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Abstracts

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The International Association for Ambulatory Surgery, together with the China Ambulatory Surgery Alliance met in Beijing between 8th and 10th May 2017 to convene the 12th International Congress on Ambulatory Surgery. This was the first time that the Congress had been held in Asia and the hope is that the meeting will add to the impetus of ongoing development of Ambulatory Surgery within this continent.

Thanks are due to Professor Zhenzhong Zhang as President of the China Ambulatory Surgery Alliance, Gamal-Eldin Mohammed as President of the IAAS and all their teams who organized the scientific programme and delivered a series of outstanding social events.

This edition of *Ambulatory Surgery* contains the abstracts from international expert speakers who convened from across the world to share their experiences in the delivery of best quality ambulatory care, and have been kind enough to submit them for publication. I thank them for all their efforts.

Mark Skues
Editor-in-Chief

Accreditation as the Path to Quality: US Federal Program

Speaker: Beverly K. Philip MD

Professor of Anaesthesia, Harvard Medical School, Boston, USA.
President-Elect, International Association for Ambulatory Surgery.

When ambulatory care is provided in hospitals, freestanding ambulatory 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”.

Although most people get health insurance through their employer, the US federal government is the primary insurer for those 65 years and older (Medicare) and for the poor and disabled (Medicaid). The laws governing these programs mandate minimum health and safety standards, known as the Conditions of Participation for hospitals (inpatient and outpatient services) and Conditions for Coverage for ambulatory surgery centers [ASCs]. These Conditions address all aspects of patient care, governance and facility function,

and any provider or supplier that wants to participate in these programs must meet these Conditions. Measuring quality outcomes is increasingly being required by the regulations for participation and payment. There are quality programs for each type of clinical program: the Hospital Inpatient Quality Reporting, Hospital Outpatient Quality Reporting and ASC Quality Reporting programs. Patient satisfaction surveys are being added, using different versions of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey tool.

Inspections to assess whether facilities are meeting the federal quality requirements are largely done by the accrediting organizations that have been “deemed” by CMS to meet its standards. These accrediting organizations are the Accreditation Association for Ambulatory Health Care (largest in ASCs), American Association for Accreditation of Ambulatory Surgery Facilities (offices), DNV-GL Healthcare (hospitals) and The Joint Commission (hospitals).

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Ambulatory Anesthesia: Changing the Process

Speaker: Beverly K. Philip MD

Professor of Anaesthesia, Harvard Medical School, Boston, USA.
President-Elect, International Association for Ambulatory Surgery.

Ambulatory surgical procedures represent a large and increasing fraction of surgery being performed. In the USA, the percentage of outpatient surgery grew from 20% in 1981 to 69% in 1996. This represents an increase in the total number of ambulatory procedures from 3.9 to 22.2 million operations per year. By 2006, an estimated 53.3 million surgical and nonsurgical procedures were performed during 34.7 million ambulatory surgery visits. Of the 34.7 million visits, 19.9 million occurred in hospitals and 14.9 million occurred in freestanding ambulatory surgery centers. The rate of visits to freestanding ambulatory surgery centers increased about 300% from 1996 to 2006, whereas the rate of visits to hospital-based surgery centers remained largely unchanged. The newest segment of ambulatory surgery growth has been in procedures performed in the surgeon's office. We are seeing the continuing shift of more complex operations and procedures from the inpatient hospital to the outpatient settings in all the various forms.

Anesthesia that is specifically tailored for ambulatory surgery involves a multi-component integrated approach. Our approach to these patients must change to meet their specialized needs, so that they can continue with their lives as usual with minimal disruption. This approach may be condensed into a Philosophy of ambulatory surgical care, with two major tenets:

- 1) The ambulatory surgery patient is not sick; and
- 2) The **patient** is the most important person in his/her health care team.

Selection of appropriate patients involves both medical and psychosocial stability. Information about patients is primarily acquired through a thorough history and physical examination, but only minimal screening laboratory tests. Evaluation of the information must be done in advance to avoid last minute delays and cancellations, whether or not the patients are seen in the facility before the day of surgery. Selection of the appropriate patient for ambulatory surgery is a combination of patient, procedure and facility factors.

Patients' cooperation is essential in all stages of the ambulatory surgical experience, from preparation through recovery at home, and patients' expectations about what will happen must be appropriate so that they are satisfied with their care. This requires good preoperative and postoperative education. Education must address the patients' educational needs (what they want to know) and informational needs (what they want to know). The patient has become the focus of the ambulatory surgical experience, and should be invited to participate in all decisions that are not truly medical judgment issues.

Most importantly, the growth of ambulatory anesthesia is tied to anesthesiologists' desire to improve the quality of patient care. We need to identify what is high quality, effective ambulatory anesthesia. Such an anesthetic must provide a smooth onset and have good intraoperative conditions. All phases of recovery must be rapid, starting with early wake-up, continuing through the intermediate recovery phases that lead to patient discharge from the facility, and continuing with late recovery that culminates in the patient's return to normal function. From the patients' perspective, these attributes are important whether or not they will be leaving the facility in an hour or in days. Therefore, the new anesthetic approaches developed for

ambulatory anesthesia that facilitate prompt return to normal function are important for all patients.

The anesthetic drugs used for ambulatory patients must have consistent onset and offset times, permitting rapid changes in levels of drug effect and rapid awakening. In addition, the anesthesiologist must specifically focus on the minimizing the postoperative side effects of anesthetic drugs. Premedication may be used to aid in the reduction of fear and anxiety, but psychological support is very effective and has no adverse effects. Our choice of anesthetic agents and techniques should aim for the goal high quality of recovery, looking to optimize postoperative side effects. Each of our newer drugs has particular attributes, and anesthetic techniques should be utilized to take advantage of these attributes. Often, there are unappreciated system-based impediments that impact recovery and discharge more than the differences between specific anesthetic drugs.

Specialized ambulatory anesthesia also includes an increased awareness of the cost of the entire patient care visit. This includes but is not limited to the acquisition costs of the anesthetic drugs (Table II). Cost-effectiveness is the value obtained for the money spent, and this has become one of the central concerns of modern anesthesia practice.

The two major recovery problems that limit our ability to reach patient goals are pain and nausea. Management of these problems requires a multimodal approach, which begins with the anesthetic plan and continues into the recovery period. Pain management encompasses local anesthetic infiltration, nonsteroidal antiinflammatory drugs, and supplemental bolus opioids given near the end of surgery. Nausea management encompasses adequate patient hydration, avoidance of solid foods postop, and a nonemetogenic anesthetic considering induction agent and minimized opioid. These are supplemented by antiemetic drugs as indicated.

Recovery and discharge care can be enhanced by the use of routine orders, forms and checklists to reduce unnecessary work. Standardized, outcome-based recovery criteria should be used to assess and document readiness for both PACU Phase 1 (medical discharge) and Phase 2 (physical discharge). Formal scoring systems are also available – the Modified Aldrete Postanesthesia Recovery Score for Phase 1 and the Modified Post-Anesthesia Discharge Scoring System for Phase 2. The final phase of ambulatory anesthesia care is postdischarge patient followup, to assess medical outcome and patient satisfaction. While major adverse outcomes are rare, minor side effects are common after ambulatory surgery and anesthesia (86%). These side effects are not complications but rather occur commonly enough to be expected. Drowsiness is the most common effect persisting after discharge. Aches and sore throat are common in intubated patients. Headache and dizziness also occur, but nausea and vomiting after discharge are less common. Patients may take 2–3 days before being able to resume their usual activities. Information about these known side effects should be incorporated into the preoperative patient education and into an anesthesia consent form. Patient satisfaction also needs to be assessed, and our care should focus on what is important to them.

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Ambulatory Surgery – Can We Do Better?

Speaker: Paulo Lemos

Consultant Anaesthesiologist, Porto, Portugal.

Past President, International Association for Ambulatory Surgery

The increase of ambulatory surgery (AS) worldwide has been tremendous in the last decades. The low rate of adverse events or complications, the careful and personalized healthcare deliver to our patients, and the efficient organisation usually developed make ambulatory surgery programmes very popular all over the World.

However, sometimes things do not happen as planned. Situations like those listed can happen quite easily challenging our aims or goals:

- Patients that fail to arrive at day surgery units;
- Patients that feel sick with severe pain or nausea and vomiting unable to achieve discharge criteria;
- Patients that does not have an escort to be discharged with and stay home with them during the first night;
- Patients that after discharge are readmitted due to wound disruption, haemorrhage or any other complication;
- Professionals that are running late or in a disorganised manner, postponing surgical procedures.

Identifying these and other situations can help to improve healthcare deliver to patients and the quality of our activity. Clinical indicators results provide valuable information in assessing the performance of health services. This focus on performance management associated to safety and quality issues has been the result of new demands from

our society and increase competition among healthcare Institutions.

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 in AS. Although very safe and highly popular among patients, these surgical programmes should be continuously monitored in order to guarantee that high quality services are delivered to our patients. 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.

Recently, IAAS developed a European project, named Day Surgery Data Project (DSDP), financed by the European Commission aimed to identify and validate a set of indicators and to develop the information systems on AS in Europe. This project proposes also to analyse AS data and health indicators both at international organization and member states level with the special intention to allow comparisons of performance across countries (Tables 2 & 3).

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

Table 2: Essential set of AS indicators at National/Regional level.

Input	Number and % of DSU by public and private ownership by: Integrated Partially integrated Freestanding
Access	Median waiting time for overall list of basket procedures and for each basket procedure
Output	% of elective surgery performed as AS for the overall list of elective basket procedures and each elective basket procedure
Outcome	Case fatality ratio within 30 days for patients undergoing any of elective basket procedure % unplanned overnight admission % of AS admissions returned to the operating room within 7 days
Safety	% of AS admissions who experienced wrong site, wrong side, wrong patient, wrong procedure, or wrong implant
Cost and Productivity	Expenditure on AS care as absolute value and % of total health expenditure

Table 3: Ideal set of AS indicators at National/Regional level.

Input	Number and ratio of theatres fully dedicated to AS / total available theatres
Access	Median waiting time for overall list of basket procedures and for each basket procedure
Process	% of patients who have received a pre-anaesthesia assessment before AS
Output	% of elective surgery performed as AS by overall list of basket procedures and each basket procedure
Outcome	Case fatality ratio within 30 days for patients undergoing any of elective basket procedure % unplanned overnight admission by cause: surgical anaesthetic / medical social / administrative % unplanned returns to the operating room within 24 hours % unplanned re-admission to a hospital within 7 days
Safety or	% of DSU admissions who experienced wrong site, wrong side, wrong patient, wrong procedure, or wrong implant % of AS admissions with surgical wound infection % of AS admissions with postoperative sepsis
Patient' Satisfaction and Responsiveness	% patients overall satisfied with AS
Cost and Productivity	Expenditure on AS care as absolute value and % of total health expenditure

To sum up, emphasis was pointed out for the need of a continuous evaluation on the quality of healthcare delivered to patients through a wide outcome monitoring, clinical, organisational, social and economical. The author believes that the massive implementation and monitoring of clinical indicators are the best way to continuously improve the quality of our healthcare services.

Further Reading

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Anaesthetic Considerations For Ambulatory Bariatric Surgery

Speaker: Girish P. Joshi MB BS, MD, FFARCSI

Professor of Anesthesiology and Pain Management, Dallas, Texas, USA.

Member of General Assembly, International Association for Ambulatory Surgery.

The prevalence of obesity is increasing exponentially worldwide. Because medical weight management is not always effective, there is a progressive increase in bariatric surgery. Numerous observational case series have reported that laparoscopic sleeve gastrectomy can be safely performed on an outpatient basis. However, all studies have emphasized that patient selection and preoperative optimization of medical conditions are essential for patient safety. In addition, the training and experience of the surgeon has also been shown to influence the incidence of complications as well as the approach to the management of complications and the conversion to “open” procedure. Furthermore, the ability of the facility to manage these patients should also be taken into consideration. Facilities with high volume have been reported to have lower rates of morbidity and mortality. It is expected that the establishment of Centers of Excellence Program may reduce perioperative complications and improve quality of bariatric surgery.

For day surgery to be safe and efficient careful selection of patients is crucial. The exclusion criteria for patients scheduled for ambulatory bariatric surgery include BMI >50 kg/m², American Society of Anesthesiologists (ASA) physical status >3, obstructive sleep apnea (OSA) with no compliance with postoperative positive airway pressure (PAP), impaired mobility that would impede postoperative ambulation, and need for combination surgical procedures (e.g., sleeve gastrectomy and esophageal hernia repair). These criteria are primarily based upon the Society for Ambulatory Anesthesia (SAMBA) consensus statements on preoperative selection of obese and OSA patients undergoing ambulatory surgery.

The optimal general anesthetic technique would minimize postoperative organ dysfunction and enhance rehabilitation, and thus allow early return to normal daily living. It is clear that the residual effects of sedative-hypnotics, opioids, and muscle relaxants, that are not clinically recognizable, can increase postoperative complications. Subhypnotic concentrations of propofol and inhaled anesthetic (i.e., 0.1 MAC), sub-analgesic doses of opioids, and minimal muscle relaxation (train-of-four ratio <0.9) can compromise airway patency, increase pharyngo-laryngeal dysfunction, and increase the incidence of postoperative pulmonary complications. Therefore, it is necessary to use shorter-acting drugs at the lowest possible doses.

Premedication with midazolam (1–2 mg, IV) is commonly used to provide anxiolysis. However, it is prudent to avoid premedication with midazolam, if possible. As far as maintenance of anesthesia is concerned, there is lack of evidence for superiority of a specific general anesthetic technique (e.g., inhalation vs. TIVA). However, inhalation anesthesia is easy to titrate and exert some neuromuscular blocking effect, which may reduce the need for muscle relaxants. Nitrous oxide (N₂O) reduces anesthetic and opioid requirements as well as facilitating the removal of other inhaled anesthetics and allows rapid emergence from anesthesia. Unfortunately many avoid N₂O due to concerns of increased postoperative nausea and vomiting (PONV) and pressure effects through expansion of closed spaces, although strong evidence suggests that these concerns are

unfounded. Thus, there is no convincing reason to avoid N₂O. Although awareness under general anesthesia is a concern, it is critical to avoid deep anesthesia.

Opioids should be used judiciously and long-acting opioids should be avoided. Intraoperative opioids are usually administered based on hemodynamic response (i.e., hypertension and/or tachycardia); however, increased intraabdominal pressures can cause hypertension, which is not related to pain. Therefore, it is inappropriate to use opioids to achieve hemodynamic stability. Dexmedetomidine is a highly selective alpha-2 adrenergic agonist with sedative, amnestic, analgesic, and sympatholytic properties, which does not cause respiratory depression, despite its potent sedative effects. It is assumed that dexmedetomidine is a short-acting drug, however, it may have prolonged sedative effects. The role of dexmedetomidine in outpatient surgery is limited.

Another area of controversy is the need for deep muscle paralysis in laparoscopic surgery. The studies recommending deep paralysis are flawed and biased. Because residual paralysis can increase postoperative complications, it is crucial that muscle relaxants are used sparingly and residual paralysis reversed with appropriate doses of neostigmine.

Intraoperative lung protective mechanical ventilation, which includes use of low tidal volume (6–8 ml/kg, IBW) and positive end-expiratory pressure (PEEP) with recruitment maneuvers as necessary, improves postoperative outcomes and has become a standard of care. In addition, it is recommended that end-tidal carbon dioxide (ETCO₂) levels should be maintained around 40 mmHg rather than the traditional values of 30–35 mmHg because it improves tissue perfusion.

Pain, nausea, and vomiting remain the most common non-surgical causes for unplanned admission to the hospital and readmission after discharge home. Optimal pain management technique for laparoscopic bariatric surgery includes administration of paracetamol, NSAID or COX-2 specific inhibitor, and port-site infiltration with opioids used as rescue analgesics. There is no role for single dose of ketamine, intravenous lidocaine infusion, and TAP blocks in these procedures. A combination of dexamethasone 8–10 mg, IV (after induction of anesthesia) and ondansetron 4 mg, IV (at the end of surgical procedure) should be the minimum PONV prophylaxis. Patients at very high risk of PONV (e.g., history of motion sickness and history of previous PONV) may receive additional antiemetic such as preoperative transdermal scopolamine. In addition, TIVA may be considered in these high-risk patients. Patients requiring rescue antiemetic therapy in the immediate postoperative period could receive low-dose promethazine (6.25 mg, IV) or haloperidol (1 mg).

In summary, appropriate patient selection and use of fast track anesthetic technique with aggressive pain and PONV prophylaxis should improve postoperative outcomes after bariatric surgery. Finally, developing and implementing protocols (clinical pathways)

is the best way to avoid adverse events and improve postoperative outcome.

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Can Patients With Sleep Apnoea Undergo Ambulatory Surgery?

Speaker: Girish P. Joshi MBBS, MD, FFARCSI

Professor of Anesthesiology and Pain Management, Dallas, Texas, USA.

Member of General Assembly, International Association for Ambulatory Surgery.

Obstructive sleep apnoea (OSA) is a common sleep breathing disorder, which is associated with several comorbidities such as hypertension, atrial fibrillation, cardiac failure, diabetes mellitus, and chronic obstructive pulmonary disease. Patients with OSA are at a high risk of perioperative complications. The concerns in OSA patients include difficult airway management, delayed tracheal extubation, difficult maintaining adequate oxygen saturation in the postoperative period, need for tracheal reintubation, exacerbation of cardiac co-morbidities, prolonged stay in the recovery room, delayed discharge home, need for hospital admission, increased post-discharge complications requiring readmission, and sudden death. It is well recognized that appropriate patient selection would minimize perioperative complications. However, suitability of ambulatory surgery in patients with known or suspected OSA remains controversial.

The Society for Ambulatory Anesthesia (SAMBA) consensus statement on preoperative selection of adult patients with OSA scheduled for ambulatory surgery was based upon a systematic review of published literature assessing perioperative complications in this patient population. The patients were classified into two broad groups: those with a known diagnosis of OSA, who are typically prescribed positive airway pressure [PAP] therapy and those with a presumed diagnosis of OSA, based on screening tools. Patients with inadequately treated co-morbid conditions are not suitable for ambulatory surgery (Figure).

A formal diagnosis and severity of OSA is based upon the apnea-hypopnea index (AHI) obtained from a sleep study. However, use of AHI alone to determine the severity of OSA has been criticized. Because OSA is a spectrum of diseases, its severity should be characterized by the severity of the associated comorbid conditions. It is suggested that patients with mild OSA and low risk of comorbid conditions may not pose significant perioperative risk.

Patients with known OSA and optimized comorbid conditions may proceed with ambulatory surgery if they are able to use a PAP device in the postoperative period, as PAP therapy may be protective against opioid-induced respiratory complications. On the other hand, patients who are unable or unwilling to use PAP device after discharge may not be appropriate for ambulatory surgery.

Patients with a presumed diagnosis of OSA, based on screening tools such as the STOP-Bang questionnaire, may be suitable if their comorbid conditions are optimized and if postoperative pain relief can be provided predominantly with non-opioid analgesic techniques. The STOP-Bang questionnaire is simple to use; however, the 'cut-off' used to determine presumption of OSA should be 5 positive indicators rather than the original suggestion of a 'cut-off' of ≥ 3 . Additional evaluation should be considered in patients with significant or uncontrolled systemic disease such as hypoventilation syndrome, severe pulmonary hypertension, and resting hypoxemia in the absence of other cardiopulmonary disease.

Of note, the SAMBA consensus statement did not provide any

guidance for OSA patients undergoing upper airway surgery due to limited evidence. However, there is some recent evidence suggesting that airway surgery in the OSA population may be performed in an ambulatory setting except for patients undergoing combination surgical procedures, tongue base surgery, those with a high AHI, or those with high postoperative opioid requirements.

Recently, the updated recommendations from the Society of Anesthesia and Sleep Medicine (SASM) confirmed that the SAMBA guidelines are still valid. Both SAMBA and SASM recommendations emphasize that all adult patients should undergo preoperative screening for OSA, because this would allow implementation of risk reduction strategies, which may reduce perioperative complications. Also, there is limited data to suggest that preoperative PAP therapy improves perioperative outcomes. Therefore, it is not necessary to delay surgery if the patient is diagnosed as having OSA based upon preoperative screening in order to perform more advanced tests. Facilities should consider having PAP equipment for perioperative use available, or have the patient bring their own PAP equipment to the surgical facility.

In summary, patients with OSA, particularly undiagnosed OSA, are at a higher risk of postoperative complications. All patients should undergo preoperative screening for OSA. If the patient is presumed to have OSA, if possible, surgery should be performed under local/regional anesthesia. If general anesthesia is necessary, shorter-acting drugs should be used at the minimal doses. Pain management should include non-opioid analgesics that allow reduction in opioid doses. It is critical to educate patients and their family members that the risk of postoperative complications may persist for several days after surgery.

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Colorectal Ambulatory Surgery

Speaker: Luis Hidalgo Grau MD, PhD

General and Digestive Surgery Department, Hospital de Mataró (Barcelona). Spain.

President of ASECM (Spanish Society for Ambulatory Surgery).

Member of General Assembly, International Association for Ambulatory Surgery.

Colorectal Surgery accounts for a considerable rate of Ambulatory Surgery Units activity. It is known that rectal and proctological diseases are prevalent in the population. This lecture will try to create "a picture" of rectal and proctological ambulatory surgery, discussing anesthetic and surgical aspects, postoperative care and a selection of the patients presenting with diseases suitable for ambulatory surgery. Thus, correct treatment of postoperative pain (including opioids administration and laxatives), avoiding postoperative bleeding and anal canal packing are highly recommended.

Hemorrhoids: Resective techniques have a low recurrence rate, but are painful. New non resective techniques, stapled mucosal anopexy (Longo's procedure), HAL-RAR procedure and LHP laser decreases postoperative pain, but recurrence rate is higher.

Anal fistula: Treatment of anal fistula considers both a high success rate without anal continence impairment. The best option is still fistulotomy, but it cannot be always considered (high fistuli and women). If a dangerous and complex fistuli, mucosal advancement flap is probably the gold standard (70% of success), but other procedures have been developed (Ligation of Intersphincteric Fistula Tract, fibrin glue and platelets, fistula plug, Laser FILAC and videoassisted surgery).

Anal fissure: Lateral internal sphincterotomy is the treatment of choice for patients who do not respond to conservative treatment.

Pilonidal sinus: Resection of pilonidal sinus and granulomatous tissue could be done in ambulatory surgery. The surgical wound may be lay open or closed, with or without flaps.

Rectal polyps: Rectal polyps can be removed by transanal approach. If they are located up to 7 cm. from the external anal verge, new devices like TEM, TEO or TAMIS are extremely useful. Even non-advanced malignant lesions can be resected.

Hypertrophic anal papillae and fibrous anal polyps: Both lesions are suitable for ambulatory surgery.

Rectocele: Treatment of rectocele is possible in ambulatory surgery both by the use of meshes or STARR technique (endoanal approach, a modified Longo's operation).

Perianal and anal condylomata: Depending on size and number, patients with these pre-neoplastic lesions can benefit from ambulatory surgery.

Emergency Surgery: Anal abscesses can be drained in Units fit for perform this procedure and giving an adequate postoperative immediate care.

We can conclude emphasizing the need for experience for both anesthesiologists and surgeons engaged in colorectal ambulatory surgery cases. Consequences of an incorrect anesthetic or surgical procedure can be dramatic for the patient.

Creating an Ambulatory Laparoscopic Cholecystectomy Programme

Speaker: *Fernando Docobo Durantez*

University Hospital Virgen Rocío, Seville, Spain.

Past President: ASECMMA

Objectives

The aims of the study were to evaluate the experience in our hospital in teaching and training in ambulatory endoscopic cholecystectomy (CLA).

Introduction

Training in laparoscopic cholecystectomy is present in every programme in our country. If the procedure is to be done as outpatient it has some special characteristics in relation with possibilities and decisions. This training, to blunt the learning curve, typically involves a graded learning curve. We present our experience with the national program of surgery speciality and added a complementary programme to develop concepts and laparoscopic abilities, looking for excellence in every surgical resident.

Material and Methods

1. Postgraduate Spanish National Surgery Programme: Consults: Surgical indication. Patient criteria. Circuits: Clinic as Circuit. -Discharge criteria- Postoperative controls.-Surgical procedures Assistant Surgeon. Surgeon assisted. Evaluation criteria summarized 3 concepts: Knowledge 30%; Attitudes 20%; Abilities: 50%.
2. Minimally Invasive Surgical Programme. A. Basic course programme (2nd-3rd courses) 3 days. B. Advanced course programme .4th-5th courses. Duration of 3 days.
3. Laparoscopic cholecystectomy medium activity per resident during national teaching-training programme.

Results

1. Postgraduate National Programme. Medium results 24 surgery residents 2001-05. (97.5 %/100%). Knowledge (28.5%/30%) Attitudes: (19%/20%) Abilities: (50%/50%).
2. Minimally Invasive Surgery Programme. 2 courses. 1st during 2nd- 3rd year: Completed activity .2nd during 4th-5th year: Completed activity.
3. Laparoscopic Cholecystectomy Medium Activity per resident during teaching programme. 201 procedures; 29 as DS, 4 as surgeon in DS.

Conclusions

Teaching and training of Ambulatory Laparoscopic Cholecystectomy is in progress in Spain, based on the National Surgery Programme with a particular development in our Department. In addition, there is a complementary National programme for 1st–3rd and 4th–5th stage residents to attempt unify criteria, real model and proposal, national consensus and economic adaptation.

We present actual CLA teaching-training programme in our University Hospital and their possible inputs as investigation.

Current Controversies in Pain Management For Ambulatory Surgery: An Update

Speaker: Girish P. Joshi MB BS, MD, FFARCSI

Professor of Anesthesiology and Pain Management, Dallas, Texas, USA.

Member of General Assembly, International Association for Ambulatory Surgery.

Optimal perioperative pain management facilitates postoperative ambulation and rehabilitation. The detrimental consequences of inadequately treated pain are well documented; however, postoperative pain control remains suboptimal. Opioids still remain the mainstay in managing perioperative pain. The conflicting evidence from the meta-analysis assessing various analgesic interventions creates confusion amongst clinicians. Furthermore, the available guidelines provide broad recommendations, which may not always apply to specific surgical procedures making it difficult for clinicians to implement the information in day-to-day practice.

The best approach to achieve optimal pain control is to develop procedure-specific and patient-specific pain management strategies and incorporate them in clinical pathways. The first step is to identify patients at risk of disproportionate pain to the surgical insult (i.e., high responders). The predictors of severe postoperative pain include age, gender, presence of preoperative pain, inappropriate patient expectations, and psychological factors such as low self-esteem, severe anxiety, major depressive disorder, and pain catastrophizing or hypervigilance. Therefore, patient education is a crucial component of an optimal pain management strategy. Another factor that is commonly overlooked is opioid-induced acute tolerance and hyperalgesia caused by high intraoperative opioid use. Therefore, intraoperative opioid dose must be limited.

Multimodal analgesia has been accepted as the best approach to pain management; however, the number and choice of analgesic interventions should depend upon the type of surgical procedures and expected postoperative pain. Furthermore, risk benefit of the interventions should be considered. Local/regional analgesia should be utilized as the principal method in the multimodal analgesic technique. Peripheral nerve blocks are optimal for extremity surgery; however, the duration of a single-local anesthetic injection is limited (~6-12 h) and the abrupt termination of analgesia may result in rebound pain. Although additives have been used to prolong the duration of a nerve block, their routine use is not recommended due to a high risk/benefit ratio. Continuous peripheral nerve blocks extend the duration of analgesia, but their placement can be technically challenging and associated with management problems. Overall, patients undergoing major upper extremity surgery (e.g., shoulder arthroplasty, rotator cuff repair, and elbow arthroplasty) could receive brachial plexus block. Patients undergoing major knee surgery could receive adductor canal block, while those undergoing major foot and ankle surgery could receive popliteal sciatic nerve block.

In recent years, field blocks such as transversus abdominis plane (TAP) blocks are increasingly used in patients undergoing lower abdominal surgery. However, they have no role in laparoscopic procedures. Surgical site infiltration provides excellent analgesia with no potential adverse events, and should be utilized whenever possible. However, it is imperative to ensure that all layers of the surgical incision are meticulously infiltrated with high volume and low concentration local anesthetic solution.

Local/regional analgesia should be supplemented with a combination of paracetamol, traditional non-steroidal anti-

inflammatory drugs (NSAIDs) or cyclooxygenase (COX)-2 specific inhibitors, and dexamethasone (8-10mg, IV), assuming there are no contraindications. Combination of paracetamol in appropriate doses (i.e., 1 g every 6 h, maximum 4 g per day) and NSAIDs or COX-2 specific inhibitors provides greater opioid-sparing effects compared with either drug alone. Non-opioid analgesics should be administered at the appropriate time (preoperative or intraoperative) to provide sufficient analgesia in the early recovery period, and continued in the postoperative period until the surgical inflammation is resolved.

Opioids are used as “rescue” analgesics on an “as needed” basis rather than on a scheduled basis. Weak opioids (e.g., tramadol) may be used if the pain intensity remains to be moderate, while strong opioids (e.g., hydrocodone and oxycodone) may be used for moderate-to-high intensity postoperative pain.

Analgesic adjuncts such as intravenous lidocaine infusion, ketamine, and gabapentinoids are generally reserved for select patient population and/or surgical procedures. There is no role for intravenous lidocaine infusion in ambulatory surgery. Similarly, there appears to be no role for a single bolus dose of ketamine in minimally invasive surgical procedures. Gabapentinoids may be used in surgical procedures with a high propensity of persistent postoperative pain, but with great caution and at the lowest possible dose. These drugs are best administered for at least to 7–10 days postoperatively.

Other non-pharmacologic therapies that could be offered as a part of a multimodal analgesia approach includes music therapy, which has been proven to reduce pain and anxiety in the postoperative period as well as biofeedback and cognitive-behavioral modalities.

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Day Case Laparoscopic Cholecystectomy (DCLC) in a developing country

Speaker: T. Naresh Row

Consultant Surgeon & Day Surgery Specialist, One Day Surgery Center, Mumbai, India.

Member of General Assembly, International Association for Ambulatory Surgery.

Laparoscopic Cholecystectomy began in 1990 in India. Day Case Lap Chole (DCLC) is not an established norm. The review of literature from India, throws up just a handful of studies, and that too, as retrospective analyses of single individual centres. The attitude of healthcare providers and the patients usually is 'What difference does it make?' which defeats the purpose of Day Surgery all together. From a surgeon's point of view, there is an urgent need for guidelines and protocols based on local needs, the creation of a team to perform DCLC and undergo proper training. Patients point of view is the inconvenience of multiple trips to the hospital for various reasons like consultation, investigation, counselling, fitness, etc. they would rather be hospitalised and everything is easy as an inpatient.

Hospital managers face the nightmare of staffing, scheduling and smooth running of a centre performing DCLC. Even though the protocols set and used in the few published literatures from India, they are very arbitrary and not validated. However, one of the oldest published data from India, had found 313 cases fit for DCLC, and concluded that it is a safe and feasible procedure for a developing country, provided they develop their own guidelines based on local patient demography.

Causes of cancellation ranged from non-availability of beds in the recovery ward, delay in surgery to financial difficulty, as 80% health care expenses are out-of-pocket in India.

In spite of several shortcomings, several published studies have testified to the safety and feasibility of day care laparoscopic cholecystectomy (DCLC). These reports, however, emanate from developed countries with well-established norms for day care surgery with rigorously monitored outcomes.

To summarise, under developed healthcare system, low literacy rates, marginal difference in the cost of inpatient LC versus DCLC, have dogged the progress of Day surgery itself in the country. But, even though the progress is slow, and centres offering services of DCLC few, data is being collected and published. Soon, we will have guidelines and patient safety protocols for a safe and successful DCLC.

Day Surgery Nursing in Australia – How we do it down under

Speaker: Claire Kennedy

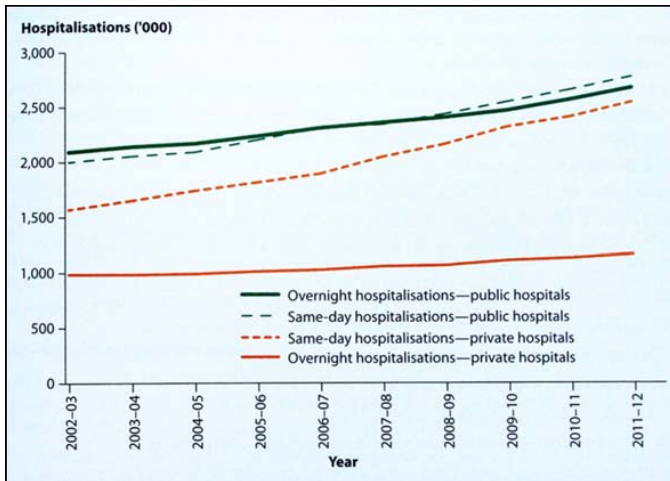
President, Australian Day Surgery Nurses Association.

Member of General Assembly, International Association for Ambulatory Surgery.

Day surgery in Australia is on the rise. In the early 2000s, we were seeing rates of 1.5 million patients having day surgery in the private sector in Australia with roughly 2 million in the public sector. In recent times, those numbers have increased dramatically.

Historically, the incidence of day surgery in the private sector has far outweighed the number of overnight admissions. This was not the case in the public sector, however since 2009 day surgery numbers have overtaken overnight admissions in the public sector and we are now seeing the continued growth of day surgery across the board in Australia.

Figure 1: Same-day vs overnight hospitalisations in Australian private and public hospitals (2000–2012). Australian Government, Australian Institute of Health and Welfare, Australia's Health 2014 (p 417).



The latest available statistics from the Australian Institute of Health and Welfare show that in the 2014-15 year, there were almost 10.2 million hospitalisations in Australia. Same-day hospitalisations accounted for 60%, or just over 6 million, of these. More than half of all hospitalisations in the public sector were same day admissions, with over two thirds of hospitalisations being same day in the private sector.

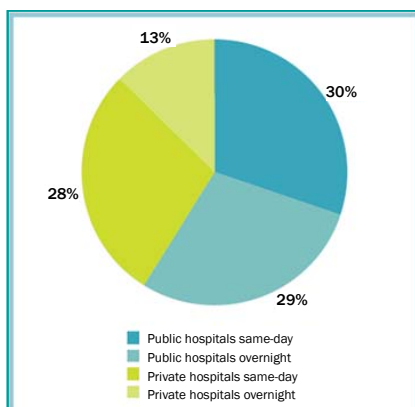


Figure 2: Same-day and overnight hospitalisations in Australian private and public hospitals (2014-15). Australian Government, Australian Institute of Health and Welfare, Australia's Hospitals 2014-15 at a glance, 2016 (p 15).

With more than 6 million patients each year in Australia, being admitted, treated and discharged on the same day, we are seeing the emergence of a new nursing sub-specialty.

The nurse working in the day surgery arena must be conversant with all aspects of the perioperative journey, see below, to ensure an effective and efficient patient flow through the process.

From the very first encounter with the patient at the preadmission assessment, right through to placing the phone call for follow-up post discharge, nurses caring for the patient having day surgery must be highly skilled and motivated. These nurses are required to support the patient through the entire perioperative journey in a matter of hours rather than days. This requires energy, adaptability, flexibility and compassion. These nurses must be multi-skilled, knowledgeable, hardworking and efficient. They require expert communication skills with a tendency towards innovative thinking, to ensure the care they provide is up to date, cutting edge and ensuring optimal outcomes for their patients at all times.

The day surgery nurse needs to have knowledge of not just one, but potentially every specialty. To have this specialised knowledge, to efficiently and effectively care for the patient while ensuring the safety of themselves, their colleagues and their patient, all within a very short time frame, makes the day surgery nurse, in this author's opinion, a super nurse.

So what can we do to support our ever growing sub specialty of day surgery nurses?

In 1993, the day surgery groups existing in each state of Australia, joined to form a nationwide association to unite and support day surgery nurses across the country and the Australian Day Surgery Nurses Association (ADSNA) began. To this day, ADSNA continues to support day surgery nurses, provide education, and offer financial support for its members to further their own professional development. ADSNA links its members with national and international associations dedicated to the care of patients requiring same day surgical care.

ADSNA's mission is to promote the open exchange and dissemination of knowledge, expertise and developments in all areas of day surgery through networking, collaboration, communication and support. ADSNA achieves this by supporting educational opportunities across the country through each state group's education evenings and conferences and by hosting a national conference held every two years in a different state. ADSNA also keeps its members connected by providing them with electronic newsletters throughout the year, as well as publishing and distributing the journal 'Day Surgery Australia' twice a year.

ADSNA also writes and publishes the Australian Best Practice Guidelines for Ambulatory Surgery with the 5th edition currently under review and due for launch in June 2018.

Figure 3: The Day Surgery Patient Journey

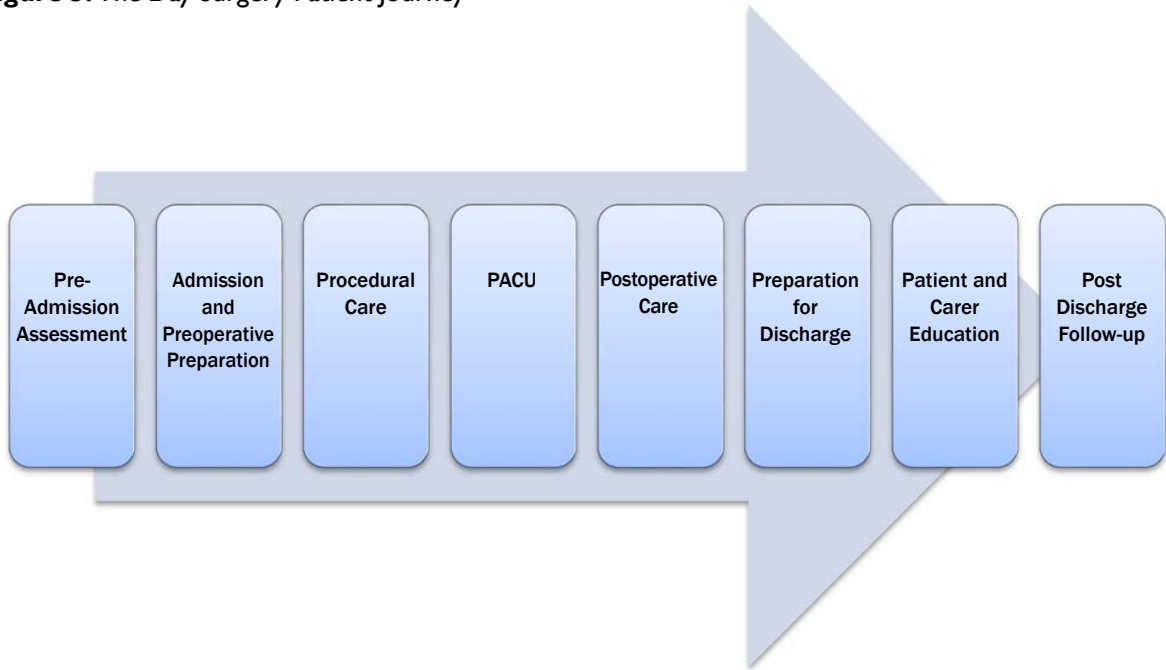
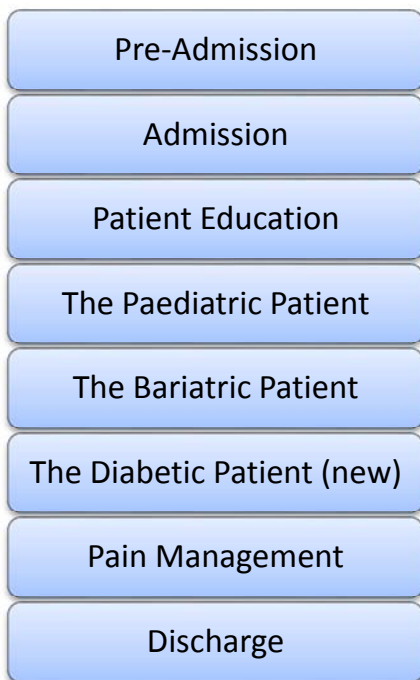


Figure 4: ADSNA Best Practice Guidelines for Ambulatory Surgery and Procedures.



As well as all of this, ADSNA represents Day Surgery in Australia on many national committees and working parties and is a member of the general assembly of the International Association for Ambulatory Surgery (IAAS). These links ensure that all members remain well informed, well educated, well connected and, most importantly, well supported by the network of day surgery nurses across the country.

So as the rates of day surgery continue to surge nationwide, nurses working within this sub-specialty must continue to grow with it. Education and research specifically targeted at day surgery must be offered and undertaken to ensure the high level of patient care is maintained for this vast numbers of patients. ADSNA will continue to support these *super nurses* as they navigate the fast-paced and ever changing environment that is Day Surgery in Australia.

Delivering Ambulatory Breast Surgery: What are the High Impact Factors?

Speaker: Kian Chin

Consultant Surgeon, Milton Keynes.

President Elect of the British Association of Day Surgery, United Kingdom.

The concept of Ambulatory Surgery has been known in the United States and United Kingdom since the 1900s (1). However, the modern approaches of Ambulatory Surgery didn't really become more popular and sophisticated until the late 1980s. Since then, BADS was instrumental in spreading and sharing the best practice knowledge of AS especially in the UK.

In the UK, Ambulatory Non Reconstructive Breast Surgery (ABS) became popularized when the UK government set up the NHS Improvement group, tasked to improve on the outcome of care for patients with breast cancer in 2010. Consequently, the length of stay of ABS was reduced considerably, from the average of 2–4 days to 1 day only with a considerable financial saving of approximately £50 million (3).

The successes in delivering ABS can be attributed to various technological advances in surgery, anaesthetics as well as the role expansion in ward & breast care nurses. In surgery, it is important that the surgeon ensure meticulous tissue handling, good homeostasis and using the appropriate sutures for wound closure has made major impact on the ABS. Usage of certain barbed sutures has particularly reduced the length of time for wound closure, thereby enhancing the day surgery recovery and discharge process. Surgically placed local anaesthetic wound catheters; pectoralis muscle block (PEC 1 & 2) and pleural block have all improved postoperative pain control in patients.

Recent advances in anaesthetic approaches have also contributed to the developing ABS. From a surgeon's perspective, it is important to ensure good communication, starting at the WHO checklist session ensuring the team is aware of the exact operative details so that the Anaesthetist plans accordingly. Shorter acting and more effective general anaesthetic agents were amongst the many high impact factors. Minimal usage of opioids and avoidance of patient controlled analgesia are also the common high impact factors.

Perhaps, the evolution of the concept of nurse led management and discharge of ABS patients one of the most significant advances in driving the standards of ABS care (2). A well-led nursing team and engagement of senior ward matrons are crucial in achieving good outcome. In some units, breast care nurses have also developed skills to manage minor wound problems as well draining wound seroma after surgery. This has lessened patient anxiety and therefore improved their willingness to be discharged on the same day. Advanced breast care nursing skills like pre and postoperative counseling of patients further enhances the process of delivering ABS.

Finally, the importance of multidisciplinary team approach cannot be underestimated. The sustainability of ABS rate can be achieved via data collection and analysis to drive improvement.

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Diabetic Patients: Perioperative Blood Glucose Management

Speaker: Girish P. Joshi MB BS, MD, FFARCSI

Professor of Anesthesiology and Pain Management, Dallas, Texas, USA.

Member of General Assembly, International Association for Ambulatory Surgery.

Perioperative blood glucose levels (BGL) should be controlled, as hyperglycemia is associated with increased risk for complications such as dehydration, ketoacidosis, non-ketotic hyperosmolar states, and surgical site infections. The Society For Ambulatory Anesthesia (SAMBA) has published a consensus statement on perioperative blood glucose management, which provides some guidance to address several clinical questions. It is recommended that the primary goal should be to maintain adequate BGL, while avoiding hypoglycemia. This should be accomplished by minimal disruption of patient's anti-diabetic therapy and prompt resumption of oral intake.

What preoperative information specifically related to glycemic control should be obtained in a diabetic patient?

Preoperative assessment should include the type and dose of antidiabetic therapy, the level of glycemic control, frequency and manifestations of hypoglycemia, if any, the BGL at which hypoglycemic symptoms occur, and ability of the patient to reliably test their BGL.

How do we manage preoperative anti-diabetic therapy?

Diabetic patients are typically on basal therapy (oral hypoglycemic drugs or long-acting insulin), which controls BGL between meals and prandial or bolus therapy (usually with short-acting or ultra-short-acting insulin), which controls BGL after meals. Hypoglycemia does not occur in patients on oral antidiabetics except rarely with sulfonylureas, meglitinides, and non-insulin injectables. Therefore, it may not be necessary to discontinue these drugs prior to the day of surgery; however, they should not be taken on the day of surgery. More recent data suggests that for ambulatory surgery, metformin and DPP-4 inhibitors may be taken the day of surgery and continued through the perioperative period. Also, the sodium glucose-cotransporter (SGLT)-2 inhibitor therapy should be stopped 24-h prior to surgery. Basal insulin therapy (i.e., insulin pump or long-acting peakless insulin) should be continued until the day of surgery. However, in patients with a history of nocturnal or morning hypoglycemia the nighttime dose of basal insulin therapy should be reduced. Obviously, because the patients are fasting they should not receive short-acting or ultra-short acting insulin.

Is there a preoperative blood glucose level (BGL) above which one should postpone elective surgery?

There is insufficient evidence to specifically recommend a 'cut-off' BGL above which elective ambulatory surgery should be postponed. However, it may be acceptable to proceed with surgery in patients with preoperative hyperglycemia but with adequate long-term glycemic control, barring any significant complications of hyperglycemia such as ketoacidosis and hyperosmotic states. In patients with chronically poorly controlled diabetes mellitus, the decision to proceed with ambulatory surgery should be made in conjunction with the surgeon and take into account patient comorbidities and the risks of surgical complications.

What is the optimal intraoperative period blood glucose level?

It is recommended that BGL should be maintained between 140-180 mg/dL or 7.8-10.0 mmol/L during the perioperative period. However, chronically elevated BGL should be maintained at the level at which they 'live'. Also, do not acutely decrease the BGL.

How do we maintain optimal blood glucose levels?

Subcutaneous rapid-acting insulin is preferred over regular insulin, as its pharmacokinetic profile would result in less fluctuation in BGL. Intravenous administration is not recommended because of its short duration of action resulting in high fluctuations in BGL. There is not enough evidence to recommend a dosing schedule (e.g., a sliding scale). The "rule of 1800 or 1500", which provides the expected decrease in BGL with each unit of insulin may be used. Thus, if the patients' daily insulin requirement were 60 units, one unit of insulin would reduce in BGL by 25-30 mg (i.e., 1500/60 or 1800/60).

What are the other considerations specific to glycemic control in diabetic outpatients?

Patients should receive aggressive antiemetic prophylaxis. A single dose of dexamethasone 8-10 mg may increase BGL, but it is usually remains below the treatment threshold. Patients should be observed in an ambulatory facility until the possibility of hypoglycemia from perioperatively-administered insulin is ruled out.

What advice should we give to patients?

Patients should be advised to hydrate well during the fasting period (e.g., drink at least 2 glasses of water before going to bed and 2 glasses of water on the morning of surgery just before leaving for the hospital). They should travel with a suitable treatment for hypoglycemia that might occur in transit. Patients should be advised that transition to daily preoperative antidiabetic regimens should be delayed if normal caloric intake is delayed.

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Do we give Patients too much Information?

Speaker: Mariann Aaland

Head of Day Surgery Unit, Akershus University Hospital, Oslo, Norway.

Member of Executive Committee, International Association for Ambulatory Surgery

Day surgery patients are going home and are expected to take care of themselves or being taken care of by their relatives. In day surgery there is one chance to do the right thing for the right patient, every time. Becoming a patient evokes uncertainty, vulnerability and implications for autonomy. Adequate preoperative information is important for optimizing pain relief, reducing anxiety and shortening hospital stay. This is equal for different nationalities.

Written information should be evaluated by patients to ensure that the information is good enough and understandable. It should be available in advance, and include details on:

- Pain management
- Diagnosis and information that is relevant to it.
- Wound care
- Complications
- Contact information

Part of the information (both oral and written) must be adjusted to the individual.

The oral information needs to be adjusted to whom you are talking to; Information will be understood due to cultural and social context the patient lives in and comes from.

Too much information could be overwhelming; the patients don't read, or do not remember it. If information is not readable and argumentation is not complete the patient will not be able to consider and use it effectively.

Information- To Whom, What and When?	
Western model- Individual approach	Non Western model- collective approach
Transparency (truth and value)	Protect (relatives protect their loved ones)
Science (symptoms in focus)	Outside forces (superstition, witchcraft, magic, "evil eye" penalty from God)
Autonomy (self care)	Paternalism (caring for others)
Healthcare professionals and patient dialogue	Healthcare professionals and caregivers in dialogue
Confidentiality	Small / no confidence in state institutions
Relationship expert (professional) / user-liberal	Relationship expert user-authoritarian

Emergency Ambulatory Surgery

Speaker: Dr Mark Skues

Editor in Chief, *Ambulatory Surgery*.

Past President, British Association of Day Surgery.

Although Ambulatory Surgery is predominantly concerned with management of the elective patient, there is no reason why the same techniques cannot be applied to individuals seeking non-elective care. Indeed, the first description of day surgery by James Nicoll in 1909 (1) highlighted the use of out patient facilities for operations as diverse as mastoid empyema, pyloric stenosis and birth fractures of the skull that would today, be regarded as non elective procedures.

Emergency Surgery can be classified into a number of groups based upon the need for intervention; **Immediate:** requiring intervention within minutes, **Urgent** for life threatening conditions mandating input within hours, **Expedited**, with a patient requiring treatment where the condition is not an immediate threat to life (within days). Emergency Day Surgery falls into the “expedited” group, where there are three further categories of care.

These are: **True Emergency Day Surgery**, where an unplanned admission is managed and discharged on the same calendar day, **Day Surgery on the Emergency Pathway**, where the clock starts after the decision has been made to operate, and concludes with same day discharge after the operation, and **Planned Emergency Day Surgery**, otherwise typified as an Interval Emergency procedure.

Planned Emergency Day Surgery is classically involved with abscess drainage, where, having assessed the patient in the Emergency Department and ensuring they are not systemically septic, have adequate oral analgesia, have no major co-morbidities and are suitable for ambulatory care, are discharged home for a planned admission the following day for their surgical procedure. Multiple studies have evaluated this method of care with a predictable reduction in the number of overnight beds required for this cohort of patients. (2–6).

Day Surgery on the Emergency Pathway is typified by patients undergoing laparoscopic appendicectomy (7), salpingostomy for ectopic pregnancy (8), and possibly acute laparoscopic cholecystectomy, for which, there is good evidence that an early operation reduces mortality and complications (9). Of relevance to day surgery for these types of operation is the possibility of continued sepsis post-operatively, which might limit feasibility of home discharge after the operation. However, in an era when cost constraint and reduction of bed stays is increasingly imperative, emergency ambulatory surgery has much to offer.

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Financial Restrictions in a Developing Country

Speaker: T. Naresh Row MS, PhD

Consultant Surgeon & Day Surgery Specialist, One Day Surgery Center, Mumbai, India.

Member of General Assembly, International Association for Ambulatory Surgery

In a developing nation, operational costs of a healthcare centre depend upon several factors. With a per capita income of \$1,447 per person per year, as it stands today, the purchasing power of an individual is limited. India, by default, has one of the most privatised health care set-up in the world, with 80% out-of-pocket payments. Insurance cover at present is only 20% of the general population. Therefore, any set-up, including Ambulatory Surgery Centre, will be required to take into consideration, the operational cost and paying capacity of the patient for that cost.

Several factors increase the setting up cost of any healthcare centre in the private sector. There is no difference between a hospital or a Day Surgery Centre, in India. The process of acquiring a permission to run the place is same with the need for at least 11 licences, including fire safety, drugs, bio-medical waste and permission to carry out sterilisation surgeries, to name a few. The process is long and most of the time expensive, adding to the overall cost

of setting up a DSC. There is a restriction on real estate property rentals, commercial building, ground floor, separate entrance, fire escape, number of beds, staffing, etc. as basic minimum standards, which add to the cost. Then there is the need for purchase of the equipment and staff salaries on a daily basis. These factors increase the operation cost of a centre, increase in the overhead cost, which ultimately has to be recovered from the patients. Thus, difference between the cost for in-patient surgery verses Ambulatory Surgery is not much for the patient, who as it is, prefers to stay in the hospital for several reasons.

For a 15 bedded unit in a metropolitan city, the average running cost is \$ 10,107/- per month. The recovery of this cost for a DSC, doing purely elective cases, becomes difficult. However, many centres are now offering an incentive of 25%-30% per major case performed and provides early return to work.

Finessing Day Surgery in Western Australia

Speaker: Marie Sheehan, Natalie Taylor, Gillian Rimmer

Chief Executive Officers and Directors of Nursing, Western Australia.

Just as in other countries, the Australian Healthcare system is under mounting pressure to deliver quality healthcare, improved outcomes with scarcer resources.

This pressure has been brought about by the dramatic increase in the aging population, rapid development in medical technology, increasing consumer expectation, reduction in numbers of healthcare workers and increasing constraints on healthcare public and private funding.

Since their inception over 45 years ago, increased utilisation and improved management, day hospitals are in a position to significantly assist in the relief of this pressure on the healthcare system.

Day Hospitals in Western Australia are constantly evolving to meet the challenge. Our presentation will showcase the highly competitive, innovative, private day surgery market in Western Australia.

Highlights of our presentation include:

- Day surgery appropriate procedures
- Funding
- Adaption to consumerism, demographics and technology
- Licensing and Standards
- Where to from here

Healthcare Payment Systems in the US

Speaker: Beverly K. Philip MD

Professor of Anaesthesia, Harvard Medical School, Boston, USA.
President-Elect, International Association for Ambulatory Surgery.

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 co-payment, 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. Each prospective payment system has a quality measures reporting component, which impacts the annual cost-of-living update. 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.

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How do we Follow up our Patients?

Speaker: Wendy Adams

Registered Nurse, Australia.

Contacting patients in the post-discharge period establishes the patient's perceptions of their experience, identifies common postoperative complications, assists in the determination of when patients feel able to resume normal activities, increases patient satisfaction, provides additional advice and reassurance to patients, assists nurses in evaluating a patient's postoperative condition, reinforces postoperative teaching, obtains performance feedback and facilitates audits to improve clinical practice.

This presentation will address what is considered to be best practice from a number of organisations including the International Association for Ambulatory Surgery, Australian and New Zealand College of Anaesthetists, the Australian Day Surgery Nurses Association and the Australian Council of Healthcare Standards.

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IAAS recommendations on Patient Satisfaction Surveys in Day Surgery

Speaker: Jan H Eshuis MD

Medical Director of Day Surgery Academic Medical Center, Amsterdam, the Netherlands.
Honorary Secretary, International Association for Ambulatory Surgery

Patient Satisfaction Surveys are fruitful tools to monitor and improve your Day Surgery Practice. Despite reluctance and possible objections (reliability data, costs, not wanting to be “measured”), it can lead to better care, patients can become happier, and a positive marketing tool for promotional strategies of your unit. Refusing a PSS leaves you ignorant about potential improvements.

Conducting a PSS should not be done before your unit embraces quality improvement. A PSS should preserve anonymity, be brief, coherent and clear. What factors are crucial when it comes to patient satisfaction? According to Holland et al, 6 main items are: Courtesy and Sensitivity of Staff, Clinical Outcome and Safety, Information and Education, Facility Efficiency, Facility Environment and Physical Privacy. The questionnaire contains for every factor 6 items to be scored on a scoring scale from 1-5. Done periodically helps you to evaluate your processes and improvements. For the overall satisfaction, crucial for intention to recommend your facility to others, *courtesy and sensitivity of staff and clinical outcome* are the most significant factors.

Summarized for overall satisfaction: Regarding Treatment: it must be qualitatively beyond discussion excellent, including a good outcome; Service: courtesy and sensitivity of staff, excellent information and guidance, and Procedures: a good organization without bucks from reception, admission, surgery, recovery to discharge and after care and follow up. These components together determine the satisfaction of the patient, and you can see that it is *only a delicate balance* which makes your patient happy about your performance. The most important is constant *sincere and skillful attention of staff*.

Complaints: It is always worthwhile, not to say imperative, to take complaints seriously. A good empathetic approach to the complainant will satisfy him, will prevent escalation and he can become even your fan and might refrain from an official complaint. One patient who takes the courage to express a complaint is probably model for 20 other non-satisfied patients who don't express their dissatisfaction. In other words a complaint means “alarm” and should be followed by *thorough introspection* and of course by proper and prompt handling of the complaint through personal contact. This will prevent diffusing a bad reputation.

In my presentation I show you three consecutive cobweb-graphs of a PSS of my own department during three years, also benchmarked with 7 other Academic Day Care units. It shows an modest annual improvement of the most scored items.

In the last part I show you our practice of “Mirror Conversations” of patients with staff of our unit. A mirror conversation is a group of five to twelve invited patients led by an independent chairman, sharing their experience on a predetermined theme. **Care providers (doctors, nurses and others)** are there in a second circle around it and their job is to **listen and be silent**. In the last part people from this second circle set can ask questions. In the **first part of the interview** (former) patients bring forward topics about which they want to tell. That may be about personal contacts with doctors, nurses and others about treatment and the facilities. Positive experiences and things that could be different and better, are discussed. **In the second part**, the moderator **puts forward questions from the caregivers** involved. They ask indirectly about issues and shortcomings which came up from former surveys. The care givers don't take part in the conversation, but are only listening to the experiences. At the end, they can answer questions from patients. It is not the intention to enter into discussion with each other, or get it right.

Keep your staff and colleagues well informed about the process, and let them know how you will interpret and act on the results. Recognize that this is just a snapshot of how your patients view you right now. Then take that feedback and organize improvement projects around those comments or scores.

While your improvement projects will focus on areas of weakness, make sure you also plan to celebrate your practice's successes. When you conduct a patient satisfaction survey, chances are you're going to get a lot of positive reinforcement about the many things that you are doing well, besides the necessary improvements of shortcomings.

Incentivisation of Ambulatory Surgery

Speaker: Mark Skues

Editor in Chief, *Ambulatory Surgery*.

Past President, British Association of Day Surgery.

Funding mechanisms for surgery in England changed in 2007 with the development of Payment by Results (PbR). Whereas in the past, block contracts were used to pay hospitals for care, PbR provided one payment per patient for every episode of clinical care. This has involved the generation of differing coding mechanisms for every operation, where the standard OPCS (Office of Population Censuses and Surveys) codes are translocated into Health Resource Group codings (HRG). HRG codes also include measures of co-morbidity or complications, and details of whether the procedure is elective or emergency. From this code, standard tariffs are used to reimburse hospitals for the cost of care.

In 2009, The PbR Team sought a meeting with the British Association of Day Surgery, where they explained that because day surgery was intrinsically cheaper than the inpatient equivalent, they were proposing to introduce a tariff for day surgery that would be less expensive than the inpatient equivalent. Predictably, the Association had elements of concern about this proposal, recognising that the previous development of Day Surgery might be halted, and that hospitals might preferentially keep patients in hospital overnight for no clinical reason, so that they could benefit from the increased tariff. Conversely, the BADS Committee suggested that Day Surgery should be incentivised with additional payment for completion of the day surgery pathway, provided patients were discharged on the same day as their admission. In 2010, BADS was gratified to learn that preferential incentivisation for day case laparoscopic cholecystectomy had been offered, with patients undergoing the procedure on an ambulatory basis earning an additional €400 compared with inpatients requiring overnight stay.

Since 2010, the number of procedures benefitting from this “best practice tariff” has increased to 15, with a further 22 procedures scheduled for incentivisation from April 2017.

Comparative evaluation of the concept by various authors has confirmed the value of best practice tariffs (1,2) for ambulatory surgery. National incentivisation of ambulatory surgery appears to be unique to England and a useful way to further increase ambulatory surgery rates.

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Limitations of Laryngeal Mask Anaesthesia

Speaker: Vicente Vieira

Department of Anaesthesia, Braga Hospital, Portugal.

Member of General Assembly, International Association for Ambulatory Surgery.

When Dr. Archie Brain developed the Laryngeal Mask Airway (LMA) in the early 80's, he clearly defined this device as "an alternative to either the endotracheal tube or the face-mask with either spontaneous or positive pressure ventilation". The LMA was rapidly adopted by most anesthesiologists who worked in the ambulatory setting because it suited almost all the demands of a good ambulatory anesthetic technique. Sparing opioids and avoiding muscle relaxants were goals that the LMA helped to achieve and very soon came the results of various studies showing its safety in different procedures and patient populations, namely children and obese patients.

However, several concerns regarding the use of the classic LMA (gastric regurgitation with pulmonary aspiration, need for higher sealing pressures, common damage to the device) led to the development of second generation of LMAs that incorporated a tube for gastric drainage and a bite block in better posterior cuffs that proved to be safer.

Both 1st and 2nd generation LMAs have many different versions of single use and reinforced devices that have their own indications and allow the overcoming of some of the original Classic LMA limitations.

Inclusion of the LMA in Difficult Airway algorithms also led to the development of LMAs that were specifically designed not only to guarantee adequate ventilation but as a means to achieve orotracheal intubation through the device. Some of these new devices inclusively allow video visualization of the airway while adequately ventilating the patient.

Nowadays we can count almost 20 different types of LMAs each with their own indications and limitations. No single LMA fulfills the criteria of an ideal supraglottic device, so it seems of paramount importance that the anesthesiologist knows the advantages and drawbacks of each device to manage patients' airway safely and efficiently.

Location of an AS department or DSU on the Hospital Campus

Speaker: Luc Van Outryve

General Surgeon, Belgium.

Honorary Treasurer, International Association for Ambulatory Surgery.

For the ideal functioning of an Ambulatory Surgery department or a Day Surgery Unit on the hospital campus, the location is very important.

We discuss different possibilities and see what are the advantages and especially the disadvantages of the proposed facility locations.

Most common situation is: to start a Day Surgery Unit in an existing hospital.

First issue is the collaboration and the co-operation of all the players involved, as there are surgeons, anaesthetists, nursing staff, administration staff and hospital management.

Second is the ideal location on the campus.

The ideal situation is these were you can work independently from the other departments in the hospital. And the only two solutions are

- a separate, full dedicated free standing unit on the campus ground
- a separate, full dedicated floor (1st floor by preference), integrated in the hospital building.

New activities to the IAAS Basket

Speaker: Dr Ian Jackson

Immediate Past President, International Association for Ambulatory Surgery, United Kingdom.

Introduction

The IAAS basket of procedures was first introduced by C. De Lathouwer in 1994. It was based on 20 procedures and the initial work was completed in association with the OECD. [1,2]

Claus Toftgaard in 1998 [3] and the IAAS has attempted to run an international audit of ambulatory surgery using this basket every 2 years. The last audit was completed by Jost Brökelmann [4] and only 6 out of 22 member countries were able to report information (5 if we combine England and Scotland). This suggests that it is time to review the basket and consider how we can work with our members to establish data on ambulatory surgery performance.

Overview of history

The original basket is shown below.

Knee arthroscopy	Submucous resection
Extraction of impacted teeth	Excision of breast lump
Cataract surgery	Anal procedures
Hernia repair	Circumcision
Dilatation and curettage of uterus	Dupuytren
Vein ligation and stripping	Carpal tunnel decompression
Tonsillectomy with or without adenoidectomy	Orchidopexy
Myringotomy	Removal of implanted devices from bone
Laparoscopic sterilisation	Laparoscopic cholecystectomy
Squint surgery	Vaginal hysterectomy

Results were sought from 29 countries but the responses were variable (below)

No Answer	Response data		
	Not presently available	Insufficient	Included
Austria	Czech Republic	Italy	Australia
France	Greece	Mexico	Belgium
Japan	Hungary	Norway	Canada
Korea	Iceland	Spain	Denmark
Sweden	Poland		Finland
	Switzerland		Germany
			Ireland
			Luxembourg
			Netherlands
			New Zealand
			Portugal
			United Kingdom
			United States

Five countries failed to reply, seven countries reported the data was not available, four countries provided insufficient data and 13 provided enough data to be included in the review. The results from the second study published in 2000 demonstrated no improvement in the ability for countries to report data. I have no information on how the original basket was formed though it does copy that used by the Audit Commission in the UK prior to this date.

In the study Day Surgery Activities 2009 the basket was extended to 37 procedures (Table 3). The report states 'The basket of procedures were chosen about ten years ago according to two criteria: Either procedures that are common to be undertaken as day cases or procedures that are at the cutting edge to show the most recent development of the technical possibilities.' I can find no information on who selected and agreed this basket of procedures.

Rhinoplasty	Broncho-Mediastinoscopy
Legal abortion	Repair of cysto and rectocele
Arthroscopic meniscectomy	Repair of deformity on foot
Bilateral breast reduction	Cruciate ligament repair
Baker cyst	Disc operations
Mastectomy	Male sterilisation
TURP	Colonoscopy
Removal of colonic polyps	Abdominoplasty
Pilonidal cyst	

Once again 13 countries provided sufficient data to be included, though review of the results suggest that several could only supply partial data.

Finally, the report in 2013 had information from only 6 countries UK (Scotland and England), Denmark, Finland, Germany and Sweden.

Review of procedures

It is suggested that several procedures should be removed from the basket as currently described.

Procedure and reason for suggested removal

1. Dilatation and curettage of uterus – evidence that this has been replaced by Outpatient procedure
2. Vein ligation and stripping – evidence that this has been replaced by Outpatient procedure
3. Anal procedures – Too vague descriptor so reported activity will show considerable variation
4. Broncho-Mediastinoscopy – specialist procedure performed in few locations
5. Repair of deformity on foot – Too vague descriptor so reported activity will show considerable variation
6. Bilateral breast reduction – if wish to compare worldwide activity then suggest this is not routinely available in many countries
7. Colonoscopy – not an ambulatory surgery procedure
8. Removal of colonic polyps – not an ambulatory surgery procedure
9. Abdominoplasty – if wish to compare worldwide activity then suggest this is not routinely available in many countries
10. Baker cyst - if wish to compare worldwide activity then suggest this is not routinely available in many countries
11. Male and female sterilisation procedures – no longer performed in ambulatory surgery in many countries e.g. move to Outpatient type procedures.

Suggested basket of procedures

It is suggested that a simplified basket of procedures be used for this study going forward based on surgical procedures that require a theatre environment with recovery facilities and that would occur in most (if not all countries). These should also be chosen to represent the various surgical specialties.

Ophthalmology: Extraction of cataract with or without insertion of implant, Correction of squint

ENT: Myringotomy with or without insertion of tube / suction clearance with tube insertion, Tonsillectomy, Septorhinoplasty

Gynaecology: Vaginal Hysterectomy including laparoscopically assisted (LAVH), Laparoscopic abdominal hysterectomy, Repair of cysto- and rectocele (anterior and posterior colporrhaphy)

Orthopaedics: Knee arthroscopy including meniscectomy, meniscal or other repair, Removal of bone implants (removal of internal fixation from bone/joint excluding K-wires), Bunion operations with or without internal fixation and soft tissue correction, Carpal tunnel release, Dupuytren's fasciectomy

General Surgery: Laparoscopic cholecystectomy, Laparoscopic repair of hiatus hernia with anti-reflux procedure (e.g. fundoplication), Haemorrhoidectomy, Primary Inguinal hernia repair

Breast Surgery: Wide local excision of lesion of breast with or without axillary node biopsy, Mastectomy with or without axillary node biopsy

Urology: Orchidopexy, Endoscopic resection of prostate (TUR) - can include laser surgery, Endoscopic excision of lesion of bladder

Specialist surgery: Hemithyroidectomy, partial thyroidectomy, Posterior excision of lumbar disc prolapse including microdiscectomy

Next steps

Member organisations have been asked to review the suggested procedures and feedback to myself. I would like you to consider

- Are these procedures the most appropriate
- What is the appropriate descriptor for your country and if possible the coding

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Nicoll Lecture: The Concept of Ambulatory Surgery: Is it a renewing evolution?

Speaker: Luc Van Outryve

General Surgeon, Belgium.

Honorary Treasurer, International Association for Ambulatory Surgery.

We are agreed and support the concept of Ambulatory surgery meaning the performance of surgery without an overnight stay. But where does this expression come from? Certainly, this concept is not new and we know that James Nicoll was the founding father of the Ambulatory Surgery concept. But what was there prior to Nicoll in the rest of the world?

In Egypt, Imhotep was the first known physician, medical professor and a prodigious writer of medical books. As the first medical professor, Imhotep is believed to have been the author of the Edwin Smith Papyrus in which more than 90 anatomical terms and 48 injuries are described. All of this occurred some 2,200 years before the Western Father of Medicine, Hippocrates, was born. The ancient Egyptian doctors were good in the treatment of bone fractures. Archeological findings show us well healed fractures with the application of splints and bandages. Surgery was a common practice among physicians as treatment for physical injuries. Prosthetics, such as artificial toes and eyeballs, were also used, though typically, they served little more than decorative purposes. In preparation for burial, missing body parts would be replaced; however, these do not appear as if they would have been useful, or even attachable, before death. It appears that the surgeon's function was to debride a wound, and the most logical instrument would have been a curved scalpel.

From Gardiner's 'List' (3rd ed.), this word is close to the ancient Egyptian meaning 'sculptured relief', which may well indicate that this particular knife was used by a medical 'sculptor' or a surgeon, and was therefore a scalpel. Egyptians had some knowledge of human anatomy. For example, in the classic mummification process, mummifiers knew how to insert a long hooked implement through a nostril, breaking the thin bone of the brain case and remove the brain. **All this surgery must have been "AMBULATORY"**.

After this came the Greeks and Romans with the oldest medical school in Greece, Cnidus in 700 BC. Aesclepius was the God of the medicine and in Epidaurus where he was born, we could find the first hospitals. The Romans were using pincers and scalpels and already knew about suturing wounds. **All this surgery must have been "AMBULATORY"**.

What about other cultures?

ASIA

China: Although surgery was an accepted and quite proficient craft very early in Chinese history, it has deteriorated through the ages. Chinese surgery is conspicuous by its stagnation. Reverence for the dead, filial piety, abhorrence of shedding blood and other conservative attitudes make it impossible for any accurate knowledge of the human anatomy and physiology, without which surgery cannot progress. However, around the beginning of the 3rd century a surgeon named Hua Tuo began to change Chinese surgery. As a young surgeon Hua Tuo believed in simplicity. Using a preparation of hemp and wine, he was able to make his patients insensitive to pain.

India

Sus Hruta, famed surgeon of Ancient Aryan India, wrote that surgery was the first and highest division of healing, unsullied in itself, perpetual in its application, a worthy gift of heaven and a source of fame on earth. **ALL this surgery must have been "AMBULATORY"**.

Africa

Current medical practices by the living African societies and traditions still show similarities to Pharaonic medicine. Since the knowledge of Egyptian medical science was from inner Africa, more precisely central and western Africa, the world owes this continent and its children a belated tribute, a sound recognition for having bequeathed the science of healing and hygiene to later cultures and civilizations who still owe the unrequited debt of appreciation for Africa's beneficence. **ALL this surgery must have been "AMBULATORY"**.

During the medieval period, the evolution of medical practice was very low, because of the fact that maladies and diseases were seen as a punishment from God; and in the medieval monasteries huge rooms were foreseen for treatment (or observation) of sick people.

And so developed the idea of caring, without working actively to help sick people. **There was less surgery and surgery must have been "AMBULATORY"**.

The interest in anatomy and surgery, which was not performed by doctors, but by barbers (or so-called surgeons), only came later in the 19th century.

This is the period that James Nicoll enters into our story.

He believed that children, where possible and after careful selection, were best nursed at home by their own mothers. Prolonged post-operative bedrest was not only not feasible with children but also harmful. By removing cases from the inpatient wards to the outpatient Dispensary, treatment would not only be of higher quality but also more cost effective.

Equally the reduction of pressure on inpatient beds would reduce waiting lists for admission.

He believed that the nurses undertaking outpatient treatment should be separate from those dealing with inpatients and that there was benefit in outreach nurses visiting certain children post-operatively in their homes. He believed that the outpatient surgery unit was a valuable teaching resource and developed teaching facilities in the Dispensary both for medical students and nurses.

His house, providing accommodation for mothers and children, is surely the forerunner of modern hospital hotels. It is also the concept of the free-standing Dispensary, being a 'feeder' for the inpatient hospital and this concept is the one that nowadays is being replicated around the world. The domiciliary nursing service

that had been started in 1888 was supported very vigorously by Nicoll who organised a body of outdoor visiting nurses, who were devotedly attached to this work.

Recent Progress

Europe and the United Kingdom

In 1909 James Nicoll (1864 – 1921) reported, in the British Medical Journal, the overall success of day surgery treatment in 8,988 paediatric cases. Following this, little or no immediate progress was made in day surgery in the UK due to the attitude of the medical establishment. This was reflected in an editorial in the British Medical Journal in 1948 which stated that ‘any surgeon who allows a patient to leave hospital within 14 days of an abdominal operation (this would include hernia repair) would be in a difficult position should complications occur’.

Progress was made in 1955 when Farquharson, working in Edinburgh, promoted early ambulation and reported the results of adult day case hernia repair in the Lancet.

North America and the United States of America

Nicoll’s concept of a purpose designed day unit was not taken up until 1962 with the development of a hospital based ambulatory surgery unit at the University of California at

Los Angeles, USA. Other units in the USA were opened in 1966 at George Washington University and in 1968 in Providence, Rhode Island. The freestanding nature of Nicoll’s unit was not replicated until Reed and Ford opened their Surgicenter™ in Phoenix, Arizona in 1969. A gradually increasing number of day units were opened in the 1970s and 1980s.

Asia and China

It was reported that Prof. Jin-Zhe Zhang (1920), one of the founders of paediatric surgery in China, advocated AS in 1960 because of the lack of surgical beds in Beijing Childrens Hospital, Capital Medical University. At that time however, AS failed to develop as planned at regional and hospital level.

In the 1980s, a few hospitals implementing AS were reported in China and by the end of 2014, 105 medical establishments in 18 provinces and municipalities, directly under the Central Government had adopted AS. By the end of 2016 of, more than 2,000 medical establishments carried out AS, of which 396 had built ambulatory surgery centres (20 institutions had built freestanding centres).

Latin America

Dr Alejandro Recart from Chile tells us: Latin America is a huge continent. Despite its large size and being a very diverse region, Latin-Americans have many things in common, like their history, ancestors, their religion and language... Not much information is available for Latin American countries, but probably AS does not exceed 20%. Not many scientific societies are specifically devoted to this subject. CLASA, the Latin American Association of Societies of Anaesthesiologists has a dedicated chapter on AS, trying to promote safety, quality and standardize terminology.

Australia

The initiative of the medical profession to formalise the establishment and development of high quality day surgery facilities was expressed in a paper entitled “*Introduction and Establishment of Day Only Facilities and Services*”, and adopted at a meeting of the New South Wales Committee of the Australian Association of Surgeons on 16 June 1980. Day Surgery in Australia continues to expand :

1989 – 90 : 27.1 % to 1992 – 93 : 35.5 %... Wherever possible DSUs should be developed as dedicated sections of the hospital. And Wendy Adams said in 2006, “What is happening in Australia : 55.3 % same day... (Australian Hospital Statistics)” An indicator of day surgery growth is to review the increase in the number of day units. Freestanding ambulatory surgery centres have increased in the USA from 67 in 1976 to over 4,000 in 2004 and in Australia from 83 in 1993 to 234 in 2002.

Evolutions and Challenges

The “**Day Surgery**” concept begins when the patient has his first contact with his GP, with establishment of a diagnosis and organisation of the operation. At that moment the concept of ambulatory surgery starts and this project only finishes when patient is back to work and his problem solved.

The function “**Perioperative Medicine**” begins when the patient enters the Centre for the first time for preoperative assessment and ends when the patient, after leaving the facility, has come back for postoperative control or after postoperative telephone call control.

“**Minimal Invasive Techniques, Remote Access Techniques, Natural Orifice Transluminal Endoscopic Surgery (NOTES)**” are possible helping in bringing the surgery to be fast tracked and/or enhanced .

“**Fast Track Surgery**” is defined by Kehlet as “*Focusing on enhancing recovery and reducing morbidity by implementing evidence in the fields of anaesthesia, analgesia, reduction of surgical stress, fluid management, minimal invasive surgery, nutrition and ambulation*”.

Fast Track Surgery concentrates on what is going on in and around the operation room, or by extension, in the Day Surgery facility just before, during and immediately after the operation. Business definitions of fast tracking include the practice of speeding up the progress of a projector person; to do more things in the same time in order to finish a job earlier than normal or planned ...it is the process of reducing the number of sequential relationships and replacing them with parallel relationships. But preparation and organisation are needed, and patients have to understand the pathway they will be following. The “**Fast Track Surgery**” process therefore covers the period from admission of the patient on the day of surgery until they leave the facility.

Fast track surgery is faster than what surgery used to be with the passage through the racetrack being faster, or optimized. This is due to better construction of the Formula 1 car and the more refined racetrack, namely the better prepared patient and the better constructed and organised surgical and anaesthetic pathway.

“**Enhanced recovery after surgery (ERAS)**”: A better understanding of the normal recovery processes allowing us to intervene more efficiently, leading to a faster recovery.

“**Focused factory and DSU Location**”. The principle of specialising: the more you perform a certain operation the more you become a specialist. and not only in a certain surgical procedure you can become a specialist, but also in the organisation of your operation you can become a specialist. In the surrounding processes as there are, preoperative assessment and postoperative care...and one of these surrounding elements is the location of your DSU : the better your DSU is located and constructed , the better flow you can realise and the better results you will have..

Conclusion

The concept of ambulatory surgery is not new, but the use of new techniques such as Fast track, Enhanced Recovery, Minimally Invasive Surgery, and new principles such as home care and focused factory allow us to do so and to fulfill the basic idea of Nicoll.

Is it renewing? Does it bring us something new? No, it does not bring something new. ERAS, FASTTRACK, home care, and the focused factory in medicine are new strategies, and by incorporating these into the concepts of ambulatory surgery, we are renewing the ongoing evolution of such care.

Optimizing Ambulatory Surgery in the Elderly

Speaker: Vicente Vieira

Department of Anaesthesia, Braga Hospital, Portugal.

Member of General Assembly, International Association for Ambulatory Surgery

In Portugal, as in almost all developed countries, there has been a remarkable growth in Ambulatory Surgery in the last decade. This growth has been based on a culture of quality, safety and efficiency centered on the patient, not the surgical pathology. Clinical recommendations are key strategies for clinical Portuguese societies to promote safe clinical practice through the publication of various documents that were the final result of several Consensus Meetings organized by a Task Force of anesthesiology experts. As in other special populations, the elderly deserve a special clinical approach from preoperative evaluation, anaesthetic technique to recovery and discharge, due to several physiopathologic specificities that every anesthesiologist should bear in mind.

Preoperative evaluation must include a thorough mental/cognitive evaluation and there are several tools that allow a quick check-out. Co-morbidities and regular medication should be assessed and optimized before surgery, as patients' social habitat must play a decisive role in the selection of patients.

The anesthetic technique should be tailored to every single patient avoiding excessive premedication, opioids and muscle relaxants, minimizing hospital stay with special focus on detection of delirium and postoperative cognitive dysfunction that may compromise the patients late recovery after discharge.

As in every other patient, the anesthesiologist must pay special attention to prophylaxis of postoperative nausea and vomiting and thromboembolism as these patients are naturally at risk of being more sedentary.

In our guidelines we suggest that identified "at risk" patients should be assessed by phone after discharge, not only the day after surgery, but for as many days as necessary to reassure the ambulatory team that patient and caregiver are taking the correct actions that promote a safe rehabilitation.

Perioperative Surgical Home – in a Hospital Setting

Speaker: Marie-Louise Ulsoe

Head Nurse, Aarhus University Hospital, Denmark.

Member of General Assembly, International Association for Ambulatory Surgery

In modern health care, fast-track surgery is increasing and a new model called Perioperative Surgical Home (1) is also implemented in a hospital setting. Structuring hospitals with fewer admissions, fewer beds, shorter patient contacts, new treatment technologies, more outpatient surgery, and lack of capacity in Day Surgery, we have to rethink patient pathways in surgery (2).

Aim

To increase quality and patient security, improve the patients' experience, and more efficient costs for nursing care.

Method

Using the Complex Intervention Model (3) a team-based coordinated and organized care and treatment from the decision-making through surgery to 30 days after discharge model is developed, tested and implemented in a hospital setting in Denmark. Bringing forward coordination across departments and sectors, 24 patients were interviewed and followed for 2-7 days after discharge. 15 focus- group interviews with staff from the operating section, anesthesia, awakening, and beds section were made. 7 doctors, both surgeons and anesthesiologists, were interviewed.

Results

From a patient perspective, patients want to be treated individually, but often experience to be treated in general. Patients want the staff to control and coordinate their surgical treatment process so that patients do not have to be the coordinators in their own treatment. Patients want the same staff during the whole process and they want to be shown respect for their time.

We developed a model capturing the three P's:

- **Perioperative treatment** with as few contacts as possible provides consistency and progress in treatment.
- **Person-centered teamwork** where staff share tips and ideas to inform about what happens in the course and stay on top, think of the next step.
- **Patient involvement** where the patient feels expected, small talked to because it calms, informed about what will happen and what has happened in the course, and as an overall target always listen to the patient's experiences.

Conclusion: To minimize transitions and achieve fewer contacts for patients, the patient is received and discharged from the same place just as in Day Surgery. The nurses can give follow-up information by telephone and/or on the internet. Many acute patient processes will be suitable for this model. Furthermore, it fits well with the national agenda for more coherent patient pathways.

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Proctology in Day Care

Speaker: Manmal M Begani

Consultant Surgeon, Mumbai, India.

Member of General Assembly, International Association for Ambulatory Surgery

Aims and Objectives

To review the various proctology surgeries performed at our day care centre and to list the possibilities of further cases going forward.

Results

We have a vast experience of performing proctological day care surgery at our day care centre for the past 15 years. We regularly operated on Haemorrhoids, Fistula in Ano, Fissure in Ano, Anal Warts and Condyloma, Rectal Ulcers and Polyps etc. Over the years, we have expanded the spectrum of cases in proctology that we can perform in day care settings and included the newer techniques and procedures for Fistula in Ano (LIFT, VAAFT, etc) Haemorrhoids (Doppler Ligation, Stapler Haemorrhoidopexy) and use of Radiofrequency cauterly.

Conclusion

There is an increasing shift of cases which were previously performed with 24 hours or more stay at the hospital, which are now carried out as day care surgeries or ambulatory surgeries. Keeping with the trend, the choice of anesthesia for these cases has also changed or been modified accordingly. Cases that previously needed general anesthesia or spinal anesthesia are now being done under local anesthesia with monitored anesthesia care i.e. administration of sedation only if required and titrating it to individual needs. This has led to cost effectiveness as well as excellent recovery profile for the patients. Most of our proctology work is now in a day care setting with mean discharge time being just over 6 hours. We also have been introducing newer techniques and using newer agents for quicker recovery and better return to day to day activity and productivity.

Protocol Based Discharge

Speaker: Wendy Adams

Registered Nurse, Australia.

Successful ambulatory surgery depends on appropriate and timely discharge of patients who have been anaesthetised, and this discharge process requires strict adherence to validated criteria to ensure patient safety and avoid litigation. Every effort should be made to avoid premature and delayed discharge. Premature discharge may result in postoperative complications requiring unanticipated admission to hospital or emergency care whereas delayed discharge is frustrating for the patient and may indicate inadequate processes within the ambulatory surgery service.

Discharge of a patient following ambulatory surgery requires clear protocol with validated criteria to ensure patient safety and optimal patient outcomes. Although the discharge of patients remains the responsibility of the medical staff, nurses can have an important role to determine whether the patient is fit for discharge.

This presentation will address what is considered to valid criteria from a number of organisations including the International Association for Ambulatory Surgery, Australian and New Zealand College of Anaesthetists and the Australian Day Surgery Nurses Association.

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Regional Blocks in Ambulatory Surgery

Speaker: Xavier Falières

President, Dutch Society for Ambulatory Care.

Regional blocks in ambulatory surgery is a large subject. Peripheral blocks are frequently performed and very useful in ambulatory surgery. Performing peripheral blocks requires safe practice and a good postoperative pain management. This presentation is focused on these 2 aspects, based on the most recent publications and reviews: safety and postoperative pain management.

Safety

Safety covers many aspects, such as:

- Wrong patient, wrong side, wrong medication: check re-check
- Undesirable block (phrenic nerve by interscalene block)
- Toxicity medication: respect of the maximum dose, lower concentrations, use of adjuvants
- Mechanical/chemical trauma: Direct nerve damage (nerve laceration, Nerves damage, exposure nerve to local anesthetics and high pressure. Add adrenaline can be risk of ischemia
- Bleeding: respect of guidelines concerning coagulation and use of anticoagulants - Infection at the puncture site: respect the basic rules concerning sterility.

The most important subject concerning safety is how can to be sure that we won't provoke nerve damage when performing regional blocks? The main question is to know if it is harmful to inject intraneurally. The answer is that it is certainly not harmful if the injection stays extra-fascicular.

Can we be sure that we inject extra-fascicular? Which tools do we have to ensure it?

- Ultrasound guided permits us a good visualization of the needle and to lower the dose of local anesthetic but doesn't prevent any intra-fascicular injection.
- Neuro stimulation doesn't make any distinction between intra and extra neural injection. However, it is useful in case of inconclusive ultrasound image.
- Pressure monitoring seems to be the best way to prevent intra-fascicular injections: Difference between intra- and extra-fascicular possible. The pressure at injection has to be < 15 PSI.

Conclusion: is multimodal approach the safe way?

Postoperative pain management

The use of adjuvants is very interesting, but which ones may be used safely? How can we prevent postoperative rebound hyperalgesia after surgery performed under peripheral block?

Using adjuvants results in: longer lasting blockade - lower total dose of local anesthetics - lower concentration of local anesthetics and local toxicity - less rebound hyperalgesia effect. Which adjuvants may be actually used?

Of the list: Adrenaline, Alfa-2 agonists, Opioids, Dexamethasone and Others: ketamine, magnesium, neostigmine, midazolam, bicarbonate, only Alfa-2 agonists (clonidine and dexmedetomidine), Dexamethasone and Buprenorphine may be used.

Some words to end my presentation about the new blocks: wait and see is, be careful and use your common sense when trying these blocks is my conclusion.

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Reimbursement Models

Speaker: Paulo Lemos

Consultant Anaesthesiologist, Porto, Portugal.

Past President, International Association for Ambulatory Surgery

All countries of the World had tremendously improved healthcare services to their populations over the years. A good example was seen in the infant mortality rate, where substantially decreases have been done in all societies even in emergent economies' countries. In fact it was possible to reduce from 165, 135 and 120 infants dying per 1000 live births in the 1960' ies till 40, 20 and 12 respectively in India, Brazil or China, in recent years. Portugal has reached 3.5 infant mortality rate in 2015 in comparison with 82 in 1960. At the same time health expenditure have exponentially increase in the last decades, making Governments to try to adopt sustainable healthcare policies in order to balance their economic budgets. Due to economical crisis suffered especially by the European economies between 2010 and 2015, many European Governments have to reduce their gross domestic product (GDP) and the budget for healthcare giving additional opportunity for Ambulatory Surgery (AS) to show the World the important role it can play in maintaining high quality surgical activity for reduced costs.

AS is one of the few processes in health that all partners receive major benefits:

- Patient for the increase access, humanization and quality of care that receives;
- Health professionals for the high quality organization in a patient-centre model that can increase their satisfaction;
- National Health Services for the reduce morbidity in a cost-effective organization that allows substantial savings in delivering healthcare for citizens.

Although the modern organization is based in complex mixed financing models, there is still two classic models – Beveridge, based in a Government run National Health Service financed by general taxation (e.g. Portugal, Spain, Italy, United Kingdom, Finland, Sweden and Denmark), and Bismark where a National Insurance System covers every citizen, and is jointly financed by employers and employees through a payroll deduction (e.g. Germany, France, Netherlands, Belgium, Hungary, Romania, China and Japan). These classic health-financing models has suffered changes over the time being recently joined by voluntary health insurance or out-of-pocket schemes that had lighten the Government responsibility for supporting healthcare costs, and increase the weight of financial effort for citizens.

Economic disincentives can play an important role and create effective barriers to the development of AS. Block funding of hospitals unrelated to the number of patients treated and the number and type of procedures undertaken, which still persists to

a greater or lesser extent in some countries today, as well as low reimbursement for procedures undertaken on a day basis when compared to inpatient treatment, which leads to financial loses for the AS setting, both slow the change towards AS.

In 2012 an international survey on financing ambulatory surgery were published by the author in *Ambulatory Surgery Journal* (2012;18(2):29-38). Pretending to see the evolution registered and the impact of different financing models over the development of AS programmes, all countries that are members of the International Association for Ambulatory Surgery (IAAS) were invited to fill the same questionnaire of 2012 and to allow comparisons over the last 5 years.

The questionnaire asked for general information about financing national health services (NHS), costs of current needs, costs of labour and health staff, and the reimbursement system for a list of common surgical procedures undertaken on a day surgery basis, whatever the surgical regimen used.

Only eleven out of twenty nine countries (37.9%) answered the questionnaire: Australia, Belgium, China, France, Hungary, India, Japan, Norway, Portugal, Spain, and United Kingdom.

There was a great heterogeneity in the wealth and the economic potential of the countries involved. However, usually the countries do maintain their relative position for different purposes: those that are wealthier have increased costs, but do reimburse better the surgical activity than those countries that are poorer.

More importantly, those countries that have a strong financial incentive (e.g., United Kingdom) achieve a high percentage of day surgery activity compared to other countries where there is no financial incentive at all towards this surgical regimen, as in India. Countries like Portugal, France, Spain, Hungary and Japan are using this strategy of financial incentives to promote AS. Due to the financial crisis, Portugal has reduced its surgical financing but maintain the same value whatever the surgical regimen is adopted allowing more and more surgery to be performed on a day basis (more than 60% of all elective surgery was performed on a day basis, in 2016).

There are significant potential savings among other advantages when NHS maximise ambulatory surgery practice through financial incentives, especially the opportunity to reduce overall costs with surgical practice when transferring surgery from the inpatient to the AS setting, such as the Portuguese reimbursement policy in recent years.

Role of the Anesthesiologist in running and organizing a Day Care Centre

Speaker: Jan H Eshuis MD

Medical Director of Day Surgery, Academical Medical Center, Amsterdam, the Netherlands.

Honorary Secretary, International Association for Ambulatory Surgery

Day surgery today is largely carried out in one of four organizational models, as follows, with different levels of required management.

- **Hospital-based facility – dedicated day-surgery beds in an inpatient facility**, common operating theatres, recovery facilities, and medical and nursing personnel with the inpatient department.
- **Self-contained unit in hospital** – operating theatres and ward dedicated exclusively to day-case surgery and separate from the inpatient areas of the hospital. Nurses and administrative personnel dedicated to the day unit. Many surgical specialties working in the same unit share facilities and nonmedical personnel.
- **Free-standing self-contained unit** – apart from hospital site. Possibly more cost-effective than self-contained units on hospital sites. Free-standing units have the potential to provide day surgery near to where the patient lives. They need a back-up connection with a hospital.
- **Office-based unit** – small, self-contained surgical office in surgeon's consulting rooms.

The ideal day surgery service on a hospital site is a self-contained day unit which is functionally and structurally not mixed with the inpatient unit, having its own operating theatres, ward areas, entrance, reception, staff and management structure. Being a part of the clinical hospital it opens possibilities to perform more major surgery and take profit of more advanced clinical feedback if necessary.

With regard to Leadership: Each DSU should have a Medical Director who has a specific interest in day case surgery and who leads the development of local policies, guidelines, contacts within the hospital, reports with other specialists and Clinical Governance in this area.

A consultant anaesthetist with management experience is ideally suitable to such a post. Not a single medical specialist has a similar constant attendance in the logistic chain of Day Surgery. Not a single medical specialist is interacting with so many other doctors, supportive personnel in the OR, and is used to manage a list as the consultant anaesthesiologist. It is the leadership and management as well as staff members, not the physical structure or the quality of the equipment, that determine the success of a day-surgery service. Success requires the implementation of policies that extend all of the advantages of day surgery to the patient, the health care professional and the community at large. Leadership is needed at all levels of the day-surgery unit. Leaders create a pathway for hospital administrators, physicians, nurse managers and staff in the coordination of their efforts to develop and maintain a day-surgery programme. The most effective organizational structure for a day-surgery unit involves the creation of a distinct service, led by an experienced manager, who has the day-to-day responsibility for providing efficient, effective and high-quality day-surgery services. Practically this means often a managing principal nurse together with a medical director, ideally an anesthesiologist. A critical success factor seems to be the maintenance of motivated colleagues,

a high level of communication between this managing medical team and the health professionals working in the facility. Day-surgery units tend to achieve maximum efficiency and effectiveness when management and staff are specific to that service, goal-oriented and innovative, enjoy the fast-paced environment and continually striving for perfection. Within this framework the whole team has to have a coherent goal directed spirit. Day surgery requires a multidisciplinary approach. For a successful outcome it requires active participation all day long by all players – managers, nurses, surgeons, anesthesiologists. There is a need for flexibility, with regular re-evaluation of practice to provide a level of care that reflects individual patient needs.

How many staff are needed? Practical seems 2 ward nurses per 1000 procedures and 2 operating assistants per 1000 procedures. Ward nurses also take the PACU (Recovery) on their behalf on rotation. This gives the nurses variety in their work. Some facilities even extend this to multiskilled nurses who work also in the OR as assistant or with the anesthesiologist. Administrative staff (planning and administration) takes 1,5-2 FTE. Because all are dedicated to the process of Day Surgery, there is a strong sense of solidarity, which has to be cultivated by common sessions and courses or periodically relaxing events (team building).

Day Surgery means largely logistics. It is vital that the patient has had a thorough pre-assessment well before, with short lines between the DSU and the outpatient pre-assessment department, and to communicate well in advance with patients (what is expected, about soberness, time of arrival, accompanying persons, travel, stay at home, medication). This is done by oral and written information and two contacts by phone, one day before and after the procedure.

In order to have efficient lists there should be a clear 4 weeks schedule and transparent planning program, accessible for surgical specialisms. On the day of surgery two first patients per OR should be there in due time, prepared and brought to the OR. The second patient can be prepared and provided with an iv cannula in the holding bay so that the interval time is virtually zero. So you can have high rates of net utilization time of the OR, early starting hours, minimal intervals.

Success in Day Surgery largely depends on the anesthetic technique used. No sedative premedication is advised; only analgesics like acetaminophen and a NSAID. Short acting, rapid cleared agents like Propofol, Sevoflurane, Desflurane, Remifentanyl or other short acting opioids, regional anesthesia like spinal anesthesia and ultrasound guided peripheral nerve blocks should be regular practice. Extra anti PONV treatment is permitted for the sake of successful discharge, as is aggressive analgesic treatment; peroperative Morphine given well before the end of surgery is no problem.

So the role of an anaesthesiologist is both managing and professional and is directed to working well ahead during the day in Day Surgery, being vital for the success of Day Surgery practice.

Sedation Safety: Challenges and Answers

Speaker: Beverly K. Philip MD

Professor of Anaesthesia, Harvard Medical School, Boston, USA.
President-Elect, International Association for Ambulatory Surgery

Minimally invasive surgery and interventional procedures are increasing, and increasingly these are done with sedation rather than general anesthesia. We need to begin by defining 'sedation' and 'anesthesia', found in ASA's **Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia**. This document defines four levels of increasing depth of sedation and anesthesia using 4 categories of criteria. The core definition is the level of patient responsiveness. In Moderate Sedation/Analgesia, "patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation", whereas in Deep Sedation, "patients cannot be easily aroused but respond purposefully following repeated or painful stimulation". General Anesthesia is present when "patients are not arousable, even by painful stimulation".

It is important to ask, 'Is sedation safer?' - and evidence points the answer to No.

Data from the FASA Special Study I, conducted by the Federated Ambulatory Surgery Association (Alexandria, VA,) in 1986, collected data from 40 Freestanding ASCs including 87,942 patients. The incidence of major cardiorespiratory complications was 0.814% with general anesthesia, and **0.94%** with Local and Sedation. Recent data show the same, from the ASA Closed Claims Database looking at liability associated with monitored anesthesia care (MAC). Data show that "Inadequate oxygenation ventilation" was more common in MAC claims (15%) than with GA (7%). There was no difference in the severity of injury (death or brain damage), nor in the proportion of claims for substandard anesthetic care, payments, or the amount of payment. Propofol "sedation" is particularly problematic, when performed by anesthesiologists too, because airway interventions are needed before saturation declines; CO2 monitoring for ventilation is important. These risks can be managed by following professional practice guidelines that will guide the acquisition and retention of necessary education and skills.

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The Australian National Health Care Standards and Accreditation of Hospitals

Speaker: John Napoli

Gastroenterologist, Pennants Hill Day Surgery, Sydney, Australia.

Member of General Assembly, International Association for Ambulatory Surgery

High Standards in our hospitals are vital. To provide these, we require a set of regulations for hospital administrators and clinicians to adhere to. A workable accreditation system is also essential to be able to assess a hospital's performance and help hospitals achieve these standards. The same principles of standards and accreditation should apply whether a hospital is a large overnight teaching hospital or stand-alone Day Hospital.

The Australian Commission on Safety and Quality in Health Care (ACSQHC) was established in 2006 by the Australian State and Territory Governments to lead and coordinate national improvements in safety and quality in health care. The Commission works in partnership with patients, consumers, clinicians, managers, policy makers and healthcare organisations to achieve a sustainable, safe and high-quality health system. The Commission is responsible under legislation for formulating standards, guidelines and indicators relating to healthcare safety and quality matters

In September 2011, Health Ministers endorsed the National Safety and Quality Health Service (NSQHS) Standards and a national accreditation scheme for health service organisations. Version 1 of the NSQHS Standards consisted of 10 standards. Within each of the standards, there were core and developmental standards or actions. Core actions were those critical for safety and quality. All core actions had to be met before a hospital could achieve an accreditation award for the NSQHS Standards. Developmental actions were areas where hospitals should focus their future efforts and resources to improve patient safety and quality. Activity in these areas was required, but the actions did not need to be fully met in order to achieve accreditation. Depending on the size, range and complexity of the procedures performed within a given hospital, there were clearly some standards that may not have applied to an individual organisation and therefore a request for an exemption from having to meet non-applicable standards could be made.

After feedback and assessment of Version 1 of the NSQHS Standards, Version 2 of the Standards will be introduced later in 2017, which will address some of the feedback as well as making greater provisions for the health of indigenous aboriginals, health literacy and addressing patients with cognitive impairment. There now will be 8 major standards rather than 10, including: 1. Clinical governance for Health Service Organisations; 2. Partnering with consumers; 3. Preventing and controlling healthcare-associated infections; 4. Medication safety; 5. Comprehensive care; 6. Communicating for safety; 7. Blood management; 8. Recognising and responding to acute deterioration.

A national accreditation scheme was introduced. The ACSQHC approved independent accreditation bodies to assess the compliance of the NSQHS Standards in private and public inpatient hospitals and Day Hospitals. Individual hospitals have the responsibility of commissioning an accreditation body. Accreditation assessments occur every 3 years with smaller annual reviews. The hospital's Accreditation Report is submitted to the State or Territory Department of Health and to the ACSQHC, to confirm the Hospital's compliance with the NSQHS Standards.

In summary, Australia has developed a national set of health standards that all hospitals need to comply with. These standards are assessed by ACSQHC approved independent accreditation bodies and compliance is a mandatory requirement for all hospitals.

The Patient Hotel – For use for patients in the peri-operative period

Speaker: Berit Karin Helland

Deputy Director, Division of Surgery, Akershus University Hospital, Norway.

The first Patient Hotel in Norway was established in 1997. Twenty years later, most University Hospitals in Norway have their own Patient Hotel as an alternative option to a hospital bed. The hotel concept in health care gives a raise in standard with better facilities and catering, single rooms, increase possibility for relative participation and enables patients leisure time at their own disposal. All have the same security as the hospital ward.

The Patient Hotel concept represents an alternative option for the “short stay” ambulatory surgery patient or to the patient with a longer distance between home and the Day Surgery Center. Ambulatory surgery relieves patients from “unnecessary” hospitalization. This is also true for the Patient Hotel.

The Value of Scoring Systems

Speaker: Mark Skues

Editor in Chief, *Ambulatory Surgery*.

Past President, British Association of Day Surgery.

Scoring systems for Ambulatory Surgery provide an extremely useful benchmark to establish outcomes. Increasingly, patients are interested in the likelihood of morbidity or potential complications that may help them in provision of truly informed consent.

This presentation concentrates on the logical development of scoring systems, evaluating the evidence base for development and implementation, and then highlighting potential pitfalls in interpretation and implementation, particularly in relation to the management of post-operative nausea and vomiting.

Any scoring system will have been developed as a method of classification, diagnosis, prediction or prognosis for individuals or populations (1). Classification models might be age or height; diagnostic models include body mass index, chronic kidney disease, or evaluation for diabetes mellitus. Prediction models commonly used in anaesthesia include the STOPBANG score for evaluation of obstructive sleep apnoea, the Mallampati score or the simplified airway risk index for assessment of the risk of difficult tracheal intubation, while prognostic models exist for post operative nausea and vomiting, mortality after surgery, or cardiac risk.

The development of a scoring system relies upon evaluation of the factors likely to have an effect on prediction. Apfel et al (2) performed this for PONV factors with a metaanalysis in 2012, highlighting female gender, previous history of PONV, age and being a non-smoker as principal indicators, with the use of volatile anaesthetics or nitrous oxide, post-operative opioids, and duration being secondary factors. He also estimated that the type of surgery (laparoscopic, gynaecology, ENT, or cholecystectomy) were more likely to be implicated in the causes of PONV. Various scoring systems have been developed (3-5), with that of Sinclair et al (4) being the only study carried out in ambulatory surgery patients. Given also that the Apfel scale includes the use of post-operative

opioids as a risk factor, it would seem that the Sinclair score may be a better prediction system for PONV in the outpatient environment. This has been confirmed in our unit, with a Number Needed to Treat of 1.16 for patients assessed with the Sinclair system, compared with 4.71 for those assessed using Apfel's algorithm. Similarly, emetic symptoms after discharge from an Ambulatory Unit may be over predicted by Apfel's scoring system (6), suggesting that there may be differences in the characteristics of the cohorts studied. In conclusion, while scoring systems are useful for stratification of patient risk, there is value in the calibration of algorithms to the local population, defining threshold for prophylaxis, and ensuring that there is a robust rescue therapy pathway.

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Undergraduate Training in Day Surgery

Speaker: Fernando Docobo Durantez

University Hospital Virgen Rocío, Seville, Spain.

Past President:ASECMA.

Undergraduate teaching and training in surgery is core for the future doctor, where students attain competencies, abilities and attitudes for their decisions in the future. Day surgery (DS) implementation offers new opportunities for surgery teaching and medical training.

A prospective and transverse study was developed where 180 students were admitted by each academic course. They stay for 4 courses in our Department, where, in a 4 year period, students stayed in the Day Surgery Unit. Activity 8 AM- 8 PM, 5 days week. Theoretic approach: 2 lessons about DS in "Fundamentals of surgery" 3rd course and other 2 about surgical procedures in 4th course "Surgical pathology of organs and systems 1". Practical approach: Each student has a placement in DSU in any moment of their surgical practice development in consultations and the operating theatre. In 4 consecutive courses, each student has a real approximation to DS clinic in knowledge, abilities and attitudes. Theory evaluation consisted of 2 DS questions in 3rd course (about definitions, assistance circuits, discharge criteria, follow-up, etc.) and 2 DS questions in 4th course (DS possible procedures). Practice competence level: Notebook (Clinic references) and personal abstract. Range 0-10 (10% final evaluation). Ophthalmology, Anaesthesia, ETN, Traumatology and orthopaedics: DSU stay 15 days. General surgery: DSU stay 30 days. Items for evaluation: Knowledges about DS definitions. Abilities: DS clinic history. Surgical assistance. Presence in patient's follow-up. Attitudes: Diary presence. Implication degree (High 10-9-8/ 10) (Medium 7-6-5/10) (Low 4-3-2-1/10). Statistics analysis: 5 years evaluation in theoretic knowledge, abilities and attitudes.

Results

Theoretic evaluation: Percentage correct answers: 2 DS questions in 3rd Course: 2012-13: 180/180 (100%), 2013-14: 175/180 (97.2%), 2014-15: 174/180 (96.7%); 2015-16: 171/179 (95.5%). Percentage correct answer: 2 DS questions in 4th Course: 2012-13:180/180 (100%), 2013-14: 174/179 (97.2%), 2014-15: 177/180 (98.3%), 2015-16: 175/180 (97.2%). Practical evaluation: 178 students from a total of 180 (98.9%) completed activities. Note-book information evaluation and personal report (9 /10): 160 / 178 (89.88%). Knowledge DS assistance circuits: Patients selection and discharge criteria. Follow-up: 178 (100%). Abilities: DS clinic history: 178 /178 (100%), Assistant surgery procedures: 65 / 178 (37%); Participation in cures: 120 /178 (67%). Attitudes: Diary attendance: 178 (100%), Implication level: High level 105 (59%) Medium level 84 (47.19%) Low level 19 (11%). P NS.

Conclusions

Theoretical and practical information regarding Day Surgery, involving knowledge and basic abilities during 4 academic courses were done. To improve results in the future, it may be possible unify a DS practical programme and more participation as assistant surgeon.

What does the Patient want for Ambulatory Surgery?

Speaker: Wendy Adams,
Registered Nurse, Australia.

In the ambulatory surgery setting, the average length of stay is shorter than in many other clinical settings. This requires a large amount of information in a very short period of time to ensure that the patient and their carer have a clear understanding of post discharge care and expected outcomes.

Patients have a right to be fully informed of all aspects of ambulatory surgery. It empowers the patient to make informed decisions as well as develop basic self-care skills to be able to cope with pain management, post-operative nausea and vomiting, return to activities of daily living and dressings once they are discharge.

This presentation will address what is considered to be best practice as well as considerations of what the patient may require and how we can evaluate the effectiveness of our education.

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Speaker: Dr Ian Jackson,

Immediate Past President, International Association for Ambulatory Surgery, United Kingdom.

Introduction

In broad terms human factors includes everything that can influence people and their behaviour when performing tasks/processes and has been of interest and utilised in many sectors - the airline industry in particular. Within a work context this translates to an interest in how human performance or reliability in processes involving humans is influenced by

- the work environment – physical environment, equipment, the team,
- the job itself – complexity, workload, competing demands, handovers
- the individual – stress at work, personal life, work life balance

In the clinical setting we come to work with the intent of providing a safe environment in which to treat our patients. Healthcare professionals are motivated to provide safe high quality care and are trained to extremely high standards over many years to support this aim. However, we are human so training and experience cannot make us 100% reliable for 365 days a year. Every year health systems report an incidence of patient harm as high as 10% and an incidence of medical errors leading to death – potentially 98,000 people each year in USA due to errors that could have been prevented (Kohn LT, 1999). This has led one researcher to state “The real problem isn’t how to stop bad doctors from harming, even killing, their patients. It’s how to prevent good doctors from doing so” (Gawande, 1999).

Within surgery harm events could be as simple as a missed medication or as complex as an operation on the wrong site, however both can have severe outcomes for the patient. The seemingly innocent missed medication could be the preoperative VTE prophylaxis or preoperative antibiotic – missing these can lead to a fatal outcome for the patient. Wrong site surgery is classified as a ‘Never Event’ in the UK (Health, 2011) but we know that cases still occur, in 2011 there were 57 cases reported in the UK. (Clinical Human Factors Group, 2012) Furthermore deaths occur in operating theatres when someone in the team recognised what needed to be done but felt too ‘junior or scared’ to speak up (5)

Five Steps to Surgical Safety

The WHO surgical safety checklist has been adopted by hospitals and health services across the world since its launch as part of the Safe Surgery Saves Lives campaign in 2008. (6) This describes three steps – Sign in, Time out and Sign Out. In the UK while there was great interest in embedding the WHO checklist within NHS practice there was a feeling that further improvements could be made to surgical safety. This led to the introduction of the Five steps to surgical safety by the National Patient Safety Association Agency in 2010(7). This was advocated for use in all theatres across England and Wales and

since then has been gradually implemented across the NHS. The Five steps are briefing, sign-in, timeout, sign-out and debriefing. The first four steps have been introduced more reliably than the final step of getting all staff together for a debriefing after each case or when each surgical list is completed.

Briefing

The briefing is designed to improve team culture and starts with everyone introducing themselves by name and their role for the day. The briefing can be led by any member of the team, nurse, anaesthetist or surgeon though typically it is led by the surgeon or anaesthetist who has reviewed the patients. Each patient is discussed – patient problems such as allergies, the need for any specialised equipment, the need for preoperative antibiotics etc are discussed. This provides an opportunity for all staff to contribute and gain an understanding of the plan for each patient. Each briefing ends with the team being asked if they have any concerns they would like to raise.

Experience shows that briefing takes 5-10 minutes and needs to take place 10-20 minutes before the list starts and all staff working in that theatre need to be present.

Conclusion

It remains to be seen if we can reduce harmful events in theatre but it is important that we recognise that there are steps we can take in our ambulatory surgery units that will further promote teamwork. All units should be looking at the five steps to surgical safety and considering how they can implement these changes in their service.

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Doug McWhinnie

Division of Surgery, Milton Keynes Hospital,
Standing Way, Milton Keynes, Buckinghamshire
MK6 5LD, UK

Email: dougmcwhinnie@uk2.net

Mark Skues

Department of Anaesthesia, Countess of Chester
Hospital NHS Foundation Trust, Liverpool Road,
Chester, Cheshire CH2 1UL, UK.

Email: mskues@gmail.com