

AMBULATORY SURGERY

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Abstracts and Posters

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Abstracts

OPERATION FOR LUMBAR DISC PROLAPSE ON AN OUTPATIENT BASIS

Peter Ahlburg, Day Surgical Center, Aarhus University Hospital (Denmark)

Introduction: We present the first Danish experiences with this type of surgery on an outpatient basis.

Materials and methods: The study followed 200 consecutive patients undergoing lumbar discectomies. The patients were enrolled in a fast-track program without admittance to hospital. After each operation, the patient was transferred to the patient's hotel. The following day, the surgeon visited the patient and the patient went home. On the third day the patient was contacted by phone by a nurse from the Day Surgery Center and on the seventh day by the surgeon. Pain treatment consisted of paracetamol, NSAIDs and opioids.

Results: Four patients had to be admitted to hospital due to anaphylactic reaction (1), pain (1), bleeding (1) and dizziness (1). Recurrence of disc herniation was seen in 19 of the patients. All of the patients but three would prefer outpatient treatment if they were to be operated on again.

Discussion: Our results show that a lumbar discectomy can be performed without admittance to hospital. This is due to the surgical technique employed, which results in less tissue trauma, the use of short-acting anaesthetics with few side effects, early feeding, multimodal analgesia and early mobilisation without restrictions. The long-term results are equal to those for patients operated on in hospital. By doing the operations on an outpatient basis, we were able to reduce the waiting list for the operation from approximately six months to less than three weeks.

PREPARING CHILDREN FOR AMBULATORY ANAESTHESIA

E.M. Boye, Peter Ahlburg, B. H. Eriksen, Day Surgical Center, Aarhus University Hospital (Denmark)

Anaesthesia can be a frightening experience for both the child and its parents. Premedication with Midazolam may delay recovery. There is no documentation of effect in children of more than 24 months of age and it may cause an increase in behaviour changes in the first 2 weeks after surgery.

Information about the induction can reduce anxiety and nervousness. We wanted to use a live media in order to reach the children in a way that they would understand. We also wanted the information to be available in several languages.

We have made a film of approximately 10 min. It follows a child during the day of surgery.

The DVD is delivered to the family at the preoperative anesthetic evaluation. The DVD is placed in a cover showing photographs and written information.

The DVD is held in language understood by the child. The dialogue and the spoken information addresses the most frequently asked questions.

The Film starts at home, addressing NPO and the EMLA cream. The arrival at the hospital and the final preparation for surgery is shown. Induction of anesthesia is seen, both IV- and maskinduction is shown. On recovery the child is followed until it leaves the hospital. The IV-line is removed. The child is offered an ice-cream and something to drink. The DVD is available in 8 languages.

Introducing the DVD has been an enormous success. We experience well prepared children knowing exactly what is going to happen. They have very often seen the DVD several times and know it by heart. The parents also express appreciation for the DVD. It minimizes the anxiety for the unfamiliar situation. A 'stormy' induction has become a rare event. This is reflected in the recovery period.

This media can be highly recommended in informing and preparing a child and its parents before anesthesia.

THE ROLE OF THE OPHTHALMIC ASSISTANT IN OPHTHALMIC DAY SURGERY

Ana Alexandratos (Australia)

Traditionally, Orthoptists have been employed in Ophthalmology practices in a clinical assistant role. The compatibility of The Modern Day Surgery was evident as a perfect partner to Ophthalmology, so many Day Surgeries evolved on the site of existing Ophthalmology practices.

A new role became apparent for Orthoptists as surgical Ophthalmic assistants. This meant there was a natural transition for the Orthoptist from the clinical setting to the surgical arena. The University of Sydney recognises the need for undergraduate training and has included Day Surgery Procedures in their course and at a post graduate level.

The technical and surgical knowledge an Orthoptist has makes them an integral part of the Day Surgery Team. The advantages to both the patient and facility are discussed.

THE CANTERBURY CHARITY HOSPITAL: ADDRESSING UNMET CLINICAL NEED IN NEW ZEALAND

Randall A. Allardyce, P.F. Bagshaw, B.W. Stokes, S.N. Bagshaw, The Canterbury Charity Hospital Trust, Christchurch (New Zealand)

Purpose: To establish the first completely voluntary ambulatory surgery service in Australia and New Zealand. Frustrated by near random surgical care rationing and stimulated by growing unmet clinical need, The Canterbury Charity Hospital Trust was formed in 2004 to assist volunteer clinicians to treat patients, with debilitating conditions, who are dropped from public hospital waiting lists and haven't funds for private care.

Method: Many clinicians, nurses, anaesthetic technicians and members of the public unhesitatingly volunteered their time and expertise. Business and financial support came from all sectors. Results: The extreme makeover of an old villa to include a fully equipped operating theatre, recovery and consulting rooms received national awards. The first operations took place in Christchurch in August 2007 and the facility was opened by the RACS President in October 2007. Currently, tubal ligation, hernia, haemorrhoid, cataract, varicose vein, skin and carpal tunnel operations as well as a range of medical consultations are conducted free to patients. GPs are the "gatekeepers" and no government support is sought or accepted. A summary of the Charity Hospital's medical and surgical performance is presented.

Conclusion: The aim is to perform 700 operations and 700 medical consultations annually. This initiative will not, by itself, solve the problems of the New Zealand public health system. It might, however, serve to rebuild a constructive relationship between clinicians and the public they serve for the future.

TRAINING OF ROYAL AUSTRALIAN AIR FORCE (RAAF) MEDICAL ASSISTANTS IN DAY SURGERY

Amanda Banks, Health Operational Conversion Unit, RAAF, Amberley, Qld (Australia)

The Australian Defence Force (ADF) perioperative nursing course has been conducted by the Royal Australian Air Force's health services since 1984. It has been developed to achieve unique training aims, graduating medical assistants capable of working within deployed operating theatres. The training focuses on building specialist knowledge in trauma and combat casualty management.

Medical assistants are trained within the ADF and are not registered or enrolled with external governing bodies. However, their scope of practice is outlined and supported by the ADF within military units. The students complete units of competency towards various certificates, including anaesthetic technology, operating theatre technician, sterilising and health services.

Deployed roles involve working with specialist surgeons, anaesthetists, and perioperative-trained Nursing Officers. Theatre-trained medical assistants can work in areas of anaesthetics, instrument/circulating, recovery, sterilisation and stock supply services, working with unique deployable assets in remote or war-like locations, including navy vessels.

Medical assistants acquire similar skills to those of civilian-based day-surgery nurses. But their skills require further development to adapt to the needs of often challenging ADF roles that can take them into stressful peace-keeping and war-like environments that may go beyond the boundaries of those experienced by their civilian counterparts.

The course relies on varied clinical placements supported by civilian agencies where students can rotate through the theatre complex and support services, learning from perioperative nurses in contemporary practice. Ipswich Day surgery, Queensland has supported this course in its training and will direct the course into the future, including clinical skills consolidation training for staff.

OFFICE BASED SURGERY – WHAT ARE THE LIMITS?

Richard Barnett (Australia)

Office based surgery may be defined as surgery performed in facilities that are neither licensed nor accredited. Any limits applied to such surgery should be guided solely by the best interests of patients. Quality of care is paramount.

The two main problems associated with office based surgery are lack of accountability and costs. Both will be discussed and some recommendations made.

BODY CONTOURING IN DAY SURGERY

Hugh Bartholomeusz, Brisbane (Australia)

For many years body contouring procedures have been performed in an inpatient setting. Over the last fourteen years I have successfully performed these extensive procedures in an Ambulatory Surgery Facility without the need for overnight admission of any patients.

This paper details the criteria for selection of the operative cases and outlines the pre operative, intra operative and post operative measures that are required to successfully conduct these procedures. Ancillary equipment and suggested technical and pharmaceutical modifications to treatment regimes are outlined.

A pictorial representation of several cases is highlighted. I encourage all plastic surgeons to seriously consider Ambulatory Surgery facilities as their first choice for these operations.

CLINICAL PATHWAYS – NEW ROLES IN DAY SURGERY

Paul Baskerville, King's College Hospital, London (United Kingdom)

A clinical pathway is a multidisciplinary tool for managing care for a given type of case by identifying those interventions and outcomes that need to occur, and implementing them in a sequential and timely fashion. Its main use in the UK in recent years has been in improving efficiency within Day Centres, and in identifying methods for successfully transferring inpatient to ambulatory care.

The process of research and assessment that is integral to the development of clinical pathways has thrown up some key findings common to most case types. These include process changes involving the matching of capacity and demand, the development of care protocols and effective discharge planning. Other common findings include the need for information sharing, including improved communication with patients and the public, and a constant need to plan for integration of new technologies, both diagnostic and therapeutic. Most successful pathways will include all these factors.

Although studies have also demonstrated the necessity for people and their roles to change, much less attention has been given to this aspect of 'new' day care. This presentation will look at day surgery roles, and how they may need to change over the next few years if we are to achieve our goal of "all surgery should be day surgery"

WHAT CAN DAY SURGERY LEARN FROM THE AIRLINE INDUSTRY AND PILOT TRAINING?

Paul Baskerville, King's College Hospital, London (United Kingdom)

Aeroplane crashes are rare, but are often associated with great loss of life. A culture of meticulous sifting and review of causes of accidents and near-misses, together with a policy of 'no fault' reporting has led to a significant reduction in errors and fatalities in the industry. For some years, there has been growing interest in the similarities between those factors helpful in the successful piloting of passenger aeroplanes and in those associated with surgical operating procedures under general anaesthesia, and whether the avoidance of errors in the former could help the prevention of complications in the latter.

Initially, studies focussed on anaesthetic and piloting skills and processes, focussing on the comprehensive check-lists and progression stages similar in both professions. More recently, the growing concern over avoidable misadventures in medical practice has rekindled interest in air industry techniques. A recent UK study on Patient Safety, promoted by the Royal College of Surgeons, has just been completed and focussed primarily on complex major inpatient surgery.

Day Surgery has traditionally had low level of complications, initially because surgical complexity was low. Implementation of strict quality controls and operational policies have kept the rates low in the published literature even as complexity increased. Nevertheless, as part of this study, we wished to ascertain whether 'airline training' had relevance in the day surgery setting. This presentation reports on this study and its outcomes.

RECONFIGURING EXISTING DAY HOSPITALS TO IMPROVE PATIENT FLOW

Peter Bertram (Australia)

The design of Day Hospitals is influenced by a large number of factors. These include clinical considerations, patient and visitor requirements, financial imperatives, floor space restrictions and models of care to name a few. These influences form the 'Design Brief' which sets the background for the design of any Day Hospital.

Each Day Hospital shares a large number of influencing factors, however no two facilities are 100% identical. While the parameters may only vary by a minuscule amount, the response to these differences can impact disproportionately on the success of the design of the Day Hospital.

This presentation will look at how these influences can be prioritised and evaluated and then accommodated in the design of Day Hospitals, with particular emphasis on Patient Flows within the facility. Given that the success of a facility is regularly judged by the efficiency of the patient flows, the importance of getting this aspect right cannot be underestimated. The most highly skilled surgical team's abilities can be either enhanced or restricted through the design of the facility in which they work, with patient flows being at the centre of the core design of the facility.

While this presentation will not produce a blueprint for Day Hospital Design, it will outline key design criteria to be incorporated into a facility which will result in improved patient flows and consequently a better Day Hospital.

DOES HIGHER SURGICAL/ANESTHETIC RISK IMPLY HIGHER ADMISSION RATE IN AN AMBULATORY SURGERY UNIT?

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Introduction

The Ambulatory Surgery Unit has been autonomous, with proper facilities and personnel, since 1994. The gradual acquisition of experience has made possible the approach to more complex patients as measured by ASA classification, and more complex pathologies, such as benign cervical pathology and cholelithiasis.

Aims

- Audit services, quantify quality parameters and compare results;
- identify predictive factors of admission; . determine whether operating upon higher ASA patients translates into higher hospital admission rates.

Methods

A retrospective descriptive study was undertaken based on the operative statistics of General Surgery in ambulatory setting (discharge on the same day) between January 2001 and December 2007.

Results

More than 4500 surgeries were carried out leading to only 20 admissions (0,44%). There is no relationship between higher ASA and need for non-programmed admission. Three predictive factors for admission were identified, independent of ASA.

Conclusion

Acceptance of ASA>II patients did not increase hospital admissions; Older patients subjected to more prolonged surgery under general anesthesia were more likely to require admission; Statistically significant conclusions are limited by the extremely low admission

rate; . Systematization of procedures by an autonomous team allows maintenance of quality parameters despite incidence over more complex patients and pathology.

PAIN MANAGEMENT: THE TEAMWORK OF ANAESTHETIST, NURSE OF THE DAY SURGERY DIVISION AND RECOVERY STAFF

Alberta J. van Delden, Hospital 'Gelderse Vallei' (The Netherlands)

Pain management: The teamwork of anaesthetist, nurse of the day surgery division and recovery staff in Hospital Gelderse Valle.

Situation before 2008

- No evidence based practice
- There is much post-operative pain
- Not (yet) measurable
- Post-operative pain management not unambiguous Acts
- Research (anaesthetist)
- Experiences in Belgium (anaesthetist)
- Conceptualizing of a new way of post-operative pain management

The teamwork: how?

- The workpiece of the anaesthetist
- The workpiece of the nurse
- The workpiece of the recovery staff
- The measuring leads to knowledge
- The consultation between the different disciplines (how?)

Results and a conclusion

- Diagram/ table: grades of pain (0= no pain; 10= very painful)
- Teamwork: the importance for Day Surgery

INSURANCE ISSUES FOR DAY HOSPITALS

Iain Birtwhistle (Australia)

Medical malpractice changes little all over the world. We struggle for differences and our problems are common. Day surgeries need adequate insurance but how much is enough? It is essential despite the temptations to look at coverage particular to your risk profile rather than focus on price. Which incidents do you report and lastly what to do when things go wrong. Iain will lead you through the insurance maze and make sense of all those small print queries.

DAY SURGERY TREATMENT FOR EARLY GLOTTIC CANCER: A SAFE OPTION

Matthew S. Broadhurst, Queensland Centre for Otolaryngology, Head and Neck Surgery (Australia)

Introduction

Early glottic cancer is common cancer for ENT surgeons and most patients tend to undergo surgery with overnight admission. With advances in laser technology and the emerging use of the potassium titanyl phosphate (KTP) 532nm laser, small glottic cancer can be successfully treated as out-patient surgery with maximal voice preservation. Formal video and photographic records can also be stored during this treatment.

Methods

Patients with early glottic cancer underwent office-based panendoscopy in their initial work up. High definition video records were obtained from oesophagoscopy, bronchoscopy and laryngoscopy. Patients then

underwent KTP laser treatment of the lesion and were discharged the same day. Follow-up was conducted including office based endoscopy and patient data collection regarding recovery from surgery.

Results

Eleven patients underwent office-based panendoscopy followed by early glottic cancer treatment with the KTP laser. All were maintained as day cases and there were no complications in the post-operative period. There was no disease recurrence during this study.

Conclusion

Day case treatment for early glottic cancer is a safe treatment approach and avoids potentially unnecessary overnight hospital admission. We should carefully consider such surgery for suitable patients to minimise overnight hospital occupancy and reserve these beds for other patients.

INITIATIVE “DOCTORS HELP DOCTORS”

Jost Brökelmann*, Fikri Riad (Germany)

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Since 2006 German doctors of different medical disciplines (surgery, gynecology, ophthalmology, ENT and anesthesiology) who were in part members of the German-Egyptian Doctor's Association (DÄÄV) have performed missions to Egypt (Aswan, Luxor) in order to help people of lower income. The Egypt Government supported these missions in 2006 and 2007.

In addition to this humanitarian project a gynecological team in 2007 started to train Egyptian doctors in Aswan to perform endoscopic surgery and to introduce modern standards of hygiene in hospitals. This started the initiative “Doctors Help Doctors” which was supported by the BAO. The Egyptian gynecologists invited the German team at their own cost to repeat the workshop, which took place in May 2008. Thereafter 5 Egyptian doctors visited day clinics in Germany; they participated in endoscopic training courses and seminars and visited a company manufacturing endoscopic instruments.

As a result of these actions one new day clinic was recently opened in Aswan, one existing small hospital will invest in new endoscopic equipment and 2 more gynecologists plan a day surgical unit.

These actions have shown that medical education in day surgery is feasible if a) doctors and nurses of the “helping country” are working on an honorary base, b) pre-existing private enterprises (small hospitals, doctor's offices) can be used as starting points for a modern surgical unit and c) a continuing coaching via e-mail is maintained.

NURSE PRACTITIONER TRAINING IN DAY SURGERIES

Elise Bryant, Tri Rhosen Services (Australia)

With Australia only recently adopting the nurse practitioner role within its public health system, we find the training of nurse practitioners in day surgery is limited. With a focus on PNSA Nurse Practitioners, and from a trainee perspective, this paper seeks to identify the overall benefits of the role specifically to day surgery, the required training and recognition, the future of training PNSA Nurse Practitioners in Australia and some brief historical facts about Nurse Practitioners and PNSA's within Australia.

AMBULATORY SURGERY IN THE UNITED STATES OF AMERICA – WHERE WILL IT END?

Kathy Bryant, ASC Association (United States of America)

In the almost four decades that outpatient surgery has existed in the United States, it has expanded from rare to more than half of all surgery.

Outpatient surgery is performed in three different sites – hospital departments, physician offices, and ambulatory surgery centers (ASCs), sometimes called freestanding.

Many factors contribute to the high percentage of surgeries performed on an outpatient basis. Some of these are transferable to other countries and some are unique to the U.S. Contributing factors include: improvement in surgical technique, enhanced anesthetics, competition between hospitals and ASCs, patient preferences and cost pressures.

What does the future hold? Most predict that there will be continued growth in outpatient surgery in the United States. Several factors will contribute to this growth.

- Improvement in surgical techniques. Spine surgery is one example of surgery moving to the outpatient setting.
- Increasing demand for surgery performed on an outpatient basis.

The problem of obesity is increasing the demand for gastric lap banding. Similarly public awareness of the benefits of screening colonoscopies is increasing the demand for this service.

- Government policies that encourage outpatient surgery. In 2008, the government program for the aged and disabled expanded its coverage of procedures. On the other hand, it reduced reimbursement for many high volume procedures.
- Transparency in quality and price data. Transparency refers to making information available to patients regarding costs and quality of healthcare services. As patients learn more about the high quality and lower costs of outpatient surgery demand may increase.

QUALITY BENCHMARKS IN USA AMBULATORY SURGERY CENTRES

Kathy Bryant, ASC Association (United States of America)

Data developed as part of a project measuring ASC outcomes will be presented. This data provides insight into how ambulatory surgery centers (ASCs) in the United States operate. It can also be used to assess differences between the United States experience and that of other areas.

Project Methodology Approximately 3,000 ASC Association member ASCs are sent a quarterly response form seeking information on 34 parameters, including quality of care, operations and financial. 650 ASCs participate. A quarterly report is issued providing national data and data by type of ASC – multi-specialty, single-specialty and specific specialties – ophthalmology, gastrointestinal and orthopedics. Participating ASCs receive their individual results as well.

Results The presentation will include a discussion of key results for the 4th quarter of 2008

- 56.8% of ASCs issue prophylactic antibiotics within one hour of scheduled time for 99% of patients
- 38% had no unexpected complications
- 49.8% had no unscheduled transfers to hospitals
- 83.5% had no returns to surgery
- 57.5% of ASCs started 71% or greater surgeries within 7 minutes of scheduled time
- 71.3% of ASCs report OR minutes of less than 61 minutes

Characteristics of Responding ASCs

- 89.1% of ASCs had MD ownership; 62.6% are wholly owned by physicians
- 87.9% were accredited
- 14.4% treated patients with ASA physical status of Level 3; 0.4% Level 4
- 57.1% provide care in multiple specialties

Because of regulatory restrictions within the United States this data is only from ASCs that are operated independently of a hospital.

DAY MATERNITY UNITS SUPPORTED BY MATERNITY MOTELS – IS THIS AN OPTION?

Allison Carr, Prince of Wales Private Hospital Director of Nursing (Australia)

Models of Maternity Care that include a Hotel stay have been in place in Australia since 2002. While this is currently the domain of the Private Health Sector there is scope for further development across the current limited range of models. Currently Hotel stays have been for a period of time between the mid-postnatal period through to the planned discharge day. In the current Private Health arena reimbursement for treatment now occurs primarily on a case payment model where a set amount of funding is applied to specific DRG's (diagnostic related groups). This creates a real opportunity for Private Hospital's to be creative and offer women and families real and unique experiences. Hospital to Hotel inpatient program

This model suits patients having a relatively straightforward birth, which may include a Caesarean Section. The Mother and Baby are suitable to be transferred to the Hotel for the remainder of their planned length of stay. Prince of Wales Private Hospital is the first hospital in NSW to develop a Hotel Maternity Model of Care. (Open up the research books)

However there beckons the creative endless options.

Hospital day program to Hotel

This is a real option, which may take considerable change in culture and considered learnings internationally to be realised. However the suitability again would fit with the Private Health Care Providers. The model would need to include more robust clinical governance standards to be met to support women and newborns during the initial period following the birth. Risk recognition and attitude tolerance will be major hurdles.

We are ready for the challenge.

ANGIOPLASTY AND STENTING OF LEG ARTERIES

William Clark (Australia)

Atherosclerosis remains the leading cause of death in Western society. Leg arteries are very commonly involved in the process. This is probably due to the long segment of a single axial artery from the belly-button to below the knee. The common iliac, external iliac, common femoral, superficial femoral and popliteal arteries constitute a continuous artery from aorta to the popliteal trifurcation. The very length of this vessel gives statistical likelihood to the occurrence of symptomatic narrowings in patients with atherosclerosis.

The least severe symptoms are intermittent claudication which is graded by the distance walked on the flat before pain occurs in the muscles of the lower extremity. More severe symptoms are tissue loss (arterial ulcers and gangrene) and rest pain. These are collectively called critical ischaemia.

Over the last 10 years there has been a quantum shift away from open by-pass surgery to endovascular means of improving distal arterial perfusion pressure. These are performed via arterial puncture, angiogram imaging and angioplasty plus or minus stent support. The puncture can be closed with an arterial closure prosthesis or by manual compression/. This allows the patient to walk out of the hospital 2 to 4 hours after the procedure. The author has performed 5,000 angioplasties on leg arteries. At least 90% of these have been performed as day only procedures.

VENOUS EMBOLIZATIONS

William Clark (Australia)

The venous component of the vascular tree represents the low pressure end of the cardiovascular system. The average operating pressure of peripheral veins is 11mmHg compared to an average systolic arterial pressure of 120mmHg. The venous system which operates against gravity includes the leg veins and the testicular and ovarian veins. These veins rely on a system of valves to allow forward flow while preventing reflux. Absence or incompetence of valves leads to distal venous hypertension resulting in dilatation of veins into "varicose veins".

The left ovarian and testicular veins drain into the left renal vein. The right testicular and ovarian veins drain into the IVC. Both are protected from reflux by a single valve. Incompetence of this valve system occurs in up to 5% of people resulting in scrotal varicocele in males and ovarian pelvic varicocele in females. The latter can result in the "pelvic congestion syndrome" and also contribute to varicose veins in the leg.

An incompetent vein allows the reverse of its intended purpose. Rather than carrying venous blood toward the heart it dumps additional venous blood more distally. Occlusion of these gonadal veins by interventional radiology means cures this problem. The technique will be described. These are ambulatory or day-only procedures ideally suited to day only surgical facilities.

EFFECT OF THE ONE-DAY SETTING ON THE TRAINING OF YOUNG SURGEONS IN INGUINAL HERNIA REPAIR

Kenneth Eric Coenye, K. De Vogelaere, G. Delvaux, University Hospital Free University, Brussels (Belgium)

For one-day surgery, surgeons are required to have short operating times and deliver excellent quality. Furthermore, minimally invasive and high-tech surgical techniques have been developed to give as much patient comfort as possible.

In our training hospital, around 180 inguinal hernias a year are operated on, using the Kugelpatch technique. The consultant performing these procedures has also a training mission; junior trainees are taught inguinal anatomy and approach, senior trainees get familiarized with this specific technique for open preperitoneal hernia repair.

We reviewed 350 repairs over a two-year period. 73 repairs were performed by trainees. We compared operating time, postoperative complications and several other parameters and asked the senior trainees through the means of a questionnaire how they appreciated training in the One Day setting.

The mean operating time was 26,6 minutes, compared to 15,4 minutes if the consultant performed the surgery. In terms of seroma and haematoma, there were no more post-operative complications in the trainee-group than in the consultant-group. Where the consultant only had 1,1% recurrence, the trainees had 2,7% (2 patients).

Trainees expressed that a certain stress was put on them, in terms of expected rapidity, but that time was given to be able to master all steps of the procedure. They considered being trained into the concept of day-surgery important for their future surgical careers.

DAY SURGERY FACILITIES FOR ELDERLY PATIENTS: WHICH STRUCTURAL REQUIREMENTS?

Maurizio L. Costantini(*), G. Bettelli(**), M. Sebastiani, S. David (***) (Italy)

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In next years, the number of outpatients over 65s will grow. Motor and/or sensorial deficits and comfort requirements of elderly represent a challenge for hospital engineers and health care managers. In Italy, with the expansion of DS, a wide number of facilities will be built in the future. Following these considerations, we reviewed the literature searching for data or studies, from which to draw basic principles and/or design patterns.

The study consisted of: literature review with focus on DS and elderly patients, prevalence and characteristics of the commonest disabilities in elderly population; review of the environmental and technical requirements facing with the discomfort caused by the different disabilities; definition of a set of design patterns to be applied when designing geriatric DS units.

Results: Age over 65y does not represent an independent risk factor in DS; so, extending DS to elderly is rational. Moreover, treating elderly in DS may reduce postoperative cognitive disturbances. All these considerations make the plan to build a new geriatric facility at INRCA a valuable one.

The prevalence of motor, visual and hearing impairments in the 65-85y age will be reported. Analysis of the national law revealed the lack of any design patterns aiming to reduce the discomfort related with visual and hearing impairments, whereas with motor disability the only one existing codified regulation is architectural barriers removal.

Starting from these data, a group of technological and typological requirements for geriatric DS facilities has been identified, as a starting point toward the definition of a regulation frame for DS geriatric facilities by the Healthcare Ministry. Conclusion: This study represents a first approach to the definition of requirements and design patterns for geriatric DS facilities.

STANDARDISATION IN HEALTHCARE: THE EXPERIENCE WITH AMBULATORY SURGERY

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Quality of care can be defined as either "How well does all care perceived meet the expectations of patients" or "How well does all care delivered match predefined Standards".

In the Dutch Healthcare system, the development of Standards regarding the overall care of patients has always been considered difficult. Both medical specialists and hospitals are of the opinion that they themselves are experts, patients have no say what's however, the government is almost by definition incompetent, and insurers have hidden agendas.

In 1995, however, the Minister of Health awarded a grant to the Dutch National Standards Organization NEN to assist in the development of a Standard for the care of patients scheduled for an operation in Day Surgery. NEN brought together a party consisting of representatives of the Dutch Association for Day care and Short Stay (NVDK), medical specialists (surgeons, anesthetist), representatives of insurers and Ministry of Health, and board members of patient-consumers platforms. In 2000 this committee was able to develop the first edition of a set of Standards for Surgical Day Care, mainly focusing on process of care.

These new Standards were adopted by all members of the Dutch Association for Day care and Short Stay (NVDK). But both Dutch hospital administrators and medical specialists were more reluctant, being afraid of litigation when the Standards weren't met. In 2002 an audit was performed in 70% of all Dutch Units for Ambulatory Surgery, and it could be concluded that most units conformed to the Standard, despite this wary attitude of administrators and specialists.

According to regular procedure, the Standard was revised in 2006, using the same committee, but this time extended with other medical specialists and experts from the Dutch Institute for Healthcare Improvement (CBO). Structure and outcome of care were included in this version. Again this second edition was adopted by the members of the Dutch Association for Day care and Short Stay (NVDK), but also by Dutch insurers, demanding conformity to the Standard by health care providers wanting to be contracted. To assess again conformity to the Standard by all Dutch units for Ambulatory Surgery, a second audit was performed in 2009.

Materials and Methods

The audit consisted of 32 items regarding structure, process and outcome of Ambulatory Surgery. A total of 140 locations of Dutch public hospitals were addressed. Unfortunately it was not possible to include private clinics. The questionnaire was made accessible by Internet, all participants received a unique log-in code and password by E-mail.

Results

The response was 51%: 71 units for Ambulatory Surgery reacted. Only 38% of the respondents used the Standard for the design of their care process. Nevertheless conformity with process indicators was as high as in the former 2002 audit. But units also complied with outcome indicators: 85% of units registered no-shows, cancellations of scheduled procedures, and unanticipated admittance to hospital. Measurement of postoperative pain has become a standard procedure in 72% of all respondents, and in 51% PONV is registered. A time-out procedure before starting anesthesia takes place in 72% of responding units. Both nurses and physician assistants are involved in the preoperative process, respectively in 59 and 13%.

Conclusions

Although familiarity with the second edition of the Dutch Standard for ambulatory surgical care is not optimal, many Dutch units show conformity with its contents. Especially outcome indicators are used extensively to monitor quality of care. It is recommended that also private, free-standing units (not addressed in this audit) will be involved in the near future.

EFFICIENCIES AND PATIENT FLOW IN DAY SURGERY

Ralph de Plater (Australia)

Efficiency may be defined as "Producing a competent result with the least waste of effort."

In Eye Day Surgery, we have been able to increase output from 3 cases in an afternoon to 4 cases an hour.

The general principles required to produce such efficiencies will be discussed. These include Facility Design, Operative and Anaesthetic Equipment and Operative and Anaesthetic Techniques. More subtle essentials such as Case Preparation, Flexibility and Staff Motivation will also be discussed.

The Journey of a typical patient will be followed from admission to discharge, to demonstrate various aspects of efficiency and patient flow.

LAPAROSCOPIC CHOLECYSTECTOMY AT AN UNIT OF AMBULATORY SURGERY. RESULTS OF A COMPARATIVE STUDY BETWEEN 2 CONSECUTIVE PERIODS

Fernando Docobo Durantez, Department of Surgery, University Hospital Virgen del Rocío, Sevilla (Spain)

Laparoscopic cholecystectomy (L.C.) is the gold standard procedure for chronic symptomatic cholelithiasis. Our aim is to assess the laparoscopic activity at an Day Surgery Unit comparing overnight with day surgery activity in two consecutive periods. During a period of 11 years (1997–2008) we performed 1098 L.C., study group 1077 (98.08%).

Group A (1997–2002) overnight surgery and Group B (2003–2008) day surgery. We used including and excluding criteria, analysed the patient characteristics, operative aspects, hospital stay, morbi-mortality and satisfaction, follow up outpatients were clinics and phone call test at 3 months postoperative period. 21 patients were excluded (1.91%). Study group: 1077 patients Group A: 306. Group B: 771. Mortality was null.

Group A: Gender: 247 woman, 59 man. Age (20–39 years:49) (40–59 years:128) (60–79 years:129). ASA: I (51), II (206), III (49). Anaesthesia: TIVA 51 – Balanced:255

Operation: 3 Ports 35- 4 Ports 271. Mean time: 39+/-10 min. Discharge: DS 4, <23h: 186, 24h: 106, >24h: 10. Causes non discharge DS: Abdominal pain 74, n-v: 69, discomfort: 58, social problems: 48, conversion. 33, others: 20. Complications: Biloperitoneum 3, hemoperitoneum 1. Final clinical evaluation: Without symptoms 296, some abdominal pain 10. Quality satisfaction: High level 178, normal level 117, low level 11

Group B: Gender: 613 woman, 158 man. Age (20–39 years:189) (40–59 years:273) (60–79 years:309). ASA: I (182), II (490), III (99). Anaesthesia: TIVA 246. Balanced: 435. Operation: 3 Ports 759 – 4 Ports 12. Mean time: 23 +/-7 min. Discharge: DS 627, <23h: 131, 24h: 7, >24h: 6. Causes non discharge DS: Abdominal pain 30, n-v: 25, discomfort: 32, social problems: 36, conversion. 11, others: 10. Complications: Biloperitoneum 2. Final clinical evaluation: Without symptoms 749, some abdominal pain 22. Quality satisfaction: High level 528, normal level 234, low level 9

In conclusion: CL in DS has become as a safe procedure at our day surgery unit. Residents take an active role in the learning and performing of this surgical approach.

We think this procedure is perfectly performed in our area while patients keep well selected.

UPPER AERO-DIGESTIVE TRACT OPERATIONS IN DAY SURGERY

Darcy Economos, Wakefield Surgicentre Adelaide (Australia)

Introduction: Despite the growing trend in performing up to 90% of elective surgery as day cases in some specialties, day surgery procedures in the upper aero-digestive tract remain at relatively low levels of 30–40% in Australia, as well as internationally. The aim of this paper is to consider these differences, in order to identify which patients would ideally be better performed in a day surgery environment.

Method: A retrospective review of a personal series of patients undergoing day surgery for septal surgery, rhinoplasty, otological surgery, pan endoscopy, as well as adenotonsillectomy over a ten year period were reviewed. The selection method of patients undergoing such surgery, types of procedures, anaesthetic techniques and socioeconomic factors in patient selection for day surgery is discussed.

Results: A wide range of surgical procedures in the upper aerodigestive tract were performed as day surgery with high patients acceptance and low complication rate, as compared to planned overnight stay procedures.

Less than 1% of patients required readmission, primarily with concern with epistaxis.

Conclusion: Day surgery has well known advantages over planned hospital stay in the surgery of the upper aero-digestive tract. The concern with post-operative epistaxis and the upper airway requires rigid patient selection processes, as well as meticulous attention to surgical and anaesthetic technique. The procedures performed with planned overnight stay were in fact managed within the twenty-four hour period. While the cost-saving of day procedures in these patients is relatively clear, the incentive for health providers to reconsider day surgery by the medical health system (Medicare) and health fund insurer remains low.

QUALITY CONTROL OF ANTI-EMETIC PROPHYLAXIS IN DAY SURGERY

Sven Felsby, U.T. Larsen, Department of Day Surgery, Aarhus University Hospital, Skejby (Denmark)

Background

PONV is a major complication in day surgery, as it is unpleasant and may lead to ward admission.

Aim

To determine the extent of PONV and establish an effective prevention scheme, the incidence in our clinic were recorded in two consecutive series of 1141 patients in total.

Methods

Quality control study encompassing all gynecological patients excluding surgical abortion patients.

In series I (n=682), the following risk factors [RF] were used:

1. female
 2. non-smoker
 3. per- or postoperative opioid treatment
 4. history of PONV and/or motion sickness
- In series II (n=459), risk factor 3. was modified to:
4. Postoperative opioid treatment only.

Prophylaxis was given as follows:

1-2 RF: none

3 RF: droperidol 10 µg/kg

4 RF: droperidol 10 µg/kg and ondansetron 4 mg Anaesthesia consisted of propofol, alfentanil, fentanyl and/or remifentanyl. No N2O was used. All patients received NSAID preoperatively and paracetamol postoperatively if not contra-indicated.

Results

Series I / Series II

Droperidol prophylaxis was given to 69% / 24% of patients. Of these, 20% / 2% received additional ondansetron.

PONV in the recovery room occurred in 4.7% / 6.1% of patients.

PONV at home the day of surgery occurred in 9% / 14%.

Fentanyl for postoperative pain was given to 5% / 6% of patients and was associated with PONV in 26% / 32% of these patients.

Conclusion:

Excluding preoperative opioid as a risk factor diminishes prophylaxis from 69% to 24% of patients with only a marginal increase in PONV.

We found the PONV incidence to double when the patients got home. Evaluating PONV on the basis of data from the recovery room only may underestimate the problem.

CONSENSUS GUIDELINES FOR THE MANAGEMENT OF POSTOPERATIVE NAUSEA AND VOMITING

T J Gan (United States of America)

Despite significant advances in the area of postoperative nausea and vomiting (PONV) and the introduction of new antiemetic agents, the overall incidence of PONV is currently estimated to be around 20 - 30 %. In certain high-risk patients, this incidence is still as high as 70 %. PONV can cause prolonged post-anesthesia care unit (PACU) stay and unanticipated admissions following ambulatory surgery, therefore increasing medical costs. Postoperative nausea and vomiting were among the ten most undesirable outcomes following surgery. Gan et al. reported that surgical patients were willing to pay up to \$100, at their own expense, to avoid PONV.

Consideration for PONV prophylaxis must take into account several factors: type/duration of surgery, type of anesthesia used (e.g. inhalational anesthetic), postoperative opioid use, and patient-related risk factors. Patient-related risk factors include female gender, smoking status, and history of PONV/motion sickness.

PONV may result from stimulation of central receptors responding to chemical stimuli, activation of peripheral receptors during mechanical distension, or mucosal irritation during surgery.

Receptors for serotonin 5 hydroxytryptamine type 3 (5-HT₃), dopamine (D₂), cholinergic, histaminergic, and neurokinin-1 (NK1) and are implicated in PONV. Antiemetics act as antagonists on one or more of these receptors. PONV prophylaxis can also be achieved with nonpharmacologic measures. Acupuncture has been the most studied. Hypnosis and use of ginger or peppermint oil have demonstrated varying success rates.

The first step in decreasing PONV is reducing baseline variables that may increase a patient's individual risk. Avoidance of volatile anesthetics, use of propofol for induction and anesthesia maintenance, minimization of opioids and adequate patient hydration may significantly decrease PONV. In moderate- or high-risk patients, antiemetic prophylaxis with combination therapy should be considered. In addition, there is a role for the use of nonpharmacologic modality such as acupuncture. In high-risk patients, combination therapy with two or three prophylactic agents from different classes should be initiated.

CONTINUING EDUCATION OF PERIOPERATIVE NURSES IN AMBULATORY SURGERY: IDENTIFYING FUTURE NEEDS BASED IN CURRENT TRENDS

Brigid Gillespie (Australia)

Every day thousands of people undergo surgical and other invasive procedures in ambulatory settings – a trend that is set to continue, and even increase over the next decade as anaesthetic and surgical technologies rapidly advance. Innovative processes incorporated into surgery such as minimally invasive techniques and nanotechnologies, are transforming the nurse's delivery of care in such settings. Care that was formally spread over the period of a couple days is now completed in several hours. Consequently, ambulatory surgery has driven the development of new models of care, skill mixes and cross-training. The skill mix required for this setting includes nurse managers, nurse anaesthetists, clinical specialists and nurse practitioners.

This paper discusses the challenges and opportunities for nursing in relation to ongoing education and skills training required to practice safely in the context of this unique, rapidly expanding perioperative setting.

TRANSANAL HEMORRHOIDAL DEARTERIALISATION: A SYSTEMATIC REVIEW

Pasquale Giordano, F. Madeddu, J. Overton, G. Gravante, Department of Surgery, Whipps Cross University Hospital, London (United Kingdom)

Background: Transanal hemorrhoidal dearterialisation (THD) consists of a Doppler guided ligation of the distal branches of the rectal arteries. Aim of this review is to assess the current evidence on THD, establish the safety and effectiveness of the technique, define its indications and identify its possible advantages and limitations.

Methods: Systematic review of all published studies on THD without language restrictions. Primary outcome measures were postoperative pain and hemorrhoidal recurrences.

Results: Seventeen articles including a total of 1996 patients were analysed. Operating time ranged between 5 and 50 minutes. Hospital stay was 1 day in most patients while return to normal activities was between 2 and 3 days in most cases. Postoperative pain was present in 18.5% of patients. Three patients experienced important postoperative hemorrhages. There were no other major complications. Overall recurrence rate was 9.0% for prolapse, 7.8% for bleeding and 4.7% for pain at defecation. Recurrence rate at one year or more was 10.8% for prolapse, 9.7% for bleeding and 8.7% for pain at defecation. When reported per grade recurrence rate was higher for IV degree (range, 11.1-59.3%)

Conclusion: Based on the current available data THD seems to be a possible treatment option for second and third degree hemorrhoids. Clinical trials and longer follow-up are required in order to establish the possible role of this technique in comparison to other procedures for the treatment of hemorrhoids.

PERCUTANEOUS VERTEBROPLASTY AS DAY SURGERY

Albert Goh (Australia)

Vertebral compression fractures are a significant cause of morbidity in the population, particularly in the clinical setting of osteoporosis. Failure of conservative treatment with continued bedrest and analgesia may lead to multi-systemic effects and further morbidity. Percutaneous Vertebroplasty is a safe, minimally invasive therapeutic option for producing pain relief, encouraging and enabling early mobilisation and rehabilitation, thus reducing the need for prolonged hospitalisation, analgesia and associated multi-systemic de-conditioning. Like many other techniques in Interventional Radiology, it is well suited to the Day Surgery model of care.

MOBILE SHARE DAY SURGERY IN NEW ZEALAND

Stuart Gowland, M. Eager, W. Lorentz, Mobile Surgical Project, Christchurch (New Zealand)

The New Zealand Government funded day surgical unit commenced operation in 2002. It now visits 22 of the country's smallest rural hospitals and has provided day surgery to over 10,000 patients, reducing pressure on base hospitals and making access to day surgery readily available for rural people by upgrading the utilisation of their already available facilities.

The surgical bus usually arrives the night before, spends one day on the operating list in a particular town and moves on to the next venue that night. An important principal of the project is that local nursing staff are upskilled to be able to work in the operating room and recovery, and

regional specialists provide anaesthetic and surgical services. There are a number of issues around the mobile delivery of services.

- Correct patient selection around a country, including the forwarding of the preoperative patient questionnaire.
- The selection of circuits for the mobile unit.
- The use of a patient management system and a patient electronic record.
- The generation of operative notes and other items for the local hospital records.
- Documents communicating with general practitioners and in some cases other specialists.
- Documentation of the extensive ongoing skill based training programme.

Technology has been developed over the years to manage these particular functions.

MANAGEMENT OF POSTOPERATIVE NAUSEA AND VOMITING (PONV)

Anil Gupta (Sweden)

PONV is one of the two most common minor complications following ambulatory surgery, has been shown to delay recovery and home discharge, is one of the common reasons for admission and readmission, and one of the symptoms that patients regret most. Identification of patients at risk for PONV, and the use of prophylactic medication to reduce this risk remains the cornerstone of management. The Apfel scoring system for preoperative risk calculation in adults is simple, useful and easy to remember. One point is assigned to each of the following risk factors: female gender, non-smoking status, previous history of PONV/motion sickness and the use of postoperative opioids. With a baseline risk of 10%, 1-4 points increases the risk of PONV from 20% to 40%, 60% and 80%. A similar but slightly different risk calculation exists even for children. Additional but minor risk factors for PONV include: inhalational anaesthetics, use of nitrous oxide, type of surgery and the use of intraoperative neostigmine.

Having identified the risk factors, drugs and techniques have to be used to prevent as well as treat PONV. Recommendations on which and how many drugs should be used for prophylaxis vary.

However, in the presence of 1-2 risk factors, double prophylaxis with droperidol and cortisone is recommended. With the presence of 3-4 factors, a triple prophylaxis regime may be used, or a double drug prophylaxis combined with total intravenous anaesthesia without nitrous oxide may be the option. It is important to combine drugs with different mechanisms of action since PONV is often multifactorial.

Metoclopramide is not as effective as the other drugs but the difference between the other three classes of drugs is minor, when used for prophylaxis of PONV. Being more expensive, the 'setrons' should be used for the treatment of PONV (instead of prophylaxis) since they are both efficacious and even reduce the incidence of post-discharge PONV. Non-pharmacological methods such as acupuncture and acupressure should not be forgotten since these are very effective in the individual patient.

Newer drugs are being tried for the management of PONV including the NK-1 inhibitors. However, at the moment there are few studies published in the perioperative setting. Hopefully, the future should bring better methods for the prevention and treatment of PONV.

POSTOPERATIVE PAIN MANAGEMENT IN ADULTS

Anil Gupta (Sweden)

With the advancement in pain management in recent years, this has become a relatively minor consequence of ambulatory surgery. However, it is important not to be complacent since more complicated and advanced surgery is likely to be performed on an ambulatory basis in the future. This would require newer and more innovative methods to manage postoperative and post-discharge pain in order that ambulatory surgery is to continue even in the future. Identification of patients at risk of experiencing pain, road mapping of painful procedures, the use of minimally invasive methods for surgical intervention and continuous surgical training are some methods that have been documented to improve outcome for patients, and should be implemented in all day surgical units. Since pain is multi-factorial in origin, proper treatment incorporates not only a preventive approach but also proactive intervention and multimodal strategy for management. Use of single drugs in large doses results in unwanted side effects as well as inadequate management and therefore, a combination of drugs with different mechanisms is important. Thus, combinations of local anaesthetics with paracetamol as basic medication in all patients are important.

This should be supplemented with non-steroidal anti-inflammatory (NSAID) drugs in those patients who tolerate these drugs or combination treatment using morphine analogues and tramadol.

Recently, even drugs such as gabapentin have been used during ambulatory surgery, which reduces analgesic supplements and possibly even the development of chronic pain. Regional anaesthetic techniques including the use of perineural and wound catheters appear to be promising but more studies are needed in the ambulatory setting. Non-pharmacological methods such as acupuncture, cold compresses, music and trans-electrical nerve stimulation should not be forgotten. Finally, the use of clonidine and low-dose ketamine in the difficult case should also be kept in mind. Unfortunately, these latter techniques are reserved for the use in day surgical units and not at home.

PRACTICAL PAEDIATRICS: NURSING CHILDREN IN ADULT CENTRES

Priscilla Guy (Australia)

Day Surgery Centres are an ideal environment for children to undergo their procedures. Day Surgery Centres, generally, have less of the hospital associated factors of smell, look and noise about them and the stay is short meaning less disruption to routine and family. There are an extensive variety of procedures that children can undergo in a day surgery environment.

It is important to remember that your style of nursing when looking after a child is one of constant change, even from one minute to the next. You must be adaptable and flexible. What is working for you one minute can just as easily be a disaster the next – be quick to recognise this and change your style accordingly.

Children cannot be nursed in isolation and building rapport and trust with the child's family is particularly important because within a couple of hours of the child's surgery, you will be expecting the family to take the child home and be responsible for their ongoing care. A parent who has not felt that they are part of the child's care partnership while hospitalised will not feel confident or comfortable caring for their child post-operatively at home. It is important to recognise each child and their family as individual and different. Each family will have a different method of coping with stressful situations. Care of the child undergoing surgery should be unbiased and supportive of the family structure. Change your practice slowly and as your confidence in nursing children increases so will your enthusiasm when children have surgery in your centre.

EMERGENCY OPERATIONS IN DAY SURGERY CENTERS/UNITS

Raafat Hannallah, George Washington University Medical Center and Children's National Medical Center Washington DC. (United States of America)

Most day surgery units are designed and staffed to perform elective surgical or diagnostic procedures during normal business hours. Some may have extended recovery facilities for patients who undergo more complex surgery.

Some surgical procedures performed in a day surgery unit may need to return to the operating room for re-exploration while the patient is still in the facility (e.g., bleeding following tonsillectomy). This is generally acceptable to most units.

Occasionally, a surgeon may have an office in the same building or near a day surgery facility and may request to add an emergent patient to his or her list. Although most units discourage or do not allow this practice, some will comply. The logistics of accepting these patients are challenging. Patients are expected to be fasting. Preoperative screening and preparation can be performed by the unit staff. Insurance authorization must be obtained to ensure proper reimbursement for the unit.

In some places, free-standing "urgent care centers" may have a procedure room or an operating room that may be able to perform simple emergency procedures (e.g., reduction of fractures or suturing of lacerations) under local or general anesthesia. These units must comply with all the regulatory requirements for the procedures that they can accept.

PAEDIATRIC POSTOPERATIVE PAIN MANAGEMENT

Raafat Hannallah, George Washington University Medical Center and Children's National Medical Center Washington DC. (United States of America)

Multimodal approach, including regional blocks or local infiltration should be used whenever possible to supplement general anesthesia and to limit the need for narcotics during recovery. Acetaminophen is the most commonly used mild analgesic for pediatric ambulatory patients. For young children, the initial dose is often administered rectally (40 mg/kg) prior to awakening from anesthesia. Supplemental doses are given orally (10-15 mg/kg every 4-6 hr; not as needed). The total daily dose should not exceed 100 mg/kg.

Non-Steroidal Anti-Inflammatory Drugs (NSAID): NSAIDs, e.g., ketorolac, have proved effective in relieving postoperative pain following minor operations in children. Early administration immediately following induction seems to provide optimal postoperative analgesia. Ketorolac, however, may increase the risk of surgical bleeding secondary to altered platelet function. Newer COX-2 inhibitors, where available are extremely useful in the perioperative period.

Potent Narcotic Analgesics: When narcotics are indicated in the recovery period, a short acting drug should be chosen. Intravenous use allows more accurate titration of the dose and avoids the use of "standard" dosages based on weight, which may lead to a relative overdose. Fentanyl, in a dose of 1 – 2 mcg/kg, is our drug of choice for intravenous use. Nasal fentanyl (2 mcg/kg) has been used successfully following BMT surgery. Recurrent hypoxemia in children, e.g. OSAS, is associated with increased sensitivity to ventilatory depression when opioids are used.

Regional Analgesia: Regional anesthesia can be combined with light general anesthesia to provide excellent postoperative pain relief and early ambulation, with minimal or no need for narcotics. By placing the block

before surgery starts but after the child is asleep, one can reduce the requirement for general anesthetic agents during surgery, which in turn may result in a more rapid recovery, earlier discharge, more rapid return of normal appetite, and less nausea and vomiting.

The types of blocks that can be used safely in the pediatric ambulatory surgical patient are limited only by the skill and interest of the anesthesiologist. Generally, the techniques chosen should be simple to perform, have minimal or no side effects, and not interfere with motor function and early ambulation.

Ilioinguinal and iliohypogastric nerve block can be performed by infiltration of 0.25 percent bupivacaine medial to the anterior superior iliac spine. This block has been used successfully to provide excellent postoperative analgesia following elective inguinal herniotomy, hydrocelectomy, or orchiopexy.

Dorsal nerve block of the penis can be performed by simple injection of 1.4 ml of 0.25 percent bupivacaine without epinephrine deep to Buck's fascia 1 cm from the midline. Topical application of lidocaine on the incision site at the conclusion of surgery has also been shown to be effective.

Caudal block, using bupivacaine, 0.25 percent solution in a dose of 0.5-1.0 ml/kg, provides excellent postoperative analgesia following a wide variety of surgical procedures such as circumcision, hypospadias repair, orchiopexy, and herniotomy. When a larger volume is indicated, the use of a 0.125% solution is recommended. Alternatively, ropivacaine 0.2% solution can be used to provide similar duration analgesia, but less motor weakness than bupivacaine.

PAEDIATRIC SELECTION CHALLENGES

Raafat Hannallah, George Washington University Medical Center and Children's National Medical Center Washington DC. (United States of America)

The primary factors that must be considered when selecting a child for ambulatory surgery are the physical status of the patient, and the type of surgical procedure to be performed. These must be balanced with the capability of the surgical facility and the ability of staff to deal with any unexpected complications.

The Patient: The child should be in good health; if not, any systemic disease must be under good control. Today, many patients with chronic medical conditions present for surgical procedures that are usually considered appropriate for ambulatory surgery. In these cases, an understanding of the underlying pathophysiology and thorough preoperative evaluation will help guide the anesthesiologists as to the appropriateness of choosing the type of ambulatory setting in each individual patient. Some of these conditions are discussed below.

The premature infant is not a suitable candidate for ambulatory surgery because of the high incidence of perioperative complications such as apnea. The age at which a former premature infant (ex-preemie) attains physiologic maturity and no longer presents an increased risk for postoperative apnea remains controversial, and is best considered individually. It is generally considered that infants younger than 50-55 weeks postconceptual age (PCA) and/or preoperative history of apnea are at greatest risk; although some authors have reported apnea in infants as old as 60 weeks PCA.

The Child with a Runny Nose: A child who presents with a runny nose may have a benign, noninfectious condition (e.g., seasonal or vasomotor rhinitis), in which case elective surgery may safely be performed. On the other hand, the runny nose may be an infectious process (URI), in which case elective surgery may need to be postponed. In most cases, the history is the most important factor in the differential diagnosis. Parents can usually tell whether their child's runny nose is "the usual

runny nose” or an acute infection that may require cancellation of elective surgery. Parents of ambulatory patients can be instructed to call-in on the morning of surgery if the child develops URI symptoms so the findings can be reviewed and if a decision to cancel surgery is made, they are spared a wasted trip to the hospital

The Procedure: Many experts believe that almost any operation that does not require a major intervention into the cranial vault, abdomen, or thorax can be considered for ambulatory surgery. The planned surgical procedure should be associated with only minimal bleeding and minor physiologic derangements. The length of the procedure is not in itself a significant limitation. Ambulatory adenotonsillectomy is safe and cost effective and that there is little benefit in keeping these patients in the hospital more than a few hours after surgery to ensure adequate hydration, pain relief and absence of bleeding. Many young children (< 3 yr.) however who are undergoing tonsillectomy for the relief of severe airway obstruction, with or without sleep apnea (OSAS), continue to suffer from the same symptoms and exhibit worse apnea and desaturation in the immediate postoperative period and are not good candidates for ambulatory surgery.

23 HOUR DAY SURGERY

Ian Jackson, Anaesthesia, Theatres & Intensive Care, York (United Kingdom)

Day surgery in the UK does not include an overnight stay – as the NHS defines anyone who is in hospital at midnight as inpatient. Therefore the British Association of Day Surgery concentrated on ‘true’ day surgery i.e. those cases managed during daylight hours with a 3-6 hour stay. However some years ago it became obvious that the principles of day surgery should also be applied to the short stay surgery pathway and that this also offers major advantages for hospitals and patients. The reasons for this will be discussed in the presentation. In 2006 BADS rebadged itself as promoting ‘excellence in short stay surgery’ and produced the first BADS Directory of Procedures. This provided a directory of over 160 procedures across 9 surgical specialties with performance targets set by leaders in each field that were designed to be challenging. The design of the directory and the more recent electronic assessment tool will be outlined and why this is seen to be important for hospitals in the UK.

WHAT ARE THE LIMITING FACTORS FOR THE FUTURE EXPANSION OF DAY SURGERY?

Ian Jackson, Anaesthesia, Theatres & Intensive Care, York (United Kingdom)

There are many factors that may play a part in limiting our ability to expand day surgery. Demographics of our national populations are slowly but surely changing with an increasing number of the elderly. This brings an increase in co-morbidities and loss of carers so making day surgery more difficult to plan. Obesity is another area that will present challenges, however many of us are already successfully dealing with morbid obese patients through our units. This does require experience and more importantly training and I believe this is an area that is already limiting day surgery expansion. During this talk I will give examples of issues with training in surgery and anaesthesia that are causing problems. Some of these training issues surround embracing new technology which in itself brings another limiting factor. Issues of overall cost of new technology both in terms of reliance on disposable single use items and the cost to our environment i.e. fears about our ‘carbon footprint’ are just beginning to reach hospitals. Finally the major area of limitation is pain and symptom control following surgery – our ability to find new techniques of providing safe and effective analgesia may well have a limiting effect on our future aspirations.

PREOPERATIVE EVALUATION OF THE CORONARY PATIENT

Maria Janecsko, EUROP-MED Day Surgery Hospital, Budaors (Hungary)

Developments in anaesthesia and surgery have allowed an impressive worldwide growth in day surgery over the last decade. However, day surgery must be at least as safe and the same quality as inpatient surgery.

Cardiovascular disease still holds the first place among perioperative complications and causes of death. Selection of suitable patients for suitable operations has long been regarded as the basis for good day surgical practice.

The goals of the preoperative cardiac assessment are to identify the presence of underlying cardiac disease, evaluate its severity, and determine the need for preoperative interventions to minimize the risk of perioperative cardiac complications.

Stress myocardial perfusion imaging has become an important tool in the risk management.

In our One Day Surgery Centre exercise perfusion imaging was performed preoperatively in 100 male patients with known or suspected coronary artery disease, scheduled for day surgery.

Results: non-significant perfusion defect 52

positive perfusion scintigraphy	48
fixed defect	22
reversible defect	26
coronary angiography indicated	14
contraindication for day surgery	15

Results – intraoperative complications:

hypertension / arrhythmia	8 versus 3
perioperative temporary ischaemia	2 versus 0

No severe arrhythmia, persistent ischaemia or haemodynamic instability occurred in any of the patients.

Conclusion: Our results prove the predictive value of the exercise radionuclide imaging. Patients with reversible defect are at greater risk for perioperative ischaemia than are those with fixed defect. Summary: the range of day case operations has been increasing. Patient selection is the most important consideration in day case surgery. Perioperative cardiovascular complications can be reduced by careful preoperative assessment and preparation.

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OUTSOURCING DAY CARE FOR PUBLIC PATIENTS

Paul Jarrett (United Kingdom)

For a number of years there has been local outsourcing of day surgery treatment for National Health Service (NHS) patients on an ad hoc basis to private hospitals to meet waiting list requirements. Since 2002 the government has actively encouraged formalised outsourcing with the introduction of independent sector treatment centres (ISTCs) run by the private sector to treat NHS patients. Following the introduction of “patient choice” by the NHS in 2006, day surgery patients must now be given the choice of 4-5 facilities for their treatment and at least one of these must be privately owned. So outsourcing of day surgery may be to a private day unit, private hospital or ISTC. A more recent variant on outsourcing is where NHS hospitals or local health authorities provide the



facilities but contract with outside consultants to undertake day surgery. To date, the commonest specialities involved in outsourcing are general surgery, orthopaedic surgery, ophthalmic surgery and endoscopy.

The pros and cons of outsourcing from the points of view of the NHS, patients and consultants will be discussed as will the political implications of this approach.

Newer drugs as well as techniques are under development, and in the future we are likely to see more studies using the intra-nasal and transdermal approach, newer drugs with minimal side effects as well as long-acting local anesthetics and sustained-release medications for pain management in ambulatory surgery.

OBSTRUCTIVE SLEEP APNEA PATIENTS FOR LAPAROSCOPIC BARIATRIC SURGERY

Girish Joshi, University of Texas Southwestern Medical Center, Dallas, Texas (United States of America)

With increase in the prevalence of obesity, and limited benefits of diet and drug therapy, bariatric surgery is rapidly growing. Morbidly obese patients may pose considerable challenges to the anesthesiologist, which may be further complicated by presence of comorbidities including obstructive sleep apnea (OSA). Obese patients, particularly those with OSA, are at a high anesthesiologist including difficult tracheal intubation, intraoperative cardiopulmonary complications, and postoperative complications (i.e., airway obstruction and respiratory depression). Because weight (or BMI) alone does not influence perioperative complications, it should not be considered the sole patient selection criterion for ambulatory surgery.

Use of fast-track anesthesia techniques with pain, nausea and vomiting prophylaxis should allow rapid emergence, reduce postoperative respiratory and hemodynamic complications, and hasten recovery. Because the morbidly obese are at a higher risk of rhabdomyolysis, particularly with prolonged procedures, adequate fluid administration is critical. In addition, routine DVT prophylaxis is necessary. Overall, the suitability for ambulatory surgery should depend upon the severity of comorbidities and ability to optimally control the preexisting conditions.

The question is not whether bariatric surgery can be done as an outpatient procedure, but rather in which patient (appropriate patient selection), by whom (i.e., appropriate surgeon) and in what setting (i.e., appropriate facility). Development of protocols for acceptable outpatient surgery candidates that take into consideration the special problems and perioperative risks are crucial for improved postoperative outcome.

This review discusses the potential challenges and optimal perioperative care of an OSA patient scheduled for laparoscopic bariatric surgery.

POST-DISCHARGE PAIN MANAGEMENT

Girish Joshi, University of Texas Southwestern Medical Center, Dallas, Texas (United States of America)

Our ability to provide adequate postoperative pain relief, is one of the major determinant for performing a surgical procedure on an outpatient basis. With more extensive and painful surgical procedures being performed on an outpatient basis, pain management after discharge is increasingly becoming more challenging. Optimal management of post-discharge pain would begin in the preoperative period and continue throughout the perioperative period. The goal of pain management should be to minimize pain not only at rest, but also during mobilization and physical therapy. An optimal multimodal analgesic technique would start prior to the surgical injury and continue until the inflammation is resolved. Whenever possible, NSAIDs/ COX-2 specific inhibitors should

be initiated prior to the surgery and continued until tissue inflammation is resolved administered on a regular "round-the-clock" basis. These drugs should be combined with local anesthetic techniques. Opioids should be used sparingly, preferably as "rescue" analgesics. The role of alpha-2 agonists (e.g., clonidine and dexmedetomidine), NMDA antagonists (e.g., ketamine), and anticonvulsants (e.g., gabapentin and pregabalin) in the outpatient setting needs to be clarified by further investigation.

It is important to integrate the analgesic therapy into the surgical care as a continuum from the preoperative period through the convalescence period, which will require a close cooperation between the anesthesiologists and surgeons. The use of procedure-specific guidelines that are incorporated into clinical pathways for specific surgical procedures may improve postoperative pain management and surgical outcome. It is also necessary to improve the instructions given to the patients and their families regarding the treatment of pain after discharge.

This review discusses the optimal pain management techniques for patients undergoing ambulatory surgery.

CRITERIA-LED DISCHARGE FOR SHORT STAY SURGICAL PATIENTS

Claire Kennedy, Sir Charles Gairdner Hospital, Perth (Australia)

The Criteria-Led Discharge (CLD) research study was conducted in response to the need for a more effective and efficient discharge process, in order to reduce delayed discharge within the Short Stay Unit at Sir Charles Gairdner Hospital (SCGH) in Perth, Western Australia.

CLD is a process which allows patients to be discharged by registered nurses once they have met a set of medically approved criteria. Patients that meet the criteria are discharged without the need for a final medical review.

Three surgical specialties - General Surgery, Urology and Ear, Nose and Throat (ENT) - were chosen and a prospective interventional study was used to compare clinical outcomes both pre and post the implementation of the CLD model. Medically approved clinical protocols were developed for each surgical type and a generic list of discharge criteria was added to each of the protocols. The primary objectives of this project were to improve patient flow, reduce length of stay and increase bed availability within the Unit, while also increasing staff and patient satisfaction.

A total of 252 patients underwent the chosen surgeries post implementation of the CLD model. 87 of these were deemed eligible by the surgeons for CLD, of which 81 were successfully discharged using CLD. Patient satisfaction was assessed by way of telephone interview. A total of 128 patients were interviewed, 64 pre implementation and 64 post implementation. This presentation will outline the results of the study, as well as lessons learnt along the way.

DAY SURGERY IN THE ASIA PACIFIC REGION – HALF THE WORLDS POPULATION. HOW CAN IT BE ACHIEVED?

James Kong (Hong Kong)

The drive to increase productivity in delivery of surgical care in the developed world today, has dictated the shift to Day Surgery and Ambulatory Care. In the first world, the debates focus on how to increase the variety of case mix in order to increase the volume of ambulatory care, how to improve productivity through better patient journeys and the key issues of ensuring quality and safety. Asia Pacific is a landmass whose national borders are connected much like the states of USA. However, the wide mix in culture, politics and economic diversity that exists range from the recently war-torn Sri-Lanka and poverty of many rural areas, to developed city-states like Singapore and Hong Kong

through the 21st century financial power “socialist” state of the People’s Republic of China. The challenges facing the countries in this region in providing healthcare are significantly greater than those of the first world. Public health delivery is still the key to raising each nation’s overall level of health. In many countries, the basic, most urgent need is still for delivery at the local level of safe, affordable, primary healthcare. Specialist secondary healthcare delivery units, hospitals, are the fallback for healthcare provision in many communities. Surgical care is delivered through the traditional approach of an in-patient hospital-based service. The benefits of early discharge have yet to be taught at medical schools, are not understood by the average clinician nor likely to be systematically exploited in the immediate future. The social care systems together with the patient and public education necessary to enable effective, safe ambulatory healthcare delivery remain primitive. Moreover as elsewhere, the mode of healthcare delivery is and will remain dictated by the “payer”

This talk will be illustrated through the author’s own experience. Drawing upon the author’s network of fellow clinicians in Asia Pacific, the author will highlight the challenges facing like-minded colleagues and identify the key issues the healthcare community has to come to terms with if the other half of the world’s population is to receive safe and cost effective ambulatory care.

EXPANSION OF DAY SURGERY IN SOUTH-EAST ASIA

James Kong (Hong Kong)

In the developed world today, the rationale for providing Day Surgery is no longer debated. It is a buzz word and rather than a single discipline, denotes a multi-disciplinary environment where the sum of the efforts of the many is often higher than the actual sum!

The South-East Asia landmass stretches from India on its western perimeter, in Sri Lanka in the south where peace has only just begun to vast poor rural hinterlands as well as including the highly developed cities like Singapore.

A search for published (Pubmed or OVID) data based on terms “Day Surgery in South-East Asia” yields a paucity of information. The returns on a “google” search produces results from the “medical tourism” centres of Singapore and Bangkok! These centres of excellence in surgical care provide standards of care that compare very favourably with the world’s best for a segment of the local community. More than this, for other South-East Asians, able to afford the care, these centres provide an alternative of safety

healthcare delivery compared to the less reliable or under equipped healthcare systems often prevailing in their own country of residence, (e.g. Bangladesh, Cambodia, Indonesia, Laos, Myanmar, Vietnam, etc.) without the need for these patients to travel further afield. In addition, the substantial population of expatriates living in this region also benefits from availability of such centres.

However, neither of these latter groups are particularly keen on rapid discharge after treatment. The hotel services provided by these centres of excellence are often quite competitive alternatives.

More importantly, these flagship programs do not benefit the bulk of the poorer community. The population of these countries as a whole are still trying to find reliable basic primary care, can not afford prevailing “traditional” hospital care and as a last resort depends largely on socialised/chartable secondary care. The dividends of peace and rapid economic development achieved by the region in recent decades are changing prevailing patterns of disease and causes of morbidity but for the most part, healthcare delivery systems have yet to catch up. The result is that the aims of this organisation and its published guidelines on how to develop day surgery are still to be truly established in South-East Asia.

The author will report the findings of his research through his personal network. Finally he will suggest ways the audience and the members of this association might help the poorer countries of South-East Asia help themselves develop Day Surgery for the benefit of the wider population.

CLINICAL INDICATORS FOR QUALITY ASSESSMENT IN DAY SURGERY

Paulo Lemos (Portugal)

There is growing recognition that a capacity to evaluate and report on quality is a critical building block for system wide improvement of health care delivery and patient outcomes. Health care organisations are frequently being requested to provide data on many aspects of their activity. Clinical indicators results provide valuable information in assessing the performance of health services. This focus on performance management has emerged through increased competition, a more recent focus on quality improvement and safety and an increase demand for evidence of performance.

Except for the work developed by the Australian Council on Healthcare Standards (ACHS) since 1989, clinical indicators are not yet worldwide routine tools for the evaluation of quality performance. The popularity of ambulatory surgery (AS) is continuously increasing because of the associated clinical, economic and social advantages. The low rate of adverse events or complications during the intraoperative or immediate postoperative period further justifies the rapid growth of AS. Nevertheless, these surgical programmes should be continuously monitored in order to guarantee that high quality services are provided for the population. Clinical indicators should therefore be implemented to ensure a safe, effective and efficiency environment in our day surgery programmes.

The identification of universally acceptable clinical indicators for quality assurance in AS is one of the most important goals of the International Association for Ambulatory Surgery (IAAS) and its materialization is one of the major achievements in ensuring those high standards of care that we persuade for AS.

NONCARDIAC SURGERY FOR PATIENTS WITH CORONARY ARTERY STENTS

Tina Leung, New York Medical College and Saint Vincent Hospital, New York (United States of America)

70 years old female with the PMHx of hypertension and diabetes is presented to hospital with chest pain and anemia. Work-up shows the patient had tight lesion in left anterior descending artery and colon cancer. How do we manage this patient?

75 years old male with PMHx of hypertension and coronary artery disease. He receives drug-eluting stent (DESs) is placed 4 months ago. Recently he is diagnosed benign prostate hypertrophy and transurethral resection of the prostate is recommended by a urologist.

As population ages, more and more elderly patients with coronary artery disease undergo percutaneous coronary intervention (PCIs). Of the more than 2 million patients undergoing PCI annually, more than 90% will receive intracoronary stents. Approximately 5% of patients in this group will require noncardiac surgery (NCS) within the first year after stenting, and an increasing number will continue to present for surgery thereafter.

There are two types of coronary artery stent- bare-metal stents (BMSs) and drug-eluting stents (DESs). Nuttall et al reported the incidence of major adverse cardiac events (MACE) is lowest when NCS is performed 90 days after PCI with BMS. Rabbitts et al observed rates of MACEs were lowest after 1 year between DESs and NCS.

The 2007 Science Advisory and the 2007 ACC/AHA Guidelines has very

similar recommendations:

- The course of thienopyridine therapy is one month for BMSs and 12 months for DESs.
- Elective NCS should be delayed 4-6 weeks for BMSs and 12 months for DESs.

When surgery can not be postponed:

- Try to continue thienopyridine therapy in patients with new stents, or at least continue aspirin therapy, if possible.
- Thienopyridine therapy should be restarted asap after the procedure.

Reference

Rabbits et al, *Anesthesiology*, 2008
Nuttall et al, *Anesthesiology*, 2008
AHA/ACC/SCAI/ADA Science Advisory, 2007
ACC/AHA 2007 Guidelines

LIMITED CARE ACCOMMODATION (MEDI-HOTELS) FOR THE EXPANSION OF DAY SURGERY IN RURAL AND REMOTE AREAS

William Mackie, Orange Day Surgery Centre, Vive Healthcare (Australia)

In regional and remote areas the utilization of day surgery facilities may be limited due to travel and accommodation issues. In nonmetropolitan New South Wales many patients travel more than one hour to access health care in regional centres. In developing a new medical precinct in Orange we are seeking to address the problem with the provision of a medi-hotel.

There is a range of options for provision of medi-hotel accommodation, from in hospital facilities to autonomous dedicated facilities. A critical issue in provision of such services is the funding. In the absence of direct government provision of these services, there are varying levels of government support for the funding of such facilities. This support may come through federal subsidy, local subsidy or community charitable contributions. Commercial development in this area has been limited.

Facility situation and design is important to optimize the ability to deliver a service. Service planning can be difficult with uncertainties regarding usage. The case mix of patients likely to use the facility must inform the design.

The level of service provision within medi-hotels can vary. Simple accommodation can be provided for family and carers of patients whilst they are inpatients. Varying levels of nursing care can be provided to patients who are pre and post discharge from day surgery or hospital.

A PILOT RANDOMISED CONTROLLED TRIAL COMPARING DAY SURGERY AND INPATIENT SURGERY FOR BREAST CANCER

Sekhar Marla, L. Romics, K. Ogston, T. Cooke, P. Horgan, S. Stallard, University of Glasgow, Glasgow (United Kingdom)

Background: Over the past decade, breast cancer surgery has become less invasive with more patients being treated by breast conserving surgery (BCS) and lesser axillary surgery. However, at present few centres consider these patients for day surgery (DS) in the United Kingdom. A systematic review of literature revealed lack of evidence in the form of a randomised controlled trial comparing DS with inpatient surgery (IS) for breast cancer.

Aim: To conduct a pilot randomised controlled trial (RCT) comparing DS and inpatient surgery (IS) for patients undergoing BCS for breast cancer.

Methods: Newly diagnosed breast cancer patients undergoing BCS with axillary sampling who had passed the DS preassessment were randomised to DS or IS. Physical and psychosocial outcomes were assessed using a Surgical Site Infection Form (Day7 and Day30), FACT-B questionnaire (Baseline, Day7 and Day30) and a Patient Diary (up to Day7).

Results: There were 29 patients in the pilot RCT; 15 DS arm and 14 IS arm.

Physical outcomes: No significant differences in pain, nausea/vomiting scores and infection rates. Patients in the DS group mobilised and stepped out of their house earlier (Day2 vs Day4) after surgery and more frequently (4 vs 3 days) in the 1st week than the IS group.

FACT-B: Longitudinal differences in FACT-B scores (Day7-Baseline and Day30-Baseline) were noted. A difference of >5% was considered significant. At Day7, 10/14 IS patients and 3/15 DS patients had significant negative scores and at Day30, 3/13 IS patients and 2/13 DS patients had significant negative scores.

Conclusions: This pilot RCT shows that DS patients mobilise earlier and have equivalent results for the other physical outcomes. FACT-B scores suggest better quality of life a week after surgery in the DS group. Larger RCTs are needed to support these results.

PAIN MANAGEMENT- DESTINY OR DISASTER

Trudy Maunsell (Australia)

For many years we've considered the presence of such pain to be a normal consequence of the illness, disease and surgery - it may be argued that clinicians and patients themselves believe it's their destiny to have pain. However, there are marked adverse effects of unresolved pain and to leave people in unresolved pain should be considered as being disastrous. Rawal et al (1997) as cited by Joshi and White (2003:329) reported that the incidence of day surgery patients who experienced moderate to severe pain was 30-35%. Closer to home, the National Health and Medical Research Council (NHMRC) Acute Pain Guidelines (2005:109) report that the incidence of severe pain following day surgery is reported as 5.3% in the first 24 hours post-operatively, with patients undergoing orthopaedic surgery experiencing the highest incidence of severe pain. When you consider that over 60% of surgery is performed on a day surgery basis, the importance of adequate analgesia cannot be under emphasised.

Chronic pain affects a significant proportion of the population and costs Australia in the vicinity of \$10 billion per year, without considering the social costs to the sufferer, their family and the community. Patients who experience chronic pain are often able to relate the onset of their pain to an acute incident and significant disability can result from chronic post-surgical pain (Level IV evidence NHMRC 2005:XV). The incidence of chronic pain after common day surgery procedures, according to Perkins and Kehlet (2000) and Macrae (2001), is 3-56% for cholecystectomy, up to 63% for inguinal herniorrhaphy, 0-37% following vasectomy and from 5-13% following dental surgery.

This paper will address pain management for patients undergoing short stay procedures and you will determine whether pain is our patient's destiny or if their pain management will be disastrous.

FOREFRONT AND FUTURE DEVELOPMENTS IN OPHTHALMOLOGY

Jim McAlister (Australia)

Ophthalmic day case surgery has been through and continues to undergo a make over. An exploration of the pressures that continue to drive change and how this is likely to impact on service provision for cataract surgery while maintaining a duty of care will be discussed. Other subspecialist areas of ophthalmic surgery are also undergoing a revolution. A discussion of impact of new drugs, instrumentation and surgical techniques all of which have led to the expansion of the role of day-case surgery in the speciality will be discussed.

FUTURE TRAINING OF ANESTHESIOLOGISTS IN THE UNITED STATES

Kathryn McGoldrick, New York Medical College and Westchester Medical Center (United States of America)

Before discussing how to train the next generation(s) of anesthesiologists, it is important to project what our future challenges will be. As time marches on, we will encounter older and sicker patients. The aging of the population seen in developed countries is unprecedented, pervasive, and profound.

The accelerating trend to older populations will affect multiple aspects of life. Aging increases the likelihood that an individual will require surgical care, and this obviously has implications for medical manpower. It also seems likely that advances in pharmacogenomics will enable individual tailoring of therapeutic options based on preoperative analysis of buccal mucosa. If the past is prologue, it is reasonable to expect that there will continue to be an impressive growth in minimally invasive procedures including nonincisional procedures, microinvasive procedures, and noninvasive procedures. Administration of general anesthesia and central neuraxial blockade may be reserved for the most complex procedures, with sedation techniques and peripheral nerve blocks (with or without continuous catheter techniques) gaining in popularity.

In addition to the silver tsunami, other demographic factors must be considered, especially those that involve caregivers. As more and more women enter medicine, there will be more part-time physicians. Duty-hour restrictions continue to become increasingly stringent. It seems likely, therefore, that we will need to train increasingly more anesthesiologists and extend their training period to adequately prepare them to meet future needs. Simpler patients and procedures will likely be delegated to nonphysician providers, and anesthesiologists will be assigned to the most complex cases, requiring an extensive background in critical care and other specialties and subspecialties. Growing reliance on technology to improve productivity will likely result in increased concurrence, enabling us to direct care where it is most needed.

GERIATRIC OUTPATIENT SURGERY SELECTION CHALLENGES

Kathryn McGoldrick, New York Medical College and Westchester Medical Center (United States of America)

When caring for geriatric outpatients, anesthesiologists have some very real perioperative concerns. Age alters both the pharmacokinetic and the pharmacodynamic aspects of anesthetic requirement. Moreover, with increasing age patients typically have reduced organ reserve and diminished ability to tolerate stress. Advanced age is an important risk factor for increased perioperative morbidity and mortality, especially in association with co-existing disease(s). Nonetheless, people age at different rates and in different ways.

As the great Sir William Osler remarked in 1892, "If it were not for the great variability among individuals, medicine might as well be a science and not an art." Therefore, it does not seem rational to have an arbitrary chronological cut-off for outpatient surgery in senior citizens. Much more important is the individual patient's physiologic status and the invasiveness of the procedure involved.

To a certain extent, the clinician's selection criteria will depend on the type of ambulatory venue---office-based, free-standing surgical center, or hospital-integrated ambulatory facility. Nonetheless, there are "red flags" that are disqualifiers regardless of the type of outpatient facility. These would include morbidly obese patients with severe obstructive sleep apnea who have serious comorbidities and are planning extensive, painful surgery. Elderly patients with such major cardiovascular clinical predictors as unstable coronary syndromes (including recent myocardial infarction), decompensated congestive heart failure, significant arrhythmias, and severe valvular heart disease are definitely not candidates for outpatient surgery. Other disqualifiers include patients who have recently undergone stenting, those who are contemplating protracted surgery with extensive fluid shifts (major liposuction procedures in combination with other cosmetic surgery), and those individuals who do not have an adequate social support system to provide safe care in the postoperative period.

MEDICOLEGAL ISSUES FOR THE AMBULATORY ANESTHESIOLOGIST

Kathryn McGoldrick, New York Medical College and Westchester Medical Center (United States of America)

The Closed Claims database of the American Society of Anesthesiologists (ASA) discloses that, in recent decades, ambulatory cases have become a growing area of liability risk. Nonetheless, although ambulatory surgery represents 80% of all procedures performed in the United States, outpatient anesthetics account for approximately 26% of all claims in the ASA database. Certain patterns are discernible. Eye injury is common, as are complications of regional anesthesia. Other potential pitfalls are intraoperative awareness and sequelae of pain management. The severity of injury is usually less than with inpatients, and this is reflected in lower median payments to plaintiffs. The rate of payment, however, is similar when one compares inpatients and outpatients.

Two areas of special concern are the subsets of office-based anesthesia and of monitored anesthesia care (MAC) claims. Although many ambulatory anesthesia claims are for relatively minor injuries, 60% of office-based anesthesia claims were for death. Most of these incidents were deemed preventable, as reflected by the 90% payment rate associated with office-based malpractice claims. MAC claims tend to involve serious injury to older, sicker outpatients. The mechanism of injury is often respiratory, raising concern about the adequacy of perioperative monitoring.

Contributing factors to suboptimal outcome may include production pressures and a false sense of security when caring for "healthy" patients having "minor" procedures. Other contributory factors, as well as prevention strategies, will also be discussed.

BENDIGO DAY SURGERY "STATE OF ART FREE STANDING DAY SURGERY"

Ann McHardy, Bendigo Day Surgery, Ballarat Day Procedure Centre, Albury Day Surgery (Australia)

This paper is based on the development and completion of the "Bendigo Day Surgery" which is in rural Victoria Australia. This new state of art free standing health centre is one of the finest in Australia.

The design, tender, construction and equipping process's of the Bendigo

Day Surgery.

The result is this new 3 theatre free standing Day Surgery, one of the highest quality centres in Australia today.

The conclusion will show how and why this type of day surgery should be developed throughout Australia and Internationally for both private and public sectors to assist in rebuilding the failing health systems.

DAY SURGERY CENTRES/UNITS - FREE STANDING OR INTRA-HOSPITAL. IS THERE A PREFERRED METHOD?

Douglas McWhinnie (United Kingdom)

For existing ambulatory units the type of unit (free standing or intrahospital) dictates the surgical case mix performed. However when planning a new unit, the needs of the local community and thus the surgical case mix defines the requirements of the facility. Planning such a unit should not be conducted in isolation but should be part of an integrated health strategy for the medium or longer duration. Existing ambulatory facilities often evolve according to changing clinical needs or political doctrine. Nevertheless it should be remembered that ambulatory surgery is a process and not a procedure, with its success dependent not so much on the physical building but the philosophy and enthusiasm of those who work there!

MANAGING ANXIETY FOR PATIENTS WHO ARE CONSCIOUS DURING THEIR PROCEDURE

Mark Mitchell (United Kingdom)

Aims: i) To investigate anxiety arising from the experience of the clinical environment during surgery under local/ regional anaesthesia and, ii) to uncover the specific aspects patients find anxiety provoking and possibly dissuade them from opting for such anaesthesia.

Background: Operating theatres have historically been designed for safe, efficient surgery on the unconscious patient and not primarily designed for the care of the 'awake' patient. However, with the rise in day surgery, the quantity of surgery performed under local/ regional anaesthesia is increasing.

Method: As part of a larger study investigating anxiety within modern elective day surgery, adult patients undergoing surgery and local/ regional anaesthesia (n=214) were provided with a questionnaire on the day of surgery for return by mail 24 - 48 hours following surgery.

Findings: The experience of being awake, possibly feeling surgeon, seeing body cut open or the surgery being more painful were all anxiety provoking aspects. Utilising factor analysis 'intraoperative apprehension', 'anaesthetic information provision and 'health control' were identified as central features. Moreover, when employing multiple regression, apprehension associated with the intra-operative experience and anaesthetic information provision were significantly associated with an increase in the overall level of anxiety.

Conclusions: Although the surrounding clinical environment has previously been a cause of apprehension, the sensations associated with the physical act of surgery on the conscious self appear also to have a considerable influence. Focusing care upon managing patient intra-operative experience and providing anaesthetic information in advance may help limit anxiety and expel the apparent misapprehensions associated with conscious surgery.

MANAGING ANXIETY FOR PATIENTS WHO ARE UNCONSCIOUS DURING THEIR PROCEDURE

Mark Mitchell (United Kingdom)

Aims: i) To uncover the most anxiety provoking aspects of general anaesthesia and, ii) determine what interventions may help to alleviate anxiety.

Background: General anaesthesia has historically proven anxiety provoking. With the rise in elective day surgery undertaken across the globe this aspect of patient experience has become a prominent issue. Indeed, with the associated brief hospital stay, limited contact with healthcare professionals, restricted formal anxiety management and acute psychological impact, such anxiety may indeed be increasing.

Method: As part of a larger study investigating anxiety in elective day surgery, a questionnaire was given on the day of surgery to 1250 adult patients undergoing surgery and general anaesthesia. The questionnaire examined issues of anxiety regarding the environment, hospital personnel and experience of general anaesthesia. Participants were requested to return the questionnaire by mail 24 - 48 hours following surgery and 460 completed questionnaires were returned.

Findings: A total of 85% of patients experienced some degree of anxiety. Descriptive data revealed immediate pre-operative experiences and concerns regarding unconsciousness were all highly anxiety provoking. Utilising factor analysis Pre-operative Anaesthetic Information, Anaesthetic Catastrophising, Final Support, Personal Support, Imminence of Surgery, Possible Adverse Events and Final Pre-operative Experiences were identified as central features. Multiple regression demonstrated pre-operative anaesthetic information, anaesthetic catastrophising and imminence of surgery were significantly associated with an overall increased level of anxiety.

Conclusions: Focusing on the timely, formal delivery of information regarding anaesthesia, emphasising the notion of 'controlled unconsciousness' and dispelling apparent misconceptions might help to considerably limit patient anxiety

AMBULATORY SURGERY: THE HUNGARIAN EXPERIENCE

Gamal Eldin Mohamed (Hungary)

From 1993 to 2003 no any free standing ASC units had been established, due to many barriers existing, and day surgery was performed only in an unorganized form in many inpatient hospitals. The Hungarian Association For Ambulatory Surgery, established in 1997, played a big role in the process of raising the idea of day surgery and giving many issues to the medical field and healthcare authorities proving that it is beneficial for all partners interested. At the end of 2003, progress was made when another statutory rule was ordered, modifying a rule in 1993, to make it possible to establish free standing ambulatory surgical units outside the hospitals. Five units were established and started to work in 2004. In 2007 a total number of 43 new ambulatory surgical units were opened throughout the country, with a high expansion of procedures performed.

While in 2004 the ratio of ambulatory surgical procedures/total procedures in Hungary was 19,59%, this ratio grew to 37,89% in 2008! This is a statistics from a basket containing 283 procedures.

According to further new regulations, the gradual expansion of day surgery is expected to take place with a rate of 10 - 20% yearly.

The National Health Insurance Company (governmental) reimburses all the procedures in the basket (Fee per case according to a DRG system), paying the same for day surgery as for inpatient.

LAPAROSCOPIC ABDOMINO-VAGINAL HYSTERECTOMY – A 23 HOUR DAY SURGERY OPERATION?

David Molloy, Watkins Medical Centre, Brisbane (Australia)

The evolution of laparoscopic abdomino-vaginal hysterectomy since the early 1990's has been slow. A number of surgeons are performing total laparoscopic hysterectomy, an operation which is more time efficient and precise than LAVH (laparoscopic abdominovaginal hysterectomy).

Bed stays after TLH or LAVH are one to three days based on a typical recovery scenario. About 60% of patients may not need narcotic or injectable pain relief. Acute and serious complication rates are slightly less than 1%.

Technically it would be possible to perform TLH as a 23 hour day surgery operation. The ability to do this would be dependant on a large number of factors including the primary pathology the patient is presenting with, the expertise of the surgeon and ancillary management of problems such as bladder function, post operative pain relief and appropriate anaesthesia. It is not rare at hysterectomy to also perform additional procedures such as bladder neck suspension or prolapse repairs. These tend to lengthen the operating time and increase complications. In isolation each of these procedures could be performed as a long stay day surgery procedure.

Stratification of gynaecological procedures by complexity, complication and intended recovery times may provide a guide as to suitability for long stay day surgery. Laparoscopic hysterectomy is at the cusp of those procedures that may or may not be suitable for a 23 hour day OT

MEDI-MOTELS IN NORWAY - A LONG TERM EXPERIENCE

Jørgen Nordentoft, Martina Hansens Hospital (Norway)

Introduction

Day-care surgery in Norway and Scandinavia is, just like in many other-specially western countries - a great success generating a win-win situation for patient and society.

Norway is if not a huge country, then a very long country with a scattered settlement except for the fact that more than 60 % of the people are living in the 8 largest cities including the capital area of Oslo.

The aim with the medi-hotel system was to enhance medical treatment –due to geographical challenges and expectations from patients and authorities in respect of volume, flexibility, service and economics. The medi-hotels together with other initiatives have been a driver for the centralization of the day-care surgery in both more remote areas and in specialized and super-specialized surgical fields in the university-hospital cities.

Definitions:

Day-care surgery in Scandinavia:

- The patient are taken into and are leaving the hospital/clinic on the same day. If the patient stays in the hospital after midnight and/ or are spending the night at the hospital (e.g. a stay of 23 hours) it is not day-care.

Medi-motels are in this context the same as Medi-hotels and combines different entities:

- Patient-hotel (in Norwegian: 'Pasiient-hotell'): For hospitalized patients /family etc. under some kind of treatment. Medical personnel are on call/duty for 24 hours. Situated close to the hospital ('no-wet –shoes' principle). It is estimated that 10 to 20 % of all hospital stays could be managed in this kind of hotel. Usually other patients/family/other visitors can use the facilities if paying.

- Ambulatory patient-hotel (in Norwegian: 'Syke-hotell'). No medical personnel on site. Juristically and practically comparable to ordinary hotels. Available to ordinary hotel booking
- A mixture of these two facilities.

In addition to these 3 types of medi-hotels there is a widespread use of ordinary hotels as 'Ambulatory patient-hotels'. Very often to a reduced rate.

History

The rapidly and still rising percentage of day-care of all elective surgery is partly due to the availability of Medi-hotels and arrangements with ordinary hotels throughout Norway. As in many other countries the focus on day-care surgery was intensified in the 1980's (20 %), the percentages rapidly rising in the 1990's to reach a number of approximate 60 % in 2007.

The hospital-hotel system are also widely used as back-up for hospitalized patients in no need of staying continuously at the normal hospital ward - the 'Patient-hotels'.

The first specially dedicated medi-hotel was opened in Oslo in 1970 together with some ad-hoc arrangements with ordinary hotels. In 1999 two university hospital hotels were opened in Oslo and in Norway's second largest city, Bergen. In 2005 all university hospitals and some regional hospitals are represented. In 2008 an estimate of 1000 Medi-hotel beds are accessible to the population of 4.8 mill inhabitants. The ratio of 'hospital-hotel-beds' is 1:4.800 inhab.

How it works

In the 'Patient-hotels' the hospital are medically responsible for the patient. Medical personnel are on duty / on call typically a nurse in the reception. If needed medical assistance including acute medical teams can be allocated from the nearby hospital.

On the 'Ambulatory Hotel' the patient stays on its own responsibility and there is no medical personnel on site.

A. Patient-hotel

Conditions in relation to the patient:

- Independent of help to dress/undress.
- Can eat in cafeteria
- Able to walk to and from the nearby hospital department for treatment/examines
- No need of continuous observation
- Able to administer medication – except for planned i.v. medication etc.
- Long distance patients

Potential patient groups:

- During preoperative assessments
- Awaiting treatment
- After end of treatment waiting for transport and / or potential early complications to the treatment
- During diagnostic procedures and treatment which lasts for days

B. Ambulatory patient-hotel

Conditions in relation to the patient:

- Patients in no expected need of medical assistance other than planned hospital treatment

Potential patient groups:

- Day-care-treatment including day-care surgery before and after treatment. Middle and long distance patients.
- During preoperative assessments

- Awaiting treatment
- During diagnostic procedures and treatment which lasts for days

List of potential users of the medi-hotel:

- Healthy woman in confinement with healthy newborn child
- Mothers to sick newborn during treatment
- Pregnant in need of easy access to delivery department – long distance patients
- Palliative and pain treatment
- Sleep-registrations
- Endocrinological, neurological, nuclear-/X-ray diagnostics / treatment
- Chemo-/gyrostatic/biological medicament therapy
- Patient-school-participants
- ENT-patients before and after treatment (especially children and long distance patients)
- Preoperative surgical, orthopaedic and gynaecology patients
- Day-care surgical pat. (long distance and / or without relatives)
- Pat. which have had anaesthesia
- Plastic-surgery patients

Economic issues

In Norway there are a range of different financing and project-models (4-5) with more or less involvement of the Norwegian state/healthregion in planning, project, ownership and daily management of the medi-hotel.

Models for project, ownership and daily management range from 100% to 0% public responsibility (the regional health region). The estimated minimal size of the medi-hotel for acceptable results during daily management with standard financing are around 70 beds.

The estimated building project price per room (45 sq.m.) in a 70 bed medi-hotel with total area of 3.150 sq.m are app. 6000 US\$ (35.000 NOK) per sq.m. a total of app. 18 mill. US\$ (110.3 million NOK). (Norway 2008 figures).

The total cost per day/bed with 70% occupancy in the above example, including financing and daily costs are app. 200 US\$ (NOK: 1145). (Norway 2008 figures).

Patient payment:

1. Patient-hotel

Stay including all meals are free to the patient, and if it is needed and booked by the hospital: it is free for the accompanied family member(s). The hotel are paid app. 700 NOK (118 US\$) /day/ patient and 450 NOK (75 US\$) per. relative sharing the room.

Payment by the regional health-authority/social municipality

Ordinary hotel guests are paying little or often quite less than normal hotel-prices in that geographical area.

2. Ambulatory patient-hotel

Often the prices are cheaper than in 'Patient-hotels'. Payment for the patient and - if accepted - the following relative/friend are reimbursed by the same system as mentioned above except for a payment of 100 NOK (16 US\$) per night/person. That includes full-board.

The future

The patient-hotel model has proven its value for the patients and society in Norway. The principle are generally accepted and numbers of medi-hotels are increasing.

We can recommend the model.

POST DISCHARGE NAUSEA AND VOMITING (PDNV) IN AMBULATORY SURGICAL PATIENTS: INCIDENCE AND MANAGEMENT STRATEGIES

Jan Odom-Forren, V.D. Hooper, M.Thomas, Z. Centimole, O. Radke, C.Apfel, University of Kentucky (United States of America)

Introduction / Problem: Over 34 million patients undergo ambulatory surgery annually in the U.S with at least one third experiencing post discharge nausea and vomiting. There is a paucity of research that describes the incidence and severity of PDNV, an underreported condition that can affect quality of recovery, has the potential for morbidity and hospitalization in high-risk patients, and impacts patient satisfaction.

Purpose: To describe the incidence and severity of PDNV in a sample of ambulatory surgery patients and to determine outcomes associated with PDNV.

Methodology: A convenience sample of 2170 adult patients who received general anesthesia at twelve ambulatory surgery sites throughout the U.S. were followed for 48 hours post discharge. A subset of 260 patients from two of the twelve sites were followed for 7 days.

Results / Discussion: Preliminary findings show that 38.1% of the 2170 patients experienced post discharge nausea and 10.8% vomited at least once on Day of Surgery. On day seven, 7.3% of 260 patients continued to experience nausea with 1.2% reporting emesis. Quality of life was significantly related to incidence of PDNV. Further analysis will detail severity of PDNV for 7 days and compare outcomes of patients who used pharmacologic and nonpharmacologic modalities of care.

Conclusion: PDNV affects a considerable number of patients and is related to patient perception of quality of life. Treatment of this complication should extend well beyond discharge. Additional research is needed that identifies long-acting antiemetics, nonpharmacologic methods of control, patient education techniques, and other factors that impact ambulatory surgery patients

OUR EXPERIENCE IN AMBULATORY TREATMENT OF LAPAROSCOPIC CHOLECYSTECTOMY

Veroljub Pejic, Djordjevic M., Jovanovic S., Bojic T., Pavlovic A., Jovanovic B., Milojkovic B., Center for Minimally Invasive Surgery, Clinical Center Nis, Serbia and Montenegro (Serbia)

Introduction: Laparoscopic cholecystectomy (LC) is becoming an ambulatory procedure in developed countries. Its advantages are: less postoperative pain, shortened hospital stay, quick recovery and return to normal activities, lower hospital costs. The aim of this study is to assess feasibility of ambulatory laparoscopic cholecystectomy in Clinic of Surgery, Nis.

Material and methods: From 01.01.2004 till 31.12.2008., 252 patients with cholelithiasis underwent ambulatory (LC). We used following criteria: ASA I and II, age <65, absence of upper abdominal operations, low risk for common bile duct stones, gallbladder wall <5mm (US), educated patients from urban environments (<30 km away). Operations started not later than 12 AM, on admission day. Patient satisfaction was assessed by independent telephone questionnaire 4 weeks postoperatively.

Results: There were 171 (68%) women and 81 (32%) men. (LC) was successfully accomplished in all patients. Average operating time was 35 minutes (25-50). All patients were discharged the same day. Average hospital stay was 11h (10-12). Twenty patients (80%) required

postoperative analgesia. There were no postoperative complications. Twenty-four patients (96%) described their experience as “pleasant”. All patients stated that they would recommend this operation.

Conclusion: In well-selected patients, ambulatory laparoscopic cholecystectomy is safe and feasible in a developing country.

FAST TRACK RECOVERY: MAKING IT REALLY HAPPEN

Beverly K. Philip, Harvard Medical School and Brigham and Women’s Hospital, Boston, MA (United States of America)

The goal of ambulatory anesthesia is to maximize the quality of patient care. “Fast tracking” embodies an enhanced, overall anesthesia care and recovery process, focusing our efforts even more on the return to normal function as rapidly as possible. The preoperative issues concern patient education and setting realistic expectations for ambulatory anesthesia outcomes. Anesthetically, the newer volatile agents desflurane and sevoflurane show faster early and intermediate recovery and fewer side effects than isoflurane, but times to facility discharge were not significantly different; this may reflect the need to change recovery care protocols in order to actualize the drug differences. Propofol infusion has slower recovery indices than either of the volatiles. Regional anesthesia is another option for fast-track recovery, using blocks and perineural catheters

The two major recovery challenges for ambulatory procedures are management of postoperative pain and management of postoperative nausea. For both, it is important to plan for recovery from the beginning of the anesthetic. Management of postoperative pain is best addressed by a multimodal approach, built on local/ regional blocks as well as consistent use of NSAIDs. Nausea/ vomiting remains the most common reason for admission. Nausea/ vomiting can be reduced by sufficient hydration and restricted postop food intake. Opioid doses should be limited and opioid alternatives e.g. beta-blockers incorporated. PONV risk should be assessed and prophylactic antiemetics administered as appropriate. Outcome-based recovery using objective criteria needs to be implemented, as well as administrative and nursing efficiencies. Finally, attention should be paid to quality improvement and patient satisfaction.

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MAGIC BULLETS?: NEW SEDATIVE DRUGS AND TECHNIQUES

Beverly K. Philip, Harvard Medical School and Brigham and Women’s Hospital, Boston MA (United States of America)

Minimally invasive surgery and interventional medical specialties are replacing conventional surgery, and increasingly these procedures can appropriately be done under sedation rather than general anesthesia. There are new sedative drugs that may help.

Dexmedetomidine [Precedex®] is a selective 2-adrenergic-agonist at central and peripheral sites. Actions include sedation, analgesia, bradycardia and hypotension. Vasodilation occurs at low doses but vasoconstriction with hypertension at higher or rapid bolus doses. The striking feature of dexmedetomidine sedation is that patients are readily aroused from deeper levels of sedation to their baseline level of consciousness with verbal stimulation. Amnesia is not complete. Dexmedetomidine has been utilized for cosmetic surgery, but the duration of sedation is long for many ambulatory purposes.

Dexmedetomidine also provides some postoperative analgesia with reduced opioid as well as sedative use. It causes little respiratory depression at clinical doses, but deep levels of sedation can cause airway obstruction.

Fospropofol [Lusedra®] is a water-soluble prodrug of propofol intended for moderate sedation. Metabolism produces a longer time to peak active-drug blood level, with lower peak and more sustained plasma concentrations compared to propofol-emulsion. Hemodynamic side effects are similar to propofol emulsion given at 50-mg/min but with delayed onset. There is a dose-dependent increase in incidence and duration of apnea, as well as loss of consciousness. Most potential uses will include the coadministration of an opioid to add analgesia and reduce the size of the fospropofol bolus. In one clinical report, time to sedation was 9±5min and time to “fully alert” was 7±7min.

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ANESTHESIA CONSIDERATIONS FOR ROBOT-ASSISTED PROSTATECTOMY AND HYSTERECTOMY

James Philip, Brigham and Women’s Hospital, Harvard Medical School, Boston MA (United States of America)

Robot-assisted surgery is growing in popularity as it becomes requested by surgeons and patients. Surgical complications and physical recovery times are shorter than for open procedures. Robotic surgical control is precise and atraumatic because instruments are small, have no tremor, and are articulated like the surgeon’s hands. However, operations often take longer to perform and require special anesthesia care and techniques.

At Brigham and Women’s Hospital, Harvard Medical School, patients undergoing robotic-assisted surgery are treated like outpatients, before, during, and after surgery and anesthesia. We use NSAIDs rather than opioids and add a small dose of shortacting opioid (Fentanyl) at the end of surgery, and then oral drugs as needed. PONV treatment is maximized for patients at high risk.

We use inhaled anesthetic drugs with agent monitors, which provide better control than IV drugs especially when reducing anesthesia depth and returning patients to the wide-awake state. Agent monitors and Gas Man anesthetic simulation show this recovery profile well. Intraoperatively, Trendelenberg angles up to 25 degrees are required and egg-crate foam may avoid the patient sliding. Facial edema is common unless crystalloid volume is restricted to 1 liter. An additional 1 l hetastarch maintains intravascular volume.

When vasopressin is used during myomectomy, vessel walls stiffen and some NIBP monitors fail to measure blood pressure. An additional blood pressure monitor may be needed; it must be in place before the patient is positioned, arms are tucked, and the robot is positioned. Muscle relaxation is essential for the robot to perform properly.

FEMALE INCONTINENCE/VAGINAL REPAIR OPERATIONS IN DAY SURGERY

Samantha Pillay (Australia)

New advances in the surgical treatment of stress and urge incontinence have greatly increased the utilization of day surgery in this area over the last 10 years. Minimally invasive mesh tapes for stress incontinence have become more minimally invasive and stem cell research has reached clinical trial stage. Botulinum toxin injections into the bladder and sacral nerve neuromodulation for urge incontinence have evolved. New technologies, procedures and current research will be presented. Early removal of catheters and vaginal packs has shown day surgery for vaginal prolapse repair is feasible and robotic abdominal prolapse surgery has reduced hospital stay to 1 day.

NURSE ENDOSCOPY

Lynn Rapley (Australia)

Nurse Endoscopy is a newer concept within the Australian health system. With the advent of the National Bowel Screening Program, workloads in the endoscopy unit have increased and this new role for the Advanced Practice Nurse once again raises its head. This role is not seen to be an extension for the endoscopy nurse but rather a stand-alone position that would require autonomous practice at the level of Nurse Practitioner status.

With the development of this role comes many barriers none the least being that of the medical fraternity. Training, time, opportunity and collegial support are many of those barriers.

The Nurse Endoscopist role must be taken and embraced by the nurses themselves and must be a permanent change in their practice. This means that the nurse cannot be one day assisting the proceduralist and the next day being the proceduralist!

With many nurses now training and working in this role in the UK and USA/Canada, the need to address the move into this role in Australia needs to be reconsidered and discussed.

THE 'GOOD' AND THE 'NOT SO GOOD' WHEN EXPERIENCING DAY SURGERY AS AN OLDER PERSON

Lenore M Rhodes, M Annells, S Koch, La Trobe University, Albury/Wodonga Campus (Australia)

Background: Day surgery is considered to be a safe, economical alternative for many surgical procedures. In the past older persons were not considered suitable candidates for this type of surgery; however, it is now recognised that it is a person's health status that is the vital issue rather than age when determining suitability for day surgery. Little is known about what may be optimal day surgery care for these older persons.

Aim: The aim of this research was to explore, from the older person's perspective, how nurses and health care professionals can facilitate optimal outcomes regarding the experience of the day surgery continuum of care and the postdischarge period.

Method: A qualitative research design influenced by Interpretive Descriptive research processes was utilized. Data were collected through minimally structured, individual, conversational interviews with fifteen participants, aged 75 years or more, who had undergone a day surgery procedure in rural Australia. Constant comparative data analysis was used to construct a list of categories and related sub-categories that encapsulate and explain in depth the relevant perspectives of participants.

Results: Interpretation of data resulted in five major categories entitled: Communication, Getting ready for my procedure, The day has arrived, Going home and That's country living. Overall participants felt well cared for during their day surgery experience and explained the aspects of their care that were useful and appreciated; however, a range of negative experiences were also mentioned and explained. Each of the major categories encapsulates positive and negative matters, as interpreted.

Relevance for clinical practice: Issues of importance to the older person experiencing day surgery have been illuminated to provide nurses and other health care profession

EFFECTIVE PREADMISSION AND PREPARATION

Marilyn Richardson-Tench (Australia)

Of concern to the Day Surgery Special Interest Group (DSSIG) is the variation in patient preparation prior to surgery. Many day surgery centres have implemented a system of undertaking preadmission assessments a week or more in advance of surgery. Alternative preadmission interventions include telephone screening and preadmission clinics. Although it is generally considered that preadmission care is beneficial, there are no evidence based Best Practice Guidelines (BPG) for patients undergoing day surgery in Australia.

A low risk pilot study using questionnaires and interviews was undertaken to evaluate which preadmission care intervention is more effective in enhancing the physical and emotional preparedness for patients undergoing cataract surgery as a day patient: preadmission telephone screening or preadmission clinic.

Fifty participants undergoing cataract surgery participated in the research. Data was analysed using descriptive statistics; comparisons of study outcomes by chi-square analysis using categorical [odds ratio with 95% CI] and continuous [Mann-Whitney-U tests] tests using SPSS. Answers to open ended questions was subjected to content analysis, categorised into groups with similar findings and synthesised into major themes to describe the subjective experience of day surgery.

This paper presents the initial findings of the research.

UTILISING DAY SURGERY CENTRES/ UNITS FOR UNDERGRADUATE MEDICAL EDUCATION – A MATTER OF URGENCY!

Lindsay Roberts (Australia)

The inclusion of day surgery centres in undergraduate medical education deserves urgent consideration. The following will be discussed:

- Data indicating the current status, future projections and demands of the teaching of clinical skills
- The results of a questionnaire to medical practitioners with specific reference to the utilisation of day surgery centres for the undergraduate teaching of clinical skills
- Undergraduate core curricula criteria policy of the ADSC and IAAS Outcome of an existing day surgery centre which includes teaching clinical skills to students

PROGRESS OF AMBULATORY SURGERY IN INDIA

Naresh Row (India)

Health care and its facilities in India, grow at a very slow rate. With the ever increasing population, now pegged at over 1,073,000,000, (1.073 billion) the requirement of healthcare facilities has increased many fold. The per capita income of an average Indian family is around Rs. 31,000/- (approx. 1000 Aus Dollar) per year. There is still a dismal fact that every year about 16% of the Indian population is pushed below the poverty line due to borrowing for health care expenditure.

The average bed-patient ratio is still 1:1246, which is better than the last statistics taken. With almost 75% of the Indian population living predominantly in rural regions, even in a metropolitan city like Mumbai, 60% live in the slums or poor housing areas. The medical facilities are dependent on state run hospitals, which still lack in basic infrastructure, are overcrowded with medical staff grossly over worked.

Ambulatory surgery would be ideal for these hospitals. But, the lack of

political will and displaced priorities, have delayed consideration of these issues.

The Indian Association of Day Surgery has grown to 259 members. With four National conferences, the last being held in a state run teaching hospital, participation included heads of various hospitals. A positive step was taken, for consideration and recommendation to create Day Surgery facilities at different state run hospitals.

“ADSCON 2005”, Theme: “Day Care Surgery: Future of Modern Surgery”, covered lectures on all the surgical specialties, as well as, medical & interventional procedures as Day Case.

“ADSCON 2006”, Theme: “Progress and Dilemmas in Day Surgery”, lectures like: “Are we doing enough?” “How to set up a Day surgery Centre” were among the few topics. The International communities were well represented.

“ADSCON 2007”, Theme: “Super-Specialty as Day-care surgery”, we had guest lectures presented on super-specialty subjects like, bariatric surgery, Orthopedics, Oncology and Proctology.

“ADSCON 2008”, Theme: “Towards Day Care Millennium”, we had a symposium on Anaesthesia, Administrative problems, Medico-legal and a session on “How I do it”. The first Oration was started; the orator was Chairman of the Post Graduate Committee of the Medical Council of India, who left with an assurance of inclusion of the concept of Day Surgery in the teaching program of Medical students. Once again, we were fortunate to hear Hugh Bartholomeusz and Carlo Castoro from the International organisation sharing their experience.

Day Surgery Journal of India, an annual issue, covers topics on day surgery from all over the world. Its copies are complimentary to all the members as well as to libraries of all the Medical Colleges and teaching hospitals.

Guest edited several special issues of journals with a wide circulation to General and Family practice physicians, to increase awareness on Day Surgery.

After great persuasion, the insurance companies have included several surgeries not requiring 24 hr hospitalization ‘if surgeries have been performed by advancement in technology’, a phrase proposed by us. I am sure, still more is to come.

Individually, many free standing surgery centers have started, mostly single specialty, like stone clinics, ophthalmic centers, urological centre, cosmetic centers, some of them working on a franchising model for a chain of centers in different cities. One such, free standing, multispecialty Day Surgery centre is ‘One Day Surgery Centre’ with two centers so far, will be putting up many more across the country. These centers have ISO 9001-2008, with Standard operative procedures and Quality manuals written by me, recommending standard protocols.

One Day Surgery Times, a monthly newsletter, is released from One Day Surgery Centre, -Mumbai, specifically for the family physicians and General Practitioners.

Progress in India slowly gathers movement, but, once it does, it progresses rapidly. We need to be persistent and constantly think of ways to reach Ambulatory Surgery services to our masses. The IAAS is playing a major role in encouraging and supporting India in establishing Day Surgery as a norm. Now, we increasingly see the names like “Day Care Surgery”, “Short stay” and “One Day Surgery”, in many places all over the country.

HAND TRAUMA IN DAY SURGERY

Randall Sach (Australia)

Managing hand trauma in a day patient setting has many advantages, but logistical problems are the main challenges to further expansion. Current

Australian practice and the authors experience and perceptions are outlined and future strategies considered.

THE INCREASING SCOPE OF ORAL AND MAXILLOFACIAL SURGICAL PROCEDURES IN DAY SURGERIES

Howard Sandler (Australia)

Advances in anaesthesia, pain management and surgical techniques have enabled previously precluded procedures to be performed as day-stay admissions. These include surgery for mouth and jaw pathology, ambulant facial trauma and relatively non-invasive dentofacial reconstructive procedures.

NURSE LED AMBULATORY HYSTEROSCOPY IN THE UK – A MORE EFFICIENT AND COST EFFECTIVE SERVICE

Janet A. Smith, East Kent Hospitals University Trust, Ashford, Kent (United Kingdom)

Outpatient Hysteroscopy has developed into an easy, safe, quick and effective method of intra-uterine evaluation that provides immediate results and offers the possibility of immediate treatment of some intra-uterine conditions. The success of Outpatient Hysteroscopy depends on the appropriate selection of patients, the absence of contra-indications, adequate instrumentation, meticulous techniques and, of course, appropriate training. This approach also offers many potential benefits over its traditional counterpart including, faster recovery, less time away from work and home, cost savings to the woman, her employer and the health service

Since January 2007 I have developed and implemented a Nurse-led Outpatient Hysteroscopy service which encompasses the concept of an inclusive ambulatory, rapid-access, see and treat one stop clinic. I undertake diagnostic and therapeutic hysteroscopy incorporating endometrial polypectomy, directed biopsy, assessment for endometrial ablative procedures, management of non atypical endometrial hyperplasia plus IUCD / IUS insertion / removal. I have provision for 46 clinic slots per month and referrals are generated from primary and secondary care. I am currently developing my service to be able to offer outpatient endometrial ablation (Novasure). Due to the success of my service my skills and knowledge are often utilised to facilitate junior doctor and GP training. This ambulatory diagnostic and treatment service has been of great interest to healthcare providers in the UK and, as such, individual Hospital Trusts have been the first in the world to use specially trained Nurse Specialists to carry out all aspects of Outpatient Hysteroscopy.

RECENT TECHNOLOGICAL DEVELOPMENTS IN OPHTHALMOLOGY AND THEIR IMPACT ON DEMAND FOR AND DELIVERY OF OPHTHALMIC DAY SURGERY

Richard Smith (Australia)

The specialty of ophthalmology has progressed incredibly since I walked in the door of St Thomas’ Hospital London in 1976 as a Senior House Officer in the eye department.

Developments in research and technology continue to move us forward. We are able to do so much more for eye disorders and the demand for our services has consequently multiplied.

I will examine where we are going from here in ophthalmic technology and surgery

INTERNATIONAL SURVEY

Claus Toftgaard (Denmark)

The latest data from the new international survey will be presented. Comments on how to expand the IAAS activities will be added. Data will not be available until the Congress.

ORGANISING THE OPERATION PROGRAM IN A ONE DAY CENTRE ON THE CAMPUS OF A GENERAL HOSPITAL RECENTLY FUSED

Luc Van Outryve (Belgium)

The start of the organisation of the day surgery centre was by asking those specialities with typical day surgery program, to try to realise their program on the same day.

Difficulties to overcome when starting a day surgery centre on the campus of a recently fused general hospital, are from different origin:

- different specialities ie. with many day cases or with few/without day cases
- different doctors in the same speciality
- different specialities in the same operating theatre
- different sets of instruments
- sterilisation time (specific sterilisation unit for day surgery centre?)
- etc...

Describing how we are organising our day surgery centre and perhaps asking the questions you always wanted to ask, but you never did.

THE REALITIES OF EVACUATING THEATRE AND WHY DIDN'T THE ALARMS GO OFF?

Nicky van Praagh, Anglesea Procedure Centre, Hamilton (New Zealand)

we all know what to do if the fire alarms go off – we would have all practiced fire drills and evacuations many times, thinking you can just close up and whip the patient out in 5 minutes (or less). But what happens in a real situation where there is smoke billowing into theatre, the fire alarm hasn't gone off and you have no idea where the smoke is coming from!

This very real fire event happened at the Anglesea Procedure Centre in Hamilton NZ during a laparoscopic gynaecological procedure. The theatre was evacuated, the patient was removed from the scene safely and uneventfully, but why didn't the alarms go off in a building less than 12 months old that was fully compliant and why did the smoke detector not detect the smoke?

To answer these questions the Procedure Centre in conjunction with the Fire Design Consultants recreated the scenario using hot and cold smoke with the original operating team re-enacting the operation and subsequent evacuation.

This presentation will demonstrate how a fully compliant operating theatre does not necessarily provide adequate fire safety systems in the event of a fire in or near the operating theatre. It will also show the realities of evacuating a patient mid surgery, the more realistic time frames involved in a real fire event, and how a real life evacuation can be quite different to what is practiced.

A HOSPITAL ARCHITECT REVIEWS EXPERIENCE IN DESIGN OF OPHTHALMIC DAY SURGERY CENTRES

Anthony Vavayis (Australia)

Company Profile

Anthony Vavayis & Associates is an Architectural office of twelve Architects and support staff located centrally at King Street Wharf Sydney. Anthony Vavayis & Associates offers architectural design solutions and services across the full breadth of architecture, interior design and construction.

At Anthony Vavayis & Associates we are committed to delivering to our clients a professional service that responds to their specific needs, as well as respects the local and greater environment. Our aim is to provide a creative design solution for each individual project and ensure it is on time and within budget.

With many years' experience across all facets of architecture and construction, Anthony Vavayis & Associates offers a seamless blend of skills and systems resulting in projects with a high level of practical design and uncompromising quality.

Range of Services

At Anthony Vavayis & Associates we offer our clients a full range of architectural and interior design services from initial preparation of client brief, through to project completion. Throughout the process, the services include design documentation, contract administration, selection of fixtures and finishes and post occupancy evaluation. These services are offered across all project types including:

- Commercial Buildings
- Healthcare
- Corporate Interiors
- Retail fit out
- Multi Unit Residential
- Residential
- Aged Care

DOCUMENTATION & DAYCARE MEDICO-LEGAL ASPECTS IN INDIA

Reena Jatin Wani (India)

"With great power, comes great responsibility . . ." . When we look at the medical profession, what has always been regarded as a noble profession is seeing new horizons . . . and reaching new depths due to loss of faith, defensive practices, impairs progress of science. In 1986, the Supreme Court of India included the medical profession under the Consumer Protection Act (CPA), adding fuel to the fire. One needs to remember the 3 C's which should be there consistently in your day-care surgery practice to prevent problems: Consent, Confidentiality and Correct Record keeping. Individual examples of cases in India pertaining to each of these, and outcome shall be discussed.

- Confidentiality: First duty is to the patient, but there have to be systems to involve other care providers e.g. HIV-status. The Supreme Court of India recently ruled that the HIV-positive status of a person need not be cloaked provided you share the diagnosis and prognosis as needed. Access to records should be restricted
- Consent For Surgery: should be legally valid, and preferably specify nature of anesthesia, surgery and names of doctors. However in emergencies one may have to act in excess of Consent but in GOOD FAITH and for benefit of the patient. This is where documentation comes in.

- Complete Record Keeping: Trained staff and assistants are important, but personally checking the files and having proper operative notes is essential. Complete records, with no erasure/overwriting/ obliteration or abbreviations to be preserved as per guidelines.

Special Areas requiring attention:

• **Prescription**

It is a legal document which indicates that the prescriber takes responsibility for the clinical care of the patient and the outcomes that may or may not be achieved.

Prescription Errors are preventable prescribing, dispensing, drug administration and clinical advice (related to drug) error. These need to be avoided.

- MTP Act in India : Legal abortion permitted till 20 weeks. Recent debate on the Niketa Mehta case where congenital cardiac defects were diagnosed at 24 weeks raised the issue : Pro-life or Prochoice??
- MTP & Prenatal Diagnosis: Pregnancy termination is often called the bread and butter of Gynecologists, usually day-care surgery. Ultrasound is the investigation of choice in most cases. However the falling sex ratios and increase in female feticide in India has led to the PNDT/ PCPNDT Act –with effect 1st Jan 1996, modified to include Pre-Conceptional Diagnosis also, in 1992. This is meant for prevention of sex selection, restricting the use of prenatal diagnosis.
- This has led to some public interest litigations by NGO's against doctors, and harassment of some clinics which are not violating the Act under technical grounds of improper documentation.
- Issues with Fertility treatment and Procedures: Oocyte retrievals are done as day-care. There is an increase in USG- guided procedures like CVS, amniocentesis or selective feticide in higher-order pregnancies done on day-care basis. Risks of loss of pregnancy, besides the psychological trauma faced by the couple is a specially tricky problem. These are also areas prone to litigation.

Another area where there is a Fear Factor... is in Dealing with Media.

Media (Print & Electronic) is now Omnipresent, Ominous and Omnipotent in our country. In case of unforeseen problems, they are highlighted and there is "Investigation and Trial by Media!!!"

This can be a major medico-legal minefield.

Steps for risk management in Day-Care Practice include:

- Assure fail-safe mechanisms at critical points in practice as discussed
- Recognize errors before they become adverse outcomes
- Identify high-risk procedures which may need further surgery/ referral
- Documentation of adverse events appropriately
- Establish Risk Management strategies in your center and have regular audits and updating of facilities.

Finally, I would like to emphasize that it has been said that "The Human Mind is like a Parachute... It works best when it is open!" We have to work within our constraints, change with changing times and take the initiative and educate ourselves and our team.

DAY SURGERY TREATMENT OF BENIGN PROSTATIC HYPERTROPHY

Henry Woo (Australia)

The surgical management options for benign prostatic obstruction (BPO) have significantly expanded over the past 20 years.

Following the demise of open prostatectomy, transurethral resection of the prostate (TURP) became the mainstay of surgical treatment. Whilst TURP did represent a quantum leap improvement in morbidity over open surgery, it was still associated with significant morbidity, in particular haemorrhage and TUR Syndrome. This provided the impetus for the development of alternative forms of surgical treatment. These surgical treatments can loosely be divided into Minimally Invasive Surgical Therapies (MISTs) where no immediate tissue removal occurs or cavitating surgical procedures where there is immediate removal of obstructive tissue. MISTs mostly rely upon thermal ablation of tissue and include as examples, radiofrequency ablation and microwave thermotherapy. MISTs do not provide as good long term efficacy as TURP but have relatively low morbidity and are ideally suited for Ambulatory Surgical Units. Newer forms of cavitating surgery have predominantly been centered around laser therapies which appear to be equivalent to TURP in efficacy but superior in terms of morbidity. In particular, photoselective vaporisation of the prostate (PVP) using the 532nm green light wavelength has become widely adopted. All men who are candidates for TURP are also candidates for PVP although the converse does not apply. The majority of PVP cases are able to be performed within the confines of a 23 hour post operative stay. The limiting factor for more widespread adoption of ambulatory surgical units for BPO surgery have been cost, skills infrastructure and surgeon acceptance of newer technology.

EVALUATION OF DELAYED DISCHARGE FOLLOWING DAY SURGERY AT GATEWAY SURGICAL CENTRE, LONDON

Farheen Aliya Zulfiquer, A. Ali, C. Fernandez, M. Zangana, K. Pattanayak, Newham University Hospital, London (United Kingdom)

Background: The Gateway Surgical Centre (GSC) was opened in October 2005 especially for elective surgery at Newham University Hospital. Up until February 2009, 2592 General Surgery day cases have been performed at GSC. These patients were expected to be discharged from the Daycare Unit, but 267 (10%) required ward admission. Delayed discharges (DD) following day surgery are a financial burden on hospitals and inconvenient for the patient. Objective: A retrospective study investigating the reasons for DD following day surgery at GSC over a 40-month period.

Patients: This study includes all elective General Surgery day cases performed at GSC from 20 October 2005 to 16 February 2009. The reasons for DD were divided into: a) surgical, b) anaesthetic, c) medical, d) social and e) other, then subdivided into specific causes.

Results: Total number of DD= 267. Reasons: surgical= 116 (43%), anaesthetic= 67 (25%), medical= 32 (12%), social= 32 (12%), other= 20 (7%). Most common specific causes: wound drain in situ= 15%, post-operative nausea and vomiting= 11%, no escort= 11%, not passed urine post-operatively= 9%, past medical history= 9%.

DD due to significant medical history (25) or a high BMI (7) could have been avoided by better selection of candidates suitable for day surgery. Also, DD due to non-compliance with nil-by-mouth protocols (2) and patients without an escort post-operatively (25) could have been prevented by improved patient education. Thus, 22% of DD could have easily been avoided.



Abstracts

Conclusion: Most DD occurred due to surgical reasons, the commonest being the patient having a wound drain in situ. Perhaps a better selection of patients suitable for day surgery as well as better patient education could help reduce the number of DD. This would lessen the burden of a DD for both the hospital and the patient.

Posters

OUTCOMES AT AMBULATORY SURGICAL CENTER

Francisco Barreiro, F.J. Gonzalez, R. Conde, Hospital Clinico Universitario, Santiago De Compostela (Spain)

Objectives:

We assess the quality of interventions, considering the rate of replacement, postoperative complications, percentage of suspensions, revenues and results of the telephone survey of satisfaction.

Material and Methods:

Prospective study from September 2000 to January 2008. Age, gender and ASA of patients, type of disease, surgery, anaesthesia and the usual day surgery activity quality indices (cancellation and delays of operations, postoperative pain and nausea or vomiting, postoperative morbidity, discharge and early readmission) were evaluated. Multivariate logistic regressions were estimated separately for the ambulatory surgical procedures.

Results

In total, 35,308 patients were enrolled to the day surgery setting with a mean age of 50.3 years (SD 17.2), women were 58.5% and 41.5% men. The percentage of activity of the hospital surgical service is as follows: 34.2% General Surgery, 15.4% Gynecology, 13.4% Trauma, 9.9% Anesthesia, 9.5% Vascular Surgery, 6.2% Urology, 4.2% Neurosurgery, 3.3% Dermatology, 3.1% Ophthalmology, 0.7% other. Minor cardiovascular adverse events are the most common intraoperatively and are associated with preexisting cardiovascular diseases and elderly patients. Respiratory events postoperatively are associated with obesity, smoking and asthma. Also, pain is a common cause for longer postoperative stay, unanticipated admission and readmission.

Conclusions.

The multidisciplinary day surgery unit, with dedicated medical and nursing staff and suitable organisation such as ours is characterised by favourable surgery activity quality indices and good patient outcomes.

TENSION FREE REPAIR IN UMBILICAL HERNIA WITH A VENTRALEX MESH. CLINICAL OUTCOMES IN 117 PATIENTS

Francisco Barreiro, F.J. Gonzalez, R. Conde, Hospital Clinico Universitario, Santiago De Compostela (Spain)

Background: Adult umbilical hernia is a common surgical condition mainly encountered in the fifth and sixth decade of life. Although a common and relatively simple procedure, there is no exact protocol today on how the repair should be done. **Material and Methods:** This study is a prospective review of all umbilical hernias repaired with the Ventralex hernia patch by two surgeons. One hundred and seventeen patients were treated (81 males and 36 females) with a mean age of 72.4 years (range 29-85). All patients were day cases. Operative times, analgesic use, overnight hospital stay and postoperative complications were recorded prospectively.

Results: The average BMI was 32 (range 18-37). Fifty seven patients were smokers, thirty eight patients were diabetic, and nineteen patients were chronic steroid users. The size of patches used were small (72%), and medium (28%). The mean operative time was 30 min (range 10-68). Seventy-six patients required mild/moderate postoperative analgesia. Follow-up visits ranged from 8 days to 5.1 years. No hernia recurrences

were found in follow-up. Complications included two patients with minor wound infections, six had seroma (2.2%), and post-operative urinary retention in five patients.

Discussion: The advantages are obvious: no artificial creation of an even bigger than original defect, a completely tension-free repair, and little to no recurrence of the hernia.

Conclusion: Hernioplasty with Ventralex hernia patch is a safe and efficacious technique for repair of umbilical that can be performed with minimal postoperative complications.

AMBULATORY SURGERY IN PROCTOLOGY

Manmal Begani, N. Chavhan, Abhishek Day Care Centre and Medical Research Centre, Mumbai, Maharashtra (India)

Background Proctological surgery is being carried out increasingly on an outpatient basis. The reasons for this are safe anesthetic procedures, short operation times and low complication rates. This study is a retrospective analysis of complication rates, symptom recurrence and long-term results according to outpatient proctologic surgery practiced in our hospital in the last 81/2 years.

Material and Method A total of 2115 patients were operated and followed up in the last 81/2 years. The procedures included hemorrhoidectomy Open and closed, stapler hemorrhoidectomy, injection sclerotherapy, cryotherapy, anal fistulotomy, sphincterotomy, and removal of rectal polyps, pilonidal sinus excision and incision and drainage of perianal abscess, removal of anal warts etc. Procedures were performed under regional block.

Results Mean hospital stay was 8.4 hours (range 6-11 hours). The overall complication rate was 1.5%, which included bleeding, urinary retention, infection, continence disturbance and recurrence.

Conclusion Ambulatory proctological surgery can be safely performed with a low recurrence and complication rate while offering a high level of patient acceptance and satisfaction. However, an appropriate diagnosis of the disease, proper selection of the patients with respect to their suitability for surgery and a round-the-clock availability of patient communication with the nursing staff are a must for the successful outcome of the procedure.

HYDROCELE - DAY CARE SURGERY

Manmal Begani, N. Chavhan, Abhishek Day Care Centre and Medical Research Centre, Mumbai, Maharashtra (India)

The retrospective study of 88 cases of vaginal hydrocele operated by the method of minimal dissection technique of Jhawars and Sharma under local anaesthesia as a day care procedure. This is the simple and quick method with very low incidence of postoperative complication and insignificant morbidity. Details of operative technique are briefly mentioned in the poster.

SINGLE CENTRE DATA OF PIONEER DAY CARE SURGERY CENTRE IN INDIA

Manmal Begani, N. Chavhan, Abhishek Day Care Centre and Medical Research Centre, Mumbai, Maharashtra (India)

Background - Day Care or Ambulatory surgery is rapidly developing in our country. A regular list of a general surgeon will have up to 50% cases,



which can be discharged on the same day. Our Centre has been instituted with the aim of developing Day Care or Ambulatory surgery into a speciality. We take this centre as an example to highlight the possibility and need for more of such centres in our Country.

Method and Material - This is a retrospective analysis of procedures performed at our single centre, over a period of 8 years, from June 2000 to Dec. 2008. The operative procedures were 7078 and Endoscopic procedures were 1568 in number. All the operative procedures were mostly done under local anaesthesia and sedation and short GA. The procedures included hernia, hydrocele, anal diseases, swellings, lymph node biopsy, fibroadenoma, laparoscopic appendicectomy, laparoscopic varicocele ligation and diagnostic laparoscopy etc

Conclusion- As availability of the Day care centre, patients hospital stay minimal, cost effective and no need to put them into waiting list. From our single centre we have performed 7078 surgical procedures with minimal complications.

TENSION FREE HERNIA REPAIR AS DAY CARE PROCEDURE

Manmal Begani, N. Chavhan, Abhishek Day Care Centre and Medical Research Centre, Maharashtra (India)

Lichtenstein tension free hernia repair is now gaining the popularity as a day care procedure. The study was conducted from June 2000 to Dec 2008. 273 tension free hernial repairs were done under local inguinal block. 2 patients had recurrence, 4 patients underwent urinary retention, 1 patient needed 24 hour hospitalization. Our results prove that ambulatory inguinal surgery is very simple, safe and effective and associated with low recurrence rate. Postoperative pain was minimal as a result of tension free repair.

UMBILICAL AND EPIGASTRIC HERNIA REPARATION BY MEANS OF VENTRALEX AND AMBULATORY SURGERY

Jenaro Bermejo, J.I Arias, I. De Blas, D. Fernández-Villnueva, A. Arias Milla, P. Castro, R. Freitas, Hospital Monte Naranco, Oviedo, Consejería Sanidad (Spain)

Aims: The ambulatory pre-peritoneal placement of the ventrallex mesh – a PTEF/polypropylene composite (Bard, Spain) - in epigastric or umbilical defects is submitted to evaluation in the current paper.

Methods: This research is a revision of the umbilical and epigastric hernias repaired in our service along 2006 and 2008. The patients' characteristics such as age, sex, previous laparoscopic and other operation related data such as the wall failure diameter have been analysed.

Results: Eighty-two patients with umbilical and epigastric hernia were examined, 58 and 24 cases respectively. Small composite was used in umbilical hernias in the 50 and 92.5% of women and men respectively while in the epigastric ones it was preferably used in 90 and 92% of women and men respectively. The operation length varied in connection with the defect size ($p < 0.001$), the composite ($P < 0.001$) and the patient's obesity ($p < 0.01$). The prevailing anaesthetic procedure was local anaesthesia and sedation or rachis-anaesthesia in 57 and 41% of cases where small composite was placed and 36 or 64% where medium composite was used. 73% of procedures were ambulatory, small ventrallex was placed in 91% of them. **Findings:** The use of ventrallex composite allows epigastric and umbilical hernias to be treated by means of ambulatory surgery. Technically, this is a simple process lacking post-operation complications and with lower recurrence risk when compared with closure by means of suture. All in all, we believe it to be a valid alternative to primary closure, however, this shall be confirmed by more extensive research.

OFFICE-BASED PANENDOSCOPY AS AN EFFECTIVE STRATEGY IN THE WORK UP FOR HEAD AND NECK CANCER PATIENTS

Matthew Broadhurst, Queensland Centre for Otolaryngology, Head and Neck Surgery (Australia)

Introduction:

The initial management of head and neck malignancy has been inpatient panendoscopy with general anaesthetic. This is followed by an assessment/ planning session prior to definitive treatment. This is a time and resource consuming process. It can be greatly simplified without sacrificing the standard of care by performing office-based panendoscopy with just local anaesthetic while still gaining the relevant information to enable definitive treatment planning. Formal video and photographic records can also be stored.

Methods:

Patients with head and neck malignancy underwent office-based panendoscopy in their initial work up. High definition video records were obtained from oesophagoscopy, bronchoscopy and laryngoscopy and suitable biopsies were taken. Results were compared with radiological data to assess for primary tumour extent, regional disease and presence of a second primary tumour.

Results:

Eleven patients underwent office-based panendoscopy. The information obtained by office-based panendoscopy was adequate to enable optimal patient management. No second primary tumour was missed nor any treatment plan altered by findings subsequent to office-based panendoscopy. These results indicate that a suitable alternative to costly in-patient initial assessment is an office-based panendoscopy. It reduced patient inconvenience from in-patient admission and had significantly reduced costs.

Conclusion:

Office-based panendoscopy is a suitable alternative to in-patient endoscopy in the initial evaluation in patients with head and neck malignancy. It provides more information than in-patient endoscopy at a significant cost saving and reduced patient inconvenience.

QUALITY DEVELOPMENT PROJECT OF HAND HYGIENE IN DAY SURGERY UNIT, HERLEV HOSPITAL, COPENHAGEN, DENMARK

Pia Mohr Christensen, U.Thyssen, B. Sommer, Day Surgery Unit, Department of Anaesthesiology, Copenhagen University Hospital, Herlev, Copenhagen (Denmark)

Studies have shown that less than half of healthcare personnel perform hand hygiene when recommended. Studies have also proven that there is a connection between hand hygiene of the personnel and the risk to get hospital infections. The objective was to promote and improve hand hygiene among the personnel at Day Surgery, Herlev Hospital.

The hand hygiene project was conducted as a quality development project and included an anonymous questionnaire investigation with 10 multiple choice questions within general hand hygiene together with a quality score of the test persons hand disinfection by using an ultra violet light box. The personnel were also taught in hand hygiene in a health care setting based on evidence by the hygiene nurse. The hand disinfection tests showed a 46% increase in quality from the first (17%) to the second test (63%). The goal was to achieve a score "correct" for 95% of the personnel, which was not fulfilled.

However, these results showed a connection between the hand hygiene action and the effect of this measured by the ultraviolet light box. The

visualisation of the quality of each individual's hand hygiene demonstrated in the first test led to a better performance in the second test. This shows that using the ultraviolet light box makes the act of hand disinfection visible and leads to higher quality.

According to the results of the questionnaire investigation it appears that personnel in general lacks knowledge of the guidelines for hand wash and hand disinfection.

It was realised that the department needs to maintain focus on the guidelines for hand hygiene. New methods such as spot test twice a year where the ultra violet light box together with a questionnaire will be used in the future.

POSSIBILITIES OF DAY CARE SURGERY IN RURAL INDIA

SEEMA DANDE, DANDE Pinak G., ROWT. Naresh, Dande Hospital, Maharashtra (India)

Aim: Presenting a retrospective analysis of 830 surgical cases, performed as Day Case, from 2006 to 2008, in a rural hospital, situated in the centre of India.

Introduction: The history of ancient Indian surgeon, Shushrut, in his works of about 400 BC, has described surgery in great detail, some of which are still in use. The most unique aspect of these surgeries were that, they were performed as Day Case.

Material: Data collected from May 2006 to April 2008, were analysed retrospectively, of different specialities, performed purely as a Day-case: Gynaecology: 90, General Surgery: 230, Ophthalm.: 108, Plastic Surgery: 110, ENT: 6, Ortho./Urology: 226, Others: 60.

Patients who agreed to be discharged on the same day were taken into consideration. Mean average hospital stay was 6 hours. Method: Case selection and criteria for patient preparation and discharge were followed as per recommendation of The Indian Association of Day Surgery. Pre-operative counselling was performed during the first consultation. The discharge process was strictly monitored and criteria followed. Complications were explained to the patient along with post procedure instructions. Readmissions were carefully noted.

Conclusion: No complications were encountered and readmissions were none. Though the number of patients accepting Day Care Surgery in rural India is few, it is slowly being accepted. With the advent of better anaesthetic preparations, and availability of basic amenities, it is now possible to perform major surgeries and send them home on the same day. The Protocols safeguard your patient, affording you to serve them better.

LATERAL DECUBITUS OR HALF SITTING PATIENT POSITION IN VIDEO THORACOSCOPIC SYMPATHECTOMY

Isabel de San Jose, P. Ruperez, Corporacia Sanitaria Clinic Barcelona (Spain)

Introduction: Essential hyperhidrosis is a disorder on the thermoregulation and dissipation of body heat, characterized by an excessive sweating in preferential body sites, such as facial flushing. A video assisted thoracoscopic sympathectomy procedure is the hyperhidrosis surgical definitive treatment.

Objectives: We undertook this study to assess operating time rates, economical impact cost, workload and rules, in order to know what of the two O.table positions reduces nurse workload, surgical material, personnel team expenses and makes the operating room more profitable.

Methods: The clinical study was followed up with 100 patients aged between 15-55yr undergoing in v.t.sympathectomy under general anaesthesia, 50 patients were placed in lateral decubitus position and 50

patients in half sitting position. The schedule patient o.table position was decided by previous medical p. report . Date collection was carried out timing total and partial operating time rates, recording pharmacological surgical expenses in all operations and considering team members necessary. Other sources of information were medical anaesthesia patient reports and o.theatre registry books.

Results: The average time rate in right and left lateral decubitus position was 110 minutes and in half sitting position was 70 minutes, showing us a considerable difference of about 40 minutes between the two positions. As a result we show that the half sitting position helps to have the maximum yield for the O. room.

Conclusions: V.T.Sympathectomy was regarded as efficient in all cases with a low complication rate.

Half sitting position helps the maximum yield for the O. room, and also provides a safe anatomical position for the patient, avoiding any possible neurological, vascular and physical post-surgical injuries was detected in the studied patient population.

ABDOMINAL WALL IN DAY SURGERY 8 YEARS EXPERIENCE

Fernando Docobo-Durantez, J. Mena, M. Gutierrez, V. Garcia, J. Caete, A. Muaoz, Day Surgery Unit University Hospital Virgen del Rocío, Seville (Spain)

Introduction: Surgical treatment of abdominal wall hernias are proposed in day surgery units in relation to obtain better clinical, economic and perceived quality results.

Material and Methods: A total 18439 patients were operated in the day ambulatory setting in the period 1996-04, 8655 (46.94%) of them were abdominal wall hernias. A retrospective analysis was done in relation to anatomic localisation, symptoms, surgical and anaesthetic techniques, ambulatorization index, complications and relapses in the group of 6640 patients controlled by phone over 4 years postoperative period. Surgical procedures were done by staff and surgical residents.

Results: 4441 Groin hernias. Local anaesthesia (LA) 4328, regional anaesthesia (RA) 101, general anaesthesia (GA) 12. Surgical techniques: Lichtenstein 3290; PHS 840; laparoscopic 12; other 335. Wound infection: 35 cases (0.78%), relapses 39 (0.87%), ambulatorization 96%.

1187 Umbilical hernias. LA 1003, RA 174, GA 5. Surgical techniques: Primary closure 558, hernioplasty 529. W. Infection: 43 (3.6%), relapses 19 (1.6%). Ambulatorization 99.4%.

Epigastric hernias 553. LA 553. Surgical procedures: Primary closure 294 (53.2%), Hernioplasty 259. W. Infection: 11 (1.98%) Ambulatorization 98%.

Ventral hernias 303. LA 3, RA 274, GA 26. Techniques: laparoscopic 0; hernioplasty 293. W. Infection 10 (3.3%). Relapses 4 (1.32%) Ambulatorization 69%.

Femoral hernias 140: LA 136, RA 4. Surgical techniques: Primary closure 36. Hernioplasty 104. Ambulatorization 91%.

Spigel hernias 16. AR 8, AG 8. Surgical procedures: Primary closure 3. Hernioplasty 13. Ambulatorization 72%.

Conclusions: Surgical procedures in abdominal wall hernias in a teaching hospital day surgical unit are safe, efficacious and present a high efficiency level.

CUSTOMER SERVICE FOR CATARACT PATIENTS

Petra Edelman, Ziekenhuis Gelderse Vallei, Ede (The Netherlands)

A new partnership of eye specialists also meant it was time for a new care setup in the cataract department. The method of working was until then much more organization focussed.

Motivation

Create a client orientated department where high quality service is being delivered but also open to the open market and competition with other providers.

Method of work

- Market research
- A fixed team with project manager, eye specialists and two study groups consisting of polyclinic staff and operating room staff
- For the clinical path and the current method of working a new process was created, this would create points for improvement
- Tune and create a uniform way of working, but also a uniform protocol for surgeons and care personnel
- Simplify the logistics for the patient
- Due to extra operations for a period of 7 weeks were we able to reduce and diminish a waiting list
- Client surveys, used to get extra information about the new/current working methods, these were evaluated and used to create a new process of care
- A back office phone service was created to help the active carers from not being disturbed during their care
- The outpatient department was changed, involving staff rotation, improving staff to work together in different shifts and to create one team over three locations
- The client is leading. On a yearly basis are meetings with clients and their carers held. The outcome is used for improvement

Goals

- We have been nominated as being best in total care for cataract patients. We guarantee a short waiting list, based on agreements we have with insurance companies.
- We had an increase in patient turnover 1000 in 2007 to 1700 in 2008.
- The waiting list for the outpatient

PATIENTS PREFER REMIFENTANIL ANALGESIA COMBINED WITH LOCAL ANALGESIA FOR PAINFUL SHORT-DURATION ORTHOPAEDIC SURGERY

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Background: Local analgesia combined with conscious sedation is a common choice of anaesthesia in a day surgery setting [1]. The aim of this study was to investigate if the combination of remifentanyl infusion and local analgesia would be preferable to general anaesthesia.

Methods: Prospective cumulative registration: 25 adult outpatients admitted for removal of internal fixation devices. Detailed information about the procedure was given to the patient and the day surgery staff.

Anaesthesia: Remifentanyl infusion 10-20 µg/kg/h and local analgesia. Bolus doses were given on demand, with close attention to the patient's subjective conditions. Data registered: vital signs, patient's score of experienced pain intensity both peri- and postoperatively as a control of amnesia.

Semi structured interview (telephone) on the day after surgery: satisfaction related to patient experience.

Results: 24 patients (n=25) were satisfied: found it comfortable to be conscious and cooperative and short-duration pain was preferred to the side effects of general anaesthesia. The anaesthetist tension on the patient subjective condition was crucial. The intensity of pain recorded during the operation and the postoperative recall were identical. Because of the anaesthesia form none of the patients needed observation in the recovery unit. One patient needed general anaesthesia.

Perspective: Surgery-generated anxiety is a common phenomenon, but is reduced with more detailed information, and the identification of realistic expectations can facilitate a successful procedure [2]. This study shows that the opportunity for the patient to maintain autonomy, even though he may experience pain and nausea, is valued.

NO POSTOPERATIVE MONITORING AFTER DAY CASE ANAESTHESIA

Sven Felsby, U.T. Larsen, Department of Day Surgery, Aarhus University Hospital Skejby (Denmark)

Background:

Rapidly eliminated anesthetic agents and multimodal pain treatment enable short recovery. Patients fulfilling PACU discharge criteria at the end of surgery do not need monitoring in the step-down area. In our clinic, we use only clinical observation in these patients.

Aim:

To investigate any impact of omitting postop. monitoring on complications or readmissions in the first 30 postop. days.

Methods:

Retrospective investigation with descriptive statistics. Patients assessed by the authors.

Results:

In 2006, 2901 operations in gynecology (n=1737, 60%), urology (n=871, 30%) and vascular surgery (n=112, 4%) were performed. Mean age was 45 years (8-89). 87 patients (3%) had ASA score 3 or 4. General or spinal anaesthesia was used in 2002 (69%) of the patients.

126 patients (4.3 %) were acutely admitted, of these 59% had urologic surgery. Mean age was 53 years (13-89). 109 patients (86%) had general or spinal anaesthesia. Eight patients (8%) had ASA score of 3.

Primary causes for acute admission were bleeding (n = 46, 37%), infection (n = 23, 18 %) or urinary retention (n = 18, 14 %).

All unmonitored patients had an uneventful medical history at discharge.

Patients not meeting the PACU discharge criteria were monitored postoperatively. This group included all patients later admitted with major events: 5 patients with malaise or cardiac symptoms, all discharged the same day, and 2 patients who died from sepsis 1 and 4 days postop.

Conclusion:

We routinely rely on clinical postop. observation, monitoring only patients not meeting PACU discharge criteria after surgery. Our data support this practice: Either the admitted patients were already monitored, or the reason for admission was clinically evident.

When using standard recommendations for PACU discharge, patients at risk for complications will be monitored.

E-HEALTH SHAPING THE SAFETY AND QUALITY OUTCOMES OF SURGERY TODAY

Karen Gibson, National E-Health Transition Authority (NEHTA) (Australia)

E-health shaping the safety and quality outcomes of surgery today. Australians are asking for more ownership and control of their health and wellbeing. They are changing their lifestyles, seeking health information online and adopting an holistic approach to wellness. Across Australia there is a groundswell of support for a better more connected healthcare system. More than 80 per cent of Australians are in favour of electronic health records and the sector is increasingly aware of the safety and quality benefits that e-health can deliver. They believe lives will be saved by having important medical information immediately accessible.

The National E-Health Transition Authority (NEHTA) will address the governments of Australia's commitment to developing a national e-health infrastructure that will underpin the success of a connected healthcare system nationally. NEHTA will

- Discuss the development of a national e-health framework and the strategy for adoption by the sector
- Examine Australia's e-health priorities and the safety and quality benefits for the sector
- Define Australia's national approach to patient and provider identity and clinical terminologies

This will include an Individual Electronic Health Record (IEHR) and how the development of individual electronic health records will mean even greater equity of access to quality healthcare. A national IEHR service securely stores, with the consent of individuals, important healthcare information that can then be accessed by the individual and those healthcare providers that they authorise, across Australia being able to access the right information when they need it, where they need it.

ANAL FISTULOTOMY USING RADIOWAVES – LONG-TERM OUTCOME

Pravin J. Gupta, Fine Morning Hospital and Research Center (India)

Objective: This paper is a retrospective analysis of the results of treatment of fistula-in-ano using a radiowave device.

Methods: Between 2000 and 2008, 976 patients were operated on for perianal fistula. A Ellman radiowave generator was used to carry out the complete surgical procedure. In the follow-up period 155 patients were lost, remaining 821 patients were analyzed in the study. The mean follow-up time was 6.8 years. Analyzed parameters included: postoperative complications, wound healing time, off work duration, recurrence rate and incidence of anal sphincter dysfunction. Severity of gas and stool incontinence was also assessed.

Results: In our study, subcutaneous fistula was diagnosed in 28.1%, inter-sphincteric in 39.1%, and trans-sphincteric in 32.8%; supra-sphincteric and extra-sphincteric fistulae were not included. Single-tract fistulas were present in 85.4% and multi-tract fistulas were present in the remaining 14.6%. Postoperative complications were noticed in 1.4% of patients, which included postoperative bleeding, abscess formation, premature approximation of skin edges, prolapse of hemorrhoids and local skin allergic reactions. Postoperative gas and/or stool incontinence was noticed in 3.8%. The recurrence rate was 1.7%.

Conclusions: Radiowave fistulotomy offers short operation time, less postoperative pain, early return to normal activity, and faster healing of the wound. The recurrence rate and continence disturbances are comparable to conventional fistulotomy procedures. All the procedures can be done as a day care surgery

FEASIBILITY OF DAY CARE SURGERY IN PROCTOLOGY

Pravin J. Gupta, Fine Morning Hospital and Research Center (India)

Background Proctological surgery is being carried out increasingly on an outpatient basis. The reasons for this are safe anesthetic procedures, short operation times and low complication rates. This study is a retrospective analysis of complication rates, symptom recurrence and long-term results after outpatient proctologic surgery practiced in our hospital in the last 10 years.

Materials and methods in all, 2840 patients were operated and followed up. The procedures included hemorrhoidectomy, anal fistulotomy, sphincterotomy, and removal of rectal polyps, pilonidal sinusotomy and anal stricturotomy. Procedures were performed either under short-term general anesthesia or regional block.

Results Mean hospital stay was 7.3 hours [range 4-21 hours]. The overall complication rate was 2.5%, which included bleeding, urinary retention, infection, continence disturbance and recurrence.

Conclusion Outpatient proctological surgery can be safely performed with a low recurrence and complication rate while offering a high level of patient acceptance and satisfaction. However, an appropriate diagnosis of the disease, proper selection of the patients with respect to their suitability for surgery and a round-the-clock availability of communication of the patient with the nursing staff are a must for the successful outcome of the procedure.

RADIOWAVE ABLATION AND MUCOSAL PPLICATION TECHNIQUE FOR RECTAL MUCOSAL PROLAPSE

Pravin J. Gupta, Fine Morning Hospital and Research Center (India)

Background The author reports a novel technique of radiowave ablation and circumferential plication of the rectal mucosa as a treatment for rectal mucosal prolapse which is performed as a day care surgery.

Materials and Methods The radiowave ablation is performed using a Ellman radiowave generator. The surgical technique and clinical follow-up of patients operated by this technique is presented. Results in terms of mean hospital stay, postoperative pain, postoperative complications, period of incapacity for work and effectiveness of the procedure is described.

Results 204 patients were operated over a period of 5 years and followed for at least 3 years. The mean operation time was 7 minutes (range 6-10 minutes). The mean time for first bowel movement was 24 hours. Return to normal daily activity was 7 – 10 days. Complete wound healing was achieved in 14 days in 98% of patients. Late complications included anal skin tags, anal papillae and recurrence in 2% of patients.

Conclusion The procedure of radiowave ablation and plication of rectal mucosa is a safe, effective, and swift technique. It can be proposed as a better alternative to conventional surgical procedure.

RADIOWAVE HEMORRHOIDAL COAGULATION AND MUCOPEXY IN ADVANCED GRADES OF HEMORRHOIDS – LONG-TERM OUTCOME

Pravin J. Gupta, *Fine Morning Hospital and Research Center (India)*

Background The author describes his experience of treatment of advanced hemorrhoidal disease (Grade III and IV) using a technique called radiowave ablation and plication of hemorrhoids which is performed as a day case procedure.

Patients and Methods Both male and female patients presenting with prolapsing hemorrhoids with indications for surgery were enrolled for the study. The surgical technique and clinical follow-up of patients operated by this technique is presented. A Ellman radiowave generator was used for ablation. Patients were initially called at 7, 14 and 30th postoperative days and then at least 2 years after the procedure. Results in terms of mean hospital stay, postoperative pain, postoperative complications, period of incapacity for work and effectiveness of the procedure is described. Results- 1260 patients operated with this technique were assessed. The average duration of operation was 7 minutes [range 5-9 minutes]. Mean hospital stay was 11 hrs [range 6-23 hrs]. The postoperative complication rate was 3.5%, which included secondary bleeding, retention of urine and perianal thrombosis. The mean period of incapacity for work was 8 days [range 6-14 days]. The mean analgesic requirement was 20 tablets of Tramadol [range 14-33]. At the last follow-up, 2% patients had recurrence of bleeding and 6% developed anal skin tags.

Conclusion Radiowave ablation and plication of hemorrhoids is a technique that results in significantly less postoperative pain, shorter hospital stay, and early return to normal activity.

RADIOWAVES: A NEW MODALITY IN PROCTOLOGY SURGERY

Pravin J. Gupta, *Fine Morning Hospital and Research Center (India)*

Background Electrosurgery has been used for many decades in medicine. Radiowave is an ultra-high frequency current waveform, having properties that perform cutting, coagulation and fulguration of tissues with minimum collateral tissue damage. Radiowave is a relatively new modality that is being used for ano-rectal surgeries with increasing frequency. As the radiowave energy is applied, frictional heating of tissues results, with cell death occurring at temperatures between 38 and 700 C.

Objective This paper discusses the author's personal experience with radiowave for various ano-rectal pathologies namely hemorrhoids, anal fistula, anal polyps, sinuses and anal papillae. A Ellman radiowave generator was used to carry out the procedures. Conclusion- Proctological surgeries using a radiowave device are simple to perform with many advantages over the most conventional techniques. The procedures take less operative time, post operative pain is significantly less and the postoperative recovery is accelerated with negligible incidences of complications. All the procedures are performed as a day care procedure..

GUIDELINE FOR IMPLEMENTATION OF NEW SURGICAL PROCEDURES

Kirsten Hauberg-Lund, *Day Surgery Unit, Herning Regional Hospital (Denmark)*

Background

Day surgery is fast developing, in Denmark as well as the rest of the world. Surgical procedures are being moved from normal departments (OR) to day surgery units. Our hospital management wanted to move procedures for treating female urine incontinence from the OR to our day surgery

unit. We lacked a tool for a successful implementation of these and future procedures for both staff and patients.

Goal of the guideline

To achieve successful implementation of new procedures in the day surgery unit.

Method

- Cooperation with consultants and nurses within the gynecology department
- Collect data about the procedures
- Collect information and experiences from other day surgery units at other hospitals
- Seek cooperation with the gynecological ambulatory, where preand postoperative information and examination takes place
- Educate staff about the pre- peri- and postoperative nursing care
- Teaching the procedure to participating staff members
- Ensure that the correct instruments and equipment are available
- Introduce staff to instruments and equipment
- Design "procedure cards" for nurses
- Describe patients' way through day surgery
- Investigate post-operative admission and complication rates
- Prepare and carry out the "patient satisfaction" questionnaires
- Prepare and carry out the "staff-satisfaction" questionnaires

Results

- Guideline for implementation of new procedures in the day surgery unit
- An example from "patient-satisfaction" questionnaires:
 - 91,3 % were satisfied with the treatment
 - 8,7% were partially satisfied

Conclusion

The staff has been positive and the implementation has worked to everyone's satisfaction. Our guideline has proved to be a useful tool. The patients have shown great satisfaction with their procedure as well as the general nursing care at the day surgery unit. The "staff-satisfaction" questionnaire has not been completed yet.

LOCAL ANESTHESIA IN INGUINAL HERNIA SURGERY AS A CONDITION FOR AMBULATORY SURGERY

Slobodan Jovanovic, Pejic V., Djordjevic M., Bojic T., Pavlovic A., Jovanovic B., Milojkovic B., *Center for Minimally Invasive Surgery, Clinical Centre Nis (Serbia)*

Objective: Specialized centers use local anesthesia in hernia surgery with concept of one day surgery. Local anesthesia represents standards in surgery of inguinal hernia. Objective of this study is presentation of local anesthesia technique in hernia surgery.

Methods: Administering combination of local anesthetics we active anesthesia of ilioinguinal, iliohipogastric, genitofemoral and outer femoral cutaneous nerve. Anesthetic is given gradually and until circular administration of anesthetic around hernia sack before resection. In period from 2005. until 2008. year (period of four years) we operated 584 patients in local anesthesia, 555 patients (95%) with inguinal hernia, 507 male and 77 female patients. All patients were treated with one of tension free techniques (Lichtenstein or Trabucco). All patients had antibiotic prophylaxis (Cephasolin 2.0g I.V.). We analyzed: operating time, intraoperative and postoperative complications, hospitalization period and time patients need to return to normal activities.

Results: Good anesthesia of skin, subcutaneous tissue and all four nerves,

provides safe condition for operating aware patients. Possibility to perform a “cough” test for verifying adequacy of hernia repair, gives comfort to surgeon and patient. The age of patients ranged from 28 years to 76 years. Average operating time was 35 minutes (from 25 minutes to 65 minutes). There wasn't any intraoperative complications. Postoperatively we had three hematomas and five seromas, which were treated conservatively. All patients were dismissed same or next day. All patients got back to normal activities in seven days (5-7 days).

Conclusions: Reasons such as bad general state, age, bad cardiovascular function, liver disease, kidney failure, good intraoperative comfort of patients and surgeons, and minimal complications.

MAJOR AMBULATORY SURGERY – AN INITIAL EXPERIENCE OF A DEPARTMENT OF SURGERY

Andre Lázaro, A. Nour, F. Martinho, Department of Surgery 2 - Coimbra's University Hospital (Portugal)

Introduction:

The authors present the initial experience of a department of surgery in major ambulatory procedures like hemithyroidectomy or laparoscopic cholecystectomy.

Material and methods:

13 patients operated on from April to July 2008, 5 of them were submitted to laparoscopic cholecystectomy, the remainder, hemithyroidectomy. 3 were male, 10 female, aged from 31 to 57 years old, 5 ASA I; 8 ASA II. All of them lived within 60 minute's drive to the hospital. All had the first post-operative appointment within 1 month and 1 had the need for another appointment on the 3rd post operative month for medication reassessment.

Results:

All were discharged within less than 24h of admittance. There were complications in 6 patients: post-operative pain (1); nausea and vomiting (1); dysphonia (1); odynophagia (1); urinary retention (1) and parasthesia (1). All of the patients had the need for postoperative ambulatory care in relation to the wound dressings.

Conclusions:

All were completely satisfied with the procedure and the shortened stay at the hospital. Even though this was an initial experience, the results lead to the conclusion that these procedures are feasible in an ambulatory surgery setting, given that the adequate criteria are maintained.

LOW-DOSAGE REMIFENTANIL INFUSION FOR AWAKE CYSTOSCOPY WITH BOTOX BLADDER INJECTION. A QUALITY CONTROL PROJECT

Annemarie Liljegren, P. Opstrup, T. Hasselriis, K. Dinesen, J. Engbaek and J. Nielsen, Day Surgery Unit, Herlev University Hospital, Copenhagen (Denmark)

We validated the quality of low-dosage remifentanil infusion in 15 awake women receiving botox injections for bladder dysfunction.

Methods The patients received no premedication. Sedation was induced by remifentanil 50µg/ml, 0.2 ml/kg/h, until effect and then adjusted as needed. Patients received nasal oxygen, 2 l/min, and were monitored with pulseoximetry, BP, ECG and respiration frequency. Postoperatively, only patients unable to walk from the OR to the RR were monitored with pulseoximetry and BP for 10 minutes. Monitoring for more than 10 minutes was documented.

The patients were discharged when the standard discharge criteria were fulfilled, and they were allowed to stay at home without adult company. At discharge patient received a questionnaire to fill out at home.

The day after operation all patients received a phone call as a quality check, and to ensure the data from the questionnaire.

Results Time from arrival in the OR to: start of infusion was 6 min, to start of operation 13 min, and to end of operation 20 min. The patients were ready to leave the OR 26 min after arrival. Nine patients were able to walk to the RR. Four patients were monitored in the RR for 20-85 min. The patients were ready to discharge after 64 (26-144) min. Two patients received PONV prophylaxis. Perioperative side effects were dizziness (40%) and PONV (27%).

20% experienced PONV at home. One patient of five being alone at home after discharge felt insecure. 93% preferred similar sedation for the next bladder injection.

Conclusion. Low-dosage remifentanil infusion is suitable for awake botox bladder injection. Recovery and discharge are fast but PONV side effects indicate that PONV prophylaxis is necessary.

BREAST CANCER SURGERY: FACTORS INFLUENCING POSTOPERATIVE HOSPITAL STAY IN WEST OF SCOTLAND

Sekhar Marla, D.C. McMillan, P.G. Horgan, S. Stallard, University of Glasgow, Glasgow (United Kingdom)

Introduction: Breast Cancer surgery is currently provided mainly in the inpatient setting but would be potentially suitable for 23-hr care. We analysed factors that determine the length of postoperative hospital stay (LOPS) after Breast Cancer surgery in Glasgow.

Methods: The LOPS of all Breast Cancer patients admitted at 4 hospitals catering to screen detected and symptomatic Breast Cancer patients were recorded over a 6-12 month period. LOPS was categorised into 3 groups (day surgery, 23-hr and >1 day stay). Factors analysed included: Age of patient (<60 or >60 years), Mode of presentation (Screen Detected or Symptomatic), Procedure performed (Breast Conserving Surgery or Mastectomy), Base Hospital, Distance of patient's home from hospital (<10, 11-20, 20-50 and >50 miles) and Deprivation category (Depcat, Carstairs Index). Statistical tests were carried out using SPSS version 15.0.

Results: 489 Breast Cancer patients admitted for surgery over the study period. On univariate analysis, Age of patient (p<0.001), Mode of referral (p<0.001), Procedure performed (p<0.001), Base Hospital (p<0.001) and Deprivation category (p=0.033) were significantly associated with LOPS.

On multivariate logistic regression analysis, Age (p=0.03), Mode of referral (p=0.003) and Procedure performed (p<0.001) were found to be independently significant in determining LOPS >1 day.

Conclusions: Age, mode of referral and procedure are independently associated with length of postoperative hospital stay after Breast Cancer surgery.

The extent of deprivation, choice of base hospital or the distance of patient's home from the hospital were not associated with length of postoperative hospital stay.

Therefore, 23-hr care may be provided to selected Breast Cancer patients, irrespective of their deprivation status and distance from base hospital.

AMBULATORY VACUUM DRESSINGS VERSUS NONMECHANICAL AMBULATORY TOPICAL NEGATIVE PRESSURE DRESSING FOR LOWER LEG SPLIT THICKNESS SKIN GRAFTS: A BLINDED RANDOMISED CONTROLLED TRIAL

Ben McArdle, L. Stradwick, C. Frank, Gold Coast Hospital, Queensland (Australia)

Purpose: To show that ambulatory non-mechanical negative pressure dressing results in equivalent graft take and survival compared with commercially available mechanical vacuum dressings.

Materials and Methods: Twenty-four patients, both males and female, between 18 and 90 years of age in the Australian population requiring skin grafting of the lower limb from July 2008 were randomised consecutively into commercially available vacuum assisted ambulatory dressing group using KCI Freedom VAC [VAC group] and non-mechanical topical negative pressure dressing group using 14 gauge Belovac drain [Belovac group]. All patients were discharged on the same day of surgery and brought in for review at 5 or 6 days post-operatively. Both groups were otherwise treated equally in all other facets of care. The dressings remained intact until outpatient review. A photo of the graft was taken upon removal of the dressing. Graft take/survival was measured from these photographs by an experienced plastic surgeon who was blinded to treatment group.

Results: Graft take was found to be equivalent in both groups. All twelve patients in the VAC group were judged to have 100% graft take at five/six days post-op. In the Belovac group all twelve were judged to have 100% graft take at 5/6 days. The cost for VAC group was \$AUD413.50/478.50 [5/6 days] compared to \$AUD55.93 for the Belovac dressing group.

Conclusion: We conclude that non-mechanical topical negative pressure dressings are equally effective as commercially available VAC dressings for the treatment of lower limb skin grafts. We recommend that non-mechanical topical negative pressure dressing is an acceptable, cheap and safe alternative to commercially available dressings for day surgery patient

DAY-CASE LAPAROSCOPIC CHOLECYSTECTOMY-SETTING UP AND DELIVERY OF A HIGH QUALITY SERVICE

Shrotri Milind, A.A. Al-Sarira, University Hospital Aintree, Liverpool (United Kingdom)

Aim: A prospective study was carried out to assess how to set up and deliver a day-case laparoscopic cholecystectomy (LC) service.

Method: A multidisciplinary team was set up involving a surgeon, anaesthetist, ward staff nurse, pre-operative staff nurse and managers. A nurse-lead discharge discharged the patients 4-6 hours after surgery with a standard analgesia pack, a contact number for advice and open access planned ward attendance for resolution of post surgery problems. Also a nurse-lead telephone follow up was practiced 4 weeks post surgery.

Results: 312 patients underwent elective daycase LC over 4.5-year period (2004-2009). The median age of this group was 45 years (range 17-79 years), and male/female ratio was 1:8. Most patients were ASA 1 (70%). True day-case service was successful in 246 patients (78.8%). Reasons for delayed discharge included social reasons (60.7%), pain (21.2%), sedation problems (7.6%), bleeding (3%), nausea (3%), low blood pressure (3%) and uncontrolled blood sugar level (1.5%). There was no mortality or conversion. A total of 28 patients (9%) attended the accident and emergency unit or the ward with 14 patients (4.5%) readmitted. The overall postoperative morbidity rate was 7.7%, which included port site bleeding (1 patient), port site infection treated with

antibiotic (13 patients), port site abscess required incision and drainage (6 patients) and chest pain (1 patient).

Conclusion: A high quality day-case LC service can deliver a safe good practice to selected patients by using a multidisciplinary approach to set it up and maintain it.

Key words: Cholecystitis, cholecystectomy, ambulatory, laparoscopy

PREDICTIVE FACTORS OF A PROLONGED HOSPITAL STAY IN AMBULATORY LAPAROSCOPIC CHOLECYSTECTOMY

Adrian Murillo Zolezzi, R.C. Velasco, O.R. Diaz, The American British Cowdray Medical Center I.A.P. (Mexico)

Introduction: The ambulatory laparoscopic cholecystectomy has led to a reduction in associated hospital costs and vacates hospital beds. This fact is important in a medical health care system in which public hospitals are overcrowded.

Objective: To present a series of 67 cases of ambulatory laparoscopic cholecystectomy performed in the Ambulatory Surgical Suite of the hospital 1st of October in Mexico City during the period of Aug 2005-Jan 2008, and to analyze diverse pre operative and operative variables and determine their association with a prolonged hospital stay.

Patients and Methods: Patients with chronic cholecystitis, without choledocolithiasis, ASA I or II, body mass index less than 40kg/m², with controlled chronic medical conditions who were operated on with the intention of being discharged 8 hours post operatively as part of the ambulatory surgical program were included. Each patient had standard pre operative lab work and hepatobiliary ultrasound. The t Student test was used for statistical analysis utilizing each variable as an independent variable.

Results: 67 patients were included, 54 were discharged within 8 hrs of the procedure, 11 required a prolonged stay (>8hrs), 2 were hospitalized. The total bilirubin, direct bilirubin, alkaline phosphatase, and diameter of the common bile duct were not predictors of a prolonged stay (p>0.05). A higher leucocyte count and prolonged operative time were predictive of a prolonged hospital stay (p<0.05).

Conclusions: Ambulatory laparoscopic cholecystectomy is a safe procedure. According to our results an elevated leucocyte count on pre operative laboratories should be used as an exclusion criterion for an ambulatory program, and a prolonged operative time should alert the surgeon that such patients are more prone to have post operative complications which delay discharge.

ROBOT ASSISTED DAYCASE LAPAROSCOPIC SURGERY – A MOVE TOWARDS SOLO SURGERY

Michael Powar, P. Lung, M.C. Parker, Department of General Surgery, Darent Valley Hospital, Dartford, Kent (United Kingdom)

Background Surrogacy of control of the visual field during laparoscopic surgery to a human assistant who manoeuvres the camera can result in distortion of observations and disruption of hand eye co-ordination. Novel robot camera positioning devices have been developed allowing the surgeon to regain direct control of camera operation and liberating valuable personnel for other duties. This study assesses the feasibility of using EndoAssist in the day surgery setting for the laparoscopic repair of inguinal hernia.

Methods Twenty consecutive patients underwent laparoscopic daycase inguinal hernia repair using EndoAssist (n=10) or a human assistant (n=10) to operate the camera. Demographic data and operating

times were recorded, including robot set-up time. Data analyses were performed using a two-tailed Students t-test.

Results There was no statistically significant difference in the overall mean operating times of the EndoAssist and Human Assistant groups (73 v 76 minutes $p=0.71$). Furthermore, data for robot-assisted operations included 'learning curve' cases and robot set-up time. There were no complications and all patients were discharged home the same day.

Conclusion Laparoscopic inguinal hernia repair using the EndoAssist robotic camera positioning device is feasible and can be performed safely in a day case setting. This is not associated with lengthening of the operating time and may indeed free up valuable personnel for more productive duties appropriate to their training.

ELECTRONIC MEDICAL RECORDS

Elizabeth A. Rankin, Canossa Day Surgery Centre (Australia) Case Study on the benefits of implementing Electronic Medical Records at the Canossa Day Surgery Centre

With the requirements to keep medical records for 10 years after a minor turns 18 years of age, paper based medical records result in higher overhead costs to day surgery facilities:

- Extra leasing costs for the storage of records on site
- Extra rental costs for the storage of records off site
- Administrative costs in compiling charts for use
- Administrative costs in filing and retrieving charts

Traditionally clinicians and nursing staff have been reluctant to wholly embrace electronic technology and its implementation has been problematic.

Therefore, the decision was made to use a hybrid system which allowed people to hold onto a paper record for recording the aspects of the episode of care and reduced the costs and time associated with a paper based system.

The Surgeons rooms give patients the preadmission form, health assessment form and the consent form. On admission the forms for the medical record are printed with the patient's demographics. Information is recorded manually in the medical record during the episode of care. Following discharge the medical record is scanned, verified and then shredded.

The medical record is viewed or printed from a Clinical Desktop that provides personalised views with great flexibility in grouping, ordering, and filtering of content.

Benefits of the system are:

- Efficiency Gains
- Quality Assurance
- Use Paper or Electronic Medical Records
- Greater staff satisfaction

THEATRE COSTING

Elizabeth A. Rankin, Canossa Day Surgery Centre (Australia)

Inventory costs are typically the largest expense after staffing costs in any day surgery. In today's climate of stagnate health fund contracts and rising costs day surgeries need to look at effective ways of managing costs.

This paper looks at the use of inventory automation to:

- Analyse your purchase history
- Usage patterns
- Delivery patterns

- Supplier performance and reliability
- Manage back orders
- Reducing duplicate products
- Reorder points and maximum stock levels

Your inventory is in constant motion, in which the supplies delivered on Monday are used that same week rather than tying up money and taking up space on a shelf for who-knows-how-long. Our facility is using an automated system which flows from:

- the bookings in the patient administration system
- to the surgeon's preference card for that procedure
- to the stock on hand and on order
- to the pick list for the procedure
- to the tally sheet for the consumables and equipment for the procedure
- to the scanner which reads the tally sheets
- to the analysis cube which analyses the revenue for the procedure with the costs associated with the procedure

DAY CARE SURGERY IN INDIA: A SAMPLE STUDY

Naresh Row, J. Wani, S. P. Dande, R. Wani, T. S. Row, P. G. Dande, One Day Surgery Centre - Babulnath Hospital, Maharashtra (India)

Aim: Presenting a retrospective analysis of 1786 surgical cases, performed as Day Case, of two dedicated Day Surgery Centre, in Mumbai-a metropolitan city, and in a rural hospital, situated in the centre of India. Project was to introduce Day Surgery in a smaller town and assess its acceptance.

Introduction: Day Care Surgery, as it is popularly known in India, is in fact, not so popular. Except Ophthalmology and ENT surgeries, most of the specialities perform minor and OPD procedures as Day Case.

Material: Data collected from April 2007 to February 2009, were analysed retrospectively, of different specialities, performed purely as a Day-case: Gynaecology: 350, General Surgery: 1054, Ophthalm.: 110, Plastic Surgery: 116, ENT: 24, Ortho./Urology/ others: 132. Mean average hospital stay was 6 hours.

Method: Both centres are ISO 9001-2000 compliant, created specifically for Day Surgery. Case selection and criteria for patient preparation and discharge were followed as per recommendation of The Indian Association of Day Surgery. Pre-operative counselling was performed during the first consultation. The discharge process was strictly monitored and criteria are followed. Complications were explained to the patient along with post procedure instructions. Readmissions were carefully noted.

Conclusion: There is a better acceptance in the Metropolitan city of Mumbai, to Day Surgery, with more willingness to go home on the same day of the procedure. Though the number of patients accepting Day Care Surgery in rural India is few, it is slowly being accepted. Marketing and meticulous implementation of Protocols as a safeguard, providing a high standard of patient care, eventually will lead to acceptance increasing acceptance.

DIABETIC FOOT AS DAY CASE

Naresh Row, R. J. Wani, P. G. Dande, One Day Surgery Centre - Babulnath Hospital, Maharashtra (India)

Presenting a retrospective analysis of 65 Diabetic foot cases.

Diabetic foot is a disease which invariably lands up in a limb amputation. To save a limb, it requires time, money and patience. It is the passion of a surgeon that enables him to save a diabetic gangrenous limb.



Material: Data collected from May 2007 to February 2009, were analysed retrospectively, out of the 65 patients of diabetic gangrene of different stages and patients requiring secondary suturing and skin grafting, there were 27 patients hospitalised and 38 treated as Day Case. Out of which, 7 patients required secondary suturing and 6 patients underwent skin grafting.

Method: It was understood that the patients presenting with diabetic foot have long standing medical ailments other than Diabetes Mellitus, like hypertension and IHD. Associated sequel to DM like severe paraesthesia and compromised vascularity, works to our advantage in these patients. The centre works on Manuals and Standard Operative created specifically for Day Surgery and are ISO 9001-2000 compliant. Complications were explained to the patients along with post procedure instructions. Regular follow up was recommended. Patients were managed by physician-diabetologist, and among other parameters, blood sugar levels were kept under control.

Conclusion: No readmissions were observed so far in these patients, some of them with almost 1 year of follow-up, have been free from any further progression of disease. More follow-up studies and number of cases have to be undertaken. With the little data that we have, we now can say that, proper case selection can afford us to treat Diabetic foot as Day Case.

ANNUAL REPORTS – ARE THEY USEFUL – AND FOR WHOM?

Anita Sarensen, Day Surgery Unit, Herning, Regional Hospital West, Jutland (Denmark)

Background

The day surgery unit at Herning Hospital started in 2001 with a planned activity of 2,500 elective patients for orthopedic, surgical and gynaecological operations and 2,500 patients for endoscopic procedures.

With the aim to monitor the activity, we decided to write an annual report for 2001. The yearly report has since then developed into a strategic tool containing:

- the activity
- the absence rate
- the cancellation rate
- the conversions to stationary admission
- the patient safety cases.

Economical data are included in the Anaesthesia Department's annual report and are not monitored separately and not included in our report. The data, concerning the data of activity, are collected through the national patient register.

We register absence, cancellations, and conversions to stationary admission manually every month.

The annual reports have been useful because

- they show the profile of the unit and the hospital
- they ease recruitment of new personnel
- they set focus on the work environment
- they visualise whether the planned goals were achieved or not
- the development for the coming year can be deduced from the reports.

Results

An example from the report 2007 shows that the absence rate is 4.4 (0.7-7.5) per cent.

Conclusion

Development measurements:

We have focused on pre-information, via mobile text messages, in order to

notify the patients before their appointments to reduce the absence rate.

The annual reports can be found at www.sundhed.dk

A META-ANALYSIS LOOKING AT SKIN ADHESIVES VERSUS SUTURES IN THE CLOSURE OF LAPAROSCOPIC PORT SITE WOUNDS

Muhammed Siddiqui, M.S. Sajid, K. Khatri, M.K. Baig, Worthing Hospital (United Kingdom)

Objective: The objective of this study is to analyze the effectiveness of skin adhesives and sutures in the closure of laparoscopic port site wounds.

Methods: A systematic review of the literature was undertaken to search randomized controlled clinical trials on laparoscopic procedures where glue and sutures were compared to close the port site wounds. These trials were selected according to inclusion criteria and combined to generate summative outcome by using a valid statistical software.

Results: Seven trials on the port site wound closure after laparoscopic procedures encompassing 902 patients were retrieved from the electronic databases. Four randomized controlled trials on 404 patients qualified for the review according to inclusion criteria. In both the fixed and random effects models, there was no difference between both port site wound closure techniques in terms of wound infection, wound dehiscence and patient satisfaction. However, statistically tissue adhesives were quicker in port site wound closure as compared to sutures.

Conclusions: Based on this review, there is insufficient evidence that port site wound closure technique by tissue adhesives has superiority over the traditional suture closure technique in terms of wound infection, wound dehiscence and patient satisfaction. However, tissue adhesives are quicker in port site wound closure making it ideal for the day case surgery setting.

Disclosures: Due for publication in Surgical Endoscopy as a full manuscript

DAY STAY LAPAROSCOPIC CHOLECYSTECTOMY

Alison Stewart, E.J. Grant, Ashburton Hospital, Canterbury (New Zealand)

Day Stay Laparoscopic Cholecystectomy is an accepted practise in many hospitals world wide. In February 2006 Ashburton Hospital commenced Laparoscopic Cholecystectomy as a planned day stay procedure and has been successful in maintaining high rates of day stay discharges. Canterbury Health statistics report there has been a steady improvement in day stay discharges for cholecystectomy, 21% initially to 58% currently. This poster presents key components of this success.

Ashburton Hospital (NZ) is a rural general hospital approximately 80 minutes from the nearest tertiary centre. Patients are referred from throughout the Canterbury province.

Success requires appropriate patient selection by a multidisciplinary team of Surgeon, Anaesthetist and Registered Nurse. A preoperative clinic provides initial relevant patient education, assessment of the American Society of Anaesthesiologists (ASA) Status, medical co-morbidities and discharge support.

An explanation of the "Day Stay Journey" and discharge criteria is given to patients and their "Carers" on admission to the unit. Intraoperative management, including attention to multi-model pain management to minimise opiate medication, postoperative nausea and vomiting and gas evacuation ensure early mobilisation and normal oral intake are achievable. Postoperative nursing care is based on monitoring for complications and enabling independence in preparation for discharge into the community.

Reasons for failed day stay include pain, nausea and vomiting and surgery scheduled on afternoon theatre lists. Patients welcome the opportunity for day stay Laparoscopic Cholecystectomy and this is now a routine practice in our surgical unit.

THE INCIDENCE AND SEVERITY OF POSTOPERATIVE PAIN FOLLOWING SURGERY IN A REGIONAL AUSTRALIAN DAY SURGERY CENTRE

Vanessa M. Ward, M.V. Tuck, Anaesthetic Group Ballarat (Australia)

The aim of this study was to ascertain the degree and duration of postoperative pain experienced by patients, following ambulatory surgery in a stand alone day procedure centre. Method: Two hundred and ninety patients who underwent daycase surgery were included in our study. They were telephoned at 24 hours and pain intensity was determined using the ten-point self assessing verbal scale (0 = no pain, 10 = worst pain). Data were analysed in two groups, those with no or mild pain (0-3) and those with moderate to severe pain (pain score 4-10). Patients with moderate or severe pain were also telephoned at 72 hours for reassessment.

Results: Thirty four percent of patients had moderate to severe pain. The excision of skin lesions, knee surgery, oocyte pickups, dental extractions and bone marrow biopsies were the procedures identified by the patients as causing the most pain at 24 hours.

Discussion: A significant number of patients experience moderate or severe pain after day surgery. The most painful procedures were identified, providing an opportunity to review how patient's postoperative analgesic requirements were determined and prescribed.

Ambulatory Surgery is the official clinical journal for the International Association for Ambulatory Surgery.

Ambulatory Surgery provides a multidisciplinary international forum for all health care professionals involved in day care surgery. The editors welcome reviews, original articles, case reports, short communications and letters relating to the practice and management of ambulatory surgery. Topics covered include basic and clinical research, surgery, anaesthesia, nursing; administrative issues, facility development, management, policy issues, reimbursement; perioperative care, patient and procedure selection, discharge criteria, home care. The journal also publishes book reviews and a calendar of forthcoming events.

Submission of Articles

All papers should be submitted by e-mail as a Word document to one of the Editors-in-Chief. Anaesthetic papers should be sent to **Beverly K. Philip** and surgical papers to **Paul E.M. Jarrett**. Nursing, management and general papers may be sent to either Editor.

Electronic submissions should be accompanied, on a separate page, by a declaration naming the paper and its authors, that the paper has not been published or submitted for consideration for publication elsewhere. The same declaration signed by all the authors must also be posted to the appropriate Editor-in-Chief.

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