

# AMBULATORY SURGERY

International Journal covering Surgery,  
Anaesthesiology, Nursing and  
Management Issues in Day Surgery

## Virtual International Association of Ambulatory Surgery Meeting

31st October and 7th November 2020



Abstract Edition

*The Official Clinical Journal of the*  
INTERNATIONAL ASSOCIATION  
FOR AMBULATORY SURGERY

VOLUME 26.4 DECEMBER 2020



# Editorial

*Dr Mark Skues, Editor-in-Chief*

**On 31st October 2020, the International Association for Ambulatory Surgery convened an international online symposium,** driven by travel limitations due to COVID 19. As part of this symposium, abstracts were submitted and assessed by an expert Scientific Committee. From the 23 abstracts, 6 were selected for oral presentation on 7th November. This number was increased to 8, given the total number of abstracts received and the wish to include as many participants as possible. Furthermore, three rather than one author were chosen as prize winners of free entry to our next congress in Bruges in 2022. The winners are Carla Isabel Ferreira for her presentation “Hip Arthroscopy in the Ambulatory Setting

– Our Reality”, Vanessa Cubas for “Driving Forward the Improvement of the Provision and Documentation of Driving Advice on Discharge following Elective Daycase Inguinal Hernia Repair Surgery” and Marco Alexandre Lopes Pires for “Nissen Fundoplication in Ambulatory Surgery”. Congratulations to the winners.

This edition of the Journal contains all of the abstracts, with many thanks to all of the participants for dedicating time and energy to the construction and delivery of their work in potentially troubled times. A highlighted asterisk on the abstract identifies the work that was presented at the 7th November meeting.

Happy reading.

**Mark Skues**, Editor-in-Chief

# Teamwork in Ambulatory Laparoscopic Abdominal Hernia Repair with mesh reinforcement: Big and Complex hernias are a challenge at our reach

Ana Reis Arantes, Paulo Almeida, Celina Mendes Gomes, Carmélia Ferreira, Elsa Soares.

Hospital de Braga, Braga, Portugal.

Email: ritacroarantes@gmail.com

Abdominal wall hernia repair is one of the most performed procedures by General Surgery, worldwide. The use of mesh reinforcement in these surgeries is associated with a significant decrease in rate of recurrence when compared with suture repair. Even though a laparoscopic technique is used, the use of a tacker fixation is associated with a significantly increased postoperative pain (similar to open surgery) difficult to manage in the ambulatory care set.

At Braga Hospital, the Anesthesiology Department, in straight cooperation with the Surgery Department, developed a protocol that aims to improve the ambulatory laparoscopic approach in these patients. This protocol involves a multimodal and preemptive analgesia regimen implemented by the anesthesiologist and a Transversus Abdominis Plane (TAP) block guided by laparoscopic visualization, performed by the surgeon before mesh insertion (the complete analgesia protocol is available in the annexed diagram). Anesthetic induction is endovenously performed with propofol (2-3 mg/kg), fentanyl (2mcg/kg), and rocuronium (0.6-1.2 mg/kg). Anesthesia is maintained with sevoflurane in O<sub>2</sub>/air. Reversal of neuromuscular block is done with sugammadex (2-4mg/kg).

At the moment, the protocol has been applied to 2 patients. Both patients had adequate acute pain control, at hospital discharge, at 7 and 30 post-operative days. Rescue analgesia was not needed. Therefore, both the anesthesiologist and surgeon play a key role in promoting adequate pain management and better patient satisfaction in more complex procedures in the ambulatory setting. Both these cases motivate us to start a prospective randomized trial to prove the efficacy of our protocol.

| ANALGESIA PROTOCOL   |  |  |
|--|--|--|
| PREOPERATIVE   | INTRAOPERATIVE   | POSTOPERATIVE/AFTER DISCHARGE  |
| <p><b>1. AT ADMISSION*:</b></p> <ul style="list-style-type: none"> <li>- Gabapentine, 300 mg, <i>per os</i>;</li> </ul> <p><b>2. BEFORE ANESTHETIC INDUCTION:</b></p> <ul style="list-style-type: none"> <li>- Cetorolac, 30 mg, IV.</li> <li>- Paracetamol, 1000 mg, IV.</li> </ul> | <p><b>1. ANESTHETIC INDUCTION:</b></p> <ul style="list-style-type: none"> <li>-Fentanyl, 2 mcg/kg, IV;<br/>(a 50mcg bolus is repeated, every 45-60 minutes, if needed)</li> </ul> <p><b>2. AFTER ANESTHETIC INDUCTION:</b></p> <ul style="list-style-type: none"> <li>-Dexamethasone, 8 mg, IV;</li> <li>-Ketamine, 0.25 mg/kg, IV;</li> <li>-Lidocaine, 1mg/kg, followed by infusion 1-2mg/kg/h, IV;</li> </ul> <p><b>3. BEFORE MESH INSERTION:</b></p> <ul style="list-style-type: none"> <li>-TAP block: 20-30 mL ropivacaine 0,375% and dexamethasone (2mg), each side.</li> </ul> <p><b>4. BEFORE SURGICAL CLOSURE</b></p> <ul style="list-style-type: none"> <li>- Tramadol, 2 mg/kg, IV;</li> </ul> | <p><b>1. ANALGESIA ON SCHEDULE:</b></p> <ul style="list-style-type: none"> <li>- Paracetamol, 1000 mg, 8/8h, <i>per os</i>, 7 days;</li> <li>- Ibuprofen, 400 mg de 8/8h, <i>per os</i>, 5 days;</li> <li>- Gabapentine, 300 mg de 8/8h, <i>per os</i>, 5 days;</li> <li>- Tramadol, 100 mg, 8/8h, <i>per os</i>, for the first 5 days, followed by 50 mg, 8/8h, <i>per os</i>, for the last 2 days;</li> </ul> <p><b>2. RESCUE MEDICATION:</b></p> <ul style="list-style-type: none"> <li>-AT THE HOSPITAL: Morphine 2-4mg , IV</li> <li>-AFTER DISCHARGE: Morphine sulfate (Sevredol®), 5mg, <i>per os</i>,</li> </ul> |

\*Anticipated admission: 2-3h before surgery.

# \*Hip Arthroscopy in the Ambulatory Setting – Our Reality

Carla Isabel Ferreira, Linda de Sousa Cheung, Ana Luísa Fernandes, Júlio Cancela, Elsa Soares  
Hospital de Braga, Braga, Portugal.  
Email: carlaisabelferreira18@gmail.com

Hip arthroscopy is a minimally invasive surgery for diagnosis and treatment of hip pathology. The associated postoperative pain can be severe resulting in a delay of PACU discharge.

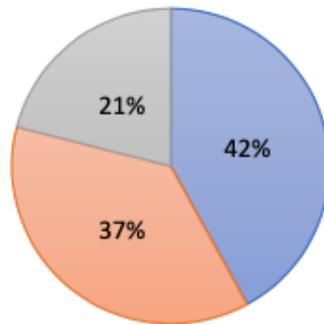
We conducted a retrospective cross-sectional study of patients which were submitted to hip arthroscopy in our Ambulatory Unit over the past 6 years. In total, 19 patients were included. These patients were predominantly male (74%), young (mean age of 36) and were either healthy or had mild systemic disease (ASA classification 1 or 2). In our sample, 42% received general anesthesia and local anesthetic wound infiltration, 37% received general anesthesia and 21% received general anesthesia and PNB (Table 1). The mean surgery time was 147 minutes and the mean PACU time was 460 minutes. Amongst all the patients included in this study, 7 (37%) experienced postoperative pain in the PACU. The NRS in this subgroup ranged from 0 to 6, with a mean NRS of 3.3. The mean time to request opioid in the PACU was 45 minutes and the mean IV morphine equivalents administered was 7.5 mg. There were no anesthetic or surgical complications reported.

Our demographic data was similar to that of published studies, but the length of surgery appears to be longer. On the other hand, the type of anesthesia did not significantly influence the NRS in the PACU. Postoperative pain was well controlled with IV opioids. Meanwhile, regional anesthesia did not increase the time to discharge in the PACU nor increase the risk of fall in our patients.

**Table 1:** Summary of the data of our study. The opioid requirement was calculated with IV morphine equivalents. LA – Local Anesthetic; PACU – Post-Anesthesia Care Unit.

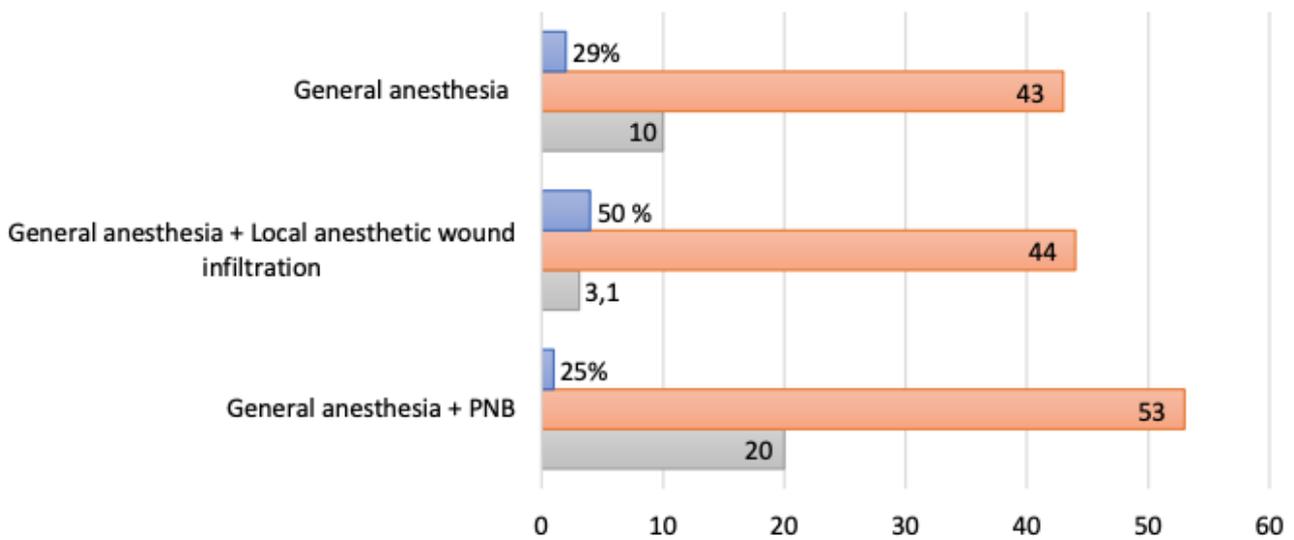
| Variable                                  | Minimum  | Maximum    | Mean       | Frequency(%) |
|---|----------|------------|------------|--------------|
| <b>Age</b>                                | 23       | 61         | 36         |              |
| <b>Gender:</b>                            |          |            |            |              |
| Male                                      |          |            |            | 14 (74%)     |
| Female                                    |          |            |            | 5 (26%)      |
| <b>Intraoperative opioid requirement</b>  | 90mg     | 360mg      | 244mg      |              |
| <b>Type of Anaesthesia</b>                |          |            |            |              |
| -General                                  |          |            |            | 7 (37%)      |
| -General + LA wound infiltration          |          |            |            | 8 (42%)      |
| -General + Peripheral Nerve Block         |          |            |            | 4 (21%)      |
| <b>Duration of Surgery</b>                | 75 mins  | 249 mins   | 147 mins   |              |
| <b>Duration of PACU stay</b>              | 71 mins  | 1146 mins  | 460 mins   |              |
| <b>NRS in the PACU</b>                    | 0        | 6          | 3.3        |              |
| <b>Time to request opioid in the PACU</b> | 1 minute | 97 minutes | 45 minutes |              |
| <b>PACU opioid requirement</b>            | 2.5mg    | 20mg       | 7.5mg      |              |

### Type of Anesthesia



- General anesthesia + Local anesthetic wound infiltration
- General anesthesia
- General anesthesia + PNB

### Postoperative Pain and Opioid Consumption in PACU



- Percentage of patients with postoperative Pain
- Mean time to request opioid in PACU (mins)
- Mean opioid requirements in PACU (IV morphine equivalents, mg)

# Can Pediatric Sympathectomy be included in the Ambulatory Surgery Basket?

Carla Isabel Ferreira, Isabel Oliveira, Catarina Barroso, Jorge Correia-Pinto, Elsa Soares, Maria João Santos

Hospital de Braga, Braga, Portugal.

Email: carlaisabelferreira18@gmail.com

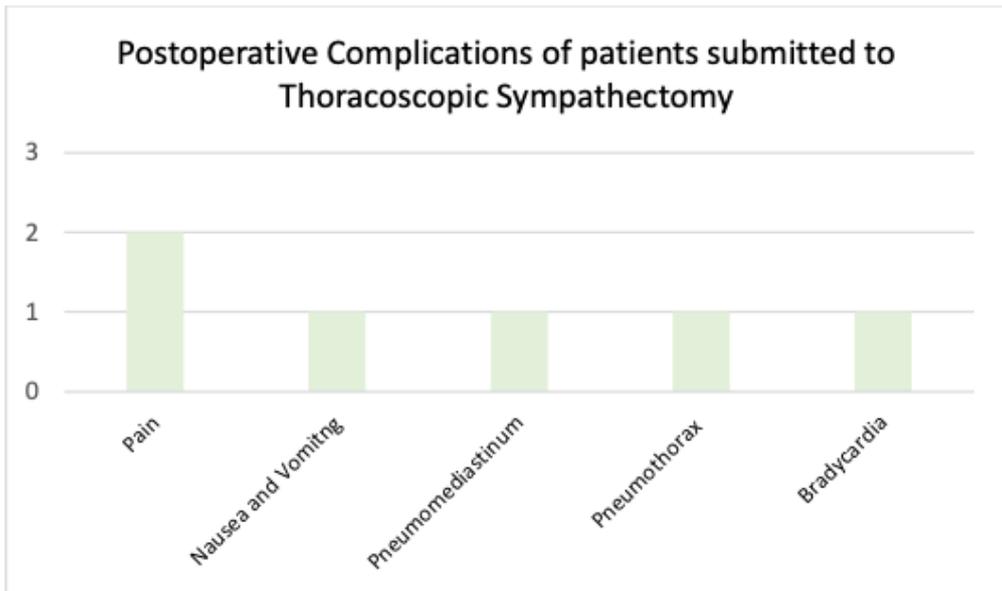
Palmar hyperhidrosis (PH) is a disabling disorder that starts during childhood and can have a strong negative impact on the quality of life of affected children. Thoracoscopic sympathectomy (TS) is the gold standard surgical for PH. The purpose of our study is to review the postoperative course of pediatric patients submitted to TS and discuss whether these cases could have been enrolled on a day-surgery program, thus minimizing the cost and psychological discomfort associated with hospital length of stay.

All patients under 18-years old who underwent TS for PH in the past 7 years were studied retrospectively. 38 patients were included. 67.5% were female and mean age was 13.1 and were either healthy or had mild systemic disease (ASA 1 or 2). All the patients were operated under general anesthesia and sequential unipulmonary ventilation. Bilateral sympathetic chain ablation /clipping on the second and third ribs was performed bilaterally by a senior pediatric surgeon. No chest tubes were used. Two patients were diagnosed pneumothorax and pneumomediastinum and required postoperative monitoring. Amongst the remaining 36, two (5%) had severe pain requiring opioid on the first 12h, one (2.5%) had postoperative nausea and vomiting and one (2.5%) had symptomatic bradycardia with delay of discharge.

Despite the limitation of a retrospective and small study, we recognize that the postoperative course of TS is easily tolerated on children and has a low complication rate. Therefore, we believe pediatric TS is an effective and safe procedure to be included in the ambulatory basket.

| <b>Variables</b>   | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>Frequency (%)</b> |
|--|----------------|----------------|-------------|----------------------|
| <b>Age</b>   | 7 years        | 17 years       | 13,1        |                      |
| <b>Gender</b>  |                |                |             |                      |
| Male   |                |                |             | 12 (32%)             |
| Female   |                |                |             | 26 (68%)             |
| <b>Status ASA</b>  |                |                |             |                      |
| ASA 1  |                |                |             | 29 (76%)             |
| ASA 2  |                |                |             | 9 (24%)              |
| <b>Type of surgery regime</b>                                    |                |                |             |                      |
| Ambulatory Surgery   |                |                |             | 2 (5%)               |
| Conventional Surgery   |                |                |             | 36 (95%)             |
| <b>Length of Hospital Stay for Conventional Surgery Patients</b> | 1 day          | 3 days         | 1,1 day     |                      |

Table 1: Summary of the data of our study.



**Graphic 1:** Description of Postoperative Complications of patients submitted to Thoracoscopic Sympathectomy.

# Survey about current status of Ambulatory Surgery Units in Spain

D Morales-García, JM Capitán, F Docobo, S Gonzalez, JM Puigcercos, C Zaragoza, V Vega, F Barreiro, JM Suarez

University Hospital “Marques De Valdecilla”, University of Cantabria, Spain

*Email:* dms11@me.com

## Introduction

Ambulatory Surgery (AS) covers more and more pathologies and is performed in most of the Hospitals of our country, however, there is a great variability as to whom, how, and which is operated in AS, as there are a great lack of knowledge as to which Ambulatory Surgery Units are accredited or certified.

## Objectives

To know through a survey conducted from the Ambulatory Surgery Section of the Spanish Association of Surgeons (AEC) the current status of the AS Units in our country.

## Material and Methods

From the Ambulatory Surgery Section of the Spanish Association of Surgeons (AEC), a survey was prepared with 31 items, providing a link to fill it out and disseminating it to the members by mail as well as through the section's Twitter, @cma\_aecirujanos in which it was asked between other data about the type of AS Unit, what is operated in the Unit, who coordinates it and whether it is certified or accredited.

## Results and Conclusions

We received the 154 answer from 101 hospitals. -No certified/accredited units in general  
-All team perform AS, no specific anesthetic team -Postoperative control with phone, no APP  
-Pain is the most common reason of readmission.

# \*Unanticipated Admission after Ambulatory Surgery in the Pediatric Population : a Single Center Retrospective Analysis

Els Van Caelenberg, Dominique Benoit Rik Verhaeghe, Marc Coppens

University Hospital of Ghent, Ghent, Belgium.

*E-mail:* els.vancaelenberg@uzgent.be

## Introduction

The incidence of adverse events in day surgery is an important quality indicator. This retrospective study investigated factors independently associated with unanticipated admission of pediatric patients after ambulatory surgery.

## Methods

Ambulatory pediatric patients requiring unanticipated admission between January 2016 and December 2018 were compared to ambulatory pediatric patients who were discharged home after planned surgery. Demographic data, organizational data, American Society of Anesthesiologists (ASA) classification, type of surgery, type of anesthesia, length of the surgery, time of completion of surgery, campus site and season were collected in both groups. Multivariate logistic regression was used to identify independent factors associated with unanticipated admission.

## Results

From a total of 4235 pediatric patients, 78 children (1.9%) required unanticipated admission. The reasons for admission were anesthetic  $n = 29$  (37.3 %), surgical  $n = 20$  (25.6 %), medical  $n = 16$  (20.5 %) and social/organizational  $n = 13$  (16.6 %). Age  $< 2$  years (odds ratio [OR] 3.005 95% confidence interval (CI) 1.500- 6.018; ASA class 2 (OR 2.144 95% CI 1.193-3.852); ASA class 3 (OR 11.617 CI 5.698-23.685); length of surgery  $> 2$  hours (OR 3.056 CI 1.829-5.107); completion of surgery  $> 2:30$  PM (OR 3.507 CI 1.854-6.633) and campus site (OR 3.628 CI 1.991-6.610) were factors significantly associated with unanticipated admission.

## Conclusion

Children are less likely to be admitted after ambulatory surgery when preoperatively carefully selected and when prioritized considering age, general health condition and invasiveness of the surgery.

# \*Outpatient hysterectomy: a randomized controlled trial

Eva Vanbelleghem, Bo Verberckmoes, Marc Coppens, Steven Weyers, Jan Bosteels

Ghent University Hospital

*Email:* eva.vanbelleghem@ugent.be

## Objective

The objective of this study was to investigate whether, in a population of trans men, outpatient hysterectomy can be performed without lowering satisfaction with length of stay. The primary outcome was the satisfaction with length of hospital stay. Other outcomes were Visual Analogue Scale (VAS) pain scores, analgesics use, readmissions, preoperative and postoperative complications.

## Material and methods

This is an open label randomized controlled trial performed in the Ghent University Hospital. A total of 11 trans men bound to undergo a total laparoscopic hysterectomy, were randomized to same-day discharge or overnight hospital stay.

## Results

A total of 11 trans men were randomized. One participant withdrew right before the operation and 4 were lost to follow-up. Hence, complete data were available for 3 subjects per group. No statistical significant differences were found in the satisfaction with length of stay. The VAS pain scores and the analgesics use were similar in both randomization groups. There were no readmissions or complications in both groups.

## Conclusions

Trans men having an outpatient hysterectomy were similarly satisfied with length of hospital stay compared to the inpatient group. However, our sample size was too small due to the exclusion criteria, patients not wanting to participate, not reachable patients and a high rate of lost to follow-ups. Hence, no meaningful conclusions could be drawn. The “In-hospital versus Day care Hysterectomy in transgender men” (IDAH) trial, an extension of this study, is expected to reach a sufficiently large sample size and to lead to valuable and useful results.

# Should we have a score to predict difficult laryngeal masks placement? Two case reports

Fábio Costa, Ana Rita Arantes, Carla Ferreira, Joana Alves

Hospital de Braga, Braga, Portugal.

*Email:* fabiocosta68953@gmail.com

Laryngeal masks (LMA) are supraglottic airway devices used in the operating room. Although placement success is generally high, no study demonstrates 100% effectiveness. The “RODS” mnemonic (Restriction, Obstruction/Obesity, Disrupted/Distorted anatomy, Short thyromental distance) can be used to predict difficulty in placing LMA. We present two case reports of difficult LMA placing.

## Case 1

58-year-old female scheduled for phaco-vitreotomy. No stigma of difficult airway. No “RODS” characteristics found. Attempts were made to place a size 3 and 4 i-Gel LMAs but ventilation was not effective. Then, we tried to place the size 4 i-Gel LMA using laryngoscopy, this time successfully.

## Case 2

80-year-old female scheduled for vitrectomy, without difficult airway or “RODS” predictors. An attempt was made to place a size 4 wired laryngeal mask, but it did not fit well. Then we tried a size 5 reinforced laryngeal mask but, similarly, it did not seal adequately. Afterwards, we decided to try size 4 i-Gel LMA, without success. Finally, we decided to intubate with a size 7 endotracheal tube (ETT) with direct laryngoscopy.

Although the best way to protect the airway is ETT, in the ambulatory setting there are many advantages of the LMAs over ETT. The correct placement of an LMA is not always easy. In these two cases we found that RODS was not predictive of the difficulties we experienced, so we suggest that a specific scoring system (not exclusively based on RODS) should be studied and validated for patients in whom LMA placement could be suspected difficult.

# \*Ultra-Compact Ambulatory Surgery Unit (UCASU): a new typology of freestanding venues

Soares FA, Moura VSM, Dantas RGO, Berutti FMS, Albergaria C.

Brazilian Society for Ambulatory Surgery, Brasília, Distrito Federal, Brazil.

*Email:* fabio@colono.com.br

The current international concept of Ambulatory Surgery refers to a set of strategies, protocols and patient pathways that aim to offer the same safety and quality as those obtained in a hospital environment, but without the inconvenience of an overnight stay to patients who can be discharged home the same day. Freestanding ASUs are those physically disconnected from a hospital. We propose a new type of outpatient freestanding venue, which we named Ultra-Compact Ambulatory Surgery Unit (UCASU), capable of enabling multiple uses in different specialties, with maximum rationalization of physical space, processes and resources, in order to reduce health care costs and, simultaneously, offer excellent physical and technical possibilities for all the professionals, patients and family members involved, with full adherence to the modern precepts of Ambulatory Surgery.

# Ambulatory Dental Care under General Anesthesia: Where we are, Where we should be?

Valquiria Moura, Fabio Soares

Brazilian Society for Ambulatory Surgery, Brasília, Distrito Federal, Brazil.

*Email:* fabio@colono.com.br

In Brazil and in many other countries, dentists are not used to perform in a full-equipped operating room, whether in a hospital or in an ambulatory setting. Even though most odontological procedures are safe and conveniently held with behavioral adaptation or conscious sedation in an office basis, more challenging patients or complex clinical cases demands general anesthesia, with support of an anesthesiologist.

Our aim was to assess dentists' knowledge and experience with dental procedures under general anesthesia or deep sedation, with support of an anesthesiologist, whether in hospitals or in ambulatory surgery units (ASU). We also addressed issues regarding the reasons why dentists decide to perform such cases or not. For that instance, a survey questionnaire was developed and formatted for electronic distribution among pairs, who were able to answer anonymously and electronically. Collected data was analyzed in quantitative and qualitative ways and shown that most dentists received few or no information regarding performing in an operating room setting as undergraduates. From those who actually treat patients with an anesthesiologist support, some feels discomfort about referring their patients to a hospital or ASU while others feel that the extra costs discourage patients and their parents to adhere to treatments.

It seems that specific protocols regarding dental procedures under general anesthesia should be developed, which should require collaboration among dental and medical entities. This could encourage dentists for referring selected cases for treatment under general anesthesia, in the benefit of many challenging cases and patients with special needs.

# When LESS Encounter ERAS: Total Hysterectomy Performed as Day Surgery Comes True In China

Xiaoqin Gan, Yujian Jia, Jie Yu, Haiyin Rao, Yan liu, Hui Wang, Li Zhong, Shan Deng

Chengdu Women's and Children's Central Hospital, China.

*Email:* 316112248@qq.com

## Objective

To investigate the feasibility and safety of laparoscopic hysterectomy in the Gynecological Day Surgery Center with both LESS and ERAS.

## Methods

2 cases of laparoscopic-assisted vaginal hysterectomy and bilateral salpingectomy were performed with trans-umbilical laparo-endoscopic multifascial single-site surgery in the Gynecological Day Surgery Center of Chengdu Women's and Children's Central Hospital, School of Medicine, University of Electronic Science and Technology of China. One patient was 50 years old with multiple uterine leiomyoma (size of the biggest leiomyoma was 10cm), the other patient was 47 years old with uterine adenomyoma. And both patients were accepted ERAS protocol during peri-operative period. Preoperatively, the patients didn't accept any bowel preparation and fast eight hours or more following intake of fried or fatty foods or meat, six hours or more following a light meal or milk and two hours following clear liquids. One dose antibiotic prophylaxis was administrated 30 minutes before surgery. Intraoperatively, both patients accepted general anesthesia and warming devices to maintain normothermia during operation. Postoperatively, urinary catheter were removed at the end of the operation, and patients were received multimodal postoperative analgesia, including local anesthetic (0.5% Ropivacaine) infiltration at the portal site in combination with NSAIDS (Ibuprofen suspension 10ml tid), auricular point stimulation and acupuncture. They had no intraperitoneal drain and were allowed early mobilization as soon as possible after surgery. They were allowed oral intake and regular diet as soon as discharging from post-anesthesia care unit.

# Application of Enhanced Recovery After Surgery in Perioperative Period of Gynecological Laparoscopic Single Site Day Surgery

Hui Wang, Xiaoqin Gan, Yujian Jia, Jie Yu, Haiyin Rao, Liu Yan, Li Zhong, Shan Deng

Chengdu Women's and Children's Central Hospital, China.

*Email:* 156612489@qq.com

## Objective

To investigate the efficacy of enhanced recovery after surgery (ERAS) in perioperative period of gynecological laparoendoscopic single-site day surgery.

## Methods

From May to September 2020, 72 patients who underwent single-arch laparoscopic in the gynecological day surgery wards were treated as experimental group, perioperative according to the concept of ERAS. Gave patients with preoperative 6h fast dairy and starchy solid substances (fried, fat and meat should be fasting 8 h +), preoperative 2 h fast food, without preoperative bowel preparation, intraoperative keep warm, ropivacaine injected on the wound, postoperative promptly removed after the completion of the ureter, postoperative dizziness, nausea, vomiting, can drink a small amount of warm water, no discomfort after can into the liquid and semi-liquid after 4 h, the anus exhaust after eating. Immediately after the operation, 10ml ibuprofen suspension was given orally, 3 times per day, and the patient got out of bed as soon as possible. During the same period, 72 patients with single-site laparoscopy in general gynecological ward were selected as the control group according to the routine standards of day surgery. They were treated according to the traditional perioperative treatment, and the postoperative ambulation time, anal exhaust time, length of stay, hospitalization cost, incidence of nausea and vomiting, pain and complications of the two groups of patients were compared.

# Ambulatory Surgery Progress in Serbia: Benefit During COVID-19 Crisis

Jelena Petrovic Sunderic, Ninoslav Ribic, Ivan Palibrk, Nebojsa Ladjevic, Marinko Zuvela, Danijel Galun

Clinic for Digestive Surgery, Clinical Center of Serbia / Serbian Association for Ambulatory Surgery (SAAS)

*Email:* jelapetrovic@gmail.com

Members of the Serbian Association for Ambulatory Surgery (SAAS) were constantly introducing ambulatory surgery approach ever since SAAS was founded in 2013. During that time our Government has accepted this idea and carried a feasibility pilot program on several inland public hospitals that, due to new elections, healthcare reform and corona crisis was not entirely completed.

On the other side, our Ministry of Health recruited some of SAAS experts to write ambulatory surgery regulations for private surgical practice that was completed at the beginning of 2020. The COVID-19 crisis and two month state of alarm postponed issuing of this law for couple of months, so it was published in June 2020. The coincidence in timing of occurrence of COVID-19 crisis and edition of this legal regulation greatly contributed to the higher quality in the treatment of surgical patients both in public and private surgical centers.

Namely, due to corona pandemic, most of the public secondary and tertiary centers were partly or entirely turned into covid hospitals, recruiting most of the anesthesiologists and leaving surgical centers uncovered and forced to reduce their operative programs to the minimum, including only emergency and some cancer cases. In addition to that, all doctors from government hospitals were not allowed to practice in private clinics. That brought to a great gap in surgical patient care, who were forced to turn to specialists in private practice, but our new regulation led to the better quality, safety and patient satisfaction in this situation.

# The safety analysis without indwelling urethral catheter after daily laparo-endoscopic single site surgery in gynecology under enhanced recovery after surgery mode-report of a series cases

Jia Yu-jian, Gan Xiaoqin, Li Wei, YU Jie, LIU Yan, Rao Hai-ying

Chengdu Women's and Children's Central Hospital, Chendu, China.

Email: 236640366@qq.com

## Background and Objectives

Day surgery is the trend of medical development, indwelling catheterization is the traditional concept of general anesthesia, but the length of catheter placement is related to accelerated rehabilitation and urinary tract infection, which is bound to affect the development of day surgery. The purpose of this study was to investigate the safety and feasibility of non-indwelling catheters in gynecological patients undergoing daily laparo-endoscopic single site surgery under enhanced recovery after surgery mode

## Materials and methods

This is a retrospective study conducted between May to September 2020 in the department of gynaecology day surgery ward. Data were collected from 72 patients who were accepted laparo-endoscopic single site surgery without detaining urethral catheter.

The operative method, operative time, intraoperative blood loss, intraoperative urine volume, postoperative exhaust time, time to get out of bed, incidence of postoperative urine retention, incidence of surgical complications and transfer to the general ward, and satisfaction were counted.

## Results

With an average age of 33.5 years, 72 patients (21 to 50 years old), involved in the operation with ovarian cyst removal of 28 cases, uterine fibroids divest 22 cases, laparoscopic surgery for infertility 21 cases (include: repair of fallopian tubes and tubal ligation, tubal excision, Pelvic adhesiolysis), total hysterectomy in 2 cases, fallopian tube anastomosis in 1 case, no transfer of porous, laparotomy, no turn to ordinary ward; The operation time was between 45 to 120 minutes, and 76.39% was within 90 minutes. Intraoperative blood loss of 97.22% was within 50ml, and there were two cases of hemorrhage up to 100ml, both of which were due to infertility due to laparoscopic surgery, severe pelvic adhesions, large wound surface, and long operation time. Intraoperative urine volume was between 50-300ml, and 98.44% was within 200ml. The exhaust time ranged from 1 to 9 hours after surgery, among which 83.83% vented within 4 hours after surgery and 95.83% vented within 6 hours after surgery. The urination time was 1-3 hours after the operation. All patients urinated by themselves, and 25% of them had symptoms of urinary stimulation without urinary retention. 86.11% of the patients got out of bed 2 hours after surgery, and the time of getting out of bed was between 0.5-3 hours after surgery. Postoperative follow-up patients were 100% satisfied, among which 55.56% were very satisfied. No complications related to surgery (infection, hematoma, secondary surgery, etc.) occurred.

## Conclusion

Existing data show that the operation of single-port laparoscopy of uterus, accessory and infertility in the gynecological day ward under the accelerated rehabilitation model is safe and effective, and

postoperative catheterization without induration can promote patients to get out of bed as soon as possible, accelerate rehabilitation, and reduce adverse events. It has certain safety and feasibility, and is worthy of promotion. Nonetheless, there is still the need to expand the number of cases performed with this approach, so that we can proceed to a more detailed analysis.

# Clinical efficacy analysis of 72 Cases of benign gynecological diseases by laparoendoscopic single-site day surgery in a single clinical center

Jie Yu, Yujian Jia, Haiyin Rao, Yan Liu, Hui Wang, Yonghong Lin

Chengdu Women's and Children's Central Hospital, Chengdu, China.

Email: haloyujie@sina.com

## Introduction

With the development of minimally invasive surgical techniques, the pursuit of cosmetic effect of surgical scar, and the quality of medical treatment, transumbilical monopole laparoscopy has become the standard operation for the treatment of benign gynecological diseases. This method achieves the advantages of hidden scar, no scar and more microscopic injury. The operation mode of day surgery is more suitable to meet the demand of medical quality in the new era, and a number of studies have shown that it can significantly improve medical efficiency and social and economic benefits.

## Objective

To explore the operation and management mode of gynecological day surgery and its social and economic benefits.

## Method

72 examples from May to September 2020 were retrospectively analyzed, in the gynecology day surgery ward of Chengdu women's and children's central hospital, according to difference of treatment way, divided into day surgery group and routine group, and the diseases including hysteromyoma, and ovarian cysts, infertility, day surgery group according to the operation pattern processing in 24-48h, and provides a quick, reasonable, optimize service process, perioperative into ERAS idea, adopting single-site laparoscopic surgery technology. The routine group was treated according to the general mode of hospitalization, and the operation was same. Comparison was made between the two groups in terms of postoperative first feeding, first getting out of bed, postoperative exhaust time, postoperative pain score, length of stay, hospitalization cost, patient satisfaction, and postoperative complications.

## Result

Among the three diseases, first feeding, As for first getting out of bed, postoperative exhaust time, the difference between the two groups was statistical differences ( $P < 0.05$ ), and the day surgery group was better than the routine group. There were statistical differences between the two groups in terms of length of stay and hospitalization cost, and the day surgery group was lower than the routine group. There was no significant difference in the incidence of postoperative complications between the two groups ( $P > 0.05$ ). There were difference ( $P < 0.05$ ) between the two groups in the patient satisfaction survey, and the day surgery group was superior to the routine group.

## Conclusions

Reasonable operation and management of benign gynecological diseases by laparoendoscopic single-site day surgery can shorten the length of hospitalization, reduce the expenditure, and improve social satisfaction.

# \*Does Auricular Point sticking and Acupuncture Combined With ERAS Is Helpful To Laparoscopic Single Site Surgery In Gynecological Day Surgery Center?

Yan Liu, Xiaoqin Gan, Yujian Jia, Jie Yu, Haiyin Rao, Hui Wang, Li Zhong, Shan Deng  
Chengdu Women's and Children's Central Hospital, Chengdu, China  
Email: 878448385@qq.com

With the improvement of laparoscopic and anesthesia techniques, day surgery is expanded in many surgery units.

The widely use of ERAS during peri-operation has dramatically enhanced patient' recovery after surgery, and reduced the complications. Excepting malignant tumor operation, most surgeries could be operated in gynecological day surgery center, like hysterectomy, myomectomy etc. Although the implementation of ERAS has enhanced patients' recovery compared with traditional ways. But 20-40% patients are also suffered from abdominal dissension, nausea, and vomiting. So, based on researches about acupuncture and auricular point sticking in improving postoperative gastrointestinal function, we used auricular point sticking and acupuncture in patients who underwent laparoscopic single site surgery (LESS). 53 cases have received auricular point sticking and acupuncture treatment since our gynecological day surgery center founded in May 2020. All of them discharged around 25 hours with less gastrointestinal complications, like serious abdominal dissension, nausea, vomiting, and faster anal exsufflation, which is similar to researches reported by Ng SS, Alkaissi A, Rusy LM and Gan TJ. [1-4]

A randomized control trail is in progress in our center. We expecting that more patients will benefit from auricular point sticking and acupuncture combined with ERAS in gynecological day surgery center.

## References

- [1] Ng SS, Leung WW, Mak TW, et al. Electroacupuncture reduces duration of postoperative ileus after laparoscopic surgery for colorectal cancer. *Gastroenterology* 2013; **144(2)**:307-13.
- [2] Alkaissi A, Evertsson K, Johnsson VA, et al. P6 acupressure may relieve nausea and vomiting after gynecological surgery: an effectiveness study in 410 women. *Can J Anaesth* 2002; **49(10)**:1034-39.
- [3] Rusy LM, Hoffman GM, Weisman SJ. Electroacupuncture prophylaxis of postoperative nausea and vomiting following pediatric tonsillectomy with or without adenoidectomy. *Anesthesiology* 2002; **96(2)**:300-5.
- [4] Gan TJ, Jiao KR, Zenn M, et al. A randomized controlled comparison of electro-acupoint stimulation or ondansetron versus placebo for the prevention of postoperative nausea and vomiting. *Anesth Analg* 2004; **99(4)**:1070-75.

# \*Nissen Fundoplication in Ambulatory Surgery

Marco Pires, Cecília Pinto, Sílvia Neves, Ana Povo, Artur Flores

Centro Hospitalar Universitário do Porto, Porto, Portugal.

*Email:* marco\_alex\_pires@hotmail.com

## Introduction

Over the last decades, Ambulatory Surgery has witnessed one of the fastest growing rates in surgical areas worldwide. As surgical teams gain experience, more complex procedures are being included in Ambulatory Surgery programmes. Hiatal Hernia and Gastroesophageal Reflux Disease treatment is an example of such a surgery.

## Aim

To present ASU's experience in Laparoscopic Nissen Fundoplication in Ambulatory Surgery setting for the treatment of Hiatal Hernia.

## Results

In the last 3 years, the Department of Ambulatory General Surgery treated 12 patients in ambulatory setting who met the previously established inclusion criteria. The first 2 patients had scheduled overnight stays. The others were treated in day surgery setting and were discharged before 8 p.m. (with the exception of a female patient who had to stay overnight for pain management).

No significant postoperative occurrences were registered, with the exception of one patient who developed mild dysphagia and underwent endoscopic dilation.

Postoperative satisfaction levels were reported by all patients.

## Conclusion

Laparoscopic Nissen Fundoplication may be included in Ambulatory Surgery programmes, provided adequate patient selection criteria are met and the procedure is performed by experienced surgical teams.

# Salivary glands in Ambulatory Surgery

Mariana Marques, Mariana Madanelo, Silvia Neves, Cecília Pinto, Ana Povo, Artur Flores

Porto Hospital and University Center, Porto, Portugal

*Email:* mariana.esteves.marques@hotmail.com

## Introduction

Ambulatory Surgery (AS) has been one of the fastest growing areas in the surgical field in recent decades, worldwide. With the build-up of experience of the surgical teams, increasingly complex patients have been included in the outpatient surgery programs. The treatment of major salivary glands pathology is included in the most complex procedures that may be included in AS programs.

## Objective

To present the experience of the Ambulatory Surgery Unit (ASU) in the surgical treatment of benign major salivary glands pathology under AS regime.

## Results

We present the experience of treatment under AS regime for 6 patients with pathology of the salivary glands, who met inclusion criteria for AS. The average age was 49 years old, 4 patients were female and they were all ASA II. Three patients presented with pathology of the parotid gland and 3, of the submandibular gland. They underwent outpatient surgery and all were discharged by 8 pm. There were no significant complications during the postoperative period. In the postoperative period, we registered only one patient, who developed a mild hematoma and another patient, who developed infection of the surgical wound, controlled with antibiotic therapy. All patients are fully satisfied with the procedure. Final histology revealed 3 pleomorphic adenomas, a Whartin tumor, chronic sialoadenitis and a myoepithelial carcinoma.

## Conclusion

Major salivary glands surgery may be included in the AS programs, provided that the appropriate selection criteria are met and performed by experienced teams.

# Feasibility and safety of laparoscopic myomectomy in day surgery center

Haiyin Rao, Xiaoqin Gan, Yujian Jia, Jie Yu, Liu Yan, Hui Wang, Li Zhong, Shan Deng

Chengdu Women's and Children's Central Hospital, Chengdu, China

Email: 409065177@qq.com

## Objective

To investigate the feasibility and safety of laparoscopic myomectomy in day surgery center

## Methods

A total of 50 patients were performed laparoscopic myomectomy in day surgery center in the Chengdu women's & children's Central Hospital from May 2020 to October 2020. The average age was  $42.32 \pm 8.95$  years old and without severe underlying diseases. All the patients completed preoperative examination in outpatient department and were admitted at the day surgery center. All operations were performed by a single port laparoscope, without preoperative preparation, indwelling catheter and analgesia pump. The patients left hospital within 48 hours after operation.

## Results

All these procedures were performed successfully. There were no complications or conversion to open surgery. The patients were moved to the day surgery ward postoperatively. There were no fever, or urination and defecation disorder. All were regularly discharged and there was no readmission after discharge. The hospitalization days and medical spending were reduced significantly.

## Conclusion

It is feasible and safe to perform laparoscopic myomectomy in day surgery center. The social and economic benefits are significant.

# \*Day surgery of tomorrow: a research towards the communication and collaboration between GPs and the surgical day hospital

Stephanie Vanden Berghe and Jeroom Dewitte

Intensive care/emergency department, AZ Delta Roeselare (Belgium)

*Email:* stephanievandenbergh3@gmail.com

## Background

Day surgery is in full expansion. More often surgeries are planned within day admission as a result of which an increasing patientgroup needs a well-developed postoperative discharge policy. Patients often lack knowledge or are unable to administer it themselves. A GP can be seen as a reference point back home

## Objective

The aim of this research is to visualize the experiences of a general practitioner concern the communication and cooperation between them and the co-workers of the surgical day hospital

## Method

This research is a mixed method, triangulation design. The results were collected from a quantitative and qualitative insight

## Results

The average satisfaction score for communication between a general practitioner and the surgical day hospital (on 5-Likert scale) is 2.92. Significant predictors of this satisfaction extent to which a GP can reach the surgical day hospital preoperatively, the extent to which a GP needs additional advice and the extent to which a GP in due time is informed about discharge.

## Conclusion

Satisfaction regarding the communication and cooperation between a GP and the co-workers of the surgical day hospital is found not optimal and could be improved according the GP's perspectives

Recommendations: Further focus on eHealth, stimulating the use of the KCE-tool in function of preoperative guidelines, considering a fixed financing system, refresher courses for GP's in the context of more complex surgeries, making phone numbers of surgeons more clearly known, providing a contact point 24/24 and use of short messages as a first form of triage among GP's

# \*Prospective audit on fasting status of elective ambulatory surgery patients, correlated to gastric ultrasound

T. Degeeter, B. Demey, M. Coppens, E. Van Caelenberg

Ghent University, Belgium

Email: thibo.degeeter@gmail.com

## Objectives

Recent guidelines advocate a preoperative fasting interval of 6 hours for solid food, 4 hours for clear fluids and 4 hours for breast milk. Long nil per os (NPO) intervals give rise to complications and discomfort in the perioperative period. Gastric ultrasound is easily accessible and generates reliable information about gastric content.

## Methods

One hundred patients were offered a questionnaire regarding preoperative fasting. Important outcome measures were hour of last meal, last clear fluids intake, the source of preoperative information and awareness of current fasting guidelines. Gastric ultrasound was performed in prone position and lateral decubitus.

## Results

The mean duration of fasting for solid food was 13h29 and 9h51 for clear fluids. 48% of patients were well aware of the correct fasting guidelines. The most frequent source of information was the preoperative phone call. Gastric ultrasound only found insignificant amounts of gastric content.

## Discussion

Too few patients are aware of the correct guidelines or fear complications and therefore adhere to the NPO. A phone call informing patients about the hour of surgery and allowing clear fluid intake until 2 hours before surgery, is still not convincing enough. Some health care providers advise their patients the NPO from midnight due to the risk of interfering with the operating room schedule.

## Conclusion

It is still difficult to organise a liberal intake of clear fluids according to current guidelines. Hence ambulatory surgery patients have long fasting intervals with decrease of subjective well-being and increased incidence of hunger and thirst.

# Highlighting the importance of ambulatory surgery in the new COVID19 era

Susan Mattick, Vanessa Cubas, Steven John Robinson

Worcestershire acute royal hospitals, Worcester, United Kingdom

*Email:* vanessacubas@nhs.net

## Introduction

COVID19 has put exceptional pressure on hospital services, staff and facilities. During the acute phase, the majority of elective surgery was suspended resulting in long delays. Its recovery needs to encompass the need to address the backlog created but also recognition that patients may postpone treatment in an attempt to avoid hospitals. Thus highlighting, that the delivery of high quality day surgery pathways is pivotal to the recovery of surgical services.

Our aim is to review the recovery of services in our trust once services were re-established.

## Methods

Retrospective observational study looking at all day case operations (as per The British Association of Day Case Surgery directory of procedures) across different specialties provided at our Trust for November 2019 pre COVID19, and August 2020 when elective services had re-established.

## Results

On average, 64% reduction in service provision was noted (2011 cases in November vs 733 in August. p value 0.007). The recovery of day case service provision varied between specialties, from 47% in Breast surgery, to Obstetrics & Gynaecology and General Surgery both 46%, Urology 43%, ENT 42%, Ophthalmology 38%, Orthopaedics 28%, Maxillofacial 23% and Vascular 8%.

## Conclusion

Despite challenging circumstances, our Trust has achieved at least a 40% recovery of services in many surgical specialties.

It is essential to promptly advance delivery of proficient elective surgical pathways to tackle expanding waiting lists, reduce morbidity related to delayed surgery (secondary impact of COVID19), offer surroundings which enable patients to attend with confidence, and meet patient preference of ambulatory surgery.

# \*Driving forward the improvement of the provision and documentation of driving advice on discharge following elective day case inguinal hernia repair surgery

V Cubas, S Mattick, V Mahendran, M Mourad

Worcestershire Acute Royal Hospitals, Worcester, United Kingdom.

*Email:* vanessacubas@nhs.net

## Introduction

Previous driving advice following groin hernia repair was based on concern that postoperative pain could prolong reaction times and increase risk of early recurrence as a result of inertial forces on impact/stopping. It is now accepted (RCSE Guidelines) that 1 week suffices, if the patient is free from pain or sedative effects of medication.

GMC states: "Clinical Records should include information given to patient". The aim of our audit is to find out if patients are receiving the correct information and if it is documented appropriately.

## Methods

Retrospective study from 1st of August-October 31st 2019 and then again from the 1st-29th of February 2020 following intervention. Data collected included documentation of driving advice in clinic letters, operation note and discharge summary and questionnaire of surgical staff enquiring about knowledge of RCSE guidelines.

## Results

Only 1 Consultant Surgeon was aware of formal driving guidance and gave written advice. 94% of surgical members of the team gave verbal advice in keeping with RCSE but were unaware that published guidelines existed.

During phase I, (n=147) documentation in the clinical letter, operation note and discharge summary was 10%, 8% and 4% respectively. Following intervention n=29, this increased to 21%, 45% and 41%. Intervention included: departmental education and a patient leaflet was created and added to the consent and discharge bundle.

## Conclusion

Intervention with patient centred leaflets and education of staff is essential to provide patients with consistent evidence based information, verbal AND printed, on driving following inguinal surgery.

# The surgical day hospital of tomorrow: a case study on the communication and cooperation between general practitioners and the surgical day hospital

Veerle Beheydt, Sarah De Looze, Prof. Dr. Marc Coppens & Prof. Dr. Melissa De Regge

Ghent University, Ghent, Belgium

*Email:* veerlebehyt@gmail.com

More and more procedures in a surgical day hospital, lead to increased pressure on primary care and confront first-line care providers with more complex challenges and a larger number of patients still dependent on care when discharged. Primary care needs to ensure further follow-up at home, but is generally not sufficiently prepared for this. Moreover, literary research shows that it isn't merely a problem of adequate care for physical complaints, as psychosocial problems also surface.

The aim of this thesis is to give an insight into the cooperation and communication between the general practitioner and the surgical day hospital. In addition, the challenges that general practitioners are facing in the pre- and postoperative phase are identified, as well as the bottlenecks and priorities in order to achieve a better coordination between these two parties.

For this purpose, a literary research and case study with interviews and an online survey were systematically conducted among general practitioners and two surgical day hospitals.

Research showed an important gap in the information transfer between the general practitioner and the surgical day hospital. Other problems that occurred were being able to perform preoperative examinations on time and making necessary adjustments.

Both the general practitioners and the surgical day hospital are positive about a further expansion of the surgical day hospital if the following adjustments are made: Implementation of a uniform communication platform, a preoperative collaboration plan and case manager, transparent information transfer of the patient's expectations and the provision of appropriate training.

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

*Ambulatory Surgery* provides a multidisciplinary international forum for all health professionals involved in day care surgery. The editors welcome reviews, articles, case reports, short communications and letters relating to the practice and management of ambulatory surgery.

Topics covered include basic and clinical research, surgery, anaesthesia, nursing, administrative issues, facility development, management, policy issues, reimbursement, perioperative care, patient and procedure selection, discharge criteria, home care. The Journal also publishes book reviews and a calendar of forthcoming events.

**Submission of articles**

All papers should be submitted by email as a Word document to one of the Editors-in-Chief.

Electronic submissions should be accompanied, on a separate page, by a declaration naming the paper and its authors, and that the paper has not published or submitted for consideration for publication elsewhere.

The same declaration signed by all authors must also be posted to the appropriate Editor-in-Chief.

**Mark Skues**

*Email:* [mskues@gmail.com](mailto:mskues@gmail.com)

**Ian Jackson**

*Email:* [drijackson@tollerton.net](mailto:drijackson@tollerton.net)