

Abstract Book

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State of the Art and Future Possibilities

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Monday 9 May 2011 at 0900 - 1030

OP **Opening**
OP **131.00**

Nicoll lecture: Clinical Research in Ambulatory Anesthesia and Surgery - Why even bother?

Paul F White (1)

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At the turn of the 20th century, a pioneering pediatric surgeon, James H. Nicoll reported on a series of 8,988 infants and children operated on as day-cases at the Glasgow Royal Hospital for Sick Children over a 10-year period (1). More than 100 years later, ambulatory (formerly referred to as day-case or outpatient) surgery is now considered the preferred approach not only for the majority of elective surgical procedures in children, but also for adults. Recent studies suggest that even the elderly (> 65 years) and geriatric (> 80 years) surgical populations can benefit from ambulatory (vs. inpatient) surgery (2).

In 1997, WB Saunders Co. Ltd published my textbook *Ambulatory Anesthesia & Surgery* (3), and I discussed the various 'controversies' that existed at that time. Specifically, (1) criteria for selection of patients and procedures for the ambulatory setting; (2) routine 'screening' laboratory testing procedures, (3) NPO status - what is the minimum fasting interval for clear liquids and solids, (4) preoperative administration of chronic medication, (5) need for routine aspiration prophylaxis, (6) what are the most 'cost-effective' anesthetic techniques - local-regional/peripheral nerve blocks vs. spinal/epidural vs. general anesthesia, (7) choice of airway device - face mask vs. supra-glottic vs. tracheal tube, (8) drug and device 'wastage' and the handling of multi-dose vials and disposable vs. reusable airway devices, (9) role of opioid vs. non-opioid analgesics for the prevention of postoperative pain, (10) antiemetic prophylaxis vs. treatment of outpatients at risk for PONV, (11) techniques for facilitating recovery and PACU bypass ('fast-tracking'), (12) criteria for determining home readiness (ambulatory capability, voiding, oral intake), and (13) post-discharge ('after care') following ambulatory surgery at risk populations.

As a result of the work of dedicated clinical investigators from around the world, most of these controversies have now been resolved. Therefore, one might question if there is still a need for continuing to perform clinical investigations related to ambulatory anesthesia and surgery. What issues, if any, remain to be investigated in the future?

As suggested in the conclusions of the chapter in the textbook on *Ambulatory Anesthesia & Surgery - Past, Present and Future*, future research efforts should focus on value-based outpatient care and in improving both short and long-term outcomes. Only by challenging the unproven dogma which still exists regarding the routine management of outpatients undergoing ambulatory surgery procedures will we advance current practices in the future. By maximizing use of minimally-invasive technology, more complex surgical procedures can be performed in the ambulatory setting. By reducing postoperative complications related to surgery (and anesthesia), we can also improve patient care and reduce the cost of healthcare to society-at-large. Currently wasteful practices mandated by regulatory agencies in the most affluent countries have driven up the cost of ambulatory surgical care without any evidence of improvement in patient outcomes.

Finally, as more high-risk patients (e.g., elderly patients with poorly-controlled co-existing medical conditions) undergo surgical procedures on an ambulatory basis, it will become increasingly important for them to receive effective 'aftercare' in their home or assisted living facility.

References: 1.) Nicoll JH. The surgery of infancy. *Br Med J* 1909; 2: 753-6. 2.) White PF, White LM, Monk T, Raeder J, Jakobssen J, et. al. Perioperative care for the older outpatient undergoing ambulatory surgery. *Anesth Analg* 2011 (May) 3.) White PF. *Ambulatory Anesthesia and Surgery - Past, Present and Future* (Chapter 1). *Ambulatory Anesthesia & Surgery*, WB Saunders Co. Ltd., 1997, pp.1-34. 4.) White PF, Kehlet H, Neal JM, Schrickler T, Carr DB, Carli F, Fast-track Surgery Study Group: The expanding role of anesthesiology in fast-track surgery: from multimodal analgesia to perioperative medical care. *Anesth Analg* 2007; 104: 1380-96



Monday 9 May 2011 at 1100 - 1230

PS01 The patient at Risk I

PS01.01 54.00 Should Routine Thrombo-prophylaxis be used in Patients undergoing Day surgery?

Ian Jackson (1)

(1) York Teaching Hospital NHS Foundation Trust, United Kingdom

The evidence about the incidence of postoperative thromboembolic events will be reviewed and the significance of this to ambulatory surgery considered. Current guidelines for the assessment of risk in individual patients and indications for the use of thromboprophylaxis will be reviewed concentrating on the recent guidelines produced in the UK by the National Institute for Health and Clinical excellence.

PS01.02 101.00 Is there a risk of operating patients with coronary stents as day cases?

Maria Janecskó (1)

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Objectives: the challenge of providing anaesthesia for longer and more complex day surgery in sicker and elderly patients is a reality. However day surgery must be as safe and the same quality as inpatient surgery. More than 2 million patients undergo coronary dilatation per year, and more than 90% of these angioplasties involve the placement of intracoronary stents. About 5% of patients who have undergone coronary stent placement will require noncardiac surgery within the first year after stenting. Patients with coronary stent - appropriate candidate for day surgery?.

Patients and methods. Preoperative evaluation of patient with coronary stent before noncardiac surgery. Important to know: type of the stent, age of the stent, number of stents, type of surgery, co-existing diseases, antiplatelet therapy Recommendation for timing of noncardiac surgery after PCI Balloon angioplasty minimum 14 days Bare-metal stent minimum 6 weeks, optimal >3 month Drug-eluting stent >=12 month Aspirin should be continued! Bleeding risk: minor bleeding related to use of aspirin was reported in many studies but major bleeding only rarely. Adding clopidogrel to aspirin increases the relative risk of bleeding. Stent thrombosis: even beyond 12 month, reports of late stent thrombosis suggest that at least one antiplatelet agent should be continued perioperatively.

Conclusion. Cardiologists, anaesthesiologists and surgeons have to plot the risk of thrombosis against the risk of bleeding. Day-case or short-stay surgery, in-hospital or free-standing day surgery center for patients with coronary stent? Priority: patient safety, because stopping aspirin and/or clopidogrel could be a life-threatening decision.



PS01.03 19.00 **Can perioperative bleeding and coagulation problems be assessed by bedside tests?**

Sibylle Kozek-Langenecker (1)

(1) Evangelical Hospital Vienna, Austria

Bleeding can be anticipated preoperatively if the patient's bleeding history is positive. The use of a standardized questionnaire is recommended. A positive bleeding history triggers laboratory analyses in order to diagnose coagulopathy and optimize the patient before surgery. Overt intraoperative bleeding can be detected by visual inspection of the patient and the surgical field. In ambulatory surgery, postoperative bleeding must be avoided because when uncontrolled by the clinicians it may worsen surgical outcome. Overt bleeding may be either surgical or haemostaseological in origin and rapidly available tests are required for differential diagnosis. Bedside tests permit fast laboratory monitoring near the patient in the operating room or emergency room. The variety of coagulation parameters which can be assessed at the bedside is steadily increasing. Hand-held devices for the assessment of prothrombin time (PT) and activated partial thromboplastin time (aPTT) in whole blood have been developed but have major limitations in the perioperative scenario: pathophysiology of coagulation problems cannot be differentiated by such routine coagulation parameters. Hyperfibrinolysis, impaired clot strength and/or prolonged thrombin generation are common problems leading to increased perioperative bleeding. Correction of these problems is possible with the use of procoagulant agents and interventions available to date. "If you don't measure it, you can't manage it!" Bedside tests based on the principle of changes in viscoelasticity of blood during clotting and lysis permit the assessment of clinically relevant coagulation problems and targeting management. Among these tests, rotational thrombelastometry (ROTEM) with its test modifications has proven to be cost-effective and practicable.

PS02 **News in local/regional Anesthesia**

PS02.01 72.00 **Local infiltration analgesia (LIA): Preventing pain at the origin**

Ulrich J Spreng (1)

(1) Oslo University Hospital, Norway

Infiltration of local anaesthetics into and around surgical wounds can prevent postoperative pain, both due to reduced pain nerve transmission and suppression of local inflammatory responses from the injury. The LIA concept (Local Infiltration Analgesia) is characterized by the use of a high volume of local anaesthetics with a low concentration. Epinephrine, NSAIDs and opioids can be added to the LIA mixture, supposed to have additive analgesic effects. Local infiltration analgesia has shown efficacy in many areas of surgery (e.g. orthopaedics, gynaecology, abdominal and cardiothoracic surgery). LIA is consistently more effective in the treatment of postoperative pain after total knee arthroplasty, when compared to placebo, epidural analgesia or femoral nerve block. In patients undergoing hip arthroplasty, LIA has shown a better analgesic effect compared to epidural analgesia. However, the LIA technique is not standardized and different approaches have been used in the literature. It is unclear which injection volumes should be used, where the injections should be placed and which role the adjuvants play. The LIA technique is simple and cost effective, taking into account that the length of hospital stay can be shortened. Moreover, the LIA technique seems to be safe. The risk of systemic toxicity of local anaesthetic for widespread infiltration is low, although direct tissue toxicity (i.e. cartilage, wound healing) needs further exploration. Moreover, it is discussed if LIA can be associated with an increased risk for infections. Large-scale studies as well as data analysis from national registries are needed to solve these issues in the future.



PS02.02 71.00 Ultrasound imaging for regional anesthesia: Better results and more fun?

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Injecting local anesthetics close to a peripheral nerve can provide temporary pain control within the sensory area of the nerve. Such peripheral nerve blocks are therefore suitable as anesthesia for some surgical procedures and pain treatment. Peripheral nerve blocks can be used in combination with general anesthesia or as the sole anesthetic technique. A prolonged analgetic effect of peripheral blocks after surgery will reduce the consumption of opioids in the postoperative period. The reduced incidence of systemic side effects like respiratory depression, nausea and vomiting, and possibly less cognitive dysfunction, allow faster discharge readiness of the patients. Landmark techniques, eliciting paresthesia and electrical nerve stimulation have traditionally been used to perform peripheral nerve blocks. Eventually, ultrasound technology was used for identification of the pertinent anatomy of peripheral blocks. Ultrasound can be used to identify nerves as well as the surrounding anatomy. The injection needle can be advanced under real-time visualization towards the peripheral nerves. Ultrasound visualization of the local anesthetic spread surrounding the nerves may predict successful peripheral blocks. Thus ultrasound guidance can be suitable for decreasing the total volume dosage of local anesthetics, reducing the time consumption and improving the outcome. Complications like unintentional vessel puncture may be avoided when both the needle-tip and anatomical structures are observed by ultrasound. In an ambulatory setting ultrasound can be considered highly cost-effective compare to nerve stimulation. The availability of portable ultrasound equipment, decreasing costs and an improved image quality contribute to the increasing popularity of this technique.

PS02.03 130.00 When it really hurts after ambulatory surgery

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In an effort to minimize the adverse effects of opioid analgesic s after ambulatory surgery procedures, 'balanced' (or multi-modal) analgesic techniques involving the use of smaller doses of opioids in combination with non-opioid analgesic drugs (e.g., local anesthetics and non-steroidal antiinflammatory drugs [NSAIDs]) are becoming increasingly popular approaches during and after ambulatory surgery (1-3). The beneficial role of multi-modal analgesia for ambulatory surgery was originally described in younger outpatients undergoing gynecological surgery and cholecystectomy procedures . These early clinical studies documented the benefits of local infiltration at the surgical site in combination with systemic non-steroidal anti-inflammatory drugs (NSAIDs) for improving recovery. A recent multi-modal analgesia study (4) by my research group described additional beneficial effects on recovery after ambulatory surgery by extending the use of ibuprofen or the more selective NSAID, celecoxib, into the post-discharge period.

The adjunctive administration of local anesthetics during both general anesthesia and MAC is a popular technique for day-case surgery. Inguinal hernia repair is a superficial surgical procedure that can be effectively managed with local infiltration anesthesia or a combination of local infiltration and a peripheral ilioinguinal-iliohypogastric nerve blocks. The clinical experience using wound infiltration for preventing postoperative pain is extensive and well-documented in the literature. Local anesthetic wound infiltration reduces analgesic consumption and time to first request for a 'rescue' analgesic after both general and spinal anesthesia. Local analgesia following the intra-articular injection of local anesthetics in conjunction to knee surgery is also well-established and supported by a both original clinical studies and meta-analyses. Recent studies have suggested that local infiltration at the portals is as effective as intra-articular administration and may reduce the risk of cartilage damage.

A variety of adjuncts to local anesthetics have been studied in order to improve and prolong the duration of local analgesia (e.g., sympathomimetics, alpha-2 agonists, opioids). The positive effects of adding epinehrine to prolong local analgesia have been known for many years. There is more limited evidence suggesting that intra-articular opioids improve control of pain following arthroscopy. However, adding a small amount of an opioid analgesic to a local anesthetic solution prolongs the duration of analgesia following central and peripheral blocks . However, opioid-related side effects (e.g., nausea, vomiting, pruritus, and urinary retention) are often increased. The combination of local anesthetic and low-dose clonidine also improves and prolongs the duration of analgesia, but may be associated with an increased risk of hypotension and sedation. In local infiltration analgesia, ketorolac



is commonly added to local anesthetics to improve the quality of postoperative analgesia and reduce local inflammation. However, no major difference was found between systemic and local administration was found in patients undergoing anorectal procedures. More recently, the addition of glucocorticoids steroids (e.g. methyl-prednisolone, dexamethasone) was also shown to provide beneficial effects in improving and prolong postoperative local analgesia.

There are several recent reports on the beneficial effects of local infiltration analgesia following hip and knee replacement surgery. This technique involves the peri-articular infiltration of a high volume low concentration local anesthetic solutions containing ketorolac and epinephrine. The use of continuous local wound infiltration and peri-neuronal catheter infusion techniques for postoperative pain management can prolong the local analgesic effects compared to a single injection. The widespread availability of less costly disposable catheters and drug reservoirs with elastomeric pumps has facilitated the usefulness of this technique in the ambulatory setting. These techniques are highly effective in outpatients undergoing painful orthopedic day-surgery procedures. A meta-analysis by Liu et al it identified the efficacy of continuous wound catheters with improved analgesia, reduced opioid use and side effects, and increased patient satisfaction. Peri-neural infusion of local anesthesia, so-called continuous peripheral nerve blocks (CPNBs), is also a growing trend as an alternative to peri- and intra-articular local anesthetic. Catheter placement guided by nerve stimulation or ultrasound has increased the safety and efficacy of catheter placement techniques. The risk associated with prolonged local anesthetic blocks (e.g., possible nerve damage, bleeding/hematoma and catheter infections) and the ability of outpatient to manage these systems at home remains a concern. The possibility of 'tele robotic ultra-sound guided blocks' may become an option for practitioners in remote hospitals with limited experience in performing nerve blocks.

Other novel intra-operative adjuvants include IV infusion of drugs as diverse as the beta-blocker esmolol, the alpha-2 agonist dexmedetomidine and increasingly lidocaine itself. Recent studies suggest highly beneficial postoperative effects from a simple perioperative IV infusion of lidocaine (1-1.5 mg/kg/h) in outpatients undergoing laparoscopic procedures. In a recent systematic review, lidocaine infusion was shown to have both intra- and postoperative beneficial effects, including a reduction in pain, faster resumption of bowel function and shorter hospital stay. One of the remaining unresolved issues related to potential deleterious of local anesthetics on wound healing and NSAIDs on bone healing.

References: 1. White PF, Kehlet H: Improving postoperative pain management: What are the unresolved issues. *Anesthesiology* 2010; 112: 220-5. 2. White PF. Anesthesia versus analgesia - Assessing the analgesic effects of anesthetic drugs. *Anesth Analg* 2010; 111: 88-9. 3. Elvir-Lazo OL, White PF: The role of multimodal analgesia in pain management after ambulatory surgery. *Curr Opin Anaesthesiol* 2010; 28:697-703. 4. White PF, Tang J, Wender RH, Zhao M, Time M, Zaentz A, Yumul R, Sloninsky A, Naruse R, Kariger R, Webb T, Fermelia DE, Tsushima GK. The effects of oral Ibuprofen and celecoxib in preventing pain, improving recovery outcomes and patient satisfaction after ambulatory surgery. *Anesth Analg*. 2011;112:323-9.



PS03 Aspects of inguinal hernias in Day Surgery

PS03.01 99.00 Open repair of inguinal hernias

Inge Glambek (1)

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Inguinal hernia is historically the first surgical challenge except for injuries, infections or cancer. At the end of the 19th century the surgeons Bassini, Halstead and Marcy all had their own methods, and new methods kept coming up. Still the recurrence rates reached 20 - 30 %. In 1945 Earle Shouldice in Toronto established his clinic and his method, and the results improved. In 1963 Irving Liechtenstein established his clinic in Los Angeles, introducing the tension free repair with a mesh. In 2006 Chastan in Bordeaux designed a self adherent mesh for the Liechtenstein technique needing no sutures. I have used this mesh since 2007, and I have recently showed that these patients have significantly less pain 1 ½ years after surgery, as compared to the sutured Liechtenstein repair. Use of the preperitoneal space for placement of the mesh was first introduced by Stoppa and Nyhus. The latest version of the preperitoneal mesh is Polysoft, a single layer light weight polypropylene mesh with a 'memory ring' allowing the mesh to unfold behind the muscles. Open repair is still the recommended method for primary hernias in Norway. As long as this is the case, it seems far more interesting to discuss which open repair to use. To me it is important to separate direct, medial hernias where I use Polysoft preperitoneal mesh, from lateral, indirect hernias where I use Parietex sutureless mesh. This presentation will go more thoroughly into this matter.

PS03.02 94.00 Open or laparoscopic inguinal hernia repair: A surgeon's preference?

JWA Oosterhuis (1), D de Jong (1)

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Open or laparoscopic (inguinal) hernia repair can both be done in day surgery with low rates of complications and recurrence. However, one single technique will not suffice for all patients. National guidelines on hernia repair are not very directive in indicating which of these techniques should preferably be used. Individual surgeons and surgical departments therefore often feel free to make their own choice in techniques. For patients, nursing staff and residents, for example, the reasoning behind these choices are not always clear. The objective of this talk is to show that, based on a couple of well-defined parameters, surgeons and surgical departments can make a clear, evidence-based, individualised choice in open or laparoscopic hernia repair.



PS03.03 13.00 The problem with pain after surgery for inguinal hernia repair.

Staffan Smeds (1)

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Patients have to be informed of risk for pain development after surgery. To meet this demand, pre- and postoperative self-reported pain has routinely been collected from > 1.000 patients during 2004-2008. These ordinal registry data have been analyzed against patient characteristics, time after surgery and nerve handling.

Method: Self-reported pain registration was performed in a 10-box VAS scale 2-4 w before and 3 months after the operation. Statistics by ordinal logistic regression and non-parametric analyses.

Results Patient related factors: There is no gender difference ($p=0,884$). There is a linear relation between increasing age and decreasing pain($p=0.003$). Preoperative pain correlates weakly with postoperative pain. High BMI correlates with increased postoperative pain ($p=0,008$) Time-related changes: At 3 mo, 60% of the patients report no pain (box 10). After two years, 20% of these patients report mild/moderate pain. Patients with mild/moderate pain at 3 mo (box 7-9) report less or no pain at two years. Patients with severe pain at 3 mo (box 1-6) will be improved but not without pain at two years. Nerve handling: Resection of nerves 'at risk' for interference with sutures (pro primo : N. Iliohypogastricus) in mesh repair, is related to less postoperative pain ($p= 0,007$).

Conclusion: Postoperative pain is a reflection of number of explanation variables that surgeons cannot control such as age, BMI, preoperative pain, sociocultural status in addition to factors under surgeons control, one of which is nerve handling.



FP01 Free Paper I

FP01.01 95.00 **Audit of day care anaesthesia at our centre over the last ten years**

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AIM: Audit of our anesthesia for day care surgeries at our centre over the last ten years METHODS: - Retrospective data collection of patients operated at our centre over the last ten years at our centre, we divided 12,306 patients according to the type of anesthesia given and to discharge taking into account the incidence of post operative complications during January 2000 to January 2011.

RESULTS: - 12306 patients were operated at our centre , 59.7% patients were operated under local with sedation, 32.7% were operated under local ,5% underwent short general anesthesia and 3% patients underwent general anesthesia. Incidence of postoperative complication was least with the local with sedation group as compared to the other groups.

CONCLUSION: - Daycare surgery is cost effective, quality approach to surgery that has expanded rapidly in recent years. Today, there is a continued trend to expand the indications for ambulatory surgery. We are constantly being confronted with the need for change in our clinical practice patterns in improved anesthetic techniques, better planning, patient education and enhanced ability to deliver adequate analgesia in the out patient setting. We therefore retrospectively analyzed our data over the last ten years in -12306 cases encompassing different modes of anesthesia. We found growing trends toward local sedation 59.7% with few postoperative complications in patients with patients in this group who successfully underwent surgery.

FP01.02 97.00 **Sugammadex usefulness in the ambulatory setting (ENT)**

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(2) Department Anesthesiology and Intensive Care, Hospital Universitario Salamanca, Spain

STUDY OBJECTIVES: Minor Laryngeal surgery is mostly performed in the ambulatory setting worldwide. Sugammadex is being reported to decrease significantly the average time taken to attain a TOF ratio of 0.9 in comparison with neostigmine after a NMB induced by rocuronium with no major adverse effects. The object of this study is therefore to evaluate the usefulness of the use of sugammadex for microsurgery in the ambulatory setting.

METHODOLOGY: We designed this randomized study where we have divided the 90 patients in two groups, one(40) with TIVA anaesthesia with propofol and the second one(50)with propofol-induced and sevoflurane- maintained anaesthesia, NMBA was rocuronium in both groups. The safety variables of sugammadex were evaluated as well as its potential effect on consciousness level using BIS monitoring. To evaluate OR efficiency, time to extubate the patient, to discharge the patient from the recovery area and to discharge the home was evaluated. A single bolus dose of sugammadex 2.0 or 4.0 mg/kg was administered depending on the TOF of the patients. The primary efficacy variable was a T4/T1 ratio to 0,9.

RESULTS: The first group mean time to recovery of the T4/T1 ratio to 0.9 was significantly shorter than the second group (P=0.041). There were no significant differences in both groups regarding time to discharge the patient from the recovery area and time to discharge the patient home.

CONCLUSIONS: Sugammadex offers new perspective in the ambulatory setting where rapid turnover is a must to follow, in order to optimize OR efficiency.



FP01.03 79.00 Arthroscopic lateral retinaculum release (ALRR), a new optional technique as a day surgery activity

Zsolt Knoll (1)

(1) *Budaörs Medical Centre, Hungary*

Objectives: between 2004 – 2008 82 lateral retinaculum release operation was performed. The evaluation of the data is established, with emphasize to complication. As a complication, we treated 5 cases for postoperative knee joint haemarthrosis, with puncture and lavage (second-look arthroscopy). After 2008, we performed this type of treatment in 16 cases, with no postoperative problems. Methods: after 2008, dicinone was given i.v. and the retinaculum was released with a vaporisator knife. Following these treatments the tourniquett was then released and with another vaporisator we coagulated the articular genicular artery, after it was divided. The remaining capillary vessels were then coagulated. This coagulation was carried out with a brush-like vaporisator. Results: no postoperative problem occurred, with no usage of intrarticular drain. Intraarticular haemorrhage did not occurred. The video presentation is attached. Conclusion: the high complication rate of haemorrhage following ALRR can be eliminated by the careful technique and usage of vaporisator coagulation.

FP01.04 90.00 Ambulatory laparoscopic cholecystectomy - dream or reality?

Lajos Barna Tóth (1)

(1) *Josa András County Hospital, Hungary*

Background: Laparoscopic cholecystectomy (LC) has became over the past two decades a gold standard procedure for treatment of symptomatic gallstones. In Hungary there are more than 20.000 laparoscopic procedures done annually. The experience gained during numerous procedures, the minimal number of complications of the disease enabled LC to be performed on ambulatory surgery, however, the legal regulation is still missing in Hungary. The aim of this study is to demonstrate how LC can be developed into the ambulant patient care.

Results: In addition to the outcome of LC is greatly influenced by right patient selection, pre-operative investigations, adequate anaesthesia and correct technique of surgery, ideal postoperative relief of pain - all of these can be the key of success that can provide aside patient safety care, a cost-affective, shorter hospital stay. Recently, the numbers of complications of the disease (e.g. abdominal organic injury, haemorrhage that forced to do conversion, injury of cystic duct) are minimal and conversion rating moves between 1-2%.

Conclusions: Usage of the 3 ports technique, omission of drainage caused major reduction of postoperative relief of pain, furthermore, even during performing procedure, avoiding nausea or vomiting after surgery must be considered. Taking into consideration of all the above our opinion is that the ambulant LC is a safe and cost-effective treatment of complication-free symptomatic gallstones.



FP01.05 36.00 How to establish and run a block room (BR)

*P Toft (1), Igor Filipovski (1), M Broch (1)
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Regional anaesthesia plays an important role in the management of patients undergoing ambulatory anaesthesia. However, performing peripheral nerve blocks in the operating room (OR) may delay OR turnover and decrease acceptance of regional anaesthesia techniques. On 1 January 2009 we established a block room. This was done to improve operation turnover times, facilitate education in the use of regional block techniques and to improve the quality of anaesthesia. The block room, a former small OR, is situated within the OR complex and has 2 bays. Monitoring and resuscitation is present for each patient and is similar to the OR, and each bay has an ultrasonic monitor. For patient comfort there is radio, TV and patient friendly light in the block room. The block room is fully equipped with computers for registration and patient information. It is possible to get a total overview of the activities in all operation rooms from the block room, so that patients can arrive in time for blockade or other procedures before they go to the OR, ready for surgery. The BR is staffed with a nurse, a senior registrar in anaesthesiology and a younger doctor. All kinds of blockades are performed in the block room, together with central venous catheters and epidurals. Almost 1000 patients pass through the block room a year. Further information regarding advantages, disadvantages, costs and organisation of a BR are presented and discussed.

FP01.06 74.00 Safe intubation and anesthesia with rapid emergence by using TCI-Propofol –Remifentanil and Desflurane in bariatric fasttrack surgery

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Aim of study: 1. verifying the incidence of difficult airways conditions 2. evaluating safe anesthesia with fast emergence using TCI Remifentanil / Propofol and Desflurane .

Methods: 68 female and 32 male patients were due to laparoscopic gastric bypass or gastric sleeve operations. Mean BMI 44 (range 35-60), mean age 41 (range 17-66). Anesthetic drugs were calculated after Corrected Ideal Body Weight. After preoxygenation (F_{exp} O₂>90%) in a semi sitting position with PEEP of 10cm H₂O, the induction started with TCI Propofol (Cp6microg./ml) and Remifentanil (Cp10ng./ml) and the use of Cisatracrium as NDMR. Tracheal intubation with a standard laryngoscope. In case of difficult intubation use of a rigid fiberoptic laryngoscope. After intubation the Propofol infusion was stopped. Anesthesia was continued with Desflurane 3-7% (i.e.0,5-1 MAC) and TCI Remifentanil (Cp 7-14ng/ml) throughout the operation. Doses were adjusted according to pulse rate (45-90), BP (80<syst. BP<130), BIS (35-45). Time end of surgery until emergence was counted in sec..

Results: 9 (9%) of 100 patients had an difficult airway (6 x Cormack 3, 3 x Cormack 4). 5 (5%) patients needed an ETT insertion with the help of rigid fiberoptical laryngoscope. The mean time of emergence was 2min 20sec. (range 50sec.-5min 10sec.)

Conclusion: Difficult airway situations were expected in bariatric surgery patients and safely managed by experienced anesthesiologists. TCI Remifentanil / Propofol combined with Desflurane provides a safe anesthesia with rapid emergence for morbidly obese patients in bariatric fasttrack surgery.



FP01.07 84.00

Psychological preparation for the ophthalmic patient before cataract operation,. Suggestive techniques & guidelines during the procedures

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(2) St. Janos Hospital - Budapest, Hungary

Objectives: according to changes in technique of cataract surgery, the type of appropriate anaesthetic method has changed too. Nowadays the topical surface anaesthesia is sufficient for cataract operation by phacoemulsification. This method has the less unexpected effects and has an excellent outcome. Despite of these, sometimes it is difficult to achieve optimal surgical circumstances with topical drops alone. Supplementation with light sedatives may be ineffective and deep sedation could have many side effects.

Method: one possible way to solve these problems is to use hypnosis. Hypnotic techniques are already used in a large variety of medical procedures.

Results: we compared the results of 25 patients undergoing cataract surgery who got psychological preparation before the surgery (intervention group) with 55 patients who got regular treatment only. Results: in the intervention group fewer patients needed anti-anxiety drugs (38% vs. 74%) ($p=0,001$) and had lower systolic (144,2Hgmm \pm 10,3 vs. Auditrium 159,8Hgmm \pm 6,6; $p=0,016$) and diastolic blood pressure (75,7Hgmm \pm 5,6 vs. 82,1Hgmm \pm 3,6; $p=0,066$) around the procedure.

Conclusion: based on these results and our experiences we developed a complete self-useable suggestive audio method for psychological preparation of patients for ophthalmic procedures. This will be the first presentation of it. The extended examination is planned with using also EEG and detecting cortisol levels to confirm the advantages of this technique.

FP01.08 63.00

Multimodul postoperative pain management for open inguinal hernia repair with mesh implantation in day surgery

Gamal-Eldin Mohamed (1), M Janecskó (1), M Murányi (1)

(1) Budaörs Medical Centre, Hungary

Objectives: to provide subjective comfort in addition to inhibiting trauma-induced nociceptive impulses due to blunt autonomic and somatic reflex responses to pain, in postoperative pain control following open inguinal hernia repair with mesh implantation. Methods: in a prospective study, 500 patients had undergone inguinal hernia repair with mesh implantation (Lichtenstein operation) between 2004 – 2010. A design to assess perioperative pain management was set up and it was systematically applied in all cases. It consisted of a). pre-emptive analgetic therapy before surgery: intravenous NSAIDs to decrease levels of inflammatory mediators at the site of tissue injury, and local infiltration of the incision site after the induction of narcosis, b). Propofol and short acting opioids during narcosis, c). Metamizol-Sodium in the early and in late postoperative period. Data regarding hospitalization was prospectively collected, and following discharge it was collected by phone interview questionnaire. Results: the intensity of postoperative pain decreased to the minimum during the day surgery stay, the rehabilitation time and postoperative hospital stay was also decreased, and the amount of analgesics used was highly reduced. Conclusion: multimodul pain management highly reduces constant surgically-related pain, and usually there is a progressive improvement over a relatively short period. It enhances restoration of function by allowing the quick patient rehabilitation and discharge.



FP01.09 85.00

Impact on catheter-related complications and quality of life: three different sites of port insertion (oncology patients). Single centre randomised trial.

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Purpose: though totally implantable access ports (TIAP) are extensively used, information from randomised trials about impact of their insertion site on related complications, patient quality of life(QoL), psychological distress is scarce.

Patients and Methods: 403 patients eligible for receiving intravenous chemotherapy for solid tumours were randomly assigned to implantation of a single type of port, either through a percutaneous landmark access (internal jugular) or ultrasound-guided access (subclavian) or a surgical cut-down access(cephalic vein - deltoid-pectoralis groove). Early-late complications were prospectively recorded. Patients' QoL and psychological distress were investigated by means of EORTC QLQ-C30 and HADS (Hospital Anxiety and Depression Scale) questionnaires, using univariate and multivariate repeated measure. A post hoc analysis investigated the impact of type of administered chemotherapy (adjuvant vs palliative).

Results: There were no significant differences with respect to early-late complications, including infections and catheter-related venous thrombosis. Percutaneous ultrasound-guided access (subclavian) had significantly lower failures (e.g. failed attempts to place the catheter in agreement with the original arm of randomization). EORTC QLQ-C30 scales were significantly associated with type of administered chemotherapy only, and not with implantation site. Frequency distribution of patients with depression and anxiety was not significantly different, with respect either to type of administered chemotherapy or TIAP implantation site.

Conclusion: Central venous insertion modality and sites had no impact on either early-late complication rates. Ultrasound guided subclavian insertion showed the lowest proportion of failures. No impact of port site on patients' QoL and psychological distress was detected. Patients undergoing palliative therapies showed worse EORTC QLQ-C30 scales.



Monday 9 May 2011 at 1330 - 1500

PS04 The patient at Risk II

PS04.01 4.00 The patient without social network - is discharge to an empty house acceptable?

Jan Jakobsson (1)

(1) Karolinska Institutet, Sweden

Taking the experience gained during the last 20 years into account ambulatory surgery and anaesthesia can be considered reassuringly safe. Morbidity as well as any return to hospital is in most studies looking at follow-up low. Classic papers have all provided reassuring data, the risk for unplanned return to hospital during the early postoperative period is very low. Most common reasons for contact with health care are related to surgery, haematoma, bleeding or infection being the most common reasons for return to hospital and infrequently seen during the first 24 postoperative period. Patients should be adequately informed about the cognitive residual effects of anaesthetics, and sedatives. They should of course be informed to refrain from driving or doing other tasks that may jeopardize safety during the first 24 hours after anaesthesia and more extensive sedation. Patients should also be informed about feeling fatigue, dizzy and not street fit during the first 24 hours after surgery. They should also be adequately and balanced informed about the signs and symptoms associated to infection, thrombosis and haematoma. All patients should be provided information how to act if needed in case of any emergent questions or queries. Patient without co-morbidities, ASA 1-2 patients, fulfilling discharge criteria having undergone minor day case procedures, e.g. arthroscopy of the knee, hand and foot surgery uncomplicated open hernia repair and adequately informed and provided an emergency number if need of acute contact can reasonably go home alone. This calls for a vigilance preoperative information and preparation.

PS04.02 98.00 Should patient cooperation rather than physical status determine if the patient is fit for Day Surgery?

Douglas McWhinnie (1)

(1) Milton Keynes General Hospital, United Kingdom

For many years, physical status has determined eligibility for day case surgery. Whilst strict criteria regarding body mass index and comorbidity allows safe and quality day surgery, with time, these criteria have been relaxed as a result of modern anaesthetic techniques and the introduction of minimal access surgery. As we push the boundaries, there is a realisation that patient co-operation can determine the success or otherwise of apparently straightforward day surgery procedures. In contrast it is recognised that many patients excluded from day surgery on the basis of physical status can still achieve a same day discharge when motivated to do so. Little evidence exists to identify these excluded, but motivated patients. Patient co-operation, drive and determination is a complex equation and may be related to personal and social factors. The accurate identification of these patients may offer day surgery a further expansion in numbers suitable for day surgery.

PS04.03 Do we need limits for obesity in Day Surgery?
No abstract available at the time of production



FP02 Free Paper II

FP02.01 27.00 Laser Surgery for Varicose Veins

Imre Bihari (1)

(1) A+B Clinic, Hungary

Introduction. We had good experience with classic surgery on varicose veins (crossectomy+stripping+phlebectomy). To improve our results we began to use laser surgery.

Patients and methods. This technique was used on 430 legs. Great saphenous veins, accessory anterior saphenous veins, short saphenous veins, recurrent varicosity cases and post-thrombotic limbs were operated on. The diameter of the treated great, small and anterior accessory saphenous veins was between 4 and 31 mm. Mean 128 J/cm of 980 nm laser energy (Biolitec) and cooled (3°C) tumescent solution was used. 2.5 hours after finishing the operation patients were allowed home. Patients were regularly checked.

Results. Every treated vein occluded and in the follow-up period (1-42 months, median 18 months) there were no recanalizations and recurrences (only during our learning curve, which means in the first 30 cases). In 60 consecutive cases a questionnaire was completed regarding post-operative complaints: 78 % of patients did not take any painkillers, and 67% of them were back at work within a week. In 54 cases side branches around the sapheno-femoral junction were also occluded. There were no serious complications (deep venous thrombosis, pulmonary embolism, septic complications, etc.) but there were some minor complications (temporary suffusions, numbness, etc.).

Conclusion. According to our results, it seems that laser surgery on varicose veins is as effective as classic surgery, and in some regards (less scarring, pain, sick leave) it is even better.

FP02.02 29.00 Laparoscopic treatment of incision hernias as one day surgery with Proceed mesh

Slobodan Jovanovic (1), V Pejicic (1), M Djordjevic (1), T Bojic (1), D Bogdanovic (1), A Pavlovic (1), B Jovanovic (1)

(1) Clinical Center Nis, Serbia

Definition: A hernia is an opening or weakness in the muscular structure of the wall of the abdomen. This defect causes a bulging of the abdominal wall. This bulging is usually more noticeable when the abdominal muscles are tightened, thereby increasing the pressure in the abdomen.

Methods and materials: Mesh sets from the internal side of abdominal wall using of laparoscopic procedure for that purpose of minimal operative trauma and faster recovering. According our experience with laparoscopic solving of ventral and incision hernias, we used Proceed mesh. Meshes uses in open techniques and in laparoscopic procedures. They are made in different dimension.

Results: During period 04.04.2008. to 31.12.2010. in Center for minimally invasive surgery Nis were performing 32 operation primal ventral and incision hernias, using Proceed mesh by laparoscopic techniques. There werent operative complication, relapse and fatal outcome.

Conclusion: The Proceed mesh using in laparoscopic treatment of ventral hernias is technical easy, efficiently and brings a huge benefit for patient and surgeon as one day surgery.



FP02.03 93.00 Laparoscopic Inguinal Hernioplasty - Experience of an Ambulatory Day Surgery Unit

Carlos Magalhães (1)
(1) HS António, Portugal

Introduction - Laparoscopic Hernioplasty is one of the possible treatments for inguinal hernia. Its great main advantage is the possibility of junction of the concept of ambulatory regimen and the concept of minimally invasive surgery. In our Ambulatory Unit we start with this type of approach in 2008.

Results - During this period we operated 120 patients, mainly to bilateral inguinal hernias. The major number (99%) were male patients with a medium age of 55 years and 65% were ASA II. Our preferable technique is the TEP procedure, and we perform the TAPP in special indications (if we had to do another intraabdominal surgery for ex.). All patients classified its postoperative pain as absent to mild and all patients left hospital the same day of surgery (until 7p.m.). The patients were evaluated at first week and first month in consultation and at first year by phone inquiry. We had a complication rate of 8% (mainly haematoma and seroma) We had 5 recurrence cases (2 operated by open technique, 1 by TEP and 2 by TAPP). 95 % of the patients were totally satisfied with this procedment in ambulatory regimen and would repeat it if necessary.

Conclusion - Our results confirm that this technique has very good quality index and we are performing this procedment in young patients, bilateral inguinal hernias and recurrent cases.

FP02.04 66.00 PVP Mesh Ventral Hernia Repair in Ambulatory Surgery. Our Preliminary Experience

Jorge Vásquez Del Aguila (1), C Semeraro (1), F Landi (1), M Lopez-Cano (1)
(1) Hospital Universitari Vall d' Hebron, Spain

INTRODUCTION: We describe our preliminary experience with the PROCEED® Ventral Patch (PVP), a self-expanding, lighter-weight mesh.

METHODS: Retrospective analysis of all the ventral hernia repairs with PVP mesh performed since May 2009.

RESULTS: A total of 52 patients underwent surgery with PVP Mesh: 52% male and 48% female, median age: 42,8 years (25 – 76), 55%, ASA I, 45%, ASA II and average BMI , 25.6 (17.3 – 36.3). Diagnosis was umbilical hernia, 76%, epigastric, Audirium 15%, incisional hernia of a trocar, 5% and prophylactic use in other laparoscopic procedures, 4% of the cases. Small mesh (4.3cm) was used in 64% and medium size (6.4cm) in 36%. 81% where placed preperitoneal and 19% intraperitoneal. 57% were performed under general anesthesia, 33% intradural and 10% local and sedation. The mean surgical time (excluding cases with associated procedures) was 41 minutes (22 – 67, SD 10.8). Average postoperative pain, measured with VAS, was 0.7 (0 – 5, DS 1.3). The median follow – up time was 82 days (20 – 360). 11% of the patients had local complications (4.8% hematoma, 4.8% infection and 2.4% seroma). Because of the short follow – up time, we found no recurrences. No statistically significant differences were found between the size or position of the mesh and postoperative pain or local complications, due to the small number of subjects.

CONCLUSION: Although initial experience using the PVP Mesh is good, further follow up and a larger number of subjects is needed.



FP02.05 73.00 Is gynaecological laparoscopy safe in a free-standing surgical center?

*György Gerő (1), A Bencsik (1), K Nagy (1), ME Gamal (1), A Kovács (1), M Janecskó (1)
(1) Dept. of Ambulatory Surgery & Minimally Invasive Techniques, Hungary*

Objectives: One-day surgery in Hungary is gaining steadily increasing acceptance. However, routine gynaecologic laparoscopy under general anaesthesia regularly executed in a free-standing one-day center is still disputed. The authors try to answer the question whether gynaecological laparoscopy is a suitable and safe procedure under these conditions in their country?

Material and Methods: The authors performed more than one hundred laparoscopic interventions throughout a 3 year period between 2008-2010. Strict patient selection criteria were used regarding both surgical and medical assessment, where only ASA 1 and 2 patients were regarded as suitable. Cystectomy, salpingo-oophorectomy, and/or adhaesiolysis were performed in general anaesthesia for benign ovarian pathologies. Appr. one third of the interventions were tubal sterilisations. Post-operative recovery was followed up to less than 24 hours and PADDIS system was used to discharge patients safely.

Results: There were no major complications, nor was any conversion to laparotomy or hospital admittance necessary. Minor complications (post-op abdominal wall haemorrhage, PONV) occurred in a limited number of cases. Discharge in less than 24 hour was possible in all cases.

Conclusions: On the basis of their experience gynaecological laparoscopy could be feasible in surgically and anaesthesiologically selected cases. However, the question how the highest standards of quality and safety in this settings can be ensured in Hungary, remains a major question.

FP02.06 88.00 Vaginal Hysterectomy as a Routine Ambulatory Surgical Procedure

Marianne Glavind-Kristensen (1), S Greisen (1), UT Larsen (2), S Felsby (2), C Poulsen (2), SM Axelsen (1), KM Bek (1)

*(1) Department of Gynecology and Obstetrics, Aarhus University Hospital, Skejby, Denmark
(2) Department of Anaesthesia, Aarhus University Hospital, Skejby, Denmark*

Objective To evaluate the redistribution of vaginal hysterectomies for uterine prolapse from a stationary unit to our Day Surgery Unit.

Methods This prospective, descriptive study comprised of 111 consecutive women admitted to a public Day Surgery Unit for vaginal hysterectomy in 2007-2010. Median age was 64 (37;87) years. One percent had grade 1 uterine prolapse, 59% had grade 2 uterine prolapse, 33% had grade 3 uterine prolapse, whereas 1% had grade 4 uterine prolapse. Concomitant prolapse operation was performed in 94% of the women. All women were operated under general anaesthesia induced by Remifentanyl and Propofol supplemented by local anaesthesia in the vaginal mucosa. The opening hours of The Day Surgery Unit were from 8 am until 5 pm.

Results Seventy-four women (67%) were discharged from The Day Surgery Unit after 253 (107;405) minutes in the recovery room. Of these women only three were seen in the stationary ward afterwards. This was due to urinary retention (N=2) and anxiety (N=1). Thirty-seven women (33%) were admitted to the stationary ward postoperatively due to pain (N=6), PONV (N=6), indisposition (N=9), social reasons (N=8), urinary retention (N=4), surgery too close to closing of the unit (N=3), and intraabdominal bleeding (N=1). Three women (8%) were discharged on the night of surgery, whereas 32 (86%) on the day after surgery.

Conclusion Vaginal hysterectomy in the treatment of uterine prolapse is suitable for day surgery. However, admittance to a stationary ward should be possible. Alternatively, the opening hours of the Day Surgery Unit should be extended.



FP02.07 86.00 Spinal minimally invasive day surgery procedures. Experiences with 1000 procedures

Laszlo Lazar (1)

(1) *Telki International Hospital, Hungary*

Objectives: to evaluate the past and present status of spinal minimal invasive surgery as a day surgery procedure in Hungary.

Methods: 1000 spinal operations have been performed during the last five years in Telki International Hospital. The patients were sent from different regions of the country and abroad. The average age of patient was between 18 and 90 years. Minimal-invasive microsurgical techniques were applied with widened indications for multisegmental cervical, dorsal, lumbar degenerative disorders, congenital anomalies and tumorous cases.

Results: the patients could be sent home within 24 hours. The complication rate was minimal, there were no lethal complications.

Conclusion: preoperative examinations, indications, preparation for and technique of operations -even using spinal implants, postop care and general suggestions based on our experience will be demonstrated.

FP02.08 47.00 Day case stapled mucosal anopexy for the treatment of haemorrhoids and rectal mucosal prolapse.

Luis Hidalgo (1), A Heredia (1), J Carbonell (1), O Estrada (1), E García (1), S Llorca (1), X Suñol (1)

(1) *Hospital de Mataro, Spain*

Stapled mucosal anopexy (SMA) has reached better early postoperative results than classical haemorrhoidectomy. Objective: To prove that SMA is a safe procedure for the treatment of hemorrhoids and rectal mucose prolapse in a one day surgery programme.

Patients and method: From January 2000 to December 2008, 297 SMA procedures were performed, 230 cases (77.4%) were done in the One Day Surgery Unit (DSU). Third and fourth degree haemorrhoids, second degree with no response to conservative treatment and several cases of rectal prolapse were included. The mean age of the series was 48.1 (range 21-85). Preoperative preparation included phosphate enemas, and antibiotic prophylaxis. Patients were operated mainly under spinal anesthesia. Progressive implementation in DSU, postoperative pain, admissions, late admissions and early postoperative situation were considered for the study.

Results: Overall rate for SMA for DSU was 77.5%, with a progressive increase from 46.2% to 99% in 2008. Postoperative pain was measured by a visual analogic scale (1-10), and 185 patients expressed pain under 2; no patient showed pain over 7. Eighteen patients (7.8%) required admission on the day of surgery. Late admission was needed in 3 patients (3.1%). Thirty three patients expressed their situation as excellent, 174 as good, 20 as regular and 3 as bad when they answered a questionnaire one week after surgery.

Conclusion: SMA is a safe and effective procedure for prolapsing haemorrhoids in the day case setting. Progressive implementation subject to normal day case criteria is easily achievable.



FP02.09 11.00 Modern management of haemorrhoids in a specialty day care centre

Manmal Begani (1), D Mulchandani (1)

(1) Abhishek day care institute & medical research centre, india

Aim: a retrospective study of data from 10 years on the various treatment modalities for haemorrhoids in an ambulatory surgery institute.

Method: data collected from our centre with regards to various techniques of treatment of haemorrhoids ranging from office procedures to minimal invasive surgery for haemorrhoids and open surgery in day care or ambulatory surgery. The patients were operated during the period from June 2000 to July 2010, that is, since the day care centre was started. During these 10 years, we have performed a total of 5272 haemorrhoids cases with 2401 surgical procedures including open surgery, doppler - hal, PPH, 2871 office procedures including infra red photocoagulation, sclerotherapy, band ligation, cryotherapy etc.

Results: with the advent of many modern techniques for management of haemorrhoids, we conclude that 95% cases can be done in a day care set up without the need for general anaesthesia and with minimal discomfort. **Discussion:** depending on the grade of haemorrhoids, the options for management range from office procedures which offer the quickest mode to open surgery under local anaesthesia and sedation. The use of stapler and dg-hal has made the treatment of haemorrhoids tailor made for day care or ambulatory institutes like ours.

Conclusion: with huge cost savings and also saving time and resources of hospitals, we conclude that almost all cases of haemorrhoids can be managed in a day care unit / ambulatory surgical unit with the advent of modern techniques of management as presented in this poster.



PS06 Meet the experts

PS06.01 125.00 Case I

Kari Korttila (1)

(1) University of Helsinki, Helsinki, Finland

Patient undergoing gynaecological laparoscopy with past history of intractable PONV : What to know about PONV prophylaxis and treatment? Management of PONV must take into account risk factors (female gender, non-smoker, history of PONV, postoperative opioids). One good tool to assess the risk is Apfel Score (Anesthesiology 1999;91:693). Which drugs should I use? Old cheap drugs (e.g. dexamethasone 4-5 mg) and generic drugs (e.g. ondansetron 4 mg) are very useful. Droperidol is still allowed and it's popularity has again increased. Haloperidol is not safer than droperidol in regard to possible QT prolongation in EKG. Small doses of metoclopramide (10 -20 mg) have repeatedly failed to prevent PONV but a larger dose of 25 mg seemed to be helpful as part of multimodal treatment. It can be tried if everything else fails. Propofol anaesthesia is recommended (see NEJM 2004;350:2441) Are new drugs helpful? It remains to be seen what will be the role of the new long acting 5HT3 antagonists palonosetron. Today, I'd recommend NK1-receptor antagonist (e.g. aprepitant or fosapitant) for patients with intractable vomiting, i.e. those with high risk - not for low risk patients. So far, gabapentin or pregabalin cannot be recommended for prevention of PONV. Paracetamol and ondansetron interaction? Those drugs are commonly given to the same patient. Our recent study with patients showed that there was no clinically significant interaction with patients when paracetamol and ondansetron were given together (Clin Pharmacol Ther 2010;87:672). Practice Guidelines! If we follow evidence based guidelines for PONV, we can increase patient comfort and reduce hospital stay in outpatients. We will potentially reduce health care costs.

PS06.02 124.00 Case II

Jouni Ahonen (1)

(1) Women's Clinic, Helsinki University Hospital, Helsinki, Finland

Meet the expert/Case 2 presents a 58-year-old smoking male with no chronic medication. His height is 178 cm and weight is 120 kg, i.e. the BMI is 38. He has a family history of venous thromboembolism and ischaemic heart disease. The patient himself has no symptoms of any cardiac disease. Recently he re-ceived norfloxacin because of acute prostatitis. Some three weeks ago he had an ankle injury. However, he did not search for help until now. An Achilles tendon rupture was detected and he was scheduled for ambulatory surgery within the next 1-2 weeks. During the session, the preanaesthetic evaluation of the patient and his peri- and postoperative care will be discussed specifically issues related to chronic obstructive pulmonary disease, ischaemic heart disease and the risk on venous thromboembolism.



Monday 9 May 2011 at 1530 – 1700

PS07 Education in Day Surgery

PS07.01 7.00 Education in day surgery – To utilize the potential

Charlotte Ringsted (1)

(1) University of Copenhagen and Capital Region of Denmark, Denmark

Day surgery units are opposed to clinical wards characterised by having a high flow of standard patients, depending on effective multi-professional teamwork with emphasis on quality and productivity of service. In addition, due the same-day circumstances some special patient safety principles are in the forefront. Hence, day surgery units offer a unique setting to supplement health professional education that fits perfectly into the visions of developing broad aspects of competence. This includes systems aspects of practice, quality and safety principles, the role of teamwork, and issues of organisation. However, due to the high demands of quality and efficiency same-day units also face some challenges regarding how to fit in the education of trainees. This presentation provides some key principles regarding effective organisation and teaching in same-day surgery units.

PS07.02 A program for training

No abstract available at the time of production

PS07.03 121.00 Nurses' education in day surgery . . . An Australian's experience.

Wendy Adams (1)

(1) Australian Day Surgery Council, Australia

Australia is a diverse country with a population of more than twenty two million people who live on the world's largest island, with an average of only 2.5 persons per square km. Day surgery occurs in many types of centres including our stand alone facilities, acute public hospitals and private hospitals, totalling approximately 60% of all elective surgery. Nurses are classified into two broad categories: registered nurses (usually with a degree), who make up the majority of all nurses, and enrolled nurses (usually a certificate or advanced diploma). Clinical experience in a peri operative setting (let alone a day surgery setting) is rarely included in an undergraduate qualification and there are limited post graduate education opportunities for nurses who wish to specialize in day surgery. Added to this, the structure of nursing workers has aged significantly with the average age of nurses confirmed as 44 years of age and the proportion of nurses aged 50 years or over as more than 35%. Therefore, this presentation will cover the many initiatives implemented by our creative nurse managers to assist our nurses to work in our dynamic day surgery settings.



PS08 Children in Day Surgery

PS08.01 110.00 Premedication - why

Peter Larsson (1,2)

(1) Astrid Lindgrens Childrens Hospital, Sweden

(2) Karolinska University Hospital, Sweden

In the past premedication prior to induction of anaesthesia was a necessity to provide smooth and safe anaesthesia. The development of newer anaesthetics and of the practise of anaesthetics has reduced the need for routine premedication. In recent years there has been a major change in the availability of information and techniques that aim to provide better and more adequate preparation to both parents and children who are coming to hospital for anaesthesia and surgery. The age-specific preparation of both carers and child allows them a better understanding of what will happen, what the environment looks like and insights into the risks involved. A number of information strategies are now used. Parental presence to reduce anxiety at induction is an ongoing debate. In Sweden parental presence has been routine for > 20 years. If pharmacological premedication is to be used there are several options. Midazolam is the golden standard but has limitations see Table 1, which has favoured an increased use of the alpha 2 adrenoceptor agonists clonidine and dexmedetomidine, with beneficial effects as seen in Table 2. Other options are nasal sufentanil and Ketamine administered orally or nasally. In summary, appropriate preoperative information and parental presence are cornerstones in the preoperative preparation of the child. Despite this pharmacologic premedication will be necessary in certain patients. Promising alternatives to midazolam currently exists and we are eagerly looking forward to future RCTs exploring the efficacy of these agents compared with the current golden standard midazolam.

Table 1 Limitations of midazolam

Oral and intranasal administration	Poor patient acceptance Bitter taste that is difficult to mask High incidence of burning when administered intranasally
Bioavailability	Low and unpredictable absorption when administered orally or rectally
Pharmacokinetics	Not short acting in infants and adolescents caused by intermediate terminal half-life in these age groups
Pharmacodynamics	Negative effect on cognitive function, especially memory (loss of explicit memory, preservation of implicit memory) May produce postoperative behavioural disturbances Risk of producing paradoxical reactions, especially after IV administration Increase the risk for hiccups Negative effects on respiratory drive, which is markedly enhanced by co-administration of opioids Increased risk for sevoflurane-associated postoperative confusion/agitation/delirium

Table 2 Positive effects of alpha-2 adrenoceptor agonists

Preoperatively	No taste and no stinging or burning after intranasal administration Anxiolysis Sedation-Similar to normal tiredness/sleep No effect on cognitive function or memory Reduced salivation No or minimal effects on respiratory drive. Does not enhance the respiratory depression of opioids Attenuates wind up within central pain pathways
Induction of anaesthesia	Reduced need for induction agents Attenuates stress response associated with endotracheal intubation Pain relief on intubation
Intraoperatively	Reduced Anaesthetic requirements of volatile agents by 50% Hemodynamic stability
Postoperatively	Reduced postoperative pain Reduced needs of opioids Reduced risk for sevoflurane-associated postoperative confusion/ agitation/delirium Effective and safe as sedation in PICU and NICU



PS08.02 **Limits of Day surgery in children**
No abstract available at the time of production

PS08.03 102.00 **Pain treatment for children in ambulatory surgery**

Birgitte Duch (1)

(1) Aarhus University Hospital, Aarhus Sygehus, Denmark

Objective: The purpose is to discuss multimodal peri - and postoperative pain treatment for children in ambulatory surgery. Effective pain treatment represents an important component of postoperative recovery as it serves to blend autonomic, systemic and endocrine reflexes with a resultant potential to decrease perioperative morbidity. Numerous myths and misconceptions about pain ('children don't feel pain', or 'children won't remember pain') and a relative paucity of large studies in the paediatric pain literature create an obstacle to effective pain treatment. The multimodal approach consists of regional and pharmacological methods. Acetaminophen is used as the primary pain medication. When used at higher doses (40 mg/kg) it does have a clear opioide-sparing effect if administered at the induction of anaesthesia. Many studies have compared acetaminophen with a NSAID for analgesia in children. Most show either similar effect or slight superior effect with a NSAID. NSAID's have reversible antiplatelet effects and might inhibit bone formation, which is of concern during the perioperative period. Until the late 70's opioid was avoided in children due to the increased risk of respiratory depression in the youngest children. Opioids are now considered a corner stone of treatment of moderate to severe pain. Parental perception of children's pain may influence how pain is alleviated after discharge. Effective information prior to discharge is crucial for patient and parental compliance.

Conclusion: The anaesthetic plan for pain management in paediatric patients must be multimodal. Make the child and family active participants and members rather than passive recipients.

PS08.04 59.00 **Ultrasound-guided peripheral nerve blockade in children**

Thomas Bendtsen (1)

(1) Aarhus University Hospital, Denmark

Peripheral nerve blockade in children decreases surgical stress, accelerates ambulation, reduces stress hormone levels and the catabolic state period and consumption of opioids with fewer side-effects, and allows earlier discharge at home. Ultrasound-guidance allows direct, real-time visualization of the target nerves and vital structures, site-specific analgesia and reduction of the volume of local anaesthetic. The incidence of complications like prolonged numbness or nerve injury are extremely rare in children. The smaller the child the smaller skin surface is available for transducer placement, which can be managed by application of small-footprint transducers like hockey stick transducers. Nerve diameter is smaller in children and the nerves are more superficially located and located closer to other critical structures. Due to lower blood pressure the vessels are more easily compressible, making them less recognizable as landmarks. Smaller children have more cartilagenous bone which are more ultrasound transparent than ossified bone making bony landmarks less visible. In children - like in adults - the appropriate choice of peripheral nerve blockade is (1) interscalene brachial plexus block for shoulder procedures (2) supraclavicular, infraclavicular or axillary block of the brachial plexus for procedures of the upper extremity distal to the shoulder joint (3) femoral, saphenous, and sciatic nerve blocks for lower extremity procedures (4) various trunk blocks. Most peripheral nerve blocks in children can be managed with a high-frequency linear transducer, in-plane needle approach and the end-point of injection is complete perineural spread of a low volume of local anaesthetic guided by direct real-time visualization with ultrasound.



PS09 Office based surgery Cost efficiency and convenience versus safety and quality, or...?

PS09.01 105.00 The Norwegian experience: Dental and ENT office based practice

Johan Raeder (1)

(1) *Oslo University Hospital, Ullevaal, Norway*

In Norway about 90-95% of all surgery is done in public hospitals, some of the rest is done in private hospitals or office based premise. The practice is regulated by laws of proper medical practice, adequate equipment and, very importantly, a standard for anesthesia care(1). The standard covers all aspects of location, equipment, staff education, safety and performance of anesthesia and sedation. There is no accreditation of units as such, but every unit has to adhere to these standards in order to be in legal practice. Some plastic surgeons and general surgeons do office based surgery using local anesthesia, whereas involvement of general anesthesia is mainly seen in the dental and ENT area.

Office based surgery is very convenient for the surgeon and the patient, the procedure is done in the same place and by the same team as the patient will know from previous and later consultations. The patient flow is very efficient, skipping all unnecessary logistics, such as often seen in the hospital setup. With children, the ENT office environment may appear friendlier and less hospitalized than a clinic. Since both ENT and dental practice involves airway interference, there are certainly extra safety issues in addition to those of anesthesia practice in general. Thus, the office setup must be staffed, equipped and located for the “worst case scenario”. With ENT this may be an uncontrolled bleeding, necessitating transport in general anesthesia to a nearby ENT department.

1)Gisvold SE, Raeder J et al. Acta Anaesthesiol Scand. 2002;46:942-6.

PS09.02 5.00 Innovative surgical service in the Primary Care setting in UK

Raj Dhumale (1)

(1) *Probus Health and Surgical Centre, United Kingdom*

UK DoH project of 'Care Closer to Home' was established in 2007. Appropriate shift of secondary care surgical services to the community was encouraged. Our surgical centre was the 'demonstration site' for DoH. This presentation explores the feasibility, viability and sustainability of such a service.

PS09.03 Comparison of Hospital and Office-Based Surgery in Germany. Surgery in small units offers many advantages *No abstract available at the time of production*



PS10 New technology for improving operating room efficiency

PS10.01 109.00 Preoperative electronic evaluation

Päivi Valta (1)

(1) Helsinki University Hospital, Jorvi Hospital, Finland

Starting 2006 we have gradually developed - together with an outside hospital IT-service provider - a system to electronically exchange information with the patient. Previously the preoperative evaluation was done by letter, by phone or during the hospital visit. Today over 95% of the patients come to the operation without visiting the preoperative anaesthesia clinic. The majority of the needed preoperative visits are related to the bridging anticoagulant therapy. When the patient has been referred to operation or surgical consultation for operation, we send an electronic letter including a health evaluation formula, note to go the lab (if needed), our www-address and general information about ambulatory surgery few weeks before the operation or surgical visit. Our IT-partner prints and delivers this letter by normal mail. At home the patient fills up the formula via the net using his/hers personal banking codes or uses the paper version and sends it to us by normal mail. Over 60% of the ambulatory surgical patients prefer the electronic way, the percentage being highest in the young adult patient population. The paper version is scanned and delivered to us in the pdf-format. Either way, independently of the patient's preference, the information of previous diagnoses, actual medication, operations, physical condition and possibly the lab tests are available to surgeon, the preoperative nurse and the anaesthesiologist before the patient enters the hospital. The most urgent need for further development is the integration of this or any similar system to the hospital electronic patient data management system.

PS10.02 56.00 Operating room management in Day surgery

Marie-Louise Ulsøe (1)

(1) Regional Hospital, Horsens, Denmark

Background iHospital began as a research project, in the middle of 2003, in a collaboration between Centre of Pervasive Healthcare at Aarhus University, Regional Hospital Horsens, Medical Insight A/S and Danish Data Display A/S. The objective of the research project was to study, develop, and test new types of pervasive computing technologies and healthcare IT-systems, which could support the health professionals' daily work

Aim Create better overview, better communication and better coordination in the patient pathways. Create better work environment Create more efficient and productive exploitation of the operation rooms

Results Better overview of today's work tasks, fewer interruptions, better support of coordination, easier to get information, easier to handle changes in today's schedule, fewer steps for the coordinator in the ward, more efficient operation programs.

Conclusions' from the MTV rapport The organisational analysis shows that the preconditions for streamlining of the organisation concerning execution of the daily surgical programme to a great extent are provided by the use of iHospital. This might be caused by the fact that better overview, better communication and better support of coordination are some basic mechanisms for optimising the working procedures. Furthermore, the material from the conducted studies give an impression of a positive attitude among the staff members in relation to iHospital's influence on the working environment shaped by better overview, fewer interruptions in the daily work, and a positive impact on the communication between the staff members.



PS10.03 108.00 National benchmarking system for assessment of performance

Kristiina Mattila (1)

(1) Helsinki University Hospital, Jorvi Hospital, Finland

Ambulatory surgery is considered the standard of elective surgical care for many types of procedures. Assessment and evaluation of the outpatient pathway is necessary for quality control, continuous development and expansion of ambulatory surgery. Efficient use of allocated operating room time with safe and timely discharge home from the ambulatory surgery unit indicates well-planned, punctual and cost-effective surgical care. Benchmarking is an important tool for analyzing outcome and for establishing best practices in operating room performance. Comparison of operating room data from similar units allows learning from others and may identify potential areas of improvement. Continuous follow-up is needed to analyze the impact of interventions aimed to increase operating room efficiency. This presentation describes operating room performance at Finnish ambulatory surgery units using data provided by a national healthcare benchmarking service that has been voluntarily joined by several Finnish hospitals. The service has a centralized database and an almost real-time online reporting system. In addition to providing automated reports, the system allows units to construct their own reports and to compare their results with those of other participating units. During the lecture several examples of benchmarking reports for assessment and comparison of performance in the ambulatory surgery units will be shown.



Tuesday 10 Maj 2011 at 0900 – 1030

PL01 Plenary: The Nordic Model. Private contra public health

PL01.01 **The Nordic Model**
No abstract available at the time of production

PL01.02 39.00 **Healthcare Systems: The US Model**

Beverly Philip (1)

(1) Brigham & Women's Hospital/ Harvard Medical School, USA

Healthcare in the United States is provided in hospitals, surgery centers and offices that are primarily private-sector owned. By law hospitals must provide urgent care for everyone, independent of any payment. Healthcare facilities and providers are paid by either private or government sources. Most residents get their insurance through private, for-profit plans from their employer. Most private plans require some patient copayment, pay facilities and providers negotiated amounts, and have some restriction on benefits to limit expenditure. The single major government payer is the program for those 65 years and older (Medicare). This system pays inpatient hospital care under a prospective payment cost-based system (DRGs), which includes preop & postop care. Hospital-based ambulatory care has a different prospective payment system, where procedures and care are grouped into APCs that have clinical similarity and similar resource use.

The ambulatory system is primarily based on actual reported costs, minus a percentage to encourage efficiency. Initially this was 82 percent of costs and the exact amount varies from year to year. Payment for ambulatory surgery (AS) in freestanding surgery centers is part of the same APC system. The amount is based on a fraction of hospital-based AS costs (currently about 65%), because freestanding facilities do not provide 24/7 coverage, have emergency rooms, or provide free care. Office-based surgery is paid under the physician reimbursement system. There are additional government-supported programs for poor and disabled (Medicaid), as well as veterans and active military.

PL01.03 111.00 **The German model**

Jörg-A. Rüggeberg (1)

(1) Vice-president of the German board of surgeons, Zermatter Str. 21/23, D-28325 Bremen, Germany

Due to the demographic factor and increasing costs Germany suffers under a permanent change of legal regulations in very short periods. The main problem is the misbalance between social security contribution and the demand for medical treatment. 90% of our population are members of a statutory insurance and only 10% member of private insurances. So the fees of the majority are fixed by state and actually the rate is Auditrium 15,5% of the personal income. This contribution is not enough for a cost covering payment of medical treatment esp. ambulatory surgery. Patients of the statutory insurances are not allowed to combine their membership with private insurances (except for in-patient treatment) or additional payments. The lack of money leads to very complicated and strange mechanisms of individual and general budgets. In fact, day surgery is actually paid by only 70% of the calculated price.

The same procedure done in hospitals with some days of in-patient stay will be paid in the DRG-system with an amount of approx. sevenfold more. So day surgery in Germany stagnates since 10 years. We need the change from strong governmental regulations to more individual responsibility. The German model of the public health system is surely not an example for imitation.



Tuesday 10 May 2011 at 1100 – 1230

PS11 Nordic Session I

PS11.01 92.00 Empowering patient education with Internet in ambulatory orthopaedic nursing

Katja Heikkinen (1)

(1) *University of Turku, Department of Nursing Science, Finland*

The aim of this study was to compare the outcomes of ambulatory orthopaedic surgery patients when using Internet-based education (experiment) in contrast to face to face education conducted by a nurse (control). Elective ambulatory orthopaedic surgery patients were randomised to either an experiment group (n=72) receiving education through a website or to a control group (n=75) receiving face to face education with a nurse.

Patients in the experiment group participated in the Internet-based education and they received the education by website designed for this study. Patients in the control group participated individually in face-to-face education with a nurse in the ambulatory surgery unit. Several structured instruments were used measuring patients' knowledge, cost of care, emotions and symptoms. The data were collected at seven different time points: three times preoperatively and four times postoperatively.

The results indicated that Internet-based patient education is an effective strategy in sharing knowledge and improving patients' knowledge. There were some differences in costs of care between the education groups. Patients' experiences of their emotion and symptoms did not differ between the education groups. As a conclusion, Internet-based education is a usable method in patient education and positive results can be achieved on patients outcomes.

PS11.02 120.00 Non-anesthesiologist administered propofol sedation for endoscopy

Pernille Hornslet (1)

(1) *Gentofte Hospital, Denmark*

Gastrointestinal endoscopy has evolved from a "short look" into high technology based minimal invasive diagnostic and therapeutic procedures. However, a demand for proper sedation of the patients undergoing these procedures has increasingly been lacking. During recent years non-anaesthesiologist administered Propofol sedation has been introduced as a routine procedure during endoscopy. The administration of Propofol is either handled by a medical doctor or by a nurse trained in Propofol sedation (NAPS). However, a discussion regarding its safety is still ongoing and its use by NAPS nurses is particularly criticised by anaesthesiologists.

Evidence from randomised studies between Propofol sedation compared to standard sedation with Benzodiazepines and Opioids have demonstrated that there are no difference in complications, blood pressure changes, apnoea and hypoxia. In addition to this safety profile there is also a diagnostic benefit as well as increased patients tolerance, shorter time to recovery and more procedures can be performed under the same sedation time and with less need of endoscopic procedures performed under general anaesthesia.

We have introduced NAPS at Gentofte hospital as a routine procedure since September 2007. Our NAPS nurses are trained during a 6 week course both theoretically and practically including airway management in collaboration with department of anaesthesiology. At present, 10 nurses have been trained covering 4 endoscopy rooms. Today we have given NAPS to approximately 3500 patients, and we have a well-established concept.



PS11.03 18.00 **Designed Music as a tool for patients in Day surgery**

Ulrica Nilsson (1,2)

(1) Department of Nursing, Umeå University, Sweden

(2) Centre for Health Care Sciences, Örebro University Hospital, Sweden

Music is an intervention to facilitate healing through pre-recorded music, defined as “a supportive source of environmental sound that stimulates and maintains relaxation and reduces or controls distress by a self-management technique” . The use of listening to pre-recorded music has also been defined as “Music medicine” in contradiction to “Music therapy” that includes an in-person music therapy treatment by a music therapist . Music that has this relaxing and stress reducing effects includes a slow and flowing tempo around 60-80 beats per minute, a maximum level of 60 dB and with duration of 20-60 minutes . The mechanism behind the effect of relaxing music is not clearly understood. It has been reported that the relaxing effect of music is related to an increased release of plasma oxytocin , and a reduction in plasma cytokine and catecholamine levels. These responses to music convey emotions through autonomic arousal, likely in a bidirectional way. A strong positive correlation exists between the pleasurable aspects of music listening and emotional arousal. Providing music is an inexpensive technique, which does not require the use of extra manpower and resources. Music intervention can maximize the effort of promoting comfort and relaxation, as well as reduce or control distress. For that reason, music is an intervention that has an obvious role in the care of day surgery patients.



PS12 Frontline surgery in Day surgery

- PS12.01** **Upper gastrointestinal**
No abstract available at the time of production
- PS12.02** **Robot surgery in vascular surgery**
No abstract available at the time of production
- PS12.03** **Urology**
No abstract available at the time of production
- PS12.04 25.00** **Frontline surgery in Day surgery - Gynaecology**
Henrik Halvor Springborg (1)
(1) Privathospitalet Hamlet, Denmark

Gynaecological surgery in benign cases, are now carried out as day surgery. Perioperative regimes and the development in endoscopy as well as vaginal surgery, has made it possible to perform vaginal and laparoscopic surgery as day surgery. However in Denmark hysterectomies has traditionally been performed by laparotomi and subsequently these patients are hospitalized for median 2 days, still this is a reduction from 4-7 days a few years ago. Improved perioperative regimes have been responsible for this development. The introduction of laparoscopic methods as well as using supravaginal hysterectomies for symptomatic fibroids, have made it possible to change to day surgery in most case. Even in the presence of very large myomas the use of morcellators makes the laparoscopic method possible for nearly all fibroid surgery. Single site surgery/LESS is even more expected to facilitate day surgery. During this lecture, results of several studies will be presented, furthermore description of new methods as well as videos of surgical technique.



PS13 Quality of care and accreditation

PS13.01 55.00 Quality of care: what tools shall we use, how to compare outcome?

Ian Jackson (1)

(1) York Teaching Hospital NHS Foundation Trust, United Kingdom

Clinicians working in ambulatory surgery have a long history of attempting to measure quality of their services. In this presentation I will look at the previous attempts at quality assessment, the indicators used and how useful these have been. I will present the current areas of interest in this field and on the initiatives being followed in some countries such as Patient Reported Outcomes Measures (PROMS) and the Commissioning for Quality and Innovation (CQUIN) payment framework in the UK.

PS13.02 38.00 Accreditation as an Indicator of Quality: The US Experience

Beverly Philip (1)

(1) Brigham & Women's Hospital/ Harvard Medical School, USA

When ambulatory care is provided in hospitals, freestanding surgery centers (ASCs) and offices, the quality of healthcare is important to many stakeholders. Preparing for and achieving accreditation is one accepted approach to reach this goal'. Accreditation began as a voluntary activity, and remains an effective statement of the desire to demonstrate quality. Accreditation has been described as "A self-assessment and external peer assessment process used by health care organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve". The three largest accrediting organizations in the USA for surgical facilities are the Accreditation Association for Ambulatory Health Care (largest for ASCs), American Association for Accreditation of Ambulatory Surgery Facilities (offices) and The Joint Commission (hospitals). In addition, increasingly, accreditation is required for licensure of the facility by the state where it is located. There may be payment incentives as well. In order to receive payments from the US government under the Medicare (for elderly) or Medicaid (for the poor and disabled) programs, hospitals and ASCs must meet facility-specific standards set by the federal Centers for Medicare and Medicaid Services (CMS). Such inspections are largely done by accrediting organizations that have been "deemed" by CMS to meet its standards.

PS13.03 115.00 What have we learned from hernia registers and how can these experiences be transferred?

Henrik Kehlet (1)

(1) Section of Surgical Pathophysiology, Rigshospitalet, Copenhagen University, Denmark

Although knowledge on advantages in perioperative outcomes can be found in plenty of scientific articles the translation of such data into general practice will require regional or nationwide databases. The Danish Hernia Database was founded in 1998, and similar to the Swedish Hernia Database includes >100,000 patients and has now been extended to ventral hernia surgery. The results from establishing a nationwide groin hernia database has led to general improvements in outcomes such as reoperations, choice of anaesthetic technique, chronic pain etc. and in addition allow analysis of specific subgroups and complications, which otherwise cannot be obtained from single centres. Based on the experience from the Danish Hernia Database similar nationwide collaboration is important for multi-centre research and further improvement of perioperative outcomes.

References Bay-Nielsen M, Kehlet H, Strand L, Malmstrom J, Andersen FH, Wara P, Juul P, Callesen T. Quality assessment of 26,304 herniorrhaphies in Denmark: a prospective nationwide study. *Lancet* 2001;358:1124-1128. Kehlet H, Bay-Nielsen M. Nationwide quality improvement of groin hernia repair from the Danish Hernia Database of 87840 patients from 1998-2005. *Hernia* 2008;12:1-7. Helgstrand F, Rosenberg J, Bay-Nielsen M, Friis-Andersen H, Wara P, Jorgensen LN, Kehlet H, Bisgaard T. Establishment and initial experiences from the Danish Ventral Hernia Database. *Hernia* 2010;14:131-135.



PS14 Patients with special problems

PS14.01 89.00 Diabetes Mellitus; tight control of blood sugar-risk or benefit?

Anna Lipp (1)

(1) Norfolk and Norwich University Hospital, United Kingdom

Numbers of patients with diabetes are increasing and many need surgical procedures that can be managed as a day case. How to manage their diabetes peri-operatively remains controversial.

I will discuss

- Evidence for differences in outcome related to tightness of blood glucose control in the peri-operative period and its relevance to day surgery.
- The advantages of day surgery for patients with diabetes
- Options for peri-operative management; using variable rate intravenous insulin infusion (VRIII) regimes versus basal bolus techniques.
- UK National guidelines for peri-operative management of diabetic patients
- Ideal pathways for diabetic patients having day surgery
- Practical experience of managing diabetic patients having day and short stay surgery in Norwich.

PS14.02 22.00 Smokers and Snuffers. To stop or not - does it change outcome?

Metha Brattwall (1)

(1) Sahlgrenska University Hospital, Gothenburg, Sweden

To realize good day surgery, it is important to minimize pain and nausea. It has been discussed that smoking and snuffing reduce nausea and perhaps also pain, but is it nicotine or other content that influence on outcome? Smoking cessation is recommended 4-8 weeks before surgery due to risk for compromised bone healing, vasoconstriction, wound healing and other complications.

The aim was to evaluate the early recovery phase, the impact of tobacco use on pain and PONV (postoperative nausea and vomiting) for different typical day surgery procedures. Inguinal hernia repair (n=107), arthroscopic procedure (n=122) and cosmetic breast surgery (=126) were studied, in all 355 patients.

Methods: We followed smokers and snuffers the first postoperative week. After a preoperative health profile including tobacco use, we registered all symptoms at recovery room. Patients answered a questionnaire first day at home and after 1 week.

Summary of results: Not only smoking but also snuffing seems to reduce the risk of postoperative nausea. Tobacco use had no influence on pain after surgery in this study. But patients with preoperative pain more frequently reported pain at recovery room and after 1 week. Conclusion: Preoperative assessment of PONV should include all means of regular tobacco use, not only smoking. Studies of tobacco use such as snuffing, intranasal or patches and their perioperative effects are not frequent.



PS14.03 112.00 Obesity: Comorbidity and not size is the issue?

Jan Eshuis (1)

(1) Day Care Centre, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands

Two simultaneous trends the last 30 years, the increase in obesity and the development of Day Surgery (DS) have made obesity no longer an exclusion criterion for DS. 'Size' as well as comorbidities is to be estimated in the patient. Obesity as such does not mean a great risk for unexpected admission after DS, however mere size and comorbidities make a difference. Size related are problems with venous access, regional techniques, transport and logistics, OR-furniture, positioning and measuring blood pressure, but also airway access and ventilation. 'Ramped' vs. 'sniffing' position influence greatly ease of laryngoscopy and intubation; contradictory literature exists on effects of Mallampati score, neck circumference, OSA and gender on airway access, as well as on manoeuvres to prevent desaturation and atelectasis. Apart from correlation with certain cancers, comorbidities are key issues with obesity.

Metabolic Syndrome (MS) is associated with central obesity, visceral fat deposits, hypertension, hyperglycaemia and insulin resistance, strongly correlated with adverse cardiovascular outcomes. Preventive measures in preoperative assessment, intra- and postoperatively reduce the risks of MS. Significant metabolic control together with awareness of the mechanical and ventilatory problems will help us to treat some, but not all, even morbid obese patients in DS and discharge them safely home. A recent study of the 30 day mortality and morbidity in normal weight to super obese patients with and without MS revealed a dramatically higher risk after surgery for all the obese with the MS compared to those without. Both comorbidity and size will remain an issue!



Tuesday 10 May 2011 at 1330 – 1500

PS 15 Nordic session II. State of the art in anesthesia and surgery in Ambulatory surgery

PS15.01 107.00 Anesthesia methods: Quality and efficacy

Johan Raeder (1)

(1) Oslo University Hospital, Ullevaal, Norway

When properly conducted there is close to zero mortality, and no difference in the very low figures of disability or major morbidity between different ways of providing anesthesia in the ambulatory setting. Thus, the choice of methods is shifted towards issues of perceived patient quality and overall cost-efficacy, which also depend upon: the patient opinion and general health, the surgical procedure, the premises of surgery, the skills and experience of the staff. Criteria of quality may be: avoid patient anxiety, pain, nausea and fatigue. Criteria of cost-efficacy: low costs of drugs and disposables, minimal preoperative delay, rapid turn-over time in the OR, short and uneventful recovery, rapid discharge and minimal rate of admissions and re-admissions. Local anesthesia, eventually with some sedation, is recommended when the surgical procedure is suitable and the patient and surgeon accept the concept. The drug costs are low, the postoperative care unit may be bypassed, and pain relief goes on for many hours.

Regional anesthesia may offer even better pain protection during and after the procedure, but takes some time to establish. Also, the centroaxial methods may result in problems of prolonged postoperative bed-rest, urinary retention and delayed discharge. For general anesthesia the golden standard may be propofol and remifentanyl infusions. Inhalation induction with sevoflurane and/or inhalation maintenance with sevoflurane or desflurane may be good alternatives. A major part of any anesthesia method in the ambulatory setting is a proper multimodal prophylaxis against nausea and pain.

PS15.02 114.00 Surgical methods: Quality and efficacy

Henrik Kehlet (1)

(1) Rigshospitalet, Copenhagen University, Denmark

Henrik Kehlet, Prof. MD, PhD, Section of Surgical Pathophysiology, Rigshospitalet, Copenhagen University, Denmark Several procedures have been documented to be feasible for ambulatory surgery and the number has increased after the introduction of minimal invasive surgery. Simultaneous to the developments within ambulatory surgery multimodal rehabilitation programs (the fast-track surgery concept) have been developed in major procedures leading to major improvements in recovery with reduction of hospital stay, recovery and medical morbidity. These programs represent a combination of evidence-based optimised components of perioperative care including analgesia, fluid management, nutrition, mobilisation, minimal invasive surgery, pharmacological reduction of stress responses, adjustment of care principles (drains, tubes, catheters, etc.) with documented positive effects. These results serve as a basis to expand the field of ambulatory or semi-ambulatory surgery. The fast-track concept has emphasised the need for multidisciplinary collaboration between anaesthesiologists, surgeons and surgical nurses to achieve a "pain and risk free" operation.

References Kehlet H, Dahl JB. Anaesthesia, surgery, and challenges in postoperative recovery. *Lancet* 2003;362:1921-1928. Kehlet H, Wilmore DW. Evidence-based surgical care and the evolution of fast-track surgery. *Ann Surg* 2008;248:189-198. Kehlet H. Multimodal approach to postoperative recovery. *Curr Opin Crit Care* 2009; 15:355-358. Grantcharov TP, Kehlet H. Laparoscopic gastric surgery in an enhanced recovery programme. *Br J Surg*. 2010; 97: Auditrium 1547-51. Kehlet H, Mythen M (2011) Why is the surgical high-risk patient at risk? *Br J Anaesth* (in press)



PS 15.03 129.00 **Organization of Day Care Surgery**

Berit K Helland (1)

(1) *Akershus University Hospital, Division of Surgery, Norway*

In 2008 the Day Surgery Center at Akershus University Hospital in Norway removed to the newly built and 'most modern hospital in Europe'. The Day Surgery Center includes 8 theaters, 41 pre-and postoperative chairs and beds to facilitate at the most 12000 patients per year.

This session will address what were considered the important and decisive issues when organizing this Day Surgery Center. We will look upon the Centers infrastructure, show how organizing makes a difference, choosing for robust solutions to promote patient care and increase operative activity and look to the art of creating efficient operation programs. Approximately 25000 patients have had their operation in the Day Surgery Center since 2008. Patient-recommendation through yearly surveys show that we are headed in the right direction. Turnover time has improved from approximately 45 minutes to 12 minutes. On-time start at 8:00 o'clock has been ensured.

What were the criteria of success? Attention was focused on tailoring the patient experience and recruiting motivated healthcare providers. The later being a most cherished resource! Day surgery is a process with its success dependant on the culture, enthusiasm and philosophy of the healthcare providers who work there. We believe that we have succeeded!



PS16 New trends in Anesthesia: Drugs, devices and daily routines

PS16.01 113.00 Will sugammadex change the use of muscle relaxantia in ambulatory surgery?

Hans de Boer (1)

(1) Martini General Hospital Groningen, Haren GN, The Netherlands

The earliest reference for ambulatory surgery is mentioned as early as beginning of the 19th century. Success of ambulatory surgery can be attributed to advances in surgical technologies and in the field of anesthesiology. These advances resulted in a wide range of surgery procedures which are nowadays performed in an ambulatory setting. Furthermore ambulatory surgery is cost-effective as a result of better preoperative planning, improved anesthesia techniques and an enhanced ability to provide adequate analgesia. The success of ambulatory surgery depends to a large extent on control of postoperative pain and reduction of side-effects due to anesthesia medication. The use of newer anesthetic drugs, including neuromuscular blocking drugs and its reversal agents, permits greater ease of titration, earlier awakening and decreased discharge times.

Based on the general anesthesia triad of balanced anesthesia, neuromuscular management should be based on the choice of an appropriate neuromuscular blocking drug, adequate monitoring and reversal of that neuromuscular block. Sugammadex is the first selective relaxant binding agent which was originally designed to reverse a rocuronium-induced, which is considered an ideal relaxant, neuromuscular block, but also proved effective in reversing a vecuronium-induced neuromuscular block. It is able to reverse a rocuronium-, or vecuronium-induced neuromuscular block.

PS16.02 100.00 Target controlled infusion of propofol and remifentanyl: Is it worth the trouble?

Hugo Vereecke (1)

(1) Universitair Medisch Centrum Groningen, The Netherlands

Quality control of anesthesia has become more and more important, owing to the evolution in perioperative management. New surgical approaches and a changing patient population makes it mandatory to manage anesthesia in a fast, robust, reproducible and -most importantly- safe way. Certainly, during anesthesia for ambulatory surgery, optimal drug titration can assist to enhance smooth anesthetic outcome. Hereby, a wide spectrum of pharmacological actions (analgesia, hypnosis, and suppression of somatic and autonomic responses to noxious stimuli) needs to be controlled. The technology of target controlled infusion (TCI) provides an optimized (individualized) control of drug titration that also provides validated quantitative information on the patient's state, which in turn is a tool to improve predictability of the general anesthetic state 1.

The ultimate goal when administering a particular dose of an anesthetic or analgesic drug is to obtain the desired clinical effect as predictable as possible. Moreover, once a desired effect is reached it needs to be maintained over time, without hampering recovery duration. Individual anesthetics give a unique spectrum of pharmacological actions, so the concept of a common depth of anesthesia may need to be revisited to reflect the separate clinical components of the ideal anesthetic state 2. To reach these high standards of care, an optimal titration of both anesthetic and analgesic drugs is required. Total intravenous anesthesia may be most beneficial for day-case surgery with regard to titration of separate components of anesthesia, with a high quality of recovery, lack of complications (overdosing) and the ability to sustain an efficient throughput of patients 3.

Unfortunately, in current anesthetic practice, intravenous drugs are still predominantly administered using standard dosing guidelines, ignoring the large inter-individual variability in the dose-response relationship. Optimal patient-individual dosing demands the application of computer-controlled continuously updated infusion rates based on mathematical models, and the use of data from measurable clinical effects or carefully selected surrogate measures. TCI technology provides such information, both on the pharmacokinetic behavior of the drug (= plasma- or central compartment concentration), as well as on the specific therapeutic concentration of the drug at the "receptor"-site (= the effect-site concentration), including information on expected drug concentration decline times. All



this information allows a mathematically optimized and more individualized control of two major components of anesthesia.

TCI is an infusion controlled in such a manner as to achieve a user-defined drug concentration in a "body compartment" of interest. A clinician using a TCI system to administer an intravenous hypnotic or opiate is thus able to set a desired ("target") drug concentration, and adjust it based on clinical observation or measurement of drug effect. TCI systems use multi-compartmental pharmacokinetic models to calculate the infusion rates required to achieve the target concentration. A computer or microprocessor performs the complex calculations, and controls the infusion pump. Classically, plasma or effect-site concentrations are targeted 4. TCI technology is commercially available throughout most of the world except the USA.

Recent studies have not shown that plasma targeted propofol TCI systems facilitate more accurate control of anesthetic depth than manually controlled infusions 5,6. This is due to the hysteresis phenomenon between dose and response. Because the plasma is not the site of drug effect, effect compartment controlled TCI has proven to offer more accurate control of the dose-response relationship and may be an optimal solution to control the related clinical effects 7-9. In combination with effect monitoring, effect target-controlled infusion, as well as the introduction of new short half-life molecules that do not accumulate have made anesthesia in day surgery safer. The use of depth of anesthesia monitoring made it possible to determine the target concentration of propofol that induces a narcosis sufficiently deep and strictly necessary for effectiveness, thus minimizing the anesthesiological risk linked to the use and the dosing of the drug, reducing the hospitalization time, and decreasing the side effects for patients undergoing day surgery 10. For deep sedation in spontaneously breathing patients, it has been shown 11 that the combination of remifentanyl and propofol offered better conditions for procedural sedation than propofol alone; and that TCI remifentanyl administration was associated with reduced propofol dosing and a lower incidence of apnea and respiratory depression, compared to manually controlled administration. Others have confirmed this finding 12.

Overall, optimizing intravenous drug administration by applying pharmacokinetic-dynamic based drug infusion in combination with modern effect measures has been shown to result in accurate and safe anesthesia during ambulatory surgery.

PS16.03 134.00 Can we skip preoperative testing before Day Surgery?

Sven Felsby (1)

(1) Aarhus University Hospital Skejby, Denmark

Preoperative lab screening is still widely used in day surgery. Available evidence suggests that the majority of routine lab tests may be omitted. The lecture will present the actual evidence and the resulting recommendations for a rational screening plan upon a selective basis rather than routine testing. The change will be time- and cost saving.



PS17 Samba meeting: Current Controversies in Ambulatory Anesthesia

PS17.01 127.00 **The Safety of Anesthesia in Infants and Young Children What should we tell parents?**

Raafat Hannallah (1)

(1) SAMBA / CNMC, Washington, United States of America

Parents usually inquire about the risk of anesthesia in their children. It is reasonable to assure them that the risk of mortality in an otherwise healthy child undergoing ambulatory surgery is exceedingly small, although not zero. This of course is based on an assumption that the facility is adequately staffed and equipped to perform anesthesia and surgery on small children. Anesthesia-related morbidity, however, is relatively higher in infants younger than one year of age than in older children. Recently, there has been some concern about the safety of general anesthetics in young infants. GABA agonist & NMDA antagonist anesthetics can cause apoptotic neuro-degeneration and long-term locomotive and cognitive deficits in infant rodents and non-human primates. Moreover, some epidemiological studies suggest that brief anesthetic exposure during early infancy may be associated with increased risk of learning disabilities later in life. However, it remains debatable whether the disability is attributable to anesthesia, the impact of the surgical procedure, concurrent illness, or other factors. It is to be emphasized that the human relevance of drug-induced neuro-apoptosis has not been established. One must be familiar with the current literature (see: Creeley CE & Olney JW. *Anesth Analg* 2010;110:442-8) and be prepared to explain the findings to parents who ask for reassurance.

PS17.02 128.00 **How can clinical registries improve safety in ambulatory anesthesia?**

Lucinda Everett (1)

(1) Massachusetts General Hospital, Boston, United States of America

Providing optimal outcomes and controlling health care costs are international priorities. In the United States, government agencies, payors, accrediting agencies, professional groups, and quality collaboratives have all put forward programs improve health care quality. Common themes seen in quality and safety efforts include 1) error-reduction initiatives 2) implementation of evidence-based safe practices 3) use of information technology (electronic record and order entry) 4) public reporting of outcomes and 5) aligning payment policies with quality (pay for performance). A number of organizations have developed database projects to get better access to meaningful outcome data, both for the direct benefit of understanding outcomes, and to provide an evidence base for performance measures. Within anesthesiology, a number of subspecialties are in the process of constructing database projects. The American Society of Anesthesiologists has recently funded and begun the Anesthesia Quality Institute/National Anesthesia Clinical Outcomes Registry. The Society for Ambulatory Anesthesia's Clinical Outcomes Registry (SCOR) is designed to track and report routine outcomes on a large number of patients as well as collecting and analyzing serious adverse events. Ambulatory anesthesia and surgery have changed the landscape of health care over the past 25 years, providing safe and cost-effective care for many procedures. While we know that ambulatory anesthesia is overall very safe, large scale information about specific outcomes or best practices is limited. This session will discuss clinical registry projects in anesthesia and surgery and their potential future impact.



PS17.03 122.00 Regional Anesthesia in Ambulatory Surgery: The Disadvantages

Thomas Cutter (1)

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While regional anesthesia (RA) in the ambulatory setting is enjoying a renaissance, it may not be the panacea that many make it out to be. While it has many advantages, it also has its limitations. RA is operator dependent and results are not always reproducible in institutions that do not have a tradition of using peripheral nerve blocks done by practitioners with experience comparable to those who do the studies. It is technically more difficult than general anesthesia, requires advanced training, and has an inherent failure rate greater than general anesthesia even in trained hands. Not only is there the potential for traumatic or chemical injury to the nerve proper, there's also the issue of systemic toxicity, and wrong-sided block, leading to a significant incidence of complications. There are those who believe that ultrasound enhances safety of regional anesthesia, however there is no clear evidence that ultrasound decreases risks when compared to other techniques for regional anesthesia. The placement of catheters has also been promoted by many anesthesiologists especially in the same day setting. However, it is more resource intensive in terms of materials, time spent during procedure, and follow up. There are also risks associated with placing the catheter and with its management outside of the hospital.



Tuesday 10 May 2011 at 1530 – 1700

PS19 Nordic session III

PS19.01 **ASA and day surgery: Routines and consensus**
Not available at the time of production

PS19.02 3.00 **Pain treatment: The combined responsibility by nurses and anesthesiologists**

Jan Jakobsson (1)

(1) Karolinska Institutet, Sweden

Pain after surgery is somewhat expected but should be handled to minimise the suffering. Today the goal is to keep pain at a low level and avoid the experience of moderate to severe pain. Most institutions has an internal standard to keep pain below 4 out of 10 on a pain VAS scale. Experience of moderate to severe pain is not only associated to patient suffering and reduced quality of care but frequently related to prolonged hospitalization. Thus efforts to provide safe and efficacious pain therapy is of huge importance.

It is still not possible to make any sensitive assessment for the individual patient risk for experiencing moderate to severe pain. Procedure specific pain management has been suggested by the PSOSPECT org collaboration, <http://www.postoppain.org/>. Postoperative pain and comparison of analgesic effect of different oral analgesics is provided by the Bandolier home page, <http://www.medicine.ox.ac.uk/bandolier/booth/painpag/acute.html>.

Pain and distress during ambulation is still not uncommonly reported by patients after discharge and lack of structured and standardised adoption of pain management program is still not uncommon. In order to improve pain management structured and standardised routines needs to be adopted. All personnel involved in the care of patients undergoing ambulatory surgery should contribute and take their responsibility to provide, information about pain and pain management, describe and support appropriate pain management protocols, provide further pain therapy when request.

Follow-up and evaluation of pain management not only during the in-hospital course but during the entire post discharge period should be part of quality control.

PS19.03 **Arthroscopy procedures in day surgery: Developments and future**
Not available at the time of production



PS19.04 21.00 Follow-up and outcome for up to 6 months after day surgery.

Metha Brattwall (1)

(1) Sahlgrenska University Hospital, Gothenburg, Sweden

The aim was to investigate recovery, focusing on development and restoration of health related quality of life parameters to improve knowledge of the postoperative course for different typical day surgery procedures. Inguinal hernia repair (n=107), arthroscopic procedure (n=122) and cosmetic breast surgery (=126) were studied, in all 355 patients.

Methods: We used patients' self-assessed questionnaires, preoperative health profile with 8 parameters as a starting point. The same questionnaire was to be answered after 1 week, 2 weeks, 1 month, 3 months and 6 months. Summary of results: The 8 items studied were pain, immobilisation, depressed mood, self-care, social activity, sleep, disturbed sex activity and analgesic use. The normal course for restitution of symptoms was procedure specific. Most of patients were at preoperative level after 2 weeks but many patients still suffered from pain even after 6 months. Hernia surgery patients were improved already after 2 weeks, arthroscopy patients not even after 3 months. Breast surgery patients group without any symptoms before surgery was not recovered before after 4 weeks. Pain was the worst symptom for all groups. Patients with preoperative pain more frequently reported pain at recovery room and after 1 week. 19% of patients had pain deviation remaining from surgery after 1 month and 8% used analgesics, After 6 months, more than 5% of patients had pain, which means that they by definition had persistent postsurgical pain.

Conclusion: Different types of day surgery have procedure specific recovery where pain is the most important symptom.



FP03 Free Paper III

FP03.01 24.00 Emergency day case surgery: a new oxymoron?

Kenneth Coenye (1), L Van Outryve (2)

(1) AZ Jan Portaels, Vilvoorde, Belgium

(2) AZ Sint Lucas, Ghent, Belgium

In having to perform emergency surgery, surgeons are not only faced with the specific types of patients, but also with availability of ward beds, of theatre slots and of experienced surgeons to be able to carry out the operation. This often results in patients waiting for their surgery, whilst having poor pain control, prolonged or unnecessary fasting and eventually a prolonged hospital stay. The day surgery unit (DSU) can help by opening free slots for emergency patients or planning patients in the next 24 to 48 hours. To do this, suitable patients and pathologies need to be identified. We randomly interrogated 30 DSU in Belgium about their readiness to accept emergency surgery patients. In 21 of these centres, accepting emergency patients within maximum 36h after admission is standard of care for a list of specific pathologies (incomplete miscarriage, orthopaedic emergencies, superficial surgery, ...). Upon study of the literature, we note that performing emergency surgery in the DSU reduces time-to-surgery and overall hospital stay, while there is no difference in postoperative complication rates or patient satisfaction. Furthermore, the overall cost is lower per patient. In conclusion, we can state that protocols should be established, permitting to identify the emergencies and the patients suitable for treatment in the DSU. An experienced nurse or physician should coordinate the clinical pathways concerning these emergency day cases.

FP03.02 83.00 Cataract surgery-the medical profile of cataract patients

Maria Janecskó (1), G Németh (2), K Nagy (1), E.M. Gamal (1)

(1) Day Surgery Center Budaörs, Hungary

(2) Day Surgery Center Százhalombatta, Hungary

Objectives: cataract surgery is the most commonly performed operation in elderly people. This surgery has been performed almost exclusively as an outpatient procedure with topical anaesthesia. Concerning the literature, the rates of perioperative morbidity and mortality are low. Nevertheless, because patients with cataracts tend to be elderly with co-existing diseases, are at higher risk for adverse events in the perioperative period.

Methods: in our Day Surgery Center 1073 cataract surgery were performed in the years 2008-2010. 1073 patients: 639 female, 434 male. Mean age: 70 years. ASA risk class: II-III. Co-existing diseases: None: 236 (22%), One: 386 (36%), Two or more: 451 (42%). The most common co-existing diseases: hypertension, ischaemic heart disease, diabetes mellitus, COPD.

Results: intraoperative medical events (38%): hypertension, arrhythmia, hyperglycaemia. More intraoperative complication were found in patients with a higher ASA risk class. No serious adverse events occurred in any of the patients.

Conclusion: elderly patients scheduled for cataract surgery suffering two or more co-existing diseases are at higher risk for adverse events. The stress situation can course perioperative adverse events as well. The anaesthesia preassessment clinic plays an important role in the evaluation of the patients. Positive suggestion applied during the perioperative period are stimulating for the patients in terms of their subjective experience of surgery.



FP03.03 46.00 Initial results of a thyroid day surgery program in a local hospital: experience matters

Josep Martí (1), S Llorca (1), L Hidalgo (1), J Barja (1), M Prats (1), J de la Cruz (1), X Suñol (1)
(1) Hospital de Mataro, Spain

BACKGROUND: in our hospital both processes of thyroidectomies and day surgery are well established. We aimed to describe the initial experience of introducing day thyroid surgery in our hospital.

MATERIALS AND METHODS: from January 2009 to October 2010, 110 patients underwent thyroid resection procedures in our Hospital. Among them, 32 (29.1%) patients were proposed for day surgery for thyroid resection based on previously established selection criteria (no serious associated illnesses, non-functional nodules smaller than 5cm, no previous thyroid surgery, no serious intraoperative events, patient's acceptance for day surgery). We analysed the intraoperative events and postoperative evolution including complications, pain and the need for postoperative admission.

RESULTS: operative procedures were: isthmectomy (6.2%), nearly-total hemithyroidectomy (50%) and total hemithyroidectomy (43.8%). There were no intraoperative complications and 23 patients (72%) completed the non-admittance process. The main reasons for patient admittance were a more extensive procedure than planned (44%) and haemorrhage/haematoma suspicion (33%). Hospital stay for all admitted patients was 1 day. Three patients (13%) experienced postoperative complications after discharge but none needed admission. No patients needed reoperation. Mean postoperative pain (Visual Analogic Scale) at 24 hours after day surgery procedure was 1 (range: 1-3).

CONCLUSIONS: introduction of a day thyroid surgery program in our hospital was a successful and safe procedure. Initial good experience in day surgery and thyroid surgery are crucial for implementation of this surgical modality.

FP03.04 17.00 Patients' experiences of the social aspects of Day Surgery

Anne Mottram (1)9
(1) University of Salford, United Kingdom

The objectives of the study were to explore patients' perceptions of the social and personal aspects of the day surgery experience.

Method: 145 patients and 100 carers in two day surgery units in the United Kingdom were recruited to the study. Semi-structured interviews took place on three occasions: in the pre-operative assessment clinic, 48 hours after surgery and one month following surgery. Patients were recruited from the general surgical, orthopaedic and ear nose and throat lists. Ethics permission was received from the Local Research Ethics Committee and the senior management teams of the two units.

Results: Patients liked day surgery because of the speed and efficient service and less disruption to their lives. They also perceived it to be less risky than in-patient care in terms of preventing hospital acquired infection. However there were some disadvantages in that patients do not always realize the serious nature of their surgery; carers and employers did not always recognise that patients needed time for recovery; and professional support after discharge may not always be forthcoming.

Conclusions; although day surgery is acceptable to the majority of patients provision must be made for adequate professional support following discharge and appropriate information concerning all aspects of the day surgery experience should be supplied.



FP03.05 42.00 **New possibilities in the introduction of cost-weight based, performance oriented financing system in ambulatory surgery**

György Polyvás (1), M Gamal-Eldin (1)

(1) Hungarian Association For Ambulatory Surgery, Hungary

Objectives: To evaluate the DRG related cost - weights through the measurement of direct costs of the frequent ambulatory surgery (AS) interventions in stratified representative samples.

Methods: in Hungary all interventions are reimbursed due to DRG - based financing. The maintenance of DRG groups was not revised in the past two decades. In this study we investigated the relationship between direct cost - weights and actual DRG reimbursements. We applied questionnaire - based, prospective follow up study design involving complex monitoring methodology. Other available financial data in the Institute had been taken into consideration (with especial care to secondary and tertiary healthcare costs).

Results: the reimbursement of most of the investigated AS interventions due to DRG seemed to be underfinanced with respect to direct cost - weights. In comparison with the econometric rates in a given DRG group, we also found alterations within the real cost rates.

Conclusion: we think that the financing of AS interventions should be globally and radically revised and reformed, based on direct cost measurement as well as econometric evaluation of DRG groups. An independent budget based on financial protocols can also be discussed in the near future. In the future the involving of healthcare authorities is also required and of great importance in our activity.

FP03.06 41.00 **Less Invasive Signature Arthroplasty (LISA)**

Emmanuel Thienpont (1)

(1) University Hospital Saint Luc, Belgium

Introduction/ Less invasive surgery becomes more popular thanks too the wish to reduce hospitalization time and to improve patients outcome.

Materials & methods/ We reviewed 200 patients that underwent LIKA arthroplasty. We analyzed their ROM, pain, bleeding and hospital stay. LISA uses Patient Specific Instruments (PSI) for prosthesis implantation.

Results/ Hospital stay was 3 days. Pain was controlled by multimodal pathway. Walking without crutches was possible D+1. Postoperative Hb level was 13 mg/dl.

Conclusion/ LISA reduces soft tissue damage during total knee arthroplasty. Better clinical results are observed. Alignment was within normal range.



FP03.07 49.00 Benchmarking Day Surgery performance in the United Kingdom

Mark Skues (1)

(1) British Association of Day Surgery, United Kingdom

Introduction: The British Association of Day Surgery (BADS) first published a Procedure Directory in 2006 that resulted in the realignment of aspirational benchmarks for ambulatory care in the United Kingdom (Jackson IJB, McWhinnie D, Skues M. *Ambulatory Surgery* 2010;16.4:87-9). Commensurate with the ongoing refinement of the Directory, has been the development of computer software by the Association, the BADS Efficiency Assessment Tool, (BEAT) allowing individual hospitals to compare their performance by Directory remits. This paper describes the development, uptake and use of BEAT with such evaluation.

Methods: Procedure Directory recommendations for expected length of stay for over 180 surgical procedures were programmed into Microsoft Excel, with a unique algorithm providing an efficiency score for each operation, surgical speciality and overall hospital performance. The suite of programmes was then marketed under the auspices of BADS, with subsequent adoption by other commercial and non profit making organisations involved with benchmarking national Day Surgery performance. Users of BEAT had the option of submitting their own anonymised data that was then collated and distributed to other contributors.

Results: To date, BEAT has been distributed to over 40 hospitals, with commercial partners offering a further 60 potential clients. Comparative performance review would suggest that exemplar hospitals are achieving a level of 80-90% of Procedure Directory remits at this time.

Conclusions: BEAT has provided useful insight into the current status of day surgery performance within the United Kingdom, and on this basis, would recommend the wider adoption of a similar model within the IAAS Community.

FP03.08 75.00 Pioneering Day Surgery in a developing country - India

Naresh T Row (1), P G Dande (1), N Bonday (1), SP Dande (1)

(1) One Day Surgery Centre-Babulnath Hospital, India

Intro.: Day Care surgery is an established norm for dispensing High Quality, affordable surgery to patient population in General. These surgeries do not require overnight hospital stay, a complete OT set up & back-up is mandatory. The recovery time is cut short due to advancement in technology and better drugs.

Aim: Why is Day Care Surgery the Mother of all Surgeries? Let us establish this fact by submitting data for analysis.

Material & Method: Collection of data & analysis of reasons as to why Day Surgery is now growing, need for such surgeries and how to establishing safe practice was done. There is a shortage of 42,000 beds in Mumbai alone. The Bed: Patient ration is still 1:1462, in Mumbai.

Discussion: Hospital acquired infection, better recovery in familiar surroundings, use of superior anaesthetics drugs, short acting anaesthesia, minimal dissection, minimal invasive methods, utilization of regional and local blocks, need of early recovery & saving of 'man hours' at work, are some of the established facts. Protocols & safe practice parameters proposed by The Indian Association of Day Surgery, increases patient safety & help as guidelines for surgeon & hospital in setting-up DSC.

Conclusion: Day Care Surgery is Mother of all surgeries & future of modern surgery. As this modality caters to planned, non emergency surgeries, dispensing secondary surgical care, by utilizing the best of all surgery and anaesthesia, across almost 10 surgical speciality.



FP03.09 53.00 Well-being among staff at daysurgery units in central Sweden

Yvonne Wahlberg (1)

(1) Neurologydiv. /ENT. University hospital, Sweden

Objectives: To explore the well-being among staff at day-surgery-units and to identify if higher demands regarding cost-effectiveness can be combined with high quality nursing care, as the area of day surgery have limited postoperative care.

Methods: A postal survey was sent to all nursing staff (nurses and assistant nurses, n=104) at seven day surgery units in central Sweden. The survey covered areas such as holistic view, core values, participation, information, competence, companionship and staff-meetings at the units. In total 41 questions were posed with fixed answer alternatives ranging from "totally agree" to "do not agree at all". As a reminder, the head of the department received a telephone call three weeks after the postal survey was sent out.

Results: 41 surveys were answered. 23 surveys were returned unanswered because the unit worked with both in- and outpatient surgery and therefore regarded that they did not meet the inclusion criteria. The remaining 40 surveys were not returned. Preliminary results show that there was a wide range (years) of experience among the nurses. No assistant nurses worked in the units that responded. Overall, the nurses perceived that they participated actively and could influence their working situation, were well informed, developed their professional skills and that the work was well organised.

Conclusion: It seems as if day-surgery-unit staff perceives high levels of well being and that the development of effective day surgery units has no negative influence on the staff.



PS20 State of the art in vascular, plastic and ENT day surgery

PS20.01 1.00 Plastic surgery procedures as Ambulatory Surgery in Australia

Hugh Bartholomeusz (1)

(1) Greenslopes Private Hospital, Australia

Since the mid 1980s plastic surgery procedures in Australia have been routinely conducted in an ambulatory surgery setting. Most of the early operations were of a minor nature, conducted under local or regional anaesthesia. In the last fifteen years with the rapid growth in the number of Day Surgery Centres in Australia, the scope of these procedures has exponentially grown to include large and complicated procedures under general anaesthesia. The author will detail the extent of these procedures and outline a rationale for their safe conduct in licensed and accredited facilities.

PS20.02 103.00 Pediatric ENT as Day surgery

Petri Mattila (1)

(1) Helsinki University Central Hospital, Denmark

ENT surgery is one of the most frequent surgical procedures among children and it is mostly performed as day surgery. For successful day surgery it is essential to have appropriate rooms for preoperative preparations as well as separate rooms for immediate and late recovery after anaesthesia. For easy transfer of patients between each treatment point, it is important that the physical distance between preoperative, operation, and postoperative rooms is short. In our Otolaryngology Department at Helsinki University Central Hospital young children are usually not given any premedication. Anaesthesia is induced with sevoflurane mask ventilation with subsequent insertion of i.v. catheter, fentanyl administration, and intubation. If only tympanostomy tubes are inserted, intubation is not performed and the anaesthesia is continued with mask ventilation. Postoperative emesis is controlled with dexamethasone and tropisetron. As the operation times are short for most pediatric ENT operations such as tympanostomy, adenoidectomy and tonsillectomy, day surgery allows the performance of many surgical procedures during a working day, as the time between operations is usually short.

PS20.03 104.00 Trends in vascular surgery

Jørn Jepsen (1)

(1) Lillebaelt Hospital, Denmark

During the last 10 - 15 years the main trend in development of vascular surgery has been changing from open operation toward endovascular treatment. Occlusive disease in the iliac arteries is now mainly treated with stents ("kissing stents") and the classic reconstruction with an aorto-bifemoral bypass procedure is now infrequent. Even infrainguinal stenoses and occlusions can now be treated with balloon angioplasty, stents or stentgrafts. As for bypass procedures, also endovascular treatment can now be applied to very peripheral arteries as the foot arteries and pedal arch.

Technological development with smaller sized sheaths for introduction of balloons and stents as well as introduction of closure devices has diminished the need for postprocedural bed rest and observation. A substantial part of the endovascular procedures are therefore nowadays performed in an ambulatory setting. Endovascular treatment of abdominal aortic aneurysms (EVAR) was introduced 20 years ago. New generations of devices are constantly introduced resulting in better outcome. In old patients or patients with increased operative risk EVAR is now preferred to open surgery.

Although length of stay after EVAR is significantly shorter compared to open surgery it is not yet possible in an ambulatory setting. Another important trend in vascular surgery is integration of systematic treatment of hypertension, diabetes, hyperlipidemia, smoking and sedentary life style as well as platelet inhibition in every patient treatment protocol. Organization of hospitals, treatment algorithms and educational programs must reflect the integration of the surgical, endovascular and conservative skills in the staff of vascular surgical departments.



PS21 Perioperative pain relief

PS21.01 119.00 Postoperative pain treatment in ambulatory surgery

Joergen B. Dahl (1)

(1) Rigshospitalet and Copenhagen University, Denmark

In recent years, our understanding of acute pain mechanisms has advanced, and provided us with new tools in the treatment of postoperative pain. New concepts such as “procedure-specific”, “multimodal” and “opioid sparing” has challenged more traditional treatment strategies (1,2).

Technical advances may offer new possibilities within the field of regional analgesia (3).

This presentation will provide brief reviews of the clinical value of various treatment options developed on the basis of results from basic research, new concepts and technical developments, with a special focus on ambulatory surgery.

1.Elvir-Lazoa OL, White PF. The role of multimodal analgesia in pain management after ambulatory surgery. *Curr Opin Anesthesiol* 2010; 23:697–703. 2.Dahl JB, Mathiesen O, Kehlet H. An expert opinion on postoperative pain management, with special reference to new developments. *Expert Opin Pharmacother* 2010;11:2459-70. 3.Lund J, Jenstrup MT, Jæger P, Sørensen AM, Dahl JB. Continuous adductor-canal-blockade for adjuvant post-operative analgesia after major knee surgery: preliminary results. *Acta Anaesthesiol Scand* 2011;55:14-9.

PS21.02 126.00 Perioperative pain relief - regional anaesthesia

Narinder Rawal (1)

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Over the past two decades ambulatory surgery has grown dramatically and now accounts for the majority of surgery performed in USA, some European countries and Australia. The major advances in anaesthetic techniques include the use of rapidly dissipated anaesthetic agents and increasing use of regional anaesthetic techniques.

Adequate postoperative analgesia is a prerequisite for successful ambulatory surgery and continues to be a challenge for anaesthesiologists and surgeons. Studies show that 30-40 % of discharged ambulatory surgical patients suffer from moderate to severe pain during the first 24-48 hr (1,2,3). This pain decreases with time but it may be severe enough to interfere with sleep and daily functioning. Furthermore, postoperative pain is the most common reason for unanticipated hospital admission.

Role of perioperative regional anaesthesia

With modern general anaesthesia techniques recovery after surgery can be both rapid and complete. However, in many day-care patients regional anaesthetic techniques might be preferable. Regional anaesthesia by epidural, spinal, peripheral nerve blocks or field block techniques can reduce or avoid the hazards and discomforts of general anaesthesia and offers a number of other advantages such as analgesia without sedation, earlier discharge and prolonged postoperative pain relief. Local or regional anaesthesia can be used alone, in combination with sedation techniques or as part of balanced analgesia with general anaesthesia. Decreased requirements of opioids reduce the incidence of postoperative nausea. Recent advances in spinal anaesthesia include: use of small diameter “pencil point” needles to reduce the risk of PDPH, combining ultra-low doses of local anaesthetic with lipophilic opioid for “walk-in,walk-out” spinals, avoidance of lidocaine to reduce the risk of TNS and implementation of fast-track protocols as well as changes in discharge routines.

Extending regional techniques at home

Oral analgesics are the mainstay of continuing pain control at home. Strong opioids have generally been avoided in the past because of their well-known side effects including the risk of respiratory depression. However, the use of strong opioids is increasing because previous inpatient surgical procedures are becoming day cases. Our recent nationwide survey showed that over 50 % of anaesthesiologists prescribe strong opioids (oxycodone, ketobemidone) for pain management at home(4)



It is well accepted that regional techniques are superior to opioids for management of postoperative pain. With the advances in catheter and disposable pump technologies, it is now possible not only to provide superior analgesia with wound catheter infusions (WCI) and continuous peripheral nerve blocks but also to send patients home with these devices(5). A recent literature review showed that continuing perineural infusions at home improved postoperative analgesia, reduced opioid consumption and reduced sleep disturbance (6). However, perineural techniques are technically challenging and have a potential for complications due to catheter migration and falls due to motor weakness (7), this requires advanced home care and is therefore practical in selected institutions only (8). WCI offers the possibility to provide potent site-specific analgesia. There is good evidence that this simple and safe technique is effective for a large variety of surgical procedures (9,10). CWI with a disposable pump, with or without a patient-controlled bolus, may provide several days of analgesia. It can be easily combined with a single-injection peripheral nerve block, or with oral non-opioid analgesics as a component of multimodal analgesia. WCI is a routine method for managing postoperative pain at home in many Swedish ambulatory centres (4) and the use is increasing.

References:

- Rawal N, Hylander J, Nydahl P-A, et al. Survey of postoperative analgesia following ambulatory surgery. *Acta Anaesthesiol Scand* 1997;41:1017-22.
- Wu CL, Berenholt SM, Pronovost PJ, et al. Systematic review and analysis of postdischarge symptoms after outpatient surgery. *Anesthesiology* 2002;96:994-1002.
- McGrath B, Elgendy H, Chung F, et al. Thirty percent of patients have moderate to severe pain 24 hr after ambulatory surgery: a survey of 5703 patients. *Can J Anaesth* 2004;51:886-91.
- Segerdahl M, Warren-Stomberg M, Rawal N et al. Clinical practice routines for day surgery in Sweden: results from a nation-wide survey. *Acta Anaesthesiol Scand* 2008;52:117-24
- Rawal N, Axelsson K, Hylander J, et al. Postoperative patient-controlled local anesthetic administration at home. *Anesth Analg* 1998;86:86-9.
- Ilfeld BM, Enneking K. Continuous peripheral nerve blocks at home: A review *Anesth Analg* 2005;100:1822-33
- Ilfeld BM, Moeller LK, Mariano ER et al. Continuous peripheral nerve blocks. Is local anesthetic dose the only factor, or do concentration and volume influence infusion effects as well? *Anesthesiology* 2010;112:347-54
- Hadzic A, Gadsen J, Shariat AN. Local and nerve block for analgesia after shoulder surgery. (Editorial) *Anaesthesia* 2010;65:547-555
- Liu SS, Richman JM, Thirlby RC et al. Efficacy of continuous wound catheters delivering local anesthetic for postoperative analgesia: a quantitative and qualitative systematic review of randomized controlled trials. *J Am Coll Surg* 2006;203:914-32
- Macintyre PE, Schug SA, Scott DA et al *Acute pain management: scientific evidence* (2010, 3rd edition) www.anzca.edu.au



PS21.03 132.00 Nausea as result of pain?

Paul F White (1)

(1) Los Altos, CA, United States of America

It has long been recognized that patient, anesthetic and surgical factors all contribute to the persistently high incidence of emetic symptoms in the ambulatory setting . With the increasing emphasis on earlier mobilization and discharge (“fast-tracking”) after minor operations, postoperative factors like postural hypotension and use of oral opioid-containing analgesics have become more important contributing factors to nausea and vomiting in the post-discharge period .

Compared with integumentary, musculoskeletal and superficial surgeries, patients undergoing neurological, head or neck, and abdominal procedures were administered antiemetic rescue medication significantly more often in the recovery room . Female, nonsmoker, history of PONV or motion sickness, anesthesia duration, and intraoperative and postoperative opioid administration were significantly associated with antiemetic administration following admission to the PACU. Sinclair et al did an extensive analysis of a large outpatient database and identified the following independent predictors of PONV: age, type of anesthesia, gender, type of operative procedure (e.g., gynecologic laparotomy), and duration of surgery. Subsequently, Apfel and colleagues developed a simplified risk scoring system that identified 4 primary predictors: female sex, nonsmoking status, history of PONV or motion sickness, and use of postoperative opioid analgesics. Importantly, the number of preexisting risk factors that patients presented with prior to surgery was directly related to the incidence of nausea and vomiting in the postoperative period.

The known risk factors have been integrated into guideline-supported treatment algorithms for PONV , , . The use of these risk factors as a guide for the management of surgical patients requiring antiemetic prophylaxis has been associated with a lower incidence of PONV compared to a non-selective approach to providing prophylaxis. , However, a recent study involving high-risk patients found a high incidence of PONV despite the frequent use of multiple antiemetic drugs for prophylaxis. Interestingly, the level of surgical experience has been found to influence the incidence of emetic sequelae following ear, nose, and throat surgery. The likely explanation is that more highly skilled surgeons have shorter operating times and the duration of surgery has been previously shown to influence the incidence of PONV in the ambulatory setting.

As mentioned above, both patient risk factors and the choice of anesthetic technique are important factors in minimizing the incidence of PONV and post-discharge nausea and vomiting (PDNV). With respect to PDNV, the original Apfel criteria are less predictable. The requirement for opioid analgesics in the recovery room, as well as the occurrence of emesis in the PACU, is both predictive factors for PDNV . Use of PNBs and/or local infiltration anesthesia (a so-called MAC technique) is associated with a lower incidence of emetic sequelae than general anesthesia . The most important factor may be minimizing the perioperative use of opioid analgesics by utilizing a variety of non-opioid analgesics (e.g., local anesthetics, acetaminophen, non-steroidal anti-inflammatory drugs [NSAIDs]) . Compared to the commonly used steroids, the parenteral NSAID ketorolac was superior for analgesia and antiemesis in the PACU . In addition, rather than relying solely on opioid analgesics to control transient autonomic responses during surgery, use of sympatholytic drugs (e.g., esmolol, labetalol), alpha-2 agonist/antagonists, and ketamine during surgery can reduce postoperative emetic sequelae due to their anesthetic and analgesic-sparing effects , , . When administering general anesthesia, the choice of drugs used for maintenance of anesthesia (i.e., inhaled agents vs. propofol) has an important effect on the development of PONV in the early postoperative period. , Improving the titration of volatile anesthetics by using a bispectral index monitor may also reduce the emetic sequelae after ambulatory surgery and accelerate the recovery process. ,

Postoperative factors that can increase nausea and vomiting include severe pain requiring opioid analgesics, hypotension due to inadequate hydration, premature ambulation and movement, and forcing oral fluids. In particular, pain is an important complicating factor because oral opioid-containing analgesics are commonly prescribed in the post-discharge period. Hydration status also plays a critical role in the development of PONV . For example, a liberal (40 mL/kg) versus restrictive (15 mL/kg) approach to the hydration of outpatients undergoing laparoscopic cholecystectomy was found to improve organ function in the postoperative period, reduce emetic sequelae, and shortened the length of stay in the PACU and the time to discharge home. Therefore, ensuring adequate



hydration of the elderly outpatient during the perioperative period is extremely important in order to minimize postoperative complications after ambulatory surgery.

A wide variety of antiemetic agents are available for the prevention and treatment of PONV and PDNV, including antihistaminics, anticholinergics, dopamine antagonists, serotonin (5-HT₃) antagonists, and neurokinin-1 (NK1) antagonists. In a large multicenter study comparing three commonly used generic antiemetics, namely ondansetron, dexamethasone, and droperidol, Apfel and colleagues demonstrated that each agent reduced the risk for nausea and vomiting by approximately 25%. Additionally, when antiemetics with differing mechanisms of action were combined, the reduction in risk for emetic sequelae was equal to the product of the risk reduction factors of all the antiemetic therapies. The additive effect of multiple antiemetics was apparent both with volatile anesthetics and with propofol as the primary anesthetic technique. Using a multimodal management strategy with routine antiemetic prophylaxis for a high-risk outpatient population, Scuderi et. al demonstrated an increase in the level of patient satisfaction compared with symptomatic treatment.

Using the guidelines for managing PONV and PDNV published by the Society for Ambulatory Anesthesia (SAMBA), the American Society of PeriAnesthesia Nurses (ASPAN), and the American Society of Anesthesiologists (ASA), a prospective observational study of treatments, outcomes and patterns of care (POST-OP[c]) was conducted²³⁵. A large database compiled from several medical centers across the US was analyzed to determine the compliance of anesthesia providers with the published guidelines for managing patients at high risk for developing PONV and PDNV.²³⁵ Only 61% of clinicians adhered to the ASA guideline recommendations for prophylaxis even in high-risk patients. When the physicians complied, the incidence of PONV and PDNV was significantly reduced. Nevertheless, in high-risk patients who had received 2 or more prophylactic antiemetic agents, 29% of patients vomited in the first 72-h, almost 60% complained of moderate-to-severe nausea, and another 60% required rescue antiemetic medication, either in the hospital or after being discharged. Importantly, 40% of these patients reported that emetic sequelae interfered with their postoperative recovery.

For outpatients with known risk factors for PONV undergoing general, spinal or MAC anesthesia for highly emetogenic procedures, use of propofol for maintenance of anesthesia and sedation, non-opioid analgesic techniques combined with antiemetic prophylaxis using dexamethasone (4 mg) and low-dose droperidol (0.625 mg) after induction of anesthesia and/or ondansetron (4mg) at the end of surgery, is the most cost-effective multimodal therapy.



Wednesday 11 May 2011 at 0900 – 1000

PS22 Patient safety

PS22.01 **Are checklist of any use – how to improve safety?**
No abstract available at the time of production

PS22.02 52.00 **Implementation of safe surgery in a central surgical unit**
Svend Schulze (1), S Skovsø Petersen (2)
(1) Hvidovre Hospital, Gastroenheden (Surgical Section), Hvidovre, Denmark
(2) Hvidovre Hospital, Dept. of Orthopaedics, Hvidovre, Denmark

Objective: To evaluate the effect and compliance after introduction of a modified safe surgical score (SSS) in the surgical departments at a central surgical unit. Methods: A SSS modified from the original WHO SSS was established and the implementation process was monitored prospectively from 1.4.2009. Results: The overall compliance increased from 40% to 72% in the study period, with improvement of all steps included in the SSS. Most important an increase in the quality of transmission from the operating team to the recovery ward was achieved. Eventually the content of the SSS was modified throughout the study period according to the experience from using the scoring system in practice. Conclusion: The SSS seems appropriate to secure better identification, structured communication and improved transmission of the surgical patient. Objective: To evaluate the effect and compliance after introduction of a modified safe surgical score (SSS) in the different surgical departments at a central surgical unit. Methods: A SSS modified from the original WHO SSS to cover local (danish) organization was established and the implementation process was monitored prospectively from 1.4.2010. Results: The overall compliance increased from 40% to 72% in the study period, with improvement of all steps of the SSS. Most important an increase in the quality of transmission from the operating team to the recovery ward was achieved. Eventually the content of the SSS was modified throughout the study period according to the practical experience. Conclusion: The SSS seems appropriate to secure better identification, structured communication and improved transmission of surgical patients.



PS23 Hygiene and infection

PS23.01 8.00 Medical devices - recovering of sterile goods

Jacky Reydelet (1)

(1) Surgical free standing unit, Kornwestheim, Germany

Aseptic is a basic requirement of our profession for all invasive procedures in medicine or even in the 'simple'. We expect a maximum sterility of one-way items. Similarly must apply for reusable materials. These strict conditions regulate the requirements of an optimal quality. The protective measures of prevention of nosocomial infections are necessary in patients and care providers. After CDC definition postoperative infections as nosocomiale are assigned to. The correct recovering of sterile goods is a complex process. It requires additional skills, as well as sophisticated defined facilities.

The medical device directive (MDD) is the legislation, which flanked by national rules makes the framework conditions for the care of sterile goods. Specialized central sterilization departments in hospitals are useful and should guarantee that competent employees recover the material *lege artis*. It is reasonable to chair as a unit both technically and economically. It is counterproductive to own powerful resources and to use them insufficient. The same problem exists by small units, by dentists, by GP's or in free standing units. The smaller the establishment the higher the problematic of the compliance relating between quality and business management. Especially by recovering of sterile goods. We have realized the establishment of a central sterilization Department 'on the green meadow' centralization of sterile material for numerous customers care before 11 years in the Stuttgart area with the GZM. The presentation building serves to the difficulties and the successes and the need to emphasize such infrastructure in the current mess of health economics.

PS23.02 116.00 Evidence for the sterile routines in the operating theatre - special focus on dress policy for the staff, patients and visitors

Helle Amtsbiller (1)

(1) Statens Serum Institut, Denmark

Infection control work in Denmark is based on various national guidelines and standards. These are transformed and adapted into local guidelines and are an important part of the hospitals' infection control programmes. The local infection control guidelines are systematically made standard operation procedures and instructions used by healthcare staff and patients, ensuring appropriate and correct services and behaviour to meet quality demands in infection control. The Danish infection control standards were first published in 1999-2001, in collaboration between Statens Serum Institut, the Danish Standards Association, and experts from the healthcare sector. The standard specific for the sterile routines in the operating theatre is: Infection control in the health care sector - Part 5: Requirements for prevention of surgical site infections. The surgeons have raised the question whether it is necessary to dress the patients in hospital garments for minor surgery. The present standard does not address this question. During the ongoing revision process the working group has focused on this topic. As there are specific recommendations for staff attire in operating theatre, it seems logical that similar requirements should apply to patients. We have found no scientific studies on this topic; however, several local guidelines include a dress policy for patients, reflecting best practice considerations.



PS23.03 30.00 Hygiene in the operating room

Hans Jørn Kolmos (1)

(1) Odense University Hospital, Denmark

Most surgical wound infections are acquired in the operating room. They may be endogenous from the patients' own flora, or exogenous from the staff or infrequently from the environment. Good surgical technique is a key factor in minimizing risk of infection. Removal of hair from the operation site should take place by clipping or the use of depilatory cream. Preoperative skin disinfection should be performed with an alcohol based disinfectant. Adhesive plastic drapes for sterile cover of skin around the operation site have no hygienic advantage over non-adhesive drapes, and may even increase the risk of infection. Hypothermia during operation should be avoided, if possible. The risk of infection in high risk operations may be reduced by targeted antibiotic prophylaxis given as a single dose 30-60 minutes prior to surgery. Preoperative eradication of *Staphylococcus aureus* in long term carriers may further reduce the risk of infection. Members of the surgical team who are carriers of MRSA or *Streptococcus pyogenes* may give rise to outbreaks of surgical wound infections. Once identified, they should be taken out of work and not allowed to resume work until they have been decolonized. Contamination of the air in the operating theatre is dependent on room ventilation, number of persons present, and number of door openings during surgery. The number of air changes should be at least 10 per hour with excess pressure ensuring airflow from the theatre towards the less clean areas



SS3 Satellite Symposia III - IT solutions for the future

SS03 133.00 **Real time IT in the Surgical Wards - What are the benefits, how has it been realized and how do we use reporting tools for continuous improvement**

Torben Cristensen (1)

(1) Århus university hospital, Århus, Denmark

In Aalborg University Hospital of Region North, Denmark, we have focused on increasing the efficiency by use of new technology and implementation of new work processes. The first part of the presentation will focus on the implementation process and the benefits realized from implementing a real time logistics and communication system across our ambulatory and acute surgical wards. The purpose of the new system is to secure how we have the right patient in the right location at the right time with the right clinical staff for each specific task and with the right equipment packages in place - and in a manner so that no one has wasted their time getting there and so the flow of patients and staff is optimized with as much loss of time as possible in the whole process.

From an IT point of view we support this with a complete new concept for IT in hospitals where we use a software solution designed for quick interaction with very good user interface that is running on large touch screens or in local PC's or handheld devices if that's the appropriate solution for a specific place or a specific function.

The new technology uses push technology and where we earlier spent very time and energy sharing information and calling each other in order to keep the flow running in the Surgical Ward, we today are either informed through screens located in necessary place with much activity or receive the information directly to our PC or handheld device. We say that earlier the staff sought the information but today the information seeks the staff.

The software does not do it if self - it has also required implementation of new working routines which will be explained through the presentation. And combined we have experienced increased through put and a huge reduction in the number of daily disturbances of the clinicians. So with this new concept we have not only increased productivity in the surgical wards but we have also experiences a positive effect on the work environment.

The continuous interest in real time and updated information on the patient pathway ensure valid data for analysis and optimization tools.

The second half of the presentation will focus on getting these vital information out of the system in order to use them from a management point of view. We have a business intelligence system where all the timestamps from the different activities related to a patients surgery is stored and can be used for statistical purposes. With this tool we are able to for the first time based on a complete picture of our activities to very precisely measure the time span for different activities and to very clearly identify the bottlenecks in the work flow so that we are able to increase the performance and through put even further. During the presentation there will be shown specific statistical reports from the business intelligence solution and we will share how we have used this information to identify and improve specific work flow.

Facts has replaced the feelings of performance



Wednesday 11 May 2011 at 1030 – 1200

PL02 Plenary: Special problems of care

PL02.01 60.00 **How far can the patient travel for ambulatory surgery**

Olav M. Sivertsen (1)

(1) University Hospital of North Norway, Norway

The University Hospital of North Norway is the world's northernmost university hospital. The region is characterised by scattered population, long distances, lack of sun for some wintermonths, harsh and cold climate. Regardless, the travelling distance for attending ambulatory surgery is unlimited. Patients may stay overnight in a patient-hotel before attending the unit, other start traveling in the night to reach their appointments. Postoperatively thorough examination is a pre-requisite before returning. Those at risk for bleeding for instance cancer mamma patients mostly stay overnight in the patient-hotel. Tonsillectomies may reach hospital within two hours. All others principally return the same day by car, boat or up to 1000 km. by plane.

PL02.02 16.00 **Extremes of age- neonates**

Peter Ahlburg (1)

(1) Aarhus University Hospital, Denmark

Ambulatory surgery in children is done on a large scale world wide. Risk factors associated with serious adverse events in pediatric anesthesia include young age (most frequently <12 months) and coexisting disease. Respiratory complications are most frequent at young ages and the risk increases with upper airway infection, intubation and the lack of experience of the anesthesiologist. We also have to take the family in consideration. How many resources does the family have. Geography, distance to the hospital? Is there a lower age limit?. In a review 225 ex-premature were included. Apnea occurred in fewer than 5% of patients 60 weeks PCA regardless of gestational age. A hematocrit < 30% was significantly correlated with the likelihood of apnea. Assuming no apnea was witnessed in the PACU and a hematocrit > 30%, a 60-week PCA infant undergoing herniorrhaphy could be expected to experience apnea in less than < 0.05% of cases. There is no data favoring spinal and caudal analgesia to general anesthesia. The use of peripheral nerve blocks for minor surgery may be beneficial. The family with a small child needs special attention and information. This presents a challenge to the day surgery unit. Pediatric anesthesia and surgery represents a challenge and must be done by specialists. In the UK specialists are recommended in children younger than 5 years, in Scandinavia < 2 years. Conclusion: Ambulatory surgery can safely be performed in neonates and infants after careful evaluation by specialists in pediatric care.



PL02.02 23.00 Extremes of care: The 80+ patient

Ian Smith (1)

(1) *University Hospital of North Staffordshire, United Kingdom*

Greater longevity and an increased willingness to operate on older patients contribute to an increase in the proportion of elderly patients presenting as day cases. Older patients may benefit considerably from day surgery, but also present challenges in their preoperative selection, anaesthetic management and postoperative care. Age is no contraindication to day surgery, but with advancing years, the likelihood of coexisting diseases becomes greater. As with younger patients, the severity of symptoms and stability of control are the major determinants of suitability. Screening tests are not helpful. A careful assessment of social circumstances and home support is essential as the patient's primary carer is likely to be old or infirm. Sometimes it may be necessary for patients to stay with their sons or daughters in the early postoperative period and care may be necessary for partners too. Local or regional anaesthesia are well tolerated in the elderly and may produce less physiological disturbance than general anaesthesia. Where general anaesthesia is required, doses must be adjusted and carefully titrated. Postoperatively, elderly patients are less likely to experience postoperative pain, nausea and vomiting, although provision of effective analgesia is still important. Nonsteroidal antiinflammatory drugs (NSAIDs) are generally still well tolerated for short periods, but opioids should ideally be avoided, due to increased confusion and somnolence. Day surgery has the specific benefit of being less disruptive to daily routine, with recovery occurring in familiar surroundings supported by familiar carers. This may help reduce the incidence of postoperative confusional states in the elderly.

PL02.03 106.00 Social security and compliance.

Johan Raeder (1)

(1) *Oslo University Hospital, Ullevaal, Norway*

With ambulatory surgery the patient spends only a short time under our direct surveillance in the ambulatory unit. Thus, we have to rely heavily upon patient compliance to important instructions and rules, both before and after admission on the day of surgery. Important aspects will be: 1) In which areas and on what topics do we need patient compliance? 2) Are the compliance issues evidence based? 3) What do we know about the patients' actual compliance? 4) What is the consequence of patients' non-compliance: a) For the patients' safety and health? b) For the medico legal situation? Important areas of preoperative interest will be: fasting rules, non-smoking, non-alcohol, proper use of medications, information about procedure risks, patients own health declaration, compliance in showing up as planned. Post-discharge issues will include: accompanying person during travel and at home, rules about no alcohol/no car driving/no serious decisions, rules about mobilization or not, rules about when to contact the unit or other medical institutions about potential problems. We may foresee a trend in more emphasis on the medico legal aspect of compliance and our role of ensuring that instructions are properly understood. We may also foresee that patients will question the rationale for non-evidence based rules. We may have to look more closely on our routines of advice and focus more on the few and important issues. Also, to adopt a more individual approach for each patient; based on their setting in a total perspective of general health, surgical procedure and psycho-social situation.



Wednesday 11 May 2011 at 1200 – 1300

PL03 Plenary: Outcome/Quality

PL03.01 37.00 Does improving quality improve outcome?

Birgitte Majholm (1)

(1) Copenhagen University Hospital, Herlev, Denmark

Day surgery activity now accounts for more than 50% of elective surgical procedures in US, Australia and many European countries. The growing trend in recent years can be ascribed to improved anaesthetic and surgical techniques making more advanced surgery possible. Still, day surgery must be safe and of high quality. Major morbidity and death are seldom outcomes in day surgery. Therefore when assessing quality and safety, focus should be on minor morbidity outcomes such as PONV, infections and haemorrhage or on process indicators e.g. cancellations, re-operations and admissions.

A number of local outcome data have previously been published reflecting local variation in procedures and case-mixes. Little is known about national data. In Denmark, all citizens have a unique civil registration number. Thereby every postoperative hospital contact –elective or emergency– can be traced. To assess the quality of Danish day surgery we designed a national multi-centre cohort-study with >60.000 cases from eight Danish day surgical centres representing both self-contained and integrated units of university-, regional- and local centres. Data are historical but prospectively collected. From The National Patient Registry and the Registry of Death Causes every hospital contact between 0-30 days postoperatively for patients in our cohort were collected with focus on indicators of minor morbidity: infection and haemorrhage/haematoma and major morbidity: thromboembolic diseases. Each contact including their relation to the surgical procedure was carefully evaluated. Data will be presented giving a unique picture of the national Danish quality of day surgery.

Acknowledgements: Main study support by the Tryg Foundation.

PL03.02 Which strategy to improve quality in Day Surgery?

No abstract available at the time of production



PL03.03 2.00

What should we measure in Day Surgery programmes?

Paulo Lemos (1)

(1) Centro Hospitalar do Porto, 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 intra-operative or immediate post-operative 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, and especially outcomes measures, should therefore be implemented to ensure a safe, effective and efficiency environment in our day surgery programmes (Table 1). The identification of universally acceptable clinical indicators of outcome 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.

Table 1: Outcome measures in day surgery

Clinical	Perioperative cardiovascular and respiratory adverse events Minor post-operative morbidity Pain Nausea and vomiting Other: sore throat, headache, drowsiness Unplanned return to the operating room on the same day of surgery Unplanned overnight admission Unplanned return or readmission to the DSU or hospital < 24 hours > 24 hours and < 28 days
Organisational	Proportion of elective surgery performed as day case Accessibility to DS programmes – number of different procedures included Cancellation of booked procedures Failure to arrive at the DSU Cancellation after arrival at the DSU
Social	Patient satisfaction Functional health status / quality of life
Economic	Efficiency rate of operating room utilisation

DSU Day Surgery Unit



Monday 9 May 2011 at 1230 - 1300

PE01 First poster session in the poster exhibition

PE01 12.00 Modern management of haemorrhoids in a day care centre

Manmal Begani (1), D Mulchandani (1)

(1) Abhishek Day Care Institute & Medical Research Centre, India

Aim: a retrospective study of data from 10 years on the various treatment modalities for haemorrhoids in an ambulatory surgery institute.

Method: data collected from our centre with regards to various techniques of treatment of haemorrhoids ranging from office procedures to minimal invasive surgery for haemorrhoids and open surgery in day care or ambulatory surgery. The patients were operated during the period from June 2000 to July 2010, that is, since the day care centre was started. During these 10 years, we have performed a total of 5272 haemorrhoids cases with 2401 surgical procedures including open surgery, doppler - hal, PPH, 2871 office procedures including infra red photocoagulation, sclerotherapy, band ligation, cryotherapy etc.

Results: with the advent of many modern techniques for management of haemorrhoids, we conclude that 95% cases can be done in a day care set up without the need for general anaesthesia and with minimal discomfort.

Discussion: depending on the grade of haemorrhoids, the options for management range from office procedures which offer the quickest mode to open surgery under local anaesthesia and sedation. The use of stapler and dg-hal has made the treatment of haemorrhoids tailor made for day care or ambulatory institutes like ours.

Conclusion: with huge cost savings and also saving time and resources of hospitals, we conclude that almost all cases of haemorrhoids can be managed in a day care unit / ambulatory surgical unit with the advent of modern techniques of management as presented in this poster.

PE02 10.00 Minimal invasive surgery in day care

Manmal Begani (1), D Mulchandani (1)

(1) Abhishek Day Care Institute & Medical Research Centre, India

Aim: a retrospective study on the feasibility of minimal access surgery in an ambulatory surgery institute.

Method: exclusive minimal access surgery cases done at our centre to promote minimal access in day care or ambulatory surgery, as a speciality.

Results: it was possible to carry out minimally invasive surgery for common cases as appendix and discharge them on the same day of surgery without any major complications

Discussion: improved patient convenience lower cost and greater efficiency. Accompanied by reduced post operative pain and quicker recovery.

Conclusion: with better understanding of the laparoscopic technique, the advent of better anaesthetic agents, increased surgical experience and patient awareness, has helped evolve minimal access day care surgery into an art. To promote minimal access surgery as day care or ambulatory surgery, as a speciality, we have prepared a brief presentation for you.



PE03 34.00 Results of a type II day surgery unit in 13 years. Serie of 81.216 patients
Fernando Docobo Duránte (1), *J Mena Robles* (1), *G Jiménez Riera* (1), *A Navas* (1), *FJ Padillo Ruiz* (1)
(1) *University Hospital Virgen del Rocío, Spain*

Objetive. The aim of the study is to present the results of a multidisciplinary type II day surgery unit (general surgery, ophthalmology, E.T.N., and traumatology) of a university regional hospital.

Patients and methods. From January 1997 to December 2009, 324,729 patients were evaluated to day surgery. 81,216 patients were operated, General surgery 26,853 (33.06%) laparoscopic cholecystectomies, abdominal wall hernias, proctology, soft tissue tumors, etc. Ophthalmology 35,653 (43.98%), cataracts, strabismus, dacriocystitis, etc. ETN 13,052 (16.07%) Adenoamygdalectomies, septoplasties, nasal polyposis, otitis, etc. Traumatology 3,914 (4.81%): Hallux valgus, carpal tunnel, arthroscopies, etc Cure tax, complications, relapses, return unit and reintervention tax, substitution and suspension index were evaluated.

Results. Cure index in 79,472 patients were 94.3%, cured with problems 5.65% (4,498 patients) and a 0.05% remained unresolved problems (45 patients). Surgery: Cured 25,978 (96.74%), cured with problems 860 (3.2%), remained unresolved problems Auditrium 15 (0.06%). Ophthalmology: Cure 32,550 (91.29%), cured with problems 3,073 (8.61%), remained unresolved problems 30 (0.8%). ETN: Cured 12,572 (96.33%), cured with problems 480 (3.67%). Traumatology: Cured 3,829 (97.82%), cured with problems 85 (2.17%). Complications: Pain 129, incision infection 59, ophthalmitis 10, hernia relapses 31, bleeding (amigdal, incisional) 47. Return unit: 361 (0.44%); Reinterventions 165 (0.2%); Sustitution index 99%. Inpatient index: Surgery 669 (2.49%), Ophthalmology Auditrium 15 (0.04%), ETN 313 (2.4%), and traumatology 10 (0.25%). Suspension index 6.06 (3.8-7.4).

Conclusions. The establishment and development of a day surgery has produced an adequate number of patients with quality in resolution of surgical pathology required.

PE04 40.00 Reduction of postoperative anemia by using Thrombine Sealant (Flo seal) in Total Knee Arthroplasty
Emmanuel Thienpont (1)
(1) *University Hospital Saint Luc, Belgium*

Introduction/ Postoperative blood loss in total knee arthroplasty has been described as substantial. The viral risk of blood transfusion is well known, but post transfusion immunomodulation could increase the risk of prothetic infection. Postoperative lethargia, cardiopulmonary complications and fatigue are related to the residual Hb level

Materials&Methods/We analyzed the pre- and postoperative Hb levels of 200 TKA with Flo seal thrombine and 200 TKA's without. Surgery was performed by the same surgeon with a tourniquet. No postoperative drains were used. Hb levels were compared with and without Flo seal. Patients had a questionnaire about postoperative fatigue and palpitation. The median postoperative Hb level was 12.8 mg/dl coming up from 10.4 mg/dl. Fewer hematoma's were observed in the Flo seal group. Postoperative fatigue was reduced in the Flo seal group despite that it remains depend of the postoperative pain control.

Conclusion/ Use of thrombine sealant in total knee arthroplasty makes a significant difference with an higher Hb level, less hematoma's and less fatigue.



- PE05 61.00 Donor site skin graft analgesia in Ambulatory Surgery**
María Lourdes García-Martínez (1), MV Sánchez-Hernández (1), JL Arranz-López (1), E Elena-Sorando (1), AA Núñez-Serrano (1)
(1) Complejo Asistencial de Salamanca, Spain

Objetives To assess the pain relieve by foam dressing with ibuprofen in the skin graft donor site and its utility in ambulatory surgery

Method Twenty consecutive patients were included in a prospective study. We evaluate the pain in the skin donor –site by the visual analogue scale (VAS). We include all the patients who need a skin graft for treatment regardless the etiopathology. The allergic patients to ibuprofen were excluded. The pain exam was done at 24 and 72 h posoperatory

Results Nobody have got sharp pain at any time VAS was up in the first 24 h, but always less than 3 Some patient didn't follow the oral analgesia protocol. The 70% of patients with VAS between 0-1 didn't take any oral analgesia The oral analgesic protocol was partially followed in 92% of patient whit VAS 1-2

Conclusion The foam dressing with ibuprofen helps donor site skin graft pain management during the first 72 h posop. This quality makes it suitable in grafted patients in ambulatory surgery

- PE06 62.00 Hydrosurgery system debridment in Ambulatory surgery. Is it safe?**
María Lourdes García-Martínez (1), MV Sánchez-Hernández (1), AA Núñez-Serrano (1), E Elena-Sorando (1), JL Arranz-López (1)
(1) Complejo Asistencial de Salamanca, Spain

Objetive Rating the usefulness and security of hydrosurgery system debridment in Ambulatory surgery

Method Descriptive and retrospective study about plastic surgery patients admitted at Ambulatory surgery which treatment modality was the hydro-scalpel. There were 23 patients between 19 and 79 years old who presented different etiologies (vascular ulcer, burn, surgical dehiscence) and location (face, thorax, arm, leg) Wounds:. The anesthetic technique was also different: sedation (5), spinal anesthesia (6), loco regional blockade (10), general anesthesia (2). The surgical treatment technique consists of using the pressurized streams of physiological saline to cut, ablate and remove death tissue

Results No patient had bleeding Pain management satisfactorily with conventional analgesia protocol No unexpected complications occurred

Conclusion The accuracy of hydrosurgery debridement allows outpatient treatment: Preserves healthy tissue causing little pain Decrease local bleeding, both intra and pos-operatively It is a quick and easy technique It is an alternative tool to conventional debridement



PE07 118.00 Anterior cervical discectomy and fusion as day surgery. A prospective registration of complications and clinical outcome

Bjarne Lied (1), K Ekseth (1), Ø Sagen (1), V Aaseboe (1), J Ræder (2), E Helseth (2)

(1) Oslofjordklinikken, Oslo, Norway

(2) Faculty of Medicine, University of Oslo, Norway

Background: Anterior cervical discectomy with fusion (ACDF) is a common spinal procedures, and it is mostly done in an inpatient setting. In this study we present the results for our first 86 ACDF procedures done in a true outpatient setting at the private Oslofjordklinikk in Oslo.

Methods: The following data were prospectively collected: age, sex, body mass index (BMI), ASA-score and, smoking habit, preoperative radiculopathy and neck pain (VAS scale), procedure time, surgery time, and time from surgery to discharge and surgery-related complications. Follow-up consultation at 6-months included scoring of radiculopathy and neck pain, patient satisfaction (VAS scale) and the North American spine score questionnaire (NASSQ).

Results: Mean age was 50 years (range 30-77), 64% males, BMI 26 (range 20-37), mean ASA-score 1.6 (range 1-3) and 66% non-smokers. Mean procedure time was 1 hour 15 min (range 74-180), mean surgery time 74 min (range 45-127) and mean time from surgery to discharge 357 min (range 210-780). There was a significant decrease in intensity of radicular pain and neck pain after surgery compared to preoperative status ($p < 0.001$). Patient satisfaction measured with VAS-scale and NASSQ showed that 80 % were very satisfied, 13 % satisfied (would have done it again), 5 % would not have done it again and 2 % very unsatisfied. Two patients had to be reoperated within six hours for a postoperative haematoma. There were no other surgery- or anaesthesia-related complications.

Conclusions: ACDF surgery done in this outpatient setting is safe and the clinical outcome is good.

PE08 31.00 A simple method to ensure optimal laryngeal mask cuff pressure to obey the guidelines

Hanne Moelgaard (1), L Nascou (1), L Streubel (2), N Spangsberg (1)

(1) Aarhus University Hospital, Århus Sygehus, Denmark

(2) De Vestdanske Friklinikker, Sygehusvej Brædstrup, Denmark

Objectives: The Laryngeal Mask Airway (LMA) is the most utilised airway device in anaesthetized patients in day surgery. It is hypothesized that the recommended LMA cuff pressure of ten is exceeded. The aim of the study is investigating the possibility of a simple way to ensure the cuff pressure never to exceed the recommended limit of 60cm H₂O, and if the method of insertion has any influence on the cuff pressure.

Method: Prospective randomised consecutive study. 85 non relaxed anaesthetised patients in supine or in beach chair position were included. A: Insertion with actively deflated cuff. B: insertion with passively deflated cuff. The size of the LMA was chosen as recommended and 20ml air was insufflated. The cuff was hereafter deflated to Just Seal. Gender, age, height, weight, size of LMA, cuff pressure, cuff volume, tidal inspiration volume, tidal expiration volume and peak pressure were registered.

Results: The results indicate that the method for insertion does not significantly influence the cuff pressure. The results showed that by insufflating 20ml air in the cuff, 42% of the patients obtained a LMA cuff pressure below 60cm H₂O, meanwhile by using the Just Seal method, 91% of the patients obtained a LMA cuff pressure below 60cm H₂O.

Conclusion: The LMA cuff pressure is clinically relevant. This study shows that if the recommended size of LMA is chosen and the cuff volume is inflated to Just Seal it is possible to decrease the cuff pressure remarkably. The recommended maximum cuff pressure seldom is exceeded.



PE09 45.00 Continuous femoral nerve block with elastomeric pump in day case computer navigated (orthopilot) anterior crucial ligament reconstruction surgery

D Mateo Arzo (1), I Vives Llorente (1), I Salgado Algaba (1), Magí Raich Brufau (1), Manuel Nogueron Castro (1), G Agreda Martínez (1), C Botana Sicilia (1), M Casas Crossas (1), P Cabré Fabr  (1) (1) Vall d'Hebron Hospital, Spain

The computer assisted navigation technique Orthopilot resulted in more accurate bone tunnel placement in anterior crucial ligament (ACL) reconstruction. Undergoing day- case knee arthroscopy analgesia strategies will be decisive. Prospective – descriptive study 40 patients ASA I-II undergoing ACL reconstruction using Orthopilot navigation system during 2010 . In PACU a perineural femoral catheter placed under ultrasound guidance with 20 ml ropivacaine 0.5%. For arthroscopy surgery a spinal block with prilocaine 5% 80-100 mgr. + iv perfusion remifentanil 0.05 mgr./K/min was administered. After surgery elastomeric pump with ropivacaine 0.2% 7 ml/h was connected for at least 48 h. at home.

We evaluated: Pain VAS scores (first night/ 24 h./ second night/ 48h/72h/ seventh day); Rescue analgesia consumption and orthopaedics data (Lysholm, IKDC, Lachman scales). Males 31 +/- 8 years old. Time surgery Audritrium 150 +/- 30 min. All cases were performed using isquial hamstring autograft plasty. Anesthetic data: First day 77.5% VAS <3; Second day 75% VAS<3; 7th day 80% VAS<3. Rescue analgesia consumption : 11% needed opioids; 30% elastomeric device only; 16% were out or malposition catheter. Orthopaedics data: IKDC preoperative average was 60.2%; Lysholm test average was 69.1%. Anterior translation of tibia was 12.2 mm preoperatively vs. 5.5 mm. postoperative. Spinal block anaesthesia and continuous femoral nerve block with elastomeric device are SAFE, EFFECTIVE AND SATISFACTORY to pain control for ACL reconstructive surgery. The arthroscopic assisted navigation allows quantitative biomechanical data available to compare preoperative with postoperative values.

PE10 70.00 Local anaesthesia and remifentanil sedation for hysteroscopy in day surgery

Ann-Marie Scheel-Bech (1), L Bech  rving (1), A Liljegren (1), K Dinesen (1), B Majholm (1), J Bartholdy (1), J Engbaek (1) (1) Herlev University Hospital, Denmark

Knowledge of the patients satisfaction with local anaesthesia and remifentanil-sedation for hysteroscopic operations is limited

Aim: To compare patients assessment of local anaesthesia with remifentanil-sedation (Monitored Anaesthesia Care (MAC)) versus general anaesthesia with propofol and remifentanil (TIVA) during hysteroscopic procedures.

Method: 91 patients were randomly allocated to MAC with paracervical block or TIVA. Preopera-tive paracetamol, NSAID and PONV prophylaxis were administered according to the local standard guidelines. A questionnaire was handed out to the patients to answer at home. Questions were on preferences for MAC or TIVA, on time to re-established normal mobility, clear-thinking and every-day activity, side effects and morbidity. On the 1. postoperative day and on the 5.–7. postoperative day all patients were phoned to obtain their answers to the questionnaire.

Results: 92% in the MAC group and 65% in the TIVA group, respectively, preferred the same anaesthesia in case of future similar operation. Right after the operation, normal mobility was re-established in 41% (MAC group) and in 23% (TIVA-group), respectively and clear-thinking was re-established in 82% (MAC group) and in 61% (TIVA group). The differences were statistically significant (P<0.05). There was no differences between groups regarding side effects (PONV) or morbidity (pain, bleeding) after discharge.

Conclusion: Local anaesthesia with remifentanil-sedation is suitable for hysteroscopy in a day sur-gery setting. Patients are generally satisfied with the regime, producing faster immediate mobility and clear thinking compared to traditional total intravenous anaesthesia.



PE11 15.00 Improving telephone follow-up after Ambulatory Surgery - Protocol

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Introduction: It is well-documented that patients undergoing Day Surgery can experience complications, insecurity and anxiety during the early post operative period. Therefore, Telephone Follow-Up (TFU) is widely used among many patient groups in Ambulatory Surgery to treat, support and guide patients in relation to potential complications, insecurity and anxiety. Studies have however shown that there is a high level of variation in the way telephone follow up is performed, and that scientific studies demonstrating the validity and effect of telephone follow-up as an intervention and evaluation tool are warranted.

Aim: The aim of this study is to develop a valid and reliable TFU tool (questionnaire), which can help to identify and prevent specifically pain in patients undergoing Day Surgery.

Methods: Psychometric method will be used to validate the questionnaire. The validation process will be performed in three phases, where the first is the development of the questionnaire and test for Face Validity. The second and third phases comprise a pilot test, where the Content Validity and Reliability of the questionnaire will be tested in a group of patients undergoing Day Surgery. The same validation process will subsequently be used to further develop the TFU tool in relation to complications, insecurity and anxiety.

Clinical implications: The validated TFU tool can be used to investigate the effect of TFU on the frequency of post-discharge complications, insecurity and anxiety in patients who have undergone Day Surgery. Furthermore it can be used for quality evaluations of day surgery, locally, regionally and nationally.

PE12 26.00 The knowledge expectations of older day-surgical patients and their significant others

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(1) Hospital ORTON, Finland

(2) University of Turku, Department of Nursing Science, Finland

Older patients are increasingly cared in day-surgery. Day-surgery interferes less patients' daily lives. For the society day-surgery it is cheaper than traditional surgery. The shortness of hospital stay brings challenges to empower the patients and their significant others with the necessary knowledge for them to be able to cope at home.

The purpose of this interview study was to describe the expectations and meaning of the empowering knowledge from the perspective of older day-surgical patients (n=8) and their significant others (n=7). The material was collected in 2008 in one university hospital in Finland. The material was analysed by content analysis.

The knowledge expectations of older day-surgical patients and their significant others focused on the bio-physiological and functional dimensions of empowering knowledge. Patients and significant others expected knowledge on the disease and its treatment options, knowledge about day-surgical process, the operation, and medication. In the dimension of functional knowledge the knowledge expectations focused on nutrition, wound care, postoperative function, and what to do if problems arise. For patients, knowledge meant control over their fears, feelings of security. For their significant others it meant the ability to support the patient and feelings of security.

The older day-surgical patients expect detailed knowledge of the day-surgical care process. Significant others need systematic education to be able to support the patient. The results of this study can be used in developing education of older patients and their significant others. Further research is needed to assess the outcomes of educating older patients and their significant others.



PE13 32.00 The clinical pathway of the day surgical patient during sacral neurostimulation treatment

Sirpa Koskunen (1), S Tontti (1), H Pirttilä (1)
(1) Helsinki University Hospital, Finland

In the Day Surgery Unit of the Surgical Hospital a new SNS-treatment for patients suffering from incontinence problems was started in spring 2008. The personnel of the Day Surgery Unit began as a teamwork to develop care-related activities and ways that would assure good quality of care for SNS-patients.

The purpose was to increase the personnel's skills and on the other hand to develop new care-related know-how. A poster was designed as a result of this developmental work, which clarifies the clinical pathway of the day surgery patient's during SNS. The teamwork also helped to increase the multiprofessional co-operation between different wards in the hospital. In addition, the poster is a useful source of information for the patient.

PE14 44.00 Electronic interaction (eService) between Patient and Ambulatory Surgery Unit " eService is an excellent tendency"

Johanna Koivistoinen (1), S Rauta (2)
(1) Helsinki and Uusimaa Hospital District, Jorvi hospital, Finland
(2) Helsinki and Uusimaa Hospital District, Helsinki University Hospital, Finland

Electronic interaction called eService, is one of the main topics in health care systems internationally. As a benefit patients are more interested in their own health when they can be active in their own process. A need to find out patients' viewpoint about eService exists.

To reach this goal the project was conducted at HUCH Jorvi Hospital in Finland in 2007 (Lähteenmäki et al. 2008). The aim was to define patients' experiences about using eService. The material was sent to the patient when putting into the operation line. It was patient's decision to choose eService or not. The data was collected after using eService with a questionnaire.

Nearly 50 % of the patients used eService (N=88). The majority of them was under forty years old. The patients were very satisfied with eService. All of them think eService was very or relatively easy to use. eService was considered to be very or relatively useful by 97,5 % of the users. 75,6 % of the patients' said they will use this kind of service in the future certainly or likely. eService was experienced secure generally speaking. Feedback was also asked with an open ended questions. Positive feedback supports aforementioned results. The negative feedback concerns about the lack of face to face discussion.

The patients' experiences were over all very positive, so eService is worth to evolve further. In 2010, 66 % of our ambulatory surgery patients used eService. Presently the process is continuing by testing how eService suit into other environments.



PE15 57.00 Enhancing learning for the new graduate nurse in an Australian Day surgery Unit

Alison Anderson (1)

(1) Sydney Adventist Hospital, Australia

The Sydney Adventist Hospital has introduced a professional recognition program that enables all Registered Nurses (RNs) to advance within their scope of clinical practice by completing mandatory and area specific competencies. New Graduate RNs gain experience through various areas of the hospital, including the Day of Surgery Admission Centre (DOSAC), in twelve week rotations during one year. The DOSAC is a large purpose built facility within the hospital catering for the perioperative experience of over 80 patients per day. It provides a diverse endoscopy and surgical patient experience for the New Graduate(NG)nurse from pre-admission to discharge and follow-up care of day patients. Previously on arrival in the unit, NG nurses were only provided with an orientation manual containing basic information about the unit, its functioning, roles of staff and patient management.

Following a learning needs analysis of the NG in DOSAC, a formal learning program was designed and implemented to meet educational needs and to more effectively encourage learning in this new environment. This linked the existing orientation manual with required learning to complete DOSAC specific competencies during their clinical rotation. The learning program provides the NG with detailed information on requirements as a RN in view of skills competency, ideas and resources to link their learning to required skills. This learning program has been functioning since 2008 and feedback from the NG nurses and staff has been positive. The poster will graphically demonstrate this process.

PE16 58.00 Converting orthopaedic surgery from an in-patient to an out-patient procedure – high tibial osteotomies (HTO) can be done without hospitalization

B Andersen-Møller (1), L Kjærsgaard Pedersen (1), M Kjeldsgaard Jensen (1), Anita Døfler (1)
(1) Regionshospital Herning, Denmark

Objective Younger patients who need surgery because of arthrosis of the medial part of the knee (HTO) have in the past been operated as in-patients and hospitalized for 2-3 days particularly because of pain. In collaboration with our anaesthesiologist we focused on pain management. The surgeon implanted a regional infiltration analgesic catheter (RIA) located in the osteotomy which delivered Naropin for 48 hours after surgery. Furthermore, local infiltration analgesic (LIA) was applied in the wound and a pain package for 10 days after surgery was handed to the patients before leaving the hospital. The patients had no pain after the operation, which would have made it necessary to hospitalize them.

Method The study includes 11 patients who have been operated in Day Surgery Unit (DKE), Regional Hospital Herning, Denmark (5 women and 6 men between the age of 40-56 years). At discharge the patients received written and verbal information about the analgesic catheter and pain management. The patients received a questionnaire and they gave permission to be contacted by telephone 2 days after surgery.

Results 9 patients took the recommended p.n. medication because of pain and told the interviewer that they felt comfortable as out-patients in Day Surgery Unit. 2 patients did not need to take the recommended p.n. medicine after discharge. No complications or rehospitalization were found.

Conclusion These patients will now be offered surgery as out-patients in Day Surgery Unit containing instruction prior to surgery. This includes information about pain management, rehabilitation, anticoagulation therapy, wound care etc.



PE17 65.00 The Quality of Nursing Care in Ambulatory Surgery “It all worked like a dream!”

Maria Janhonen (1), S Rauta (2), L Viitikko (1), J Soikkeli (1)

(1) Helsinki and Uusimaa Hospital District, Peijas hospital, Vantaa, Finland

(2) Helsinki and Uusimaa Hospital District, Helsinki University Hospital, Helsinki, Finland

Peijas Hospital has one of the biggest day surgery units in Finland. Approximately 5000 patients operates yearly. For the nursing staff it is important to receive feedback from the patients to improve nursing care. The feedback also motivates the personnel. The purpose of this study was to find out how patients evaluated the nursing care they received in Peijas Day Surgery Unit. The data was collected by using “The Good Perioperative Nursing Care”-questionnaire (Leinonen & Leino-Kilpi 2002). It contained 43 questions in which patients could answer on a scale of 1 to 5. The closer to five the patient scored the more satisfied he/she was.

A total of 239 patients filled in the questionnaire. Patients were most satisfied with the physical care, which referred to pain relief, temperature control along with professional skills of the staff (M= 4,90). Characteristics of the nursing staff (M= 4,89) and environment during their stay (M= 4,81) were also highly considered. Patients felt they were respected as individuals (M= 4.79) but were less satisfied with their loss of independence and waiting times for their surgery during the day. They felt that they received moderately information. The vast majority of patients felt they received nursing care of good quality. To further improve standards of care we should encourage patients to express their own personal opinions and wishes. Maintaining privacy, e.g. not to hear other patients' affairs during the process must assured. Is there something we can do about the waiting times for the surgery?

PE18 77.00 One Day Surgery in Rural India

Neeta Bondray (1), N T Row (2), P Dande (1), S Dande (1)

(1) One Day Surgery Centre-Dande Hospital, India

(2) One Day Surgery Centre-Babulnath Hospital, India

Aim: Presenting a retrospective analysis of 2010 surgical cases, performed as Day Case, in a rural hospital, situated in central India.

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

Material: Data collected from July 2008 to December 2010, of surgical cases, in a 50 bedded hospital, in a second rung city, were analysed retrospectively, of different specialities, performed purely as a Day-case: Gynaecology: 790, General Surgery: 330, Ophthalm.: 508, Plastic Surgery: 109, ENT: 16, Ortho./Urology: 223, Others: 34. Patients who agreed to be discharged on the same day were taken into consideration. Mean average hospital stay was 10 hours.

Method: Case selection & 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 & criteria are followed. Complications were explained to the patient along with post procedure instructions. Readmissions were carefully noted.

Conclusion: No complications were encountered & readmissions were none. Though the number of patients accepting Day Care Surgery in rural India is few, it is slowly being accepted. The Protocols safeguards your patient, affording you to serve them better.



- PE19 91.00 'On the Fly' Day Surgery**
Jacob Stouby Mortensen (1), SR Jakobsen (1), L Broen (1), AG Steffensen (1), C Pedersen (1)
(1) Regional Hospital of Silkeborg, Denmark

The Purpose of this study is to compare the quality experienced by the patient in 'On the Fly' procedures in correlation with traditional patient procedures in day surgery. The Regional Hospital of Silkeborg is a 'Center of Excellence' meaning 'Fast Track' quality procedures for selected diseases. In the development of excellent patient procedures, we are working with the 'On the Fly' concept for selected orthopedic patients. 'On the Fly' is an option in CD burning software skipping the pre-burning simulation and thereby speeding up the burning procedure with the risk of failure. Applied to ambulatory surgery, it means that you skip the pre-examination in the Outpatient Clinic and make the pre-examination at the day of surgery.

During visitation of the referrals from the GP, an orthopedic specialist selects suitable patients with obvious need for surgical treatment. The patient is informed about possible surgery and anaesthesia. When the patient arrives at the Day Surgery Unit, a clinical examination is performed by the surgeon who decides whether indication for surgery or admission to further investigations. In this study we account for the continuity and quality experienced by the patients in the 'On the Fly' and traditional procedure groups, respectively by evaluation of 30 unselected knee arthroscopy procedures from each group through telephone interviews. We also account for the loss of surgical capacity due to lack of indication for surgery in 'On the Fly' patients within the last 6 months.

- PE20 80.00 Orthopedic day surgery activities in Budaörs, Hungary, during 2004-2010, an experience with 3450 cases**
Zsolt Knoll (1), I Hehl (1), Z Klemencsics (1), L Csakanyi (1), G Hardy (1), Andrea Santha (1) G-E Mohamed (1)
(1) Budaörs Medical Centre, Hungary

Objectives: to retrospectively evaluate the rate of success of orthopedic day surgery activities in the firstly established day surgery unit in Hungary (Budaörs), and to show the possibilities of development.

Methods: during the period 2004 – 2010, a total number of 3450 orthopedic operations (ASA I - II) were performed. 60% of the operations was arthroscopy, 30% was hand surgery, 8% was foot surgery and 2% others.

Results: during this period only 8 complications occurred, which were successfully treated within the department. Our activities showed an increase of Auditrium 15 – 20% yearly.

Conclusion: the patient's satisfaction was excellent. More and more patients select this type of day surgery, and even the revulsion of specialist against day surgery began to diminish. We recommended to the authorities to expand the types of orthopedic day surgery activities to include shoulder stabilizing operations, roofed injuries etc.



Tuesday 10 May 2011 at 1230 - 1300

PE02 Second poster session in the poster exhibition

PE21 82.00 A quality study with focus on nausea and pain score after resection of the AC joint/Decompression as out-patient

*B Andersen-Møller (1), HS Sørensen (1), MK Jensen (1), Anita Døfler (1)
(1) Regional Hospital Herning, Denmark*

Objective Approximately 300 patients are operated in the shoulder annually at the Day Surgery Unit, Regional Hospital Herning, Denmark. Since March 2010, this group of patients has been offered instruction approx. one week prior to surgery. At discharge the patients received a standard pain package with analgesics and medicine in order to prevent nausea. We use a Visual Analog Scale (VAS) 0-3. The service goal for the pain and nausea score at the time of discharge is 1 for <10 % of all patients.

Method The study includes 54 patients (35 females and 19 men between the age of 18-65 years). The patients received a questionnaire and they gave permission to be contacted by telephone 2 days after surgery.

Results 52 patients were discharged with a pain and nausea score of 0-1. Some of the patients experienced pain and nausea during the recovery period at home. 35 patients out of 54 patients did not take the p.n. analgesics and 48 patients did not take the medication in order to prevent nausea as prescribed.

Conclusion The issue is going to be improved information about pain treatment and prevention of nausea at the pre instructions and at discharge with focus on p.n. medication.

PE22 69.00 Comparison of differences between the direct health costs of inpatient (DRG) and same ambulatory surgery interventions

*György Polyvás (1), G-E Mohamed (1)
(1) Hungarian Association For Ambulatory Surgery, Hungary*

Objectives: To measure the real cost differences between hospital care (3 or more days) and ambulatory surgery, with especial emphasis to activities in the IAAS basket.

Methods: the measurement of data was based upon applying direct cost inventories, specified by the given technology as well as analysis of coverage and breakeven data of a given unit. The technology based direct costs had been compared with the DRG reimbursements.

Results: it was proved that in most investigated technologies the costs for day surgery interventions are significantly lower than those applied for the same interventions in an inpatient fashion. With consideration to the above mentioned, DRG reimbursements in a major part cover the direct costs of a given technology. Of course it is not usually enough to cover all of the expenditures concerning the secondary and tertiary costs.

Conclusion: according to the results detailed, a global revision for the financing system of day surgery should be taken in consideration.



PE23 76.00 Organisation and Progress of Day Surgery in India

Naresh T Row (1)

(1) *One Day Surgery Centre-Babulnath Hospital, India*

There has been a visible & marked progress in Day Surgery & its organization over few years. The Indian Association of Day Surgery was established with the express purpose to increase awareness & establish safe practice parameters. With the ever increasing population, now pegged at over 1.073 billion, the requirement of healthcare facility has increased many folds. The per capita income of an average Indian family is around 500 Euros per year. There is still a dismal fact that every year about 16% of Indian population is pushed below poverty line, every year, due to borrowing for health care expenditure.

The average bed-patient ration is 1:1246. Almost 75% of the Indian population living predominantly in the rural region, in Mumbai, 60% lives in the slums or poor housing areas. The medical facilities are dependent on state run hospitals, are overcrowded & overworked staff.

The Association has grown to 305 members. Day Surgery Journal of India & One Day Surgery Times, initiative taken to covers topics on day surgery from all over the world. Complimentary to all the members, Medical libraries, hospitals & GP's. ISO 9001-2008, with Standard operative procedures and Quality manuals written by me, have been taken as minimal requirement.

Progress of Day Surgery in India is slowly gathering movement; soon we will see a rapid progress. Highly quality, affordable surgeries, with patient safety and convenience in mind, is the motto of our organization.

PE24 43.00 Day surgery without an adult escort at home

Sine Islin (1), Smahan Mrabet (1), J Bartholdy (1), J Engbaek (1)

(1) *Herlev University Hospital, Copenhagen, Denmark*

Our day surgery centre includes general surgery, orthopaedics, gynaecology and urology and mamma surgery. We have recently changed our old procedure recommending an adult escort at home after discharge to a new one allowing patients to stay at home alone unless potential postoperative complications are suspected.

To assess the patient's reactions and possible problems arising at home we have conducted a 2 phase questionnaire. Data were collected by a telephone interview the day after surgery. Before change of procedure (phase 1), 109 patients were consecutively asked if they felt it difficult to arrange for an adult escort at home, their assessment of the recommendation and possible problems emerging at home. In phase 2 we changed the procedure and only patients not having an adult escort at home were included. They were asked if they were in need of any help, the kind of help and how the problems were solved. 64 patients have so far been included.

In phase 1, 8% had difficulties finding an adult escort, 4% thought adult escort at home was a good idea as they needed help with the bandage and daily doings. In phase 2, 22 % felt they were in need of an adult escort but only 9% had actual problems with bandage, medication, PONV or daily doings. All problems were solved by the patient, by telephone contact to the hospital or to their general practitioner. This new practice appears to be safe but calls for further monitoring to make definite future recommendation



PE25 48.00 Usefulness of quality indicators in a day surgery unit: long term results

Luis Hidalgo (1), A Martín (1), M Prats (1), J Martí (1), N Ruíz (1), X Suñol (1)
(1) Hospital de Mataro, Spain

The knowledge of the evolution of indicators was essential to revalidate the UNE-EN-ISO-9001/2000 quality certificate for our DSU.

Objective: The aim of our study is to evaluate the usefulness and the evolution of prefixed quality indicators in our DSU in a period of time of 8 years. Material and methods: Prospective study of quality indicators considered in the DSU of the Hospital of Mataró from 2003 to 2009. The above mentioned indicators included anesthetic risk level (measured by the ASA classification, patients between 1 o 3 risk were accepted), substitution index (>60%), patients rejected for DSU treatment (<1%), cancellations (<2%), patients with recovering time over 90 minutes (<10%) reoperations (<0.5%), emergency department visits (<5%), admissions (<0.5%), and pain over 3 (measured by analogic visual scale, <5%).

Results: Anesthetic risk increased from 64% of patients ³ 2 in 2003 to 73% in 2004. Substitution index did too, from 58.3% to 67.7%. Patients rejected for DSU treatment were always under 1%. Cancellations were 4.1% in 2009. Patients with recovering time > 90 minutes were always < 10%. Reoperated patients never were over 0.5%. Emergency department visits were under 5% except in 2007 (5.3%). Admissions never achieve 0.5% and the percentage of patients with pain over 3 was more than 5% in 2003 and 2009.

Conclusions: Substitution index can increase in spite of anesthetic risk do too. Quality assessment is essential for the DSU management and patient safety. The knowledge of the evolution of indicators allowed corrective actions to improve quality levels.

PE26 68.00 Unplanned contacts with Health Care Services after Day Surgery

Birgit Larsen (1)
(1) Aarhus University Hospital, Skejby, Denmark

Background: The patients need for help and assistance in relation to day surgery after discharge is unknown, because no systematic monitoring of unplanned contacts with health care services is performed. Hypothesis: Unplanned contacts with health care services after discharge are more frequent than hospital records show. Women have a higher rate of these contacts than men and living alone is a risk factor for unplanned contacts.

Methods and materials: A prospective cohort study of 320 patients undergoing day surgery with follow-up. A questionnaire was posted one month after discharge. Risk indicators for unplanned contacts were assessed: gender and information about living alone were collected from hospital records and electronic registration systems. Outcome data were collected from the returned questionnaire, the response rate being 78%.

Results: A number of 95 patients had contact with health care services within 30 days after discharge related to the day surgery procedure. Altogether 29,7% of the patients reported problems that needed contact and 2,8 % was readmitted. Men were at higher risk for unplanned contacts than women. Living alone was not shown to be risk factors for unplanned contacts. The most common complications were hemorrhage, pain and infection, and the first contact was 6,5 days (median time) after discharge. Emergency services were frequently contacted first.

Conclusions: The incidence of unplanned contacts with health care services are considerable and there is a need for further investigation to identify and monitor relevant risk indicators and patients at risk to increase quality of future day surgery.



PE27 78.00 Analysis of progress of Day Surgery in India

Pinak Dande (1), S T Row (1), N T Row (1)
(1) One Day Surgery Centre-Babulnath Hospital, India

Aim: Presenting a retrospective analysis of 2691 surgical cases, admitted with various complaints, to a dedicated Stand alone, Multi-specialty, Day Surgery Centre, in Mumbai, India. Analysis was carried out to establish the acceptance & progress of Day Surgery in urban India.

Introduction: Day Care Surgery, as it is popularly known in India, is in fact, beginning to get popular. Except Ophthalmology & ENT surgeries, most of the specialities perform minor and OPD procedures as Day Case.

Material: Data collected from July 2008 to December 2010, were analysed retrospectively, of different specialities, performed purely as a Day-case: Gynaecology: 300, General Surgery: 1400, Ophthalm.: 3, Plastic Surgery: 62, ENT: 24, Ortho./Urology/others: Auditrium 152. The other 750 admissions did not fit Day Surgery Criteria. Mean average hospital stay was 6 hours.

Method: Centres is ISO 9001-2008 compliant, with SOP created specifically for Day Surgery. Case selection & criteria for patient preparation & 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 & 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. Marketing & meticulous implementation of Protocols as a safeguard, providing a high standard of patient care, eventual will lead to acceptance increasing acceptance.

PE28 87.00 Causes of cancellations in day surgery

Ulf Thyge Larsen (1), S Felsby (1)
(1) Aarhus University Hospital, Skejby, Denmark

Background The purpose of this study was to analyze the reasons for cancellation of booked procedures in ambulatory surgery.

Methods Cancellations occurring the day before operation and procedures cancelled on the day of operation were analysed in 5484 patients scheduled for operation in an ambulatory surgery unit during 18 months. Data were prospectively obtained from a local database and from the incident register of the The National Board of Health, Denmark.

Results Change in the course was necessary in 409 cases (7.5%). In 59 cases it was possible to postpone the time of surgery until later the same day. Of these, 61% had not complied with fasting rules. In 90 situations it was possible to change the OR schedule, so only a total of 260 (4.7%) operations ultimately had to be cancelled. Reasons for the 409 cancellationsre: Acute medical conditions 3% of cases Decision of the patient to cancel surgery 9% Non-attendance without notice 22% Delayed appearance > 30 minutes 4% Patient unable to attend surgery 16% Failure to follow pre-operative guidance 18% Unavailability of resources or poor planning (absent surgeon, equipment failure, cancellation by surgeon without notifying ambulatory unit)19%

Conclusion The majority of cancellations were due to reduced patient compliance. Of all cancellations almost a fifth were due to unavailability of resources or poor planning, the majority of these being preventable.



PE29 9.00 The values in the Surgical Day Clinic illustrated through photos

Irene Tørnæs (1), T Jørgensen (1)
(1) Sygehus Lillebælt, Kolding, Denmark

In relation to value the work we come to the realization that the values are already visible in our department. It should show up by simply photographing a typical day in the department. It is a different way of working with values. The values become a part of everyday life instead of a letter of intent, which seats in a desk drawer.

The pictures show everyday many situations, professional procedures and patient care, with the picture book we will invite the patients inside, to interpret our world. The method was to select some different patient care and obtain permission to photograph. Then spend a day as a photographer in the department both around and behind the patient and relatives and among staff. Auditorium 150 digital images were then sorted and edited by value concepts.

The book was compiled and presented to patients, relatives and staff. The values are: Professional development, Professionalism and respect in that of which we say and do, Openness for new thinking and enthusiasm.

PE30 14.00 Centre of Day Surgery - training of anaesthesia nurse trainees and resident doctors to anaesthesia – a development and quality project

Jane Elgø (1), I Filipovski (1), C Tcherning Petersen (1), K Hede (1), K Håsum (1), S Skibsholt Calloway (1)
(1) Regionshospitalet Horsens og Brædstrup, Denmark

The development- and quality project focuses on the improvement of the training of anaesthesia nurse trainees and resident doctors to anaesthesia and is based on the trainees' expectations to the training in Centre of Day Surgery (DKC). DKC has maintained the training of various personnel. However, neither the quality of the training nor the impact on the efficiency has previously been examined. The anaesthesia nurse trainee has 6 weeks of training in DKC and follows an educated anaesthesia nurse during these weeks.

Resident doctors have 4 weeks training in DKC and follow an anaesthesia nurse and an Anaesthetist responsible for residents. Goals of project: Written instructions for training period in DKC of anaesthesia nurse trainees and resident doctors. Resident doctors to anaesthesia: After 4 weeks period in DKC independently prepare and manage anaesthesia to the Day Surgery patient. Anaesthesia nurse trainee: After 6 weeks period in DKC prepare and manage anaesthesia to the Day Surgery patient with less assistance from the anaesthesia nurse supervisor.

Criteria for inclusion in study: Included in study are anaesthesia nurse trainees and resident doctors as they with set intervals are represented in the DKC. Criteria for exclusion in study: Nursing students, emergency personnel, medical doctor students and midwife students are excluded in study as they mostly sporadically are represented in DKC. Material and methods: The development and quality project is based on a questionnaire send to included personnel. The results are being analyzed and conclusions will be presented as a poster presentation at the Congress.



PE31 117.00 The presentation of Finnish Association of Day Surgery

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Anna-Lisa Korhonen (vice president), Sirpa Koskunen, Leena Mäntylä, Annamari Tantt (board members) Finland This poster presents the Finnish association of the Day surgery. We are a multi-professional association established in August 2007 following the I.A.A.S congress in Amsterdam. Now we have almost 100 members; most of them are nurses from all over the country. The board of the association has 5 actual members and 5 vice members.

We organized our first study day in January 2010. Our theme was "Day surgery today". It was a great success and the positive feedback encourages us to further develop the activities of the association. Our goal is to share knowledge and ideas and to develop the scope of practice while delivering a high quality of care in day surgery. Our intention is to organize training specifically for day surgery area. We want to bring together national experts and clinicians and also build international relationships. The association has created a forum for discussion and websites to use for all our members. This together with the education is the way to achieve the goals.

PE32 28.00 Lichtenstein technique in local anesthesia as ambulatory treatment

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Objective: Lichtenstein hernioplasty, today, has a great importance, specially because majority of operations were done under the local anesthesia. The aim of this study is to present our experience in single-day surgery, using this technique.

Methods: Using Lichtenstein technique, in years from 2000. to 2010., from a total of 2907 patients suffering primary, recurrent, unilateral and reciprocal hernias 85% (2471 patients) were operated under the local anesthesia. All patients had an antibiotic prophylaxis (Cefazolin 2.0g). We have analyzed: operating time, postoperative complications, the need for postoperative analgesics, time before returning to work, and a number of recurrences.

Results: Good anesthesia of skin, subcutaneous tissue and all four nerves, provides safe condition for operation. Possibility to perform "cough" test for verifying adequacy of hernia repair, gives comfort to surgeon and patient. Median patients age was 57 years (from 32 to 74). Average operating time was 35 minutes. There were no intraoperative complications. Postoperatively we had 30 recurrences (1.2%), 25 hematomas, 22 seromas, and 10 wound infections (0.4%) which were treated conservatively. All patients were dismissed the same day. All patients get back to normal activities in 8 days (4- Auditrium 15 days). Only 45 patients (1.8%) needed postoperative analgesia.

Conclusion: Reasons such as bad general state, age, bad cardiovascular function, liver disease, kidney failure, good intraoperative comfort for patients and surgeons, minimal complications, makes local anesthesia the most convenient one in inguinal hernia surgery with Lichtenstein technique.



PE33 81.00 Ask the patients! - Knowledge is the dessert!

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Get started with your own project - we did! Improving the care and well being of our patients, during their period of hospitalization, has been the focus of attention in our department for quite some time. Could we do, what we do, better? Were our patients satisfied and happy with our treatment? Where is it possible for us to improve the quality of care provided by our department? Patients admitted to the department have been divided into categories. Each category of patients participates in the study the day after their surgery and again one month after discharge.

By focusing on the experiences of patients during both their hospitalization and the following period of convalescence it has been possible to gain vital information which can be acted upon to improve the quality of care for future patients admitted to the department.

The study has resulted in improved satisfaction from patients, improved treatment procedures and improved communication between the patients and the staff. For further details please contact the authors.

PE34 6.00 Go with the flow

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Day treatment and the need to wait for micturition to wait for after spinal anesthesia. In most hospitals patients who have received a spinal anesthesia in day treatment will only be sent home after they have urinated. Medisch Centrum Alkmaar, one of the largest general hospitals in the Netherlands, wondered if it is safe to skip this protocol. Research shows that when patients receive clear instructions they can return home safely before they have urinated. This new insight means that patients in day treatment can leave the hospital quicker which leads to a more productive use of beds. And not unimportant: more satisfied patients.



PE35 96.00 Quantification and qualification of postsurgical pain in pterygium surgery with conjunctival autografts

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OBJETIVE: Quantify and define post-surgical pain after pterygium surgery with conjunctival autografts.

MATERIAL AND METHODS: 17 patients have been included in the study. The analyzed parameters have been sex, age, pterigion TCL classification, primal characteristics or relapse, usage of isolated tissue adhesive or extra fixation with stitches, analogical scale of visual pain immediately after surgery, on the days 2 and 3 post-surgery, and the characteristics of the pain and interval of it in the days 2 and 3 following the surgery.

RESULTS: 17 eyes of 17 patients were operated. In relation with the obtained data in the analogical scale for visual pain, in the immediate results after surgery, the majority of patients (52.9%) showed moderate pain. On day 2 after surgery the pain level was mild in majority of patients with characteristics of sharp pain and lash pain predominantly. On day 3 after surgery, mild pain was also predominant, with characteristics of stinging and lash pain in majority of patients.

CONCLUSIONS: Using scales and pain characteristics we can quantify and define Post-surgical pain after pterigion surgery with conjunctival auto-grafts resection straight after surgery and in the following days. Therefore the use of drugs to avoid neuropathic pain in this patients is still to be studied.

PE36 33.00 Prolene hernia system experience in inguinal hernia repair in Day Surgery. 1840 cases 5 years follow-up

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Aim: To evaluate long time the feasibility and benefits of inguinal hernia repair with prolene hernia system (PHS) mesh using local anaesthesia with sedation as a day surgery procedure.

Patients and Methods: 2138 patients with inguinal hernia attended in day surgery setting from 1997-2005. 1840 (86.06%) controlled 5 years, operated as day cases. 1693 men (92,02%). Age 56 (18-82 years). Gilbert's classification: I- Auditrrium 15 (0.81%), II-49 (2.66%), III-736 (40%), IV-939 (51.03%), and V-101 (5.48%). Primary hernias: 1692 (91.95 %), recurrent 148 (8.04%). Patients were sedated with midazolam (0.5–2mg), propofol (0.5ml/kg). Local anaesthesia (saline solution, lidocaine), and bupivacaine with adrenaline. Hernioplasties (Gilbert technique). No routine chemoprophylaxis. Postoperative pain (analogical visual) scale pain. Mild/moderate postoperative (analgesics, NSAID or paracetamol). Patients discharged at 6 hours. Postoperative controls: 30 days, 3 months and 5 years by phone.

Results. Anaesthesia: Local 1793 (97.44%); Regional 45 (2.44%); General 2 (0.1%). Mesh size: Normal: 376 (20.43%); Large: 801 (43.53%); Extra-Large: 663 (36.03%). Mean operation time: 40min (30–80min). Overall stay: 5-8h (6h). Operations done by staff 838 (45.54%), and 1002 by residents (54.45%). Postoperative pain: mild (2–4 points) 580 (31.52%), moderate (4–6 points) 994 (54.02%), severe (6–8 points) 266 (14.45%). 10 patients return to hospital (0.54%). 7 (0.38%) patients with haematoma. Wound infection 3 cases (0.16%). 5 years control: Cure 1824 (99.13 %); with sequelae 6 (0.32%), hernia recidive: 10 (0.54 %).

Conclusion. Inguinal hernia repair with PHS under local anaesthesia, on a D.S. base, is safe and feasible procedure in long time controls.



- PE37 35.00 Training program in the treatment of abdominal hernias in day surgery**
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Objective. The aim of the study is evaluation of the surgical activity in abdominal-wall hernias in day surgery training programs in a type 2, day surgery unit of an University regional hospital.

Patients and methods. From January 2005 to December 2009, 10,500 patients with general surgery pathologies were operated. 4,112 (39.30%) were abdominal wall hernias: 2,685 groin, 929 umbilical, 256 epigastric, Auditrium 155 incisional, 35 femoral, 8 spiegel, and Auditrium 15 prosthetic refuse. Resident surgical program included 5 months in day surgery unit during their 2nd year. Surgical indications, surgical and anesthetic procedures, and postoperative controls were registered in their logbook. Cure tax, complications, relapses, return to unit and reintervention index, and substitution index were evaluated.

Results. Postoperative control 1-5 years. Surgical procedures: 3,891 (94.62%) Hernioplasty with prosthetic material. 221 (5.37%) Herniorraphies. Anesthetic technique: Local plus sedation 3,943 (95.89%), 164 (3.98%) regional, and 5 (0.12%) general. Resident as surgeon: Total 3,143/4,112 (76.43%): 1,934/2,685 groin. 830/929 umbilical. 240 /256 epigastric. 100/ Auditrium 155 incisional. 24/35 femoral. 4/8 spiegel and 11/ Auditrium 15 prosthetic refuse. Cure index: 98.49% (4,050 patients), cured with problems 1.51% (62 patients) Complications: 64 (1.55%): Pain 26, incision infection 4, and bleeding 32. Return unit: 19 (0.46%); Reoperations 22 (0.53%). Outpatient index: 99.69 %. Groin 2,675 (99.72%); Umbilical (100%); Epigastric (100%); Incisional (96.77%) Spiegel 5 (62.5%). Prosthetic refuse (100%) Inpatient index: 13 /4112 (0.31%) 6 pain and 7 bleeding. Relapses: 43 patients (0.86%)

Conclusions. Surgical procedures in abdominal wall hernias are possible and safe in the second year of the surgical program training.

- PE38 123.00 Nursing information to patients that have had removal of the gallbladder (Ambulatory Surgery)**
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Background: In the accelerated surgery, we have experienced that information, involment of the patient and relatives, early mobilization, fallboard food and effective pain treatment has a positive effect of the convalescence of the patient. It means that the patient has to receive and the nurse has to give a lot of information in a short time. It has not been investigated earlier how the patients assess the nursing information in regard to the pre-trial operation and postoperative surgery, so areas where the nurses can optimize information isn't, identified earlier.

Purpose: To investigate areas to be improved in regard to information given to patient who is planned for a laparoscopic removal of the gallbladder, so the information quality hence the treatment is improved. **Method/Material:** A survey, with validation of questionnaire, pilot test corresponding of 20 schemes. After here, there has being a revision of the questionnaire. Finally there has been send out 130 schemes to the patients, 1 month after the surgery.

Result: Response rate: 70 % Further more gives the result us, the important information, that over 50 % are affected by fatigue, in the period after the operations. An area we have to inform more about. More than 35% wait for more then 8 days, after the operation, to go back to work. Pain for more than 7 days after the operation, are seen at more than 30% approx. 50 % of the patients felt nausea when leaving the hospital.

Conclusion: To improve the written and verbal information preoperatively with increased focus on fatigue and nausea for several days postoperative. It is to consideration to change our pain treatment and avoid opioid treatment.



PE39 50.00 Day Care Surgery In India: Our experience over 10 years at a premier day care surgery institute

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The desire to keep up with the newer developments, the increased cost of hospitalisation, many fold increase in the inflow of patients from the rural areas to the metropolitan cities for treatment, lack of hospital beds, along with the fear of the word 'Surgery', has led the surgeons to rethink the art of Day Care Surgery. Abhishek Day Care Institute and Medical Research Centre, which will soon complete 10 years in this field, is a dedicated Multi speciality Day Care General Surgery Centre. We undertake General Surgery, Minimal Access Surgery, Urology, Plastic Surgery, Orthopaedics, Vascular Surgery etc including GI endoscopies and chemotherapy. We have an experience in Ambulatory Surgery of over 20,000 cases, over a period of 10 years, which were done at our institute. This is a retrospective study of cases performed at our centre.

PE40 51.00 Standardised systematically Pain Scoring among Children facilitate improved Awareness of Pain Management among Nurses

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Objectives: Studies have shown that children's pain is often inadequately treated. This was the experience among the nurses in a Day Surgery Department at Aarhus University Hospital too. The aim of this study was to investigate if introduction of a standardised pain scoring system would facilitate optimal post-operative pain management among children.

Methods: Prospective registration of post-operative pain score. Bieri Faces Pain Scale was utilised as instrument for pain scoring. A guideline rooted in the paediatric unit states that children expressing pain ≥ 4 are in need of treatment. Pain scoring should be repeated ten minutes past medication and just before planned discharge. Children aged 5-12 years undergoing surgery were included.

Results: The results indicate that postoperative pain scoring facilitates nurses' attention to pain assessment and thereby facilitates optimal pain treatment post-operative. To utilise a pain scoring scale highlights pain treatment among the nurses as an important focus area. The preliminary results indicate that children expressing pain ≥ 4 receive pain treatment more rapidly than before the pain scoring scale was introduced.

Conclusion: It is clinically relevant to improve management of children's pain. Simon and Mosely (2009) argue for "The complex nature of pain itself contributes to the challenges of ensuring that nurses deliver evidence-based pain management to children." A central requisite for optimising nurses' attention to post-operative pain management practice is to implement an 'identify-pain-tool'. Introducing and implementing the Bieri Faces Pain Scale facilitates recognition as well as treatment.



PE41 67.00 Major maxillofacial surgery in out-patients
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Major maxillofacial surgery in out-patients Study objective: This study was a pilot study looking at the possibility of performing major maxillofacial surgery of the upper or lower jaw without admitting the patient to hospital

Methods: 13 patients, 4 males and 9 females, age 17-53 years scheduled for operation for mal-occlusion. The procedure was sagittal split osteotomy of the mandible (8 patients) or Le fort I maxillary osteotomy (if needed splitting the maxilla in three pieces) (5 Pa-tients) The surgery was performed in general anaesthesia with Propofol and Remifentanil. Sevoflurane was added if needed. The patient was kept hypotensive during surgery, mean Blood pressure at 50 mmHg. Local analgesia with Bupivacaine was provided by the surgeon on relevant nerves and as infiltration. Perioperative steroids were given to prevent swelling, PONV and pain. Pain treatment consisted of Paracetamol, Ibuprofen and if needed Morphine. After surgery the patients was offered a stay at the patient hospital.

Results: No patient was admitted. Eleven patients had a VAS score <4, 1 at 5 and 1 at 8 in the 24 hours postoperative. There were 8 patients with minor bleeding from the nose and mouth. All were able to eat and drink, 4 had nausea and 2 vomited. All stayed at the hotel for 1 night, but no contact to the hospital was needed. All patients were fully satisfied and would prefer ambulatory surgery again.

Conclusion: Major maxillofacial surgery can be performed in out-patients with good results and a high patient satisfaction.



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