) and at 30 minute intervals for 2 h post-surgery, as was the use of and time to first dose of available'escape analgesia'. A 24-h post-operative pain score was assessed by telephone.
RESULTS AND CONCLUSIONS: Results will be presented to illustrate the sequential VAS pain scores, and the requirements for 'escape analgesia' in each group, thus comparing the efficacy of the 5 different analgesic regimes. Recommendations will be made regarding the 'best choice' analgesic regime for thirrd molar day surgery, as well as suggestions for future research.

**P22c**
**The advantages of a combined pediatric surgical and pediatric day-care clinic: experiences with a new concept in the northwest region of Switzerland**

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The first pediatric day-care clinic was established in Liestal (BL) in

1995. It combines surgical and medical services, which filled a neglected gap between pediatricians, general practitioners and the Children's Hospital. The results have been positive in many respects, especially in terms of the quality of life for the patients, the acceptance and contentment of the parents.
There have been negative aspects that have been encountered since its conception. These include the reimbursement and financial difficulties, which have been imposed by the Health Insurance Companies and Governmental regulations.
More than 60% of today's surgical procedures requiring anesthesia are performed in day-care facilities. These include severe cases involving primary and secondary reconstructive procedures on male genitalia both of which are performed routinely in our Clinic on patients from home and abroad in collaboration with the Children's Hospital of Philadelphia, KTK offers two distinctive medical services: (1) extensive diagnostic examinations collaborating with pediatric surgeons and radiologists; (2) emergency medicine (i.e., infants who require i.v. medications).
The average day-care hours correspond to 1.9 days compared to 5.5 days in pediatric hospitals for the same group of patients.
This type of day-care center would be able to optimize the expenses for medical care provided that it is an integral part of a regional governmental health care plan.
KTK is a novel service for children who would otherwise be hospitalized in a regional Medical facility. Pediatric health care of the future has to be constructed on three pillars: (1) pediatricians and practitioners (2) children's day-care clinics, and (3) university and regional hospitals. A successful integration will provide an optimal model for continuous medical education and clinical research.

**P23c**
**The impact of ambulatory care on the cost and clinical effectiveness of a cataract service**

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BACKGROUND: Current government guidelines in the UK encourage healthcare organisations to explore and implement cataract services that will enhance quality patient care.
AIM: We aim to determine whether moving a cataract service from a main hospital site to an ambulatory centre improved the cost and clinical effectiveness of patient management.
METHOD: In July 1999, the cataract service in a district general hospital was redesigned. Patients referred by their primary care physician to the hospital eye clinic with cataract were seen by an ophthalmologist who confirmed the diagnosis. On the same day patients were seen in the ambulatory centre where pre-operative assessment was conducted and an admission date for surgery was booked. Within the centre patients were exposed to multiskilled nursing staff from pre-operative assessment, through surgery, to discharge. The primary outcome measure was the extra cost incurred in managing patients that stayed overnight following surgery during a 16 month period before (March 1998–June 1999) and after (July 1999–October 2000) reorganisation of cataract service.
RESULTS: Significantly more patients were managed as in-patients following cataract surgery in the main hospital (284/1362; 21%) than in the ambulatory centre (110/1217; 9%) ($x^2 = 69$, df = 1, $P < 0.001$). The total extra cost incurred by treating patients that stayed overnight was £71,852 ($100,593) in the main hospital and £27,830 ($38,962) in the ambulatory centre. Therefore, the extra average cost per patient managed was £53 ($74) in the main hospital and £23 ($32) in the ambulatory centre.
CONCLUSION/DISCUSSION: Our results suggest that changing cataract service practice from a traditional hospital environment to a dedicated ambulatory centre is more cost effective. We suspect that further cost savings have occurred since redesigning the service as more cataract operations are being penformed under topical anaesthesia and the first day post-operative review is omitted for the majority of uncomplicated cataract procedures. The ambulatory centre provided easier access for patients in an environment that had a streamlined care delivery system. We aim to improve our service further by introducing direct booked admissions for patients referred by their optometrist and running dual theatre sessions that would result in increased patient throughput and reduced waiting times for surgery.

**P24c**
**Bone regeneration with β-tricalcium-phosphate (β-TCP). Experience gleaned from 3 years' use of β-TCP in hand- and foot surgery**

Alfred AJ Gruber

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An overview of the problem.
As a synthetic-anorganic compound, β-TCP is a class II bone replacement material. It is a calcium phosphate compound that is completely soluble in organic tissue as β-tricalcium-phosphate. No evidence of side effects such as immunological reactions, giant cell reactions or macrophage formation has so far been reported. In addition to the potential use of bone regeneration in the management of bon tumours an fractures, the possible use of p-TCP (Cerasorb®) in the treatment of cystic bone with inflammatory changes in rheumatoid arthritis is also under discussion.
MATERIALS/METHODS/RESULTS: Citing case examples, the use of β-TCP in patients with inflammatory, rheumatic joint diseases, traumatic patients and patients with bone tumors in hand- and foot surgery is presented. Human histologies show simultaneous bone regeneration with increasing dissolution of β-TCP.
CONCLUSION: β-TCP (Cerasorb®) is suitable for bone regeneration under relatively difficult baseline conditions also in terms of bone structure in patients presenting with rheumatoid arthritis. In this way, additional surgery such as iliac crest osteotomy or bone regeneration with a limited supply of autologous cancellous bone can be prevented.

**P25c**
**Day surgery in neurosurgery – our experience**

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INTRODUCTION: As in other surgical fields, the department of neurosurgery has started day surgery. They proposed to our Day Unit Surgery (DSU) the beginning of lumbar discal hernia and craneoplasty surgery. The aim of our study is to evaluate the quality of these new procedures at our DSU.
METHODS: Besides the anaesthetic criteria for our patient selection, for these surgeries the neurosurgical team select the following situation: (a) acute lumbar discal hernia, non foramina or non-extraforamina, without any other spinal diseases or previous spinal surgery (b) non complex craneoplasty (without orbital or sinus involvement and without dural laceration). In this study we include the entire patient submitted in our DSU for these kind of surgery. The craneoplasty surgery use titanium screws and plats, and for lumbar discal hernia

we use the normal surgical technique. We evaluate the following parameters: postoperative pain, complication (bleeding, nausea/vomiting, new neurological deficits), discharge and readmission. We also ask patient about their satisfaction with day case surgery.

RESULTS: No major complications were recorded and all the patients were discharge home. We only have one readmission (dural fistula). The postoperative pain were equal or below of 3 in VAS. The patients were generally very satisfied.

CONCLUSIONS: In selected patient, by anaesthetic and neurosurgical criteria, the lumbar discal hernia and craneoplasty surgery seems to be adequate as day case surgery.

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# Abstracts of Session 11a

# Teaching and training in ambulatory surgery, patient education

**11a1**

**A French survey of ambulatory surgery. What are the education/teaching needs of general practitioners to improve their participation in healthcare of ambulatory surgery patients?**

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INTRODUCTION: Implication of general practitioners (GPs) in the organisation of ambulatory surgery (AS) remains poor, may be due to insufficient teaching and education. The aims of the study were to define insufficient knowledge of AS and specific teaching needs of GPs to improve their management skills.PATIENTS AND METHODS: A questionnaire including more than 100 items was sent in 1998 to 1709 GPs in the south of France (Gard and Hérault states).RESULTS: Replies were obtained from 388 GPs (22.7%). *Knowledge on AS:* 36.4% of GPs have given a correct and 7.3% a wrong definition of AS. In 27.8% of the cases, the answer was not precise and not interpretable. 28.5% of GPs did not give any definition of AS. 30.6% reported no or only one of the most frequent ambulatory surgical fields, 36.5% only two and 32.9% three or more. 16.8% of the GPs declared to know all ambulatory surgeons in their state, 72.2% only some of them and 10.1% none. 35.7% did not know any ambulatory surgical facility. 14.4% knew one centre and 50.9% two or more. 49.1% estimated to have sufficient training to manage postoperative cares of AS patients, 25.9% not and 25.0% did not know. Anaesthesia was a source of problems for 19.3% of GPS and not for 68.7% (12.0% without opinion). Lack of adequate information of both patients and GPs was reported by 40.3% of GPs as an obstacle to further development of AS. *Teaching and education wishes:* 69.0% wanted specific training on postoperative follow-up, 61.7% on indications and contra-indications for AS and 61.1% on anaesthesia and its postoperative consequences. *Modalities:* Sources of information are waited by GPs: from CME (63.9% of GPs), from immediate postoperative mail (61.1%), from a compendium on AS dedicated to GPs (33.2%) or from specific teaching during medical studies (29.1%).CONCLUSION: Specific teaching is necessary and expected by most of GPs to improve their knowledge and their implication in AS procedures.

**11a2**

**Education of nurses attached to day surgery clinics in Denmark**

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Jane Elgoe
*Horsens Hospital, Denmark*

During the middle of the nineties, day surgery has manifested itself seriously in Denmark.
This development has released a need for education of nurses, working within this field. The supply of literature and education is insignificant in Denmark.
During spring 1998 initiatives were made at Vejle Hospital for planning and supplying a week course for educated nurses, who were working at day surgery, clinics as target group. Still no similar courses are supplied in Denmark.
The inspiration for the elaboration of the course was taken from a course at Kingston University Hospital, England, but was adjusted to Danish culture and the technical skills of Danish nurses.
With the substance of the course we try to cover the entire spectra of the day surgery, such as organization, management and other professional subjects within the nursing area.
Furthermore, the participants get the opportunity of working with relevant subject in small groups, subjects of their special interest and the outcome of the teamwork is presented in different creative ways to all the participants.
The teaching subjects are followed up by a written evaluation from the participants. At the end of the course a personal course certificate is issued.
The admission criteria are defined. The course has been arranged once a year since 1998. The intention of the course is that the participants receive and develop a professional knowledge together with the possibility of building up a social network. This is one of the reasons why the course is held as a boarder course.
The course has plenty applicants, every time it has been over-subscribed showing the unsatisfied need within this area.

**11a3**

**Nurse multiskilling within an ambulatory day surgical unit**

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BACKGROUND/AIM: An ambulatory care and diagnostic centre was developed to improve the delivery of healthcare to a large urban community. In our endeavour to develop a seamless service for our patients, we describe how multiskilling of nurses can be achieved and the impact this had on the ambulatory day surgical unit.METHOD: Forty-eight registered general nurses entered into a training programme that encompassed care skills in four core areas: pre-operative assessment, theatre, anaesthetics, and recovery. In addition, nurses were trained to enter data into a computer programme designed to monitor the progress of patients from admission to discharge. Structured in-house training included weekly tutorials, written assignments, and supervised practical experience. An average of 3 months


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was spent in each of the four areas. At every stage of the training programme there was assessment by an accredited educator.RESULTS: All staff that had entered the training programme was generally satisfied. There were no adverse patient outcomes. This model of surgical care delivery was beneficial for four main reasons:

- continuity of care occurred as the patient was not exposed to a variety of different healthcare professionals,
- increased throughput of patients occurred as trained nurses were able to perform all elements of healthcare in the four core area,
- cross-cover of work was more easily arranged for leave and absenteeism, and
- broader staff nurse knowledge and skills enhanced team cohesiveness.

CONCLUSION: A wider perspective of nursing roles characterised by multiskilling is more likely to provide a streamlined delivery of care for the patient in a day surgical unit. High quality training programmes are required to prepare nurse professionals for their adapted role. To ensure maintenance of high standards that are recognised nationally, our training programme will receive external accredited validation.

**11a4**
**Resident training programs and ambulatory surgery**

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Anesthesia and surgery residents need to be prepared in ambulatory surgery in order to develop the aims of managed care. It has been demonstrated that ambulatory surgery units can be used for teaching purposes without altering their traditional efficient use of time. However, there are few hospitals where learning ambulatory surgery is possible with structured programs.

The aim of this paper is to find out if residents are being correctly prepared in ambulatory surgery.

A questionnaire with 25 scaled close-ended items was sent to 114 anesthesia and surgery residents in Aragón, a Spanish region with 1 200 000 inhabitants. Five different areas were analyzed: knowledge about day surgery, day surgery in Spain, day surgery in their hospital, teaching in ambulatory setting and ambulatory surgery training programs. Qualitative data were registered in a database using 5.1 Stat View program. Answers were transformed into scores in order to obtain a better statistical treatment.

A total of 38 residents responded (33%). There were not any statistical differences among total average scores, but ENT and anesthesia residents' scores were higher than the others. A 76% of residents thought ambulatory surgery was important, but only 13% of them thought its development was being implemented correctly in Spain. A 39.5% of residents were working regularly in day surgery but only 18.4% had training programs in their Department. A 52.6% preferred a continuing medical education in ambulatory surgery, but 73.6% of them did not know of any training programs. The same percentage, 73.6% said supervision and evaluation were necessary at the end of their training.

Anesthesia and surgery residents participate currently in ambulatory surgery in Aragón but without training programs.

Although residents know ambulatory surgery well, they do not know about the existence of training programs in other countries.

Supervision and evaluation are necessary during and after training programs in day surgery.

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# Abstracts of Session 11b

# Should ASC be designed by doctors or architects

**11b1**
**The Patient Design**

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In the field of free-standing Day Oncology facilities, little has been documented on hospital design. A multi-disciplinary team developed an interest in patient health issues and the health system through personal experience with cancer patients over a 5-yr period. By evaluating patient concerns, they designed a unique freestanding facility from the patient's perspective. This immediately introduced a level of humanity, an essential criteria, in design for an Oncology Centre. What this paper aims to highlight is the overwhelming reduction of psychological distress inpatients undertaking chemotherapy within such an environment.

The concept of a wellness focus into the design of day centres has an effect on the individuals functioning within. Design can shape the illness perspective and treatment experienced. A clinic that is small, welcoming, "non-clinical" and homely has a positive effect on staff and patients. Anxiety is reduced, anticipatory ailments and symptoms can be minimized or eliminated. Designing for the senses includes visual, audio and olfactory stimulation. Collectively, the stimulation of an individual's senses promotes good health and wellness, reduces anxiety, and provides a welcoming and relaxing environment for patients, their families and staff. Thus, the patient is able to maintain autonomy and promote empowerment for their future self-care and decision-making on discharge. This architecture and design has become a role model. It has been successful with the patients, for whom it was originally designed, but has also affected the greater community by receiving numerous awards and accolades for its innovative design – these include the State Government Health Authority and Australian Council of Healthcare Standards.

**11b2**
**"Form Follows Function" – an Architect's perspective of the five major flow patterns**

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The design of a surgery center should be rooted in an analysis of case mix, patient throughput rate, quantity of instruments and operational procedures. How the surgery center design responds to these programmatic parameters will ultimately determine the cost and viability of the project.

Ambulatory surgery, as it occurs in outpatient settings, requires special design and building construction knowledge. There are five major flow patterns that must be successfully integrated in order to build a viable and pleasant project. The five patterns are (1) patient circulation, (2) staff and physician circulation, (3) instrumentation sterilization, (4) sterile supply delivery, storage and (5) environmental waste. Each of these circulation patterns has a unique impact on the physical layout of the surgical center. Patients need to flow in a unidirectional pattern, with staff and physicians intercepting them and performing services at cardinal points. As patients flow from pre-op to recovery, serviced appropriately at different levels, the circulation of instruments, supplies, linens and equipment (i.e. stretchers, monitors, IV racks) must coexist with maximum impact and minimum intrusion. Naturally, some circulation patterns must intersect while some should not. The precise intersection of these patterns has a magnified affect on the cost of the facility. Which of these patterns intersect, and precisely where, is the emphasis of this paper.

A thorough examination of the integrated patterns, and the contributing sub-factors, will illustrate affordable, successful building plan designs. This examination requires an understanding of surgical techniques, instrument sterilization procedures, occupational hazards (airborne pathogens, blood borne pathogens) operational procedures and other critical factors.


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# Abstracts of Session 11c

# Poster session

**P26c**

**A French survey of ambulatory surgery (AS). General practitioners (GPs), surgeons and anaesthesiologists: do they speak their same language**

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INTRODUCTION: Successful AS needs a specific organization and reliable communications among medical actors. Insufficient implication of GPs in the course of AS may result from a lack of dialogue. The aims of the study were to analyze the relationships between physicians.

PATIENTS AND METHODS: A questionnaire including more than 100 items was sent in 1998 to 1709 GPs in the south of France (Gard and Hérault states).

RESULTS: Replies were obtained from 388 GPs (22.7%).

Relationships between GPs and the ambulatory team

| | Always (%) | Frequently (%) | Sometime (%) | Rarely (%) | Never (%) |
|---|---|---|---|---|---|
| Pre-operatively | | | | | |
| Anesthesiologist | 3.4 | 8.1 | 13.5 | 24.1 | 49.5 |
| Surgeon | 13.5 | 19.5 | 15.9 | 20.4 | 29.3 |
| Post-operatively | | | | | |
| Anesthesiologist | 1.7 | 3.0 | 9.1 | 18.8 | 66.7 |
| Surgeon | 60.6 | 27.6 | 7.7 | 3.4 | 0 |

Satisfaction from GPs regarding informations received from

| | Satisfied (%) | Unsatisfied (%) | No opinion (%) |
|---|---|---|---|
| The anesthesiologist | 44.3 | 17.5 | 38.2 |
| The surgeon | 82.7 | 9.8 | 7.5 |

GPs wanted more informations on the immediate post-operative period (from surgeon 85.2%, from anaesthesiologist 51.5%), a systematic written report (81.8 and 16.2%, respectively), recommendations on long-term care (73.1 and 42.4%, respectively). Some declared to need communication only in case of surgical (14.5%) or anaesthetic problems (23.5%), 61.1% are waiting for a report on the patient and the surgical procedure.

Interest of communication after patient's discharge between GPs and:

| | Useless (%) | Useful (%) | Essential (%) | No opinion (%) |
|---|---|---|---|---|
| Anesthesiologist | 9.8 | 63.3 | 13.6 | 13.3 |
| Surgeon | 6.6 | 65.2 | 19.6 | 8.5 |

CONCLUSION: Severe communication problems existed between OPs, surgeons and anesthesiologists. Solutions must be found to solve this problem that is responsible for a poor implication of OPs in the care of AS patients and purportedly of inadequate management of these patients.

**P27c**

**Outpatient surgical unit: our experience after a year of operation**

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INTRODUCTION: Our organization is an Ambulatory Surgery Unit hospital-based, with independent activity, multidisciplinary, involved with workman compensation cases. Our activities started August 2, 1999.

OBJECTIVE*:* To carry out a retrospective-descriptive study of the first 12 months of activity.

METHOD: It analyzed the electronic records of patients made during this period.

RESULTS: The attended population was 1282 patients that underwent 1426 procedures (surgical–non surgical nursery), 3/4 part of our population underwent surgery and 1/4 underwent diagnostic and/or therapeutical procedures. Our activity represented 23.7% of the surgical procedures referred to the Hospital. Thc demographic parameters were, age $x = 40$ years (14–93); sex, relation male/female = 2:l; height $x = 1.68$ m (l.43–1.94); weight $x = 93$ kg (35–l30). The 2.4% of our population had a weight equal or superior 100 kg. In pre-admission clinic, evaluation was made by physician in 18.3% and by nurse in the 90% of the population. Patients who underwent surgical procedures (3/4 of population) had the following distribution, plastics 13.92%; general surgery 2.46%; head-neck surgery 14.87%; neurosurgery 0.3%; ophthalmology 1.12%; NET 1.12%; orthopedics 70.25%; urology 2.66%. The most frequently procedures were, removal of implanted devices from bone 14.4%, knee arthroscopy 12.4%; carpal tunnel release 5.9%; remotion of tumor from soft tissues 4.8%; extraction of foreign body 4.1%; nasal fracture rediction 3.7%. We employed regional anaesthesia in 85% of our cases (local anaesthesia plus sedation; regional intravenous anaesthecia; spinal anaesthesia; supraclavicular or axilar brachial plexus block) and in nearly 15% of cases we employed general anaesthesia. The most frequently non surgical


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procedures were, Lumbar facet block 62.2%; epidural infiltration with steroids 22.6%; sympathetic block 11.8% and Lumbar discographies 1.9%. Associated comorbidity (ASA II) was 42.9%; intra-operatory morbility was 12.6% and immediately post-operatory morbility was 2.4%. Complications, neumothorax (two cases), post-dural puncture cephalea (one case) and bleeding (two cases). About times, average waiting time for surgery was 4.2 days (1–41), average operation time was 34 min (5–240) and length of stay was 230 min (40–620). Clinical indicators were, failure to arrive 0.73%; cancellation of procedure after arrival 0.36%; unplanned delayed discharge 0.078%; admission 0.078% and readmission 0.078%.
CONCLUSION: Our unit looks like a mixed medical–surgical unit, we can explain our results by the nature of the attended population, the legal normative of our Hospital and careful selection in the pre-admission clinic. The rare admission/readmission was in connection with anaesthesia.

**P28c**
**Ambulatory surgery during the year of 1999**

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The authors present a revision of the surgical interventions made in the Unit of Ambulatory Surgery in the Hospital Geral de Santo António, with the presence of an anaesthesist, during the year of 1999.
These Unit exists as independent from the year of 1994. Since then, there was a big improvement in the number of consultations, but also in the total number of surgical interventions.
In 1999, there were operated 401 patients, and the main pathologies were:

- Hernias of several locations (mainly Inguinal), Pilonidal Cysts, Haemorrhoids, Fissures and Fistulas, Varicosed Veins, Breast Nodes, Excisional Biopsies, Hidrocels, Epididymal Cysts, Thyroglossal Duct remnants, Volumous Lipomas and Cholelithiasis.

From each patient it was studied the following.

- Sex (male, 60% and female, 40%), age (average of 45), residence, profession, origin, time of waiting for the first consultation, time of waiting for the surgery, pathological antecedents, surgical antecedents. Related to the surgical procedure, it was analyzed the type and median duration, and the type of anaesthesia used.

During the surgery, there were registered some occurrences.

- Haemorrhagy, 1; Bradicardia, 4; Hipotension, 1 and some technical difficulties.

On the early post-surgical period (during the stay in the Ambulatory Unit) the main occurrences were:

- Pain, 76 patients (19%).
- Haemorrhagy, 4 (0.9%).
- Pain, nausea and vomiting, 4 (0.9%).
- Nausea and vomiting, 3 (0.7%).

The number of patients that, by surgical or anaesthetic criteria, spent the night at the hospital, was 5 (1.2%).

- Three cases of vagal reaction, one case of pain and one case of hematoma. All of them left of the hospital in the morning after the surgery.

On the post-surgery, it was evaluated the average number of consultations, time of follow-up and rate of complications, that in the present study was 14.2%.

**P29c**
**Post-operative complications in ambulatory surgery**

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Complications are uncommon after ambulatory surgery. The selection of patients and procedures and the application of guidelines avoid incidents after day surgery.
The aim of this study is to point out the most frequent complications encountered in a multidisciplinary day surgery unit in order to prevent them.
Demographic data, diagnosis, pre-medication, characteristics of procedures and recovery during the first thirty days have been registered over the last 5 years, creating a database of more than 4000 patients. The distribution among specialties was, general surgery 34%, orthopedic surgery 17.4%, urology 16.3%, ophthalmology 15.6%, ENT 9.3%, vascular surgery 5.2%, plastic surgery 1% and gynecology 0.9%. The StatView 5.1 program was used to elaborate the database and to obtain statistics.
A case of septic shock appeared after a prostatic biopsy as a major complication, 0.02%. Minor complications were registered in 12% of patients, including among them incidents such as urinary retention, 2.9%, never mentioned after inpatient surgery. Wound infection was present in 2% of patients, inadequate pain control in 2.2% and wound dehiscence in 1.1%. There were differences among procedures, $P < 0.0001$. Morbidity was higher in hernia surgery, 23.5%, anal surgery, 15.5% and cataract surgery, 13.7%. Urinary retention was related to hernia repair procedures, 10.2%, inadequate pain control was related to hallux valgus correction, 3.4% and cataract surgery, 6.3%, wound hemorrhage to anal surgery, 2.4% and wound infection to subcutaneous tumor excision, 5.2%, anal surgery, 4.8% and hernia repair procedures, 3.5%.
Major complications are uncommon in ambulatory surgery, but some minor complications and incidents occurred in 12% of cases.
Morbidity is related principally to hernia repair procedures, anal surgery and cataract surgery.
It is necessary to introduce improvements in order to avoid complications such as urinary retention, post-operative pain and wound infection.

**P30c**
**Anaesthesia in ambulatory surgery: our experience**

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The development of ambulatory surgery (AS) will go on, both in terms of widening the scope of procedures eligible for ambulatory care and, in most countries, exploiting fully potentials of extensive ambulatory programs. The aim of this study was the descriptive analysis of anesthetic techniques for AS in our hospital.
METHODS: A 4 years retrospective study was made. We studied 2.056 surgical procedures. Data analysis was performed with Statview 5.0. The results are shown in the table:

| | 1995 | 1996 | 1997 | 1998 | Σ |
|---|---|---|---|---|---|
| Epidural anaesthesia | 10 | 21 | 15 | 20 | 66 |
| General anaesthesia | 38 | 123 | 142 | 153 | 456 |
| Spinal anaesthesia | 61 | 202 | 183 | 229 | 675 |
| M.A.C* with sedation | 129 | 158 | 177 | 222 | 686 |
| Plexus block | 5 | 5 | 3 | 9 | 22 |
| Intravenous regional | 7 | 34 | 52 | 58 | 151 |
| Σ | 250 | 543 | 572 | 691 | 2.056 |

*M.A.C., monitored anaesthesia care.

CONCLUSIONS: The experience of anesthesiologists in AS and the introduction of new drugs in anesthesiology, short-acting opioids such as remifentanil, computerized pumps for delivery of drugs such as propofol or end-tidal inhalational agent measurements, will be used to increase the number of surgical procedures who need to practice a general anaesthesia in AS. The preferred anesthetic techniques in our department are, monitored anaesthesia care with sedation, spinal anaesthesia and general anaesthesia.

**P31c**

**Benzodiazepines, delay emergence from propofol/remifentanil anaesthesia and sedation for day case surgery**

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Aim of this study has been to compare recovery times following propofol and remifentinil with or without benzodiizepine (BDZ) anxiolysis, administered either for general anaesthesia (GA) or conscious sedation (CS). Two hundred and eighteen patients undergoing various surgical operations (rhinoseptoplisty facial lifting, brest augmentation scar revision, liposuction, inguinal hernia repair, proctology) as ambulatory day cases were studied GA was induced with piopofol 1.5–2 mg/kg followed by a continuous infusion of 10 mg/kg per h and remifentanil infused it 10 μg/kg per h. CS was started with propofol 3 mg/kg per h and remifentinil 4 μg/kg per h during the maintenance phase drug infusion rates were adjusted according to clinical needs. Diazepam (0.05 0.06 mg/kg p.os) and/or midizolam (2–3 mg i.v.) were given as pre-medication or coinduction as necessary. All patients received field infiltration with local anesthetics (lidocaine or mepivacaine); patients under GA were artificially ventilatede with $O_2$/air through ETT or LMA.
Times to reach defined end points from end of anaesthesia or sedation (EA, eyes opening, orientation, spontaneous breathing extubation, sitting, walking, dressing, drinking, micturition, discharge) following EA were collected and data are analyzed with parametric and nonparametric analysis of variance between AG and CS, with and without bdz supplementation.
Diazepam and midazolam caused a significant prolongation of all times intervals for GA:EA-sitting $17 \pm 8$ without bdz versus $33 \pm 23$ with bdz; EA-standing $35 \pm 18$ versus $94 \pm 49$, EA-dressing $33 \pm 18$ versus $107 \pm 63$, EA-walking $42 \pm 23$ versus $96 \pm 41$; EA-discharge $45 \pm 22$ versus $128 \pm 76$. Under MAC EA-sitting: $13 \pm 7$ versus $19 \pm 10$, EA-discharge: $46 \pm 27$ versus $92 \pm 64$.
In conclusion, propofol and remifentanil gave excellent conditions for a wide variety of day surgery procedures, offering smooth anaesthesia with quick emergence; the addition of low dose bdz prolongs significantly discharge times.

**P32c**

**A blend of remifentanil and propofol for anaesthetic induction and maintenance for short gynecological procedures**

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In daycenter treatments ambulatory anaesthesia to minor procedures is of great importance owing to time expenditure. In order to reduce time and staff requirements we tried to blend remifentanil and propofol although this mixture is not considered to be stable. It would, however, make induction easyer as focus could be on the patient as syringes/pumps needed less attention.
METHOD AND MATERIAL: The method was tested on consecutive gynecological patients on 3 different days. They were admitted for D & C and termination of pregnancies. All were ASA I–II. Group I (day 1; $n = 11$) received propofol, 1 mg/kg, group II (day 2; $n = 7$) $-1.5$ mg/kg and group III (day 3; $n = 11$) 2 mg kg. All patients received remifentanil, 1 μg/kg for both induction and maintenance of anaesthesia. The mixture of remifentanil and propofol was prepared in the morning and all procedures were ended within 5 h. Rescue anaesthesia for both induction and maintenance was given on clinical conditions with a bolus inhalation of sevoflurane. Demographic data were comparable. Vital signs were recorded before induction and every minute thereafter.
RESULTS: There were no complications related to anaesthesia. Mean BP decreased in all groups of patients. In group I to 82–84, group II to 68–76 and group III to 71–75 mmHg. HR varied between 61–72 in all three groups. In group I only, we suspected opioid related rigidity in approximately half of the patients, but no treatment was indicated nor given. In group I and after 3–4 min in group II and III as well sevoflurane was given as rescue anaesthesia, 8% initially, and reduced to about 2% within 1 min and continued throughout surgery. All patients were on controlled manual ventilation due to apnoea.
DISCUSSION: The blend of propofol and remifentanil seemed to be stable under the above conditions. A volatile, potent and fast acting anaesthetic was necessary for maintenance. We opted for remifentanil in equal dosage for all three groups and propofol at 1 mg/kg seemed to be insufficient whereas 2 mg/kg did not add any advantage to 1.5 mg/kg. All patients were hemodynamically stable under controlled ventilation. The method was easy and simple to administer and we did not notice a change in potency in the course of the day. The supplement of sevoflurane seemed to fulfil all demands for potency and fast acting agent as surgery could proceed without delay. The patients received the staff's full attention and the procedure was not disturbed by other duties. If secured, this blend of drugs could be a useful tool in anaesthesia to short procedures.

**P33c**

**Sevoflurane–remifentanil or propofol–remifentanil. A retrospective study in a day case centre**

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Day care treatment of surgical patients is challenging in regard to the quality of medical care and patient satisfaction. Complications owing to the treatment are unacceptable especially those who appear after discharge when the patients have no direct access to professional medical care and observation. Patients often judge the quality of their hospital treatment in total by pestering symptoms like nausea/vomiting (PONV), dizziness and pain. This brings the anaesthetic agents and techniques in focus.
MATERIAL AND METHOD: Retrospectively, we evaluated the anaesthetic records of 165 patients treated in April and May 1999. The duration of anaesthesia was over 30 min but no more than 90 min. The patients were treated for disorders within the specialties of orthopedics, gynecology, ENT, general surgery.
Two existing models of anaesthetic techniques were to the discretion of the anesthetist, (A) induction and maintenance of anaesthesia by sevoflurane (Abbott) and continuous infusion of low dose remifentanil (Glaxo, Welicome) 10 ml/h (50 μg/ml) or (B) induction by propofol 2.0–2.5 mg and maintenance 20 ml/h (1% of propofol). For post-operative pain treatment lornoxicam 16 mg (Nykomed, DK) was administered i.v. during anaesthesia. The patients' vital signs were monitored in the PACU as was PONV, pain, wellbeing.
RESULTS: One hundred and sixty charts were suitable for this study. Patients' demographic data were comparable. No patients suffered major events. Three patients were converted to in hospital observation/care. One (tonsillectomy, group A, $n = 96$) with bleeding diathesis, one (group B, $n = 64$) for over-hydration after TCRE and one

(group A) for social reasons. Patients were discharged after less than 2 h of observation except the tonsillectomies who stayed for 3 h. Most patients received a booster dose of i.v. or oral lomoxicam 8 mg, and 66% an additional dose of paracetamol 1000 mg in combination with codeine 60 mg. Opioides were not used, nor found necessary. In spite of focus on PONV we found only three patients, two in group (A) and one in group (B), and after treatment with ondansetron their course was uneventful.

DISCUSSION: Less than 2% of the patients were admitted for in-hospital treatment. With the short acting and powerful anesthetics used post-operative pain problem would be anticipated. But a vigorous policy on pain, in which the anesthetist took responsible action even before surgery was started, minimized this to a fully controllable situation. Pain problems were easily managed. A common problem is PONV, by some reported to be in the range of 40–60%. We did not observe more than 1% of this unwanted post-operative condition. This could be due to an observation error or lack of sensitive objective measurements. We do, however, inform our patients that nausea and vomiting may occur (like pain) and the patients are therefore prepared for some discomfort. The balanced anaesthetic technique might also be of importance in the management of PONV as the dosage of the agents can be kept low. If a specific blood concentration triggers nausea and vomiting we may not have reached this level with the low dosage technique. Propofol is said to inhibit PONV. In this study, we did not observe any difference between the group given propofol and remifentanil and the group given sevoflurane and remifentanil.

We found it easy to administer two different techniques although three different drugs occur. We recommend these agents for ambulatory anaesthesia.

**P34c**

**ASA III patients and ambulatory surgery**

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Patients with ASA III physical status can be operated in day surgery units after a strict selection. The aim of this retrospective study is to determine if the clinical indicators in these kinds of patients are similar to the global indicators of the unit.

Among more than 4000 patients operated in a multidisciplinary day surgery unit, 125 of them were ASA III physical status. The causes for this status were chronic obstructive pulmonary disease 51%, arterial hypertension 26%, rhythm disorders 20%, neurological deficits 15%, coronary artery disease 14%, diabetes mellitus 12%, obesity 9% and heart failure 7%. The mean age of patients was 69.5 years (71% male and 29% women).

A 68% of patients were operated under local anaesthesia and 8% under general anaesthesia. The most important clinical indicators in the ASA III group of patients were, hospital admission 5%; hospital readmission 1.7%; cancellation of the procedure after arrival 5%; global morbidity 15.6% and wound infection 0%.

There are few differences between the clinical indicators in the ASA III patients and the global indicators of day surgery units. Because of this ASA III patients must be included in day surgery units after a selection of patients with stable physical status.

**P35c**

**Differences in delay of discharge from hospital depending on the type of anaesthesia used for groin hernia repair in day surgery**

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Choosing the best technique with the minimum morbidity and side effects as well as obtaining the shortest delay in discharge time is a challenge in day surgery anaesthesia.

We studied 80 patients undergoing ambulatory hernioplasty using the Nyhus technique and we choose four of our usual anesthetic techniques.

- Group I, dural block with 0.75 mg/kg prilocaine 5%.
- Group II, dural block with 0.5 mg/kg prilocaine 5%.
- Group III, dural block with 0.6 mg/kg lidocaine.
- Group IV: Ioinguinal block + sedation with 0.1 mg/Kg slice min remiphentanyl and 3 mg/kg/h propofol.

Demographic variables, hemodynamic changes, surgeon case of movement during operation, as well as patient comfort during and after the operation were take into account.

We turned the delay, before the first analgesic was given before the patient could walk, before the patient was discharged and we monitored side effects which could delay any of these.

Patients from group IV were discharged earlier and satisfaction rates were higher although the other three techniques still complied with criteria for day surgery.

**P36c**

**Effective post-operative pain control in a day case centre**

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In day case surgery the patient's contact with the medical staff is very short. In this respect, it is mandatory to inform the patients realistically of procedures and to treat unwanted incidents consequently and meticulously in order to improve medical quality and good patient satisfaction. Post-operative pain management is considered to be a cornerstone in this respect. This study aimed at improving standards already set.

MATERIAL AND METHOD: Pre-operatively a nurse informed the patients about surgery, anaesthesia, possible complications and especially pain, and the very same nurse was on duty on the day of surgery, either as scrub nurse or working in the PACU. Patients were anaesthetized by two anaesthetists and for induction and maintenance sevoflurane (Abbott) and remifentanil (Glaxo-Wellcome) was administered. Pre-medication was not given.

Patients were selected from categories where NSAID was given as a routine, and in that respect the patients studied were consecutive. Patients were recruited from the surgical specialties, orthopedia ($n = 53$; arthroscopies, minor osteostomies, Dupuyten's contracture), gynecology ($n = 65$, sterilization, TCRE, diag. laparoscopies), general surgery ($n = 23$; hernias, breast tumors), ENT-surgery ($n = 18$; myringoplastics, tonsillectomies).

Lornoxicam, 16 mg, (Nycomed, DK) was given i.v. after induction (except in tonsillectomies where it was postponed until homeostasis was secured). VAS score (scale 0–10) was recorded post-operatively every 15 min as were nurses' activities. A score of more than 4–5 were indication for treatment; otherwise treatment was given on the patients' request. Primary offer for treatment was a supplemental dose (i.v. or oral) of lornoxicam 8 mg, and thereafter, on rescue, a combination of paracetamol 1000 and 60 mg of codeine.

RESULTS: Two patients were admitted to in-hospital care owing to social conditions. A total of 110 (out of 159) felt pain (69%) but only 100 (63%) accepted treatment.

In general, orthopedic patients needed more analgesics than gynecologic patients. Having received post-operative treatment with lornoxicam 8 mg, 47 patients (30%) needed the rescue treatment. Thereafter only eight patients (5%) claimed additional analgesic treatment.

Nurses rated this regime as acceptable or good in 151 cases and insufficient in 2145 patients rated pain management as acceptable or good and four rated it bad. At discharge VAS score was below two in all patients. Opioids were not used.

DISCUSSION: Post-operative pain management is one of the most important items to control. In this study, we found it of importance that the informing staff also cared for the patient during or after surgery. Lornoxicam was effective in pain management and reduced the number of patients in need of treatment to 63%. After an additional dose of 8 mg only 30% remained in pain after 15 min of observation. Of these only 5% remained insufficiently controlled even after a paracetamol and codeine supplement. These patients were offered the PCM/codeine combination again, with success. It is worth mentioning that no patients needed opioids. In conclusion, lornoxicam is effective in post-operative pain control together with oral paracetamol in combination with codeine. In this respect, continuity and proper pre-operative information is very important.

**P37c**

**Developing the emerging surgical facility: freestanding ambulatory and short-stay centers**

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A step-by-step methodology for establishing new surgical programs in a variety of settings. Members of the panel will include, at a minimum, experts in: operations and management; planning and development; and clinical/medical services. Issues to be addressed include: feasibility determination; financial considerations; regulatory conditions; medical staff development; facility planning and design; organizational/business configurations. Global private healthcare investment will nearly triple in the next 10 years. As more countries' health care financing policies shift their emphasis toward private sector alternatives for health care delivery, those in the ambulatory surgery community must be prepared to lead the development of those surgical settings most likely to be both responsive to and predictive of these trends. ASC/short-stay surgical settings offer an alternative to a public healthcare system quandary by providing access, high quality and customer service in a resource-eficient manner.

**P38c**

**Development strategies for the creation of a turn-key free standing ambulatory surgery unit; a case study within the environment of merger and acquisition**

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The development of a free standing ambulatory surgery center is identified as a complex, labor intensive and costly endeavor. The unique matrix of regulatory compliance coupled with the identification of the community needs within a framework of fiscal responsibility promotes the need for immediate action. This presentation encourages the utilization of established consultants that address the clinical, fiscal and administrative responsibilities in the creation of an ambulatory surgery center. An examination of empirical studies and a retrospective analysis of existing centers in New York state serve as the framework that identifies the pathway that reduces the timeline for the development of an ambulatory surgery center from the existing 3 years marker to a 9 months project. The successful implementations of specific strategies are benchmarked within the arena of the state as well as utilization of certain the national markers. The identification and maintenance of clinical standards that serve to identify the service are stressed as paramount factors in the development of the specialties within the scope of a multispecialty center. Various fiscal methodologies and the identification of the organizational structure are identified as successful mechanisms for the center's owners and investors that serve to promote and generate income for the project. The broad range utilization of management consultants that incorporate design, building, funding, clinical expertise and administrative excellence is seen as a cost effective mechanism for the successful transition from conception to utilization of the free standing ambulatory surgery center. This methodology can be applicable in developing countries as well as within the existing complex of healthcare delivery.

**P39c**

**Development of an overnight stay facility within the day unit — the first years experience**

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A significant number of patients are excluded from management as day cases on social grounds, most commonly because they have no career at home or need to travel a long distance to the hospital. This problem has been addressed by other institutions in various ways including hospital based hotels and developing partnerships with local hotels.

The David Beevers Unit is a large day unit treating approximately 9000 patients per year, with three theatres hystercscopy, urodynamics and lithotripsy suites and also accepts patients having angiography and some medical procedures. The ward area is large with 12 beds, six each for men and women and 14 trolley/chair spaces. The normal working hours are 07:30–21:00. We have opened 12 beds as a low dependency overnight facility for five nights per week, this is staffed by one nurse and a health care assistant. Patients have to meet a set of strict criteria to be considered suitable these include, a low level of dependency; ability to sell medicate; arrangements for discharge the next morning and not requiring routine review by medical staff prior to discharge. The majority of patients are booked from clinic or at their pre-assessment visit but there is the facility to organize overnight stay on the day if a bed is available. Any patient whose medical condition deteriorates is transferred to another ward.

In the first year of operation 699 patients have used the facility, with an overall bed occupancy of 26%. The cost of providing this service is considerably less than for an inpatient bed.

This arrangement provides a cost effective solution for these patients and releases a valuable resource for inpatient use.

**P40c**

**Can the American model for the emerging surgical facility be adapted to the global environment?**

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The combination of the managed care revolution that has swept across the U.S. in the past decade (to varying degrees of support) and a drive toward innovation and entrepreneurship has made plausible and successful the challenge to the hospital hegemony over surgery. The Emerging Surgical Facility (''ESF''), which may include ambulatory surgery services, among others, and which may permit overnight or short-stays, i.e., postsurgical recovery care, has become the site of millions of safe and effective U.S. surgeries. The question is then raised whether, in those national health systems where scepticism regarding control over the intoduction of new private health care

delivery sites, the ESFs can take hold and survive. This session will allow participants to consider whether and how new surgical facility consepts can be championed in their own countries, whether in their respective surgical practices, their hospitals, their communities or their health systems. Analysis will be prevented comparing potential impacts between the U.S. and selected national health systems of EFSs.

**P41c**

**The marginalization of the availability and delivery of healthcare specific to the reproductive health needs of an inner city population; The role of the free standing ambulatory surgery center**

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The number of women requesting reproductive health services in New York City account for 10% of the national figure. Forty percent of the women requesting reproductive health services in New York City reside in the borough of Brooklyn. The demise, through merger and acquisition, of the community-based hospitals in the borough of Brooklyn has had a significant impact on the availability of reproductive health services. An examination of the availability of services in the borough and the accessibility of these services are examined through existing empirical and analytical data as well as survey, interview and observation. The evolution of services is traced through public policy and the political environment in an attempt to identify the current status of need versus services. Recommendations for future policy implementation is identified and explored through a practical operational perspective. Specific methodologies surrounding privatization of municipal programs, the formation of a coalition of providers and development of political coalitions is identified as a mechanism to address the issue of adequate access to care. These specific mechanisms for the development of the availability and delivery of healthcare can be utilized as a model and successful methodology in the ambulatory environment.

**P42c**

**Diversifying the procedures profile of the ambulatory surgery center with short-stay capability: Controversy or Expectation?**

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The presenters will review the shift of more complex types of surgical procedures to ambulatory surgery centers (''ASC'') from the early 1990s to 2000, with a specific focus on total joint replacements. The presentation will derive its database from both an outcomes analysis and an economic analysis, comparing a traditional inpatient setting with an ASC/short-stay setting. Discussion will cover key factors that must exist at the ASC in order to perform these complex surgeries including surgeon experience, or expertise and recovery staff capabilities. Appropriate patient selection and general recovery period will be examined.
CONCLUSION: Advances in anesthesia, surgical technique, pre- and post-operative evaluation and therapies and pain control methods make it possible to safely perform a new cohort of surgical procedures in an ASC setting with short-stay capability, with concamitant economic savings to the patient and his payor.

**P43c**

**Impact of Managed Care on the Ambulatory Surgery Center ("ASC")**

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The presenters will evaluate recent trends in managed care policy as implemented by private and public health plans and insurers on freestanding ambulatory surgery/short-stay centers. Since managed care precepts are being 'exported' to nations worldwide, including those with publically-financed health care delivery systems, this presentation is aimed at discussing how a continuum of surgical services can be created by bringing private-sector surgery providers into more direct collaboration with public-sector officials and managers. An analysis of the 'pros and cons' of managed care on both outcomes and quality of care in a traditional inpatient environment and an ASC/short-stay setting will be reviewed. Issues pertaining to the efficient use of resources when managed care policies are prevalent, whether in the private or public sectors, together with issues related to access to alternative surgery sites will be examined.

**P44c**

**Additional care for cancer patients**

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The aim of the project is to give cancer patients additional coaching and support by a form of care additional to hospital care. The care consists of a massage that is administered by hapto-therapists.
APPROACH: Making inventories of information, interest and motivation of the staff, introducing care in a phased plan.
WARD PROCEDURE: Before the patient is admitted to the ward for chemical therapy he/she is presented a leaflet on additional care during the interview. During the first therapy session the nurse will inquire after the patient's interest in the additional care, and if so, an appointment with the therapist is made. The care is always initiated in the hospital.
RESULTS: After half a year an evaluation was made by surveying and interviewing patients, nursing staff and doctors. Its findings were very positive. In December 2000 scientific research was completed in which a comparison was made with a similar class of patients in another two hospitals. In one of the hospitals no extra care was administered, in another extra care was given by a beautician. The findings were that massage diminishes the complaints during chemical therapy more than in the other hospitals.
CONCLUSION: The additional care provides a positive influence on the quality of life. By massaging/touching the patients are coached through their disease, it provides relaxation creating physical and mental well being enabling the patient to better cope with the side effects of chemical therapy. The interventions are, massage; relaxation; visualization and breathing exercises and hapto-therapeutical physical touch.

**P45c**

**Day surgery in the medical centre Alkmaar information about the last 5 years**

P Moerbeek, L Oudejans-Nanne

*Medical Centre Alkmaar, the Netherlands*

The Medical Centre Alkmaar is a large regional hospital in the north–west of the Netherlands. The day hospital consists of a ward

with 37 beds and four operating theatres including their own recovery room. On a yearly basis there are 8500 patients treated. The Paster presentation will contain information in relation to,

- development;
- organization;
- nursing.

**P46c**
**Patient morbidity following oral day surgery-use of a nurse-led post-operative telephone questionnaire**

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INTRODUCTION: Patient morbidity following oral day case surgery is variable, but patients are known to experience sometimes quite severe post-operative pain, swelling and impaired oral function. Often these significant sequel of surgery have resolved by the time patients attend for clinical review.
METHOD: In this study 60 consecutive patients attending for oral surgery under day case anaesthesia were telephoned 24 h post-surgery by the day case nurse coordinating their ambulatory care on the day of surgery.
Using a standard questionnaire, ten specific questions were asked relating to the patients' general well-being, post-operative pain experience, effectiveness of discharge medication and the occurrence of complications.
In this manner it was hoped to characterize the nature and severity of problems encountered, from the patients' perspective, during their first 24 h post-surgery.
RESULTS AND CONCLUSIONS: The detailed results of the 60 patient questionnaire will be summarized, together with the number and severity of commonly reported complications.
The suggestions for the future expanded role of nurse-led telephone consultations within ambulatory care packages will be discussed.

**P47c**
**EUS guided cytoponction**

Lyvet Jacques

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The endoscopes ultrasonography (EUS) is a technique of recent diffusion (since 1990). Two types of instruments have been developed, one is using a mechanical rotating probe, the other is using a linear probe. The linear EUS permits the realization of guided cytoponction (fine needle aspiration FNA).
The indications of EUS FNA are mainly represented by the positive diagnosis of a solid or cystic pancreatic or mediastinal tumors and the lymph probe staging, in order to adapt the medical or surgical treatment.
The examination requires preferably general anaesthesia (upper way) in order to improve the tolerance and the efficacy, but may be performed ambulatory. Rectal procedure is undergone without sedation.The fluid collected is spread on slides for pathological interpretation. Complications are few, mild acute pancreatitis (in 5% cases). No dissemination along the ponction site has been reported.
EUS FNA represents a major tool for improving tumor diagnosis or staging and, therefore, to tend to select patients for the optimal treatment.

**P48c**
**Recidivated thyroid neoplasia with Hurthle cells — case report**

M Pavkov, M Cornian, R Lighezan, N Tudose

*Timisoara*

Thyroid neoplasia with Hurthle cells represents a rare form of thyroid neoplasia and is characterized by a particular biological behavior. The cells of the tumor are of Hurthle type in a percent that lies over 50%.
We present the case of a female patient, age 58, having oncotic adenoma that recidivated 4 years after undergoing bilateral subtotal thyroidectomy. The surgical procedure consisted of ambulatory tumor ablation followed by multiple morpho-pathological examinations, hematoxiline-eosine; van Gieson; AgNor coloration; immunoreaction for thyreoglobulin LSAB; electronic microscopy.
Surgical treatment represents the main therapeutic measure and it has to be performed in accordance with oncologic principles, lobectomy in benign forms; total thyroidectomy in malign forms; excision in healthy tissue in recidivations. The main malignancy criteria consists of angioinvasivity and of capsular invasion. The malign potential is higher than in other differentiated thyroid carcinoma.

**P49c**
**Ambulantes Praxisoperationskonzept in Winterthur 1998/1999**

B Grob

*Winterthur*

Wir stellen das ambulante Potential der Region Winterthur mit Ca. 250 000 Einwohner vor, und zeigen auf, was und in welcher Grössenordnung von 15 ambulanten Praxisoperationssälen bearbeitet werden kann. Wir zeigen ein neues Prinzip einer mobilen Anästhesie-Equipe, und auch den hohen Qualitätsstandard, der eingehalten werden kann.

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# Abstracts of video session

## V1

### Internal spermatic vein ligation by inguinal approach in local anaesthesia. A personal technique

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The validity of this technique is based on the simple execution and on the use of local anaesthesia. The acceptance of patient is excellent because the surgical operation is outpatient and you do not need the hospitalization.
Pre-operatory screening tests are not required, even in risk-patients, because the local anaesthesia is well tolerated by everyone.
The only investigations required before the operation are a Doppler examination to check the venous reflux level and the seriousness of varicocele, and a sperm count to monitor the spermatozoa concentration and the possible improvement after the surgery.
The operation starts with injection of local anaesthetic in the watertight compartment under aponeurosis of external oblique muscle in inguinal canal. In this site, you inject 15–20 ml of long acting anaesthetic (ropivacainum) that produces a complete analgesia, as in hernioplasty, and enables the isolation of spermatic vein or veins for the following upper ligation.
A special care is devoted to anatomical structures of spermatic cord (in particular the vas deferens) to prevent complications as orchitis or ischaemic atrophy.
For the last 24 months (October 1998–2000), we treated 20 cases with this technique. The discharge has always been immediate, without any overnight.
To conclude, the operation is easy and short since, in practice, it corresponds to an Ivanissevich operation with upper ligation of spermatic vein by an inguinal approach and local anaesthesia, whereas the classical retroperitoneal approach does not enables it. This technique shows a remarkable acceptance from the patients and an excellent relation between cost and benefit.

## V2

### Laparoscopic approach in malfunctioning peritoneal dialysis catheter and accompanying surgical pathologies

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The causes of obstruction in peritoneal dialysis are often omental wrapping and catheter tip migration.
Diagnostic laparoscopy is applied to a 57 yr-old woman for to evaluate the cause of catheter malfunction. In our exploration, we observed the catheter tip in the subhepatic region with the omentum completely wrapped around it. Also there was an indirect inguinal hernia on the right side and a lipoma with $\approx 8 \times 6$ cm$^2$ in the neighbourhood of internal ring. Omentum is then set free from the catheter and fixed to the parietal peritoneum on the lateral abdominal wall. Afterwards, catheter tip is pulled down into the pelvis and fixed to the peritoneum in this region. Lipoma is totally excised. Hernioplasty is performed by means of transabdominal preperitoneal approach using prolene mesh greft. Total operation period was 2 h. There was no complication. Peritoneal dialysis is started to be made on the 10th day.
According to our experience, for the salvage of malfunctioning peritoneal dialysis catheters and treatment of the accompanying surgical pathologies at the same operation laparoscopic surgery appears to be the ideal method.

## V3

### PerFix plug hernioplasty improves the rate of day case procedures for inguinal hernia repair

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AIM: Literature suggests that the plug hernioplasty compares favourably with the Lichtenstein repair, having particularly short and pain-free recovery periods. The aim of this study was to analyse how the introduction of the plug technique affected the clinical practice of a single surgeon.METHODS: Plug hernioplasty replaced the Lichtenstein technique at the start of 1997. So we audited the 4-yr period 31 March 1995 to 26 March 1999. The theatre register identified patients undergoing inguinal hernia repair, and case notes provided the relevant data on methods of anaesthesia operation time and inpatient status.RESULTS: Some 346 patients underwent a total of 360 inguinal hernia repairs (116 Lichtenstein versus 244 plug repairs) of which 295 were performed for primary unilateral, 28 for bilateral and 37 for recurrent herniae. The table describes operation data for each year.

| Year | Operation | General anaesthesia (%) | Local anaesthesia (%) | Mean op. time (min) (range) | Day cases (%) | Inpatients (%) |
|---|---|---|---|---|---|---|
| 1995 | 36 | 34 (94) | 2 (6) | 40 (20–70) | 7 (19) | 29 (81) |
| 1996 | 62 | 60 (97) | 2 (3) | 42 (20–100) | 11 (18) | 51 (82) |
| 1997 | 89 | 65 (73) | 24 (27) | 35 (18–56) | 37 (42) | 52 (58) |
| 1998 | 142 | 107 (75) | 35 (25) | 30 (10–70) | 93 (66) | 49 (34) |
| 1999 | 31 | 21 (68) | 10 (32) | 34 (15–90) | 23 (74) | 8 (26) |


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Throughout 1996, when the Lichtenstein technique was employed, 3% of operations were performed under local anaesthetic (LA). In 1998, however, when plug hernioplasty was the repair of choice, 25% were performed under LA, representing a significant increase, $P = 0.0003$ ($\chi^2$ test). Of the 116 Lichtenstein procedures performed, 22 (19%) were day cases and 94 (81%) were inpatients. Some 149 (61%) of the patients undergoing plug hernioplasty were discharged the same day, and only 95 (39%) required admission. The increase in the proportion of day cases since adopting the plug technique is significant, $P < 0.0001$ ($\chi^2$ test).CONCLUSIONS: The introduction of the plug technique into a single surgeon's practice has reduced the number of patients requiring general anaesthesia, and significantly increased the number of operations performed as day cases.

**V4**
**Videoguided information for improved postoperative information**

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Ambulatory surgery is very much about how to organize selected patients in a manner that makes it possible to work more efficiently. For that purpose, the same surgeon does the same surgical procedure 6–12 times in a row. Unless you create an atmosphere allowing the patients their privacy, they easily get the uncomfortable feeling of just being an industrial number.
Our postoperative facilities do not allow the necessary privacy for the patient to receive personal information from the surgeon. By using an external handycam videocamera connected to the arthroscopy-rack and an external microphone connected to the surgeon, the surgeon records sequences while operating. Using the patients first name and limiting the sequences to show what is wrong and what is done, it is our experience that this method improves the patient's understanding of his disease and own situation.
Judged by the comment cards, the patients appreciate this way of being accurately informed. However, it must be emphasized that these tools of modern technology do not replace the whole need for personal contact between doctor and patient in a follow-up consultation. It may be timesaving by reducing the need for long conversations, and it truly improves the quality of information. We think that this method in a few years will be a standard operation procedure for patient information and documentation, a state of the art.

**V5**
**Information video for children who are afraid of dental treatment**

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BACKGROUND: Paediatric patients are often admitted to our unit for dental treatment under general anaesthesia. These patients are usually very apprehensive about their hospital admission. Their fears can be significantly reduced with appropriate preoperative information.AIM: To produce a video aimed at preparing children for inpatient dental treatment under general anaesthesia.METHOD: The local ethics committee approved the project and written consent was obtained from the parents of 2 children, both male, aged 5 and 6 yr. The patients were treated following the usual routines of our unit and a member of the nursing staff filmed their progress.SUMMARY: At the day surgery unit, we frequently take care of children whom are afraid of dental treatment. These children and their parents may have concerns and fears that are made worse by lack of appropriate information. Therefore, we decided to produce a video about the way we take care of the children and their parents. The video runs through the whole clinical scenario starting with the dental assessment right up to the postoperative follow up call 2 days later. The film will be used as an adjunct to the information given in the preoperative visit. This video is designed to improve the level of information given to our young patients and their parents enabling them to have a more positive experience in hospital. It is also hoped to be a useful tool for non-Swedish speaking patients and children with language impairment.

**V6**
**Prostate laser coagulation – our cheapest therapy**

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Prostate laser operation with special fibres is expensive; but with Diode- or NdYAG-laser and reusable (by sterilisation) 0.6 mm bare fibres (BF) price falls down to about 1/2 Euro per operation while effectivity of tissue destruction is increased and these BF enable more techniques f.i. coagulation and laser cutting.
The instrument is robust and simple-in principle a straight guide-tube adapted to the cross-section of the BF in a small shaft, water free of bacteria (f.i. produced by Katadyn Filtration System, Switzerland), electricity and a suprapubic catheter are necessary. In ambulatory surgery only coagulation should be performed because of the low complication rate (laser cutting makes bleeding). At a grid distance of about 5 mm 200 J per treatment point are beamed at the sphincter regions and small prostate floors into the mucosal surface and 1000 J into the remaining mass with instrument setting 25–30 WcwDiode- or 40–50 WcwNdYAG. Invasive coagulation (burning the fibre slowly into the depth of tissue without J-limit) destroys more prostate but goes parallel to more fever and inflammation. The 5-yr follow up at the cases in this video shows the same results as after transurethral resection (TURP).
The same equipment can be used for all indications in transurethral surgery and laser itself (especially 50 W Diode laser without changeable parts, which work on every power source) in all surgical compartments in outpatient therapy or smaller hospitals. This video wants to show a low budget laser therapy, because number of old people is increasing everywhere and questions about costs in medicine become more urgent.