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2nd IAAS European Congress on Ambulatory Surgery

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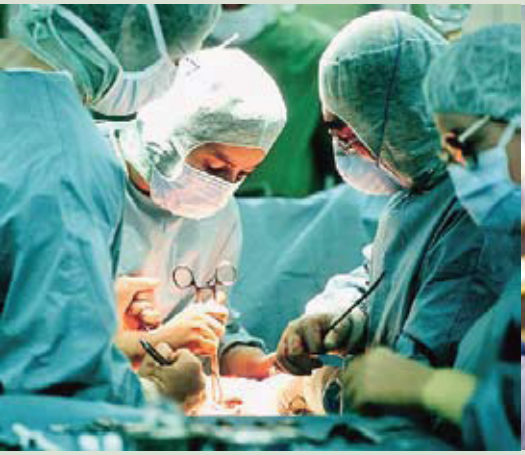


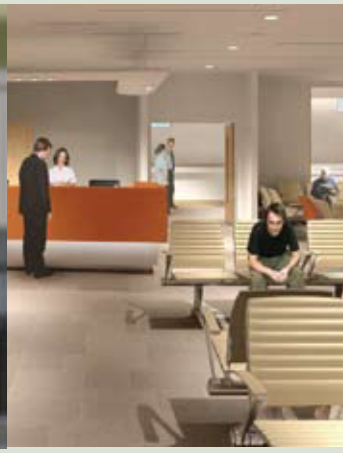

Free Abstracts

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Editorial

Mark Skues, Editor-in-Chief

2nd IAAS European Congress on Ambulatory Surgery

The International Association for Ambulatory Surgery, together with the Hungarian Association for Ambulatory Surgery met on 11–12th May 2018 for the 2nd European Congress that was held at the Danubius Hotel Conference Centre in Budapest.

Thanks are due to Gamal Eldin Mohammed and Maria Janecsko as well as members of the Organising and Scientific Committees for the hospitality shown, as well as fellow speakers who provided lectures of the highest quality to the assembled delegates.

This edition of the Journal contains the abstract submissions of international speakers who convened from around the world to offer both oral presentation and poster sessions at the Congress.

Happy reading.

Survey of Readiness for Hospital Discharge and its Influencing Factors among Ambulatory Surgery Patient

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Introduction: To describe the status of ambulatory surgery patients' readiness for hospital discharge and to explore its influencing factors.

Material and Methods: A cross-sectional survey was conducted. A self-designed general information questionnaire, the readiness for hospital discharge scale and the quality of discharge teaching scale were delivered to 288 ambulatory surgery patient.

Results: The total score of readiness for hospital discharge was (80.44±13.06), which was relatively high. The ANOVA analysis revealed that quality of discharge teaching, degree of education, economic and family support were influencing factors of readiness for hospital discharge.

Conclusion: The level of ambulatory surgery patients is relatively satisfactory, and healthcare workers should provide specific interventions according to different influencing factors, in order to promote the readiness for hospital discharge and improve patients' safety after hospital discharge.

A cost-effective and safe way to resolve the increasing medical demands in southwest China area: A brief history of West China Hospital Ambulatory Surgery Center

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Introduction: This article presents a brief history of ambulatory surgery in West China Hospital, the introducing ambulatory surgery center is a hospital based ambulatory surgical setting that was enabled in October 2009. It has completed about 111295 cases surgery or therapeutic procedure in the last 8 years, and now the ratio of ambulatory surgery and elective surgery reached is approximately a quarter. Data are presented to prove the statement that ambulatory surgery is a cost-effective and safe way to resolve the increasing medical demands in southwest China area. By understanding those conclusive data, it helps better comprehend the brief history of West China Hospital ambulatory surgery center. Besides, let the world know somewhere in southwest China, Chengdu, there are young enthusiasts and professions trying to devote their careers to promote the development of ambulatory surgery which would provide high quality and cost-effective care for patients.

Material and methods: To collect the data from 2014 to 2016 in ambulatory surgery center of West China Hospital, diagnoses and procedures presented are coded using the International Classification of Diseases, Tenth Revision, and Clinical Modification (ICD-10-CM). Elaborating the data of each surgery or procedure by year to present this short and significant history.

Results: From 2014 to 2016, our hospital performed 53,199 day surgery procedures. 16268 surgeries were completed in 2014, 17101 and 19830 cases of ambulatory surgeries were performed in 2015 and 2016 respectively, the ratio of day surgery and elective surgery reached 21.50%, 21.72%, 23.97% from 2014 to 2016. Better yet, our center performed 6257 cases in 2014, 7157 cases in 2015, and 8768 cases in 2016.

Conclusion: Ambulatory surgery management cuts down the cost and shortens hospitalization time, with patients receiving the same medical care as other hospitalized patients without sacrifice of their safety for convenience. Based on the eight years experience of our center and presented data, ambulatory surgery has cost-effective, safe and sustainable traits.

Study on the Continuing Care Needs of Patients with Ambulatory Surgery

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Introduction: To investigate the needs of the continuing care service in ambulatory surgery patients and to analysis the factors that influence the needs of continuing care service.

Materials and Methods: A cross-sectional survey was conducted by use of a continuing care needs questionnaire.

Results: A total of 288 ambulatory surgery patients were investigated, the average score of continuing care needs was (2.88±0.785), which was in the medium to high level. The higher need rate of the contents of the continuing care service were self observation and nursing of wound, the further consultation mode(2.89±0.859), and the prevention of disease recurrence (2.88±0.855). The correlation analysis of general information and needs showed that gender, marital status, medical payment, and people who live together statistically significantly influenced patients' needs ($p<0.05$).

Conclusion: Ambulatory surgery patients' needs of continuing care was at a high level, and healthcare workers should provide specific interventions according to different influencing factors. Especially the readiness for discharge, in order to promote patients' safety after hospital discharge.

A single-centre analysis on Hemorrhoidal Artery Ligation (HAL) and Recto-Anal Repair (RAR) after ten years

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Introduction: Hemorrhoidal disease is a typical "civilization" disease with a multifactorial pathogenesis and a symptomatology that poorly correlates to clinical findings. Treatment options are abundant and rangebetween conservative measures and surgical hemorrhoidectomy. Hemorrhoidal Artery Ligation (HAL) with orwithout Recto-Anal Repair (RAR) is a minimally invasive surgical technique for all grades of hemorrhoidal disease.

Materials and Methods: This study analyzed the outcomes of 274 consecutive HAL procedures with or without RAR between January 2004 and August 2014, at Sint-Lucas General Hospital in Ghent, Belgium. Initially 365 patients were selected. Because of co-existent anal pathologies, Inflammatory Bowel Disease, a history of colorectal tumors, portal hypertension, neurologic disease that affect the colonic motility and/or anal sphincter and pregnancy, 91 were excluded. The patient population consisted of 159 males and 115 females between 18 and 75 years of age (mean 51 yrs) with grade I –IV hemorrhoidal disease. Data was collected through a questionnaire and the patient records. All data was analyzed with SPSS 24.0 using the Wilcoxon matched pairs signed ranks test ($p<0.05$), the Mann-Whitney U test ($p<0.05$) and the Chi-square test ($p<0.05$).

Results: The initial, predominant symptomatology was discomfort in daily life, anal blood loss, anal pain andhemorrhoidal prolapse. Hemorrhoidal thrombosis occurred in 61.1%. Before seeking medical treatment, 61.1%were symptomatic for years and 73.8% were treated before the HAL procedure was performed. Patients were treated by HAL or combined HAL and RAR. During a HAL procedure, a mean of 5 sutures were placed (range 2–8). For RAR, a mean of 2 mucopexies were performed (range 1–3). 74.8% was treated on a day-clinic basis. Mean Visual Analog Scale (VAS) for postoperative pain is 5.28 (HAL 4.17, HALRAR 6.06). The postoperative complication rate was 11.3%: anal pain (3.6%), hemorrhoidal thrombosis (3.3%) and urinary retention (2.6%). Symptoms of hemorrhoidal disease were all significantly less apparent after HAL or HALRAR. But 44.4% of patients needed further treatment of their hemorrhoidal disease. Satisfaction after HAL or HALRAR was 84.4%.

Conclusion: These long-term results after HALRAR show a significant decrease in symptomatology and a high patient satisfaction but confirmed concerns about high recurrence rates. More prospective randomized trials are needed to evaluate long term results compared to other surgical techniques.

Relationship of Enhanced Recovery After Surgery (ERAS) and ambulatory surgery

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Introduction: We analyzed the clinical data of 5,600 patients who underwent ambulatory surgeries guided by ERAS in daycare ward and 4,550 patients undergoing conventional surgeries in general ward between October 2015 and March 2017 retrospectively.

Materials and Methods: We compared the mortality rate, morbidity, readmission rate, postoperative pain scores, patient satisfaction, hospital stay and hospitalization cost between the two groups.

Results: Compared with the conventional group, the ambulatory group had shorter hospital stays, lower hospitalization expenses and lower postoperative pain scores. However, there were no significant differences in the mortality rate, important morbidity, readmission rates and patient satisfaction.

Conclusion: Guided by ERAS theory, ambulatory surgery is safe and feasible, which can reduce the patient's hospital stays and hospitalization expenses, as well as relieving the patient's postoperative pain and accelerating the postoperative recovery.

Quality control and safety indicators of day surgery in Xiangya Hospital

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Introduction: Surgery patients usually stay in hospital until the stitches are removed and they could move around and return to the normal diet in China. To meet the needs of health care for the whole people and to utilize the high quality medical resources efficiently, the government has encouraged the development of day surgery in large hospitals in the process of medical reform in China since 2015. At the same time, the government hope the day surgery can control the rapid growth in health cost. During the period of the gradual establishment of the community medical system, ensuring the quality and safety of day surgery is the key to develop day surgery. As a result, the patient's traditional concept that it is necessary to stay in the hospital for a long time after the operation can be broken.

Material and Methods: Xiangya Hospital Central South University established the day surgery center in June 2014 and the data of day surgery in 2017 were analyzed.

Results: 5580 cases of day surgery appointments were made, with 311 (5.6%) missed cases and 334 (6.0%) cancelled or delayed cases on the operative day. 5074 cases were made, including 3219 (63.4%) cases with general anesthesia, 1931 (36.6%) cases with local anesthesia. 163 (3.2%) cases were hospitalized for more than 24 hours while 19 (0.4%) cases for more than 48 hours. 17 (0.3%) cases were transferred to common surgical ward, 2 cases received unplanned reoperation and no death occurred. The discharge follow-up rate for the first time accounts for 99.3% and postoperative complications occurred in 83 (1.6%) cases, the main problems were infection, pain and swelling in surgical site and fever. In these cases, 9(0.2%)patients received emergency treatment while 12 (0.2%) patients were hospitalized again in 72 hours.

Conclusion: The important factors to ensure the quality and safety of the day surgery are as below:

1) we should focus on the minimally invasive surgery and enhanced recovery after surgery, mainly including laparoscopic surgery, arthroscopic surgery, ureteroscopic surgery and so on.
2) It is necessary to establish the patients' health education system of day surgery, which cover the period from appointment notice, preoperative education, surgery knowledge, postoperative precautions to discharge follow-up.
3) The patients with clear diagnosis and definite surgery program can be screened strictly as day surgery.
4) the patients with good ability to communicate and with willingness after preoperative education will be suggested to perform day surgery.

Professional training of staff and its evaluation indicators in a day surgery center

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Introduction: To control the rapid growth of medical cost and improve the efficient utilization of medical resources, the Chinese government has encouraged the development of day surgery in large hospitals since 2015. Xiangya Hospital of Central South University established the day surgery center in June 2014. As the public platform for the whole hospital, there are 6 doctors and 21 nurses in the day surgery center. To ensure the safety, efficiency and rapid development of day surgery, it is necessary to explore the methods of professional training of staff and its evaluation indication at the beginning of the day surgery.

Materials and Methods: The day surgery center made professional training for staff with the precision quality management strategy. The training content cover the period from day surgery appointment notice, preoperative education, surgery knowledge, postoperative precautions to post discharge follow-up, which including pain management, hospital infection control and hand hygiene, aseptic goods management, occupational safety, night shift quality, perioperative nursing, etc. The indicators of training effect were evaluated monthly and made continuous improvement in accordance with the PDCA principle, including the patient's miss rate, cancelled or delayed surgery, delayed discharge, health education effect, post-operative nausea and vomiting with general anesthesia, post-discharge follow-up, checking and shift qualification of nurse, patients' satisfaction, frequency of adverse events, etc.

Results: 5580 cases were appointed in the day surgery center in 2017. 311 (5.6%) cases were missed, 334 (6.0%) cases were cancelled or delayed on the operative day. 5074 cases were performed, including 3219 (63.4%) cases with general anesthesia. 163 (3.2%) cases were hospitalized for more than 24 hours. 109 (3.4%%) cases occurred post-operative nausea and vomiting after general anesthesia. The patients' satisfaction for the whole year was 98.7%. The awareness rate of health education in patients was 98.8%. The rate of the primary nurse who was familiar with the patient's condition was 100%. The qualified rate of rescue instrument was 99.0%. The compliance rate of hand hygiene was 72.3% and the discharge follow-up rate was 99.2%.

Conclusion: The development of day surgery needs the continuous professional training for the staff. To establish the quantitative and dynamic evaluation indicators and its improvement cycle by training is the basis for ensuring the safety and efficiency of day surgery.

Developing Ambulatory Surgery in Serbia, Our challenges

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Introduction: Serbia is a developing country that recently faced many challenges as a new self-standing state and a former Yugoslav Republic. The development of the independent medical system is not only the task of the new government, but all of us working in it on every level. Ambulatory surgery is an approach that has sporadically been practiced in many hospitals and surgical units, especially in the private practice, where it has been recognized as a safe and a cost effective approach both by surgeons and patients. In public hospitals we have many enthusiasts who are familiar with the advances of this approach, but the full support of the government is yet to be seen.

Materials and Methods: Since the reform of our health system is still on going, we, as a Society, are taking certain steps in raising the awareness of the advances this kind of organization can bring to the entire System. We had started as a small organization with the generous support of the IAAS, that has acquainted a great number of surgeons with day surgery procedures, possibilities, challenges and advances. We drew attention to this entity and the step that we are currently taking is the formation of a National Guide of Good Practice in Ambulatory Surgery.

Results: The experts in ambulatory approach in every field of surgery are involved in its realization and all of them are currently looking for a way to imbed day procedures in the current system and draw attention to further advances and development of this organizational entity.

Conclusion: The ambulatory surgery is the approach that can bring numerous benefits to our health system, employees and our patients, that is yet to be fully recognized.

New technological advances for the treatment of anal fistulas and fissures

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Introduction: Proctology has always been a challenging field of surgery. Apart from the restoration of normal anatomy in proctological disorder treatment, there is a need to preserve the normal function of this delicate mechanism.

Materials and Methods: The greatest problem is the need to maintain the good quality of life. Although this field of surgery is lately developing as a specialized field in high volume centers, there are still many surgeons who are sporadically performing proctological procedures in spite of the lack of adequate experience.

Results: The new technologies and surgical approaches are offering both high volume and sporadic surgeons more success and better control of bleeding, infection and sphincter preservation in the treatment of disorders that can lead to immediate problems with continence, like perianal fistulas, as well as in ones that can lead to slow and progressive impairment, like anal fissures.

Conclusion: The new technologies are allowing more comfort in the work of experienced surgeons, less complications and miss treatments by inexperienced ones, and numerous advantages to ambulatory operations.

Challenges of inguinal hernia repair under local anesthesia in ambulatory surgery: the Serbian aspect

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Introduction: The aim of the study is to present the challenging cases in inguinal hernia repair based on a hernia expert experience.

Materials and Methods: According to European Hernia Society Guidelines inguinal hernia in adults should be treated by Lichtensten or endoscopic repair. In Serbia is recommended that inguinal hernia is solved by Lichtenstein technique under local anesthesia in ambulatory settings whenever possible. The main challenges of setting inguinal hernia in local anesthesia according to the principles of ambulatory surgery are: big inguinoscrotal hernia, recurrent inguinal hernia after tension or tension-free repair, simultaneously solving inguinal and femoral hernias, or inguinal and ventral hernias. All of these patients should be operated with a minimum rate of complications that should be the same as in patients undergoing hospitalization.

Results: In the period 2003–2017, at the 7th department of the First Surgical Clinic, Belgrade, 2476 patients with 2852 inguinal hernias were operated. Unilateral/bilateral inguinal hernia, inguinoscrotal or recurrent inguinal hernia after tension or tension-free operation were solved with Lichtenstein technique, inguinal and femoral hernia were simultaneous solved with Lichtenstein and plug mesh technique, and unilateral/bilateral inguinal hernia and one or two ventral hernias were simultaneously solved with Lichtensten and the open preperitoneal flat mesh technique. In 1636 patients the operation was performed under local anesthesia as outpatient procedure and in 840 patients the operation was performed under general anesthesia as inpatient procedure.

Conclusion: Surgery of challenging inguinal hernias under local anesthesia in ambulatory settings is feasible and safe.

Exploration of a new model of nursing management in ambulatory surgical ward

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Introduction

Background and objective: The ambulatory surgical department of Renji Hospital was established in June 2008. With the increasing population of patients and various types of ambulatory surgical approaches, our ambulatory surgical departments is designed with one ambulatory surgical management center and three wards. Confronted with high demands of ambulatory surgery, an improved model of nursing management is necessitated to ensure patients safety, enhance the quality of surgery and nursing, and improve patients' satisfaction. This study aims to explore a new model of nursing management in ambulatory surgical department.

Materials and Methods: A comprehensive model of nursing management in ambulatory surgical department has been designed and implemented in Renji Hospital since 2013, which is made up of four major aspects. In the first place, an ambulatory surgical management center is designed for making hospitalization reservation, overall assessments, per-operational education and post-operational follow-ups. Secondly, nursing services are optimized during practices. Hospitalization and discharge procedures, and contingent solutions in case of emergency events are planed and adjusted for nursing with better quality and safety. Thirdly, a variety of patient education measures are applied to inform patients of attentions which should be payed during perioperative period . Finally, nursing effectiveness is consolidated by information systems containing ambulatory surgical management system and discharge assessment system.

Results: The ambulatory surgical department of Renji hospital boasted a stable and sustainable developments in the past five years. The number of surgeries enjoyed a three-fold increase from 2013 to 2017. Meanwhile, patients satisfaction shared an improvements of 6.8%, indicating a huge progress of nursing quality despite the vast enlargement of patients number. Inspired and learned from domestic counterparts, this nursing model has been validated to be effective in Renji hospital.

Conclusion: A comprehensive model of nursing management for ambulatory surgical department is effective in improving nursing quality and safety.

Analysis of the follow-up results of day surgery patients from March 2017 to December 2017

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Introduction: The day ward of our hospital was established in March 2016. This study investigated and analyzed the results of a total of 1550 patients in our hospital from March 2017 to December 2017.

Materials and Methods:

1 the subjects selected from March 20, 2017 to December 31, 2017 were hospitalized in our department.

1.1 in accordance with the diagnostic criteria of daytime surgery for specific diseases; 1.2 the vital signs were stable; 1.3 no serious heart, lung and other visceral diseases; 1.4 volunteered to participate in the study and signed the informed consent.

2 method

2.1 survey methods were followed up for professional training. The follow-up work was fixed by 4 doctors in our department. The combination of questionnaires and telephone follow-up is the first choice: WeChat's cloud follow-up system is preferred, and some people do phone follow-up without WeChat or mobile phone. 2.2 the contents of the survey were followed up at the first three and ten days after the operation. Satisfaction surveys were added to the first three days of the tenth day.

Results: 201 after the first day of operation, all of them were mild bleeding, and then gradually decreased: second days, 174 days, third days, 141 people, tenth days to 54 people. Interestingly, headache and fever do not accord with the above rule: the first day after operation, 158 patients had headache and 8 had moderate headache. Second days after operation, 159 patients had headache and 10 had moderate headache. At third days after the operation, 120 had a headache, 4 had moderate headache, and 40 had a headache at tenth days after the operation. On the first day after the operation, 66 were fever, 3 in moderate fever, 79 in second days after the operation, 5 in moderate heat, 1 in high fever, 54 in third days after the operation and 7 in moderate heat. Tenth days after the operation, 18 were fever and 2 were moderately hot. No more than three degrees of adverse reaction occurred in compliance with the medical advice rate in 89.61%–91.03%, compliance with the medical advice rate in 92.97%–94.71%, indicating that the statistical data is true and effective.

Conclusion: The study of 1550 people into the group, the common postoperative adverse reactions: such as bleeding with the prolonging of incidence rate gradually decreased, but a headache and fever, often occurs after second to third days, the symptoms are relatively heavy, and postoperative adverse reaction absorption the result of thermal and general anesthesia.

Ambulatory Ozonated Auto Haemotherapy for treatment of ulcers not responding to conventional pharmacological and surgical treatment

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Introduction: Chronic Ulcers (CU) affect approximately 1–3 % of developed countries population. Therapy is mainly based on ambulatory curettages and home medical treatment.

Ozonated Auto Haemotherapy (O3-AHT) is reported to be effective to promote ulcer healing. We report a series of patients poorly responding to usual therapy and successfully treated with MOH.

Materials and Methods: A series of 39 patients (14 M, 6 F), mean age 68 yrs, suffering CU for 3 to 60 months (median 60) was treated on ambulatory bases once or twice a week. Ulcer pictures were taken before beginning of therapy and every five sessions, to compute the lesion surface area.

The O3-AHT included 225 ml blood collection into a 500 ml vacuum bottle containing 20 ml of 3.8% Na citrate solution. The blood was drawn from an antecubital vein with the patient lying in semi sitting position. The collected blood was mixed with 225 ml of a O_2/O_3 gas mixture containing O_2 (96%) and O_3 (4%) produced by an ozone generator (Ozonosan). After 10 minutes of gentle mixing, the blood was reinfused. Standard medical and surgical (curettages) therapy were maintained during O_3-AHT treatment.

Results: The median ulcers surface area was 19 cm^2 (0.5–200 cm^2). The patients underwent a median of 20 sessions of O3-AHT (10 to 120). In 31 cases a complete healing of the lesion was obtained while the remaining patients had a reduction of CU area of a median value of 79%. The average time consuming procedure was 45 minutes.

Conclusion: Experimental evidences suggest that healing process in chronic wounds is prevented by local ischaemia, high lactic acid concentration, an enhanced presence of reactive oxygen species and proinflammatory cytokines. Ozone reaction with blood components give rise to a biochemical cascades that ultimately enhances the production of 2,3 di-phospho-glygerate (2,3-DPG), which will shift to the right the oxyhemoglobin dissociation curve, thus increasing the release of O_2 in the ischemic areas such as the ulcer's area. Moreover the infusion of ozonated blood implies an activation of nitric oxide release by the endothelium. The final result is an upregulation of endogenous antioxidant proteins (SOD, catalase, GSH-Px, GSH-Tr,). With the progress of O_3-AHT, the concentration of these enzymes will increase and they will become able to reverse the chronic oxidative stress induced by chronic inflammation. This effect combined with the increased O_2 delivery stimulates the healing of damaged tissues.

Ambulatorial topic Ozone/Oxygen treatment in a case of chronic abdominal abscess not responding to usual therapy

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Introduction: Abscess formation is a possible complication of surgical abdominal intervention and it's treatment, beside surgery, could require periodic lavages through drainage tube inserted inside the contaminated cavity. Usually these lavages are performed with antibiotic and antiseptic solution aimed to sterilize the cavity and favour the healing of the damaged tissues. This procedure could require several weeks and, if full recovery is not reachable, surgical intervention is required.

We report a case of a patient where the healing of a chronic abscess not responding to usual therapy, was obtained with Ozone/Oxygen mixture insufflation

Material and Methods: A 71 years old male underwent Hartmann colonic resection and subsequent intestine intestinal recanalization. Afterwards, he developed an enteric fistula that supported a bulky abscess refractory to systemic antibiotic treatment. The abscess involved the area of coeliac and mesenteric arteries and portal vein with reduction of blood flow of the relevant area. The patient was discharged home with a systemic antibiotic prescription and with a percutaneous drainage in situ; both for pus draining and lavage performing. A weekly topical lavage with antiseptic and antibiotic solution administered throughout the drainage was planned. After three months of this weekly treatment, the infection was still active, therefore we decided to start with topical ozone administration.

The treatment consisted of every third every day insufflation through the abdominal drainage of 50 ml of an ozone/oxygen mixture containing from 40 to 60 mcg/ml of ozone.

Results: After eight administrations, we obtained the normalization of C-reactive protein blood test and the disappearance of CAT scan image of abscessual cavity.

Conclusion: Ozone is a potent oxidising agent and has high bactericidal and fungicide properties. When ozone gets in contact with organic cells, it gives rise to an extensive oxidation. If inserted in a contaminated tissue environment, the oxidation process destroys the microbial capsule to reach a complete sterilization, thus allowing the healing of the tissues. Ozone should be considered as a supportive topical treatment in case of chronic tissue infection not responding to usual therapy.

Patient-reported sufficiency, adherence to, and adverse effects of ambulatory surgery pain medication

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Introduction: Challenges of ambulatory surgery include adequate pain relief after discharge but minimizing the side effects of pain medication. There is a wide variation in prescribing pain medication for common surgical procedures. Considering the abuse potential of opioids, physicians should balance adequate pain management against the optimal dosage, length and adverse effects of opioid treatment. At Helsinki University Hospital (Finland) we have a strict strong opioid prescription policy compared to clinic average in Finland and international reports. This has raised a question whether our patients suffer from severe postsurgical pain.

Materials and Methods: This prospective observational study comprised 3-month cohort of all adult ambulatory surgery patients (orthopaedics, urology) able to give written informed consent. 111 patients answered a questionnaire about satisfaction in pain relief, medication adverse effects, and adherence to instructions. In addition, they filled a chart about their pain (numerical rating scale 0-10) and pain medications taken up to two days postoperatively. This chart was compared with given medications, electronic prescriptions and instructions.

Results: 52% patients were given a single dose of slow-release oxycodone (5-20mg) at discharge to be taken on the night of surgery. 43/111 patients suffered from severe pain (NRS over 7), among whom 29 had received the slow-release oxycodone tablet. The most common prescriptions were paracetamol/codeine (69) and ibuprofen (71). 87% of patients were satisfied with the pain medication given at hospital discharge, and 91% of the patients were satisfied with the prescribed medication. The most common adverse effects were tiredness/ grogginess (46%) and constipation (26%). 25% of patients self-reported divergence from the medication instructions. A comparison of self-reported and instructed medications revealed that 14% had taken more medication than instructed, and 21% had taken other preparations than given or prescribed. The patients who self-reported diverging from the instructions differed from those with objective divergence from the instructions.

Conclusion: Almost 40% had severe pain. However, most patients were satisfied with the pain relief. Divergence from medication instructions was common; thus our results do not support increasing the amount of prescribed strong opioids. Patients requiring multiple doses of strong opioids should be treated at surgical ward and not in the ambulatory setting.

Adequate local anesthesia – How much local anesthetic is sufficient?

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Introduction: Ambulatory hernia surgery is unimaginable without local anesthesia and a qualified and experienced surgeon who is capable of operating in these conditions. These operations are no longer reserved for specialized hernia surgery centres only. On the contrary, they are already beeing accepted by the surgeons from regional hospitals. The release of EHS guide for inguinal hernia treatment definitely contributed a lot to this advent. The purpose of this study is to show our experience when using local anesthesia in ambulant hernia surgery.

Materials and Methods: From January 2006 to January 2018, using two procedures for giving local anesthesia, 1037 elective, 935 unilateral and 51 bilateral inguinal hernia operations have been done on 986 patients. On 474 (48,07%) patients "one step procedure" was applied, and when it comes to the other 512 (51,93%) "step by step procedure" were performed. Anesthetics that were used were procaine, lidocaine, bupivacaine and levobupivacaine.

Results: The average age of the patients was 68 year (20-93). All of them were in the group ASA I-III.

Conclusion: The amount of local anesthetic necessary for achieving the optimal effect didn't depend on applied operation technique. The applied administered procedure influenced the amount of the anesthetic necessary for achieving the optimal effect of anesthesia. Because of the specificity of "one step procedure", a significantly higher amount of anesthetics is required. The dose directly depended on the experience and qualification of the surgeon and gentle tissue dissection. Higher dose of anesthetics was used for younger people (20–50 year). 79.5% patients in this group needed a higher amount than the minimum used, in regard to the patients older than 50 year. 76.7% patients in "step by step procedure" group the minimum dose was enough for achieving the adequate anesthetic effect.

To Analyze the Role of Medical App in Perioperative Management of Day Surgery from the Perspective of Patients and Medical Care

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Introduction: To analyze the role of medical app in perioperative management of day surgery from the perspective of patients and medical care, and explore new measures to optimize the process and improve the patients` satisfaction.

Materials and Methods: 40 patients using online questionnaire from February 5, 2018 to February 9, 2018. To investigate the patient's choice of how to receive health education information. Survey patients and medical personnel the current satisfaction with the traditional way of health education in Day Surgery Center.

Results: 72.5% of patients have a health-class mobile application installed. The average time spent on medical apps in the last 30 days was 5.72 days. Pre-hospital patients most (Top three) want to receive health education information is Face-to-face, Medical App, Social App; The most (Top three) desirable ways for patients to obtain healthy mission information during hospitalization are: face-to-face, leaflets (handbooks), SMS; After discharge from hospital patients most (Top three) want to get health education information in the form of: face to face, social App, phone \ SMS. Patients were 85% satisfied with current health education and 79% satisfied with the medical staff of Day Surgery($p > 0.05$).

Conclusion: In addition to traditional face-to-face missions, leaflets (handbooks), phone / SMS, etc., patients also want more options, such as medical App.

Feasibility of Outpatient Laparoscopic Sacrocolpopexy

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Introduction: The immediate postoperative care after laparoscopic sacrocolpopexy (LS) is classically conducted during conventional hospitalization, unlike most of the urogynecological surgeries. New surgical techniques and optimal analgesia are making this procedure safer and less painful.

The aim of our study is to evaluate the feasibility of LS as an Outpatient Procedure (OP).

Materials and Methods: This was an observational multicenter study that included women who underwent outpatient LS. The primary outcomes were the success rate of outpatient care and the rate of rehospitalization in the month following the intervention. The secondary outcomes were the rate of complications in the month following the surgery, the level of patient satisfaction evaluated by a set of straightforward questions and two validated questionnaires (the Patient Global Impression of Improvement (PGI-I) and the Core questionnaire for the assessment of Patient Satisfaction with general Day Care (COPS-D)).

Results: 55 Patients were included. 49 Patients (89.1% (80.7-97.3%)) were successfully treated as outpatients, 6 patients (10.6 %) were hospitalized and 2 (3.6%) were readmitted during the postoperative period. Of the 31/55 women (56.4%) who answered the PGI-I questionnaire, 27/31 (87.1%) stated that the intervention improved their condition. Of the 30/55 women who answered the COPS -D questionnaire, 26/30 (86.7%) women were "satisfied" or "very satisfied" by their discharge conditions.

Conclusion: The success rate of outpatient LS was high in this study, with a very substantial level of patient satisfaction. These findings are to be confirmed with larger series.

Phlebological Day Surgery – Evolution and Management

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Introduction: The paper presents, based on personal experience, the possibilities of management of varicose disease in the day surgery system and the economic benefits brought by it.

Materials and Methods: Of the total surgical consultations given to patients in "Cabinet Medical Surgery and Phlebology Dr. Cădariu Florentina" phlebological consultations accounted for 14.7% of the activity.

Given the relatively recent existence of phlebology and ambulatory surgery, most newly recorded cases have chronic venous insufficiency in advanced IV-VI stages with trophic lesions.

Results: The situation of dispensary patients at the cabinet level is as follows:

Etiologic: Hydrostatic varicose veins 93.6%, post-thrombotic syndrome 6.4%;

Evolution: IVC Class I-II 25%, IVC Class III-IV 57.5%, IVC Class V-VI 17.5%. Complex treatment of varicose disease is individualized, with its total cost increasing proportionally to the evolutionary stage of the disease, up to ten times higher than the cost of primary prophylaxis.

Conclusion: Activity in the day surgery system requires the introduction of patient selection protocols, protocols and therapeutic guides, collaboration protocols with the family doctors, hospital.

The elaboration of these documents requires good collaboration between the specialists, the professional associations and the national institutions - surgical, anesthetists, the College of Physicians, the Ministry of Health, the CNAS.

Percutaneous vertebroplasty in metastatic spine disease

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Introduction: Metastatic spine disease represents a great burden and remains a significant issue regarding appropriate treatment. We present our experience with 90 cases of percutaneous vertebroplasty for metastatic spine disease. We also made a systematic review of this procedure in order to determine pro and cons statements.

Materials and Methods: 90 vertebroplasties have been performed in 72 patients with either multiple myeloma or osteolytic metastatic spine tumor. This procedures had been conducted in two big clinical centers by two surgeons- neurosurgeon and orthopaedic surgeon.

82% patients were with metastatic spine tumors and 18% with multiple myeloma.

All patients with metastatic spine disease underwent treatment of primary disease (surgical, radiotherapy od chemotherapy). We analysed complications, improvement of pain (VAS) , walk ability , vertebral body height at the discharge , at 6 and 12 months

Results: We performed this procedure in the spine segments from C7 to L5.

We had some cases of cement leakage but only one with clinical significance.

As it had been showed in many previous publications, the pain and walk ability in our research had been improved with high significance ($p<0.01$), but we have no significant restoration of vertebral body height.

Conclusion: Despite some controversies regarding metastatic spine disease, vertebroplasty is a valuable procedure in term of pain reduction and improvement of walking ability. Our study also showed that this procedure improve and prolong life expectations which is mostly linked to the pain reduction.

The value of a nurse-led preoperative reception desk

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Introduction: One of the problems at the registration of patients for ambulatory surgery procedures is the lack of time between the decision to operate and the day of surgery. Mostly healthy and busy patients have no time to come to the hospital for extensive preoperative examinations.

Materials and Methods: We organize a preoperative nurse led reception desk where patients can register at any time during the day. The nurse asks for the medical history of the patient and for his medication list. She can send him for a blood test, a chest X Ray examination or even to the cardiologist if necessary. Also other specialists can be asked for preoperative examination, if needed. The nurse is working following strict directives depending on the situation of the patient and also depending on the kind of surgery that will be done. The guidelines for every kind of surgery is standardized and followed by the nurse. She hands over to the patient a bag to put in his medication for one day. The patient has to take this bag with him on the day of surgery. Doing so the hospital pharmacist has no medication for the incoming patient to provide. Only medication for postoperative pain relief or against nausea is foreseen and given to the patient when he goes home after surgery.

Results: This way of working has the advantage that unnecessary preoperative examinations need not to be done. Very important is also that we have a correct medication list of the patient.

Conclusion: The problem of the registration of a correct medical history of the patient and of an up to date medication list can easily be solved preoperatively by organizing a nurse-led preoperative reception desk. The same applies to checking the necessary preoperative examinations. This results in a less time consuming registration at the day of surgery.

Telematic protocol of ambulatory major surgery of laparoscopic cholecystectomy in Area III-IV of the Autonomous Community of Cantabria

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Introduction: Our objective is to carry out a telemedicine follow-up of laparoscopic cholecystectomy by Day Surgery Unit (UDS). To do this we are establishing surgical, anesthetic criteria and the perceived and expected quality detected by videoconference. A protocol is established in the unit UDS, taking into account the geographical difficulty of said health areas, from the Picos de Europa to the western coast.

Material and methods: We started in 2016 with the performance of laparoscopic cholecystectomy in 9 initial patients following a DS regimen, until progressing to the installation via telematics. Together with the Anesthesia and Resuscitation service, a protocol is elaborated that has the purpose of dispensing with the admission of patients submitted to said surgical intervention. The protocol is divided into 4 phases: pre-surgical, intra-operative, post-surgical and domiciliary. During the intra-operative period, the limitation on the use of long-lasting opiates is important, with remifentanil being of choice. A laparoscopic approach was performed through three ports, one of 10 mm and two of 5 mm, after infiltration with 0.56% ropivacaine. After access to the abdominal cavity, the patient is placed in the Trendelenberg position, instilling the subdiaphragmatic space with local anesthetic. After cholecystectomy, it is important to irrigate the vascular bed with ropivacaine.

Results: The domiciliary discharge is given by the surgeon and the anesthesiologist, 6 hours after the end of the surgery, with assistance by telemedicine by the UDS unit.

Conclusions: With the implementation of laparoscopic cholecystectomy by DS, we are saving hospital beds and hospitalization expenses. We hope to develop and increase the benefits of this protocol in the immediate future assisted by telemedicine.

Territorial distribution of the Major Ambulatory Surgery in area III-IV of the Community of Cantabria

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Introduction: It is intended from the point of view of the geography of health care to assess how it is distributed and relates the pathology addressed by the day surgery (DS), and health centers.

Materials and Methods: We have taken into account the distribution of the population according to area III and IV of the Community of Cantabria. We analyzed 6,296 patients operated by DS, (3290 in 2013, 3,006 in 2014) in Sierrallana and Tres Mares Hospital, respectively. The source of information was the admission and documentation service, through coding in GRDs and international classification of diseases, ICD-9.

Results: There are 307 populations where DS has been carried out in 2013, and 306 in 2014. Two more populations have been added Aguilar de Campoo and Cillorigo, in 2014. They increase in Valderedible and Matamorosa, and decrease in Unquera.

In the populations with higher ASA I and ASA II, ASA III and ASA IV have decreased in 2014, with respect to 2013 In the same way the population of Torrelavega, which is the main one in area III-IV, has the highest number of ASA IV. It is also observed that in 2013 in these nearby towns more moderate ASAs II and III were made than in 2014.

In large populations, patients with ASA II and III increase and are subsidiary to being treated as DS. Therefore, the implementation of DS in these cities must be affected, and Primary Care centers must be involved and collaborate

In the geography of the health of the procedure, it is observed that the population with more inhabitants of area III-IV, (Torrelavega), presents greater amount of DS procedures, in this case the cortical cataract.

Conclusion: The relationship between the number of inhabitants and the DS per population is maintained, which helps to estimate the cost and endowment calculations.

Day surgery in the fourth age of life. Biannual audit in a regional hospital

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Introduction: The objective of this work is to assess the results in patients undergoing surgery, over 80 years of age in the fourth age of life, in the Day Surgery (DS) Unit of Sierrallana district hospital and Tres Mares hospital in area III-IV of Cantabria.

Material and Methods: 503 patients (15.28%) underwent surgery in 2013 (a) and 477 patients (15.86% in 2014 (b) with age over 80. The sex was higher in women with 60.63% in (a) and 56.81% in (b) The mean age was 84.3 / 84.5 in a / b respectively, with ranges included (81–101) years.

Results: The anesthetic risk was 3.5 / 3.14% in ASA 0, 1.19 / 2.3% in ASA I, 55.6 / 57.6% in ASA II, 38.7 / 35.6% in ASAIII , 0.79 / 0.83% in ASA IV, included in a / b respectively. The specialty of ophthalmology was the most frequent with 86.4 / 88.2%, the general surgery had a rate of 5.9 / 4.6%, the traumatology with a ratio of 3.77 / 3.14%, the anesthesia with 1.19 / 2.51%, entered in these years as DS for the first time, for carrying out rhizolysis with transforaminal infiltration, gynecology with a rate of 0.39 / 1.04%, and ENT (otorrino) with 1.19 / 0.41%, in a / b respectively. The types of anesthesia most frequently performed in number of cases were: surveillance anesthesia monitored (SAM) 468/440, spinal anesthesia 15/12, general anesthesia with intubation 7/2, laryngeal mask 2/4, intravenous regional anesthesia (ARE) 0/2, the retrobulbar, truncal and brachial nerve blocks were 5/4, local anesthesia with sedation began to grow since 2014 with a ratio of 1/10 cases, in a / b respectively. No mortality or major postoperative complications were recorded. The income rate was 1.78 // 1.67% in a / b, with an average age of 85.6 years, with ranges of (81-97) a and (81-92) b. By sex, it was found more than double in males, with 66.6 / 62.5% in a / b. General surgery was the specialty with the highest income, with 5/5 patients. The most frequent pathology was inguinal hernia with 3/4 patients, due to bruises or nausea. The most frequent anesthesia was SAM (4/4), and spinal anesthesia (4/2) in a / b respectively.

Conclusion: The audit that we have carried out shows us stable reference rates in the ambulatory surgery of the patient of the fourth age, over 80 years. There is a decrease in CMA in ENT and traumatology and should improve the urology that does not exist. We found that 1 out of 7 DS patients are older than 80 years. In our experience, we can say that with the DS one can try to predict the degree of autonomy of a patient.

Effectiveness of Nursing in Postoperative Information and Education in Patients after the Same Day Surgery Experience

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Introduction: In Ambulatory Surgery the fact of discharging from hospital does not mean that the patient is cured, but that he is sent to his home to follow one of the important phases of the IQ. Nursing is key to maintaining continuity of care through the postoperative telephone call, in this way we can close the surgical process. For our experience we know that during the discharge, much of the information received is lost, the telephone follow-up. It allows us to reinforce and expand our knowledge, providing both security and confidence. It is therefore necessary to protocolize the models of action to achieve total recovery, maintaining maximum safety and quality.

Hypothesis: After eight years of application of this assistance method, we asked ourselves if we can improve our care and achieve greater healthcare excellence. General objective: Improve the management of information and education in patients operated on outpatient surgery. Secondary objective: To know the incidents that patients present during the 24–48 hours. after discharge.

Methods: An observational cross-sectional descriptive study was carried out patients who were admitted to HAD from the Ambulatory Surgical Center for six months with a stay of no more than 7 days and who met the established inclusion criteria. A sample of 163 patients was analyzed. It was assessed: Presence of different patterns of analgesia. Non-compliance with treatments and / or prescribed indications for excess or defect. Incidence in the intravenous route. Evaluation by the patient.

Results: Incidents presented 0.02%; They present non-compliance due to medication excess 5.63%; by default 0.14%; There are 0.028% indications; Incidences in the intravenous route 0.07%; Other incidences 0.04%. 97% of patients rated the assistance received as very good.

Conclusion: It is confirmed that continuity of care with HAD after discharge from outpatient surgery is an adequate method with few adverse incidents. We must improve the use of non-prescribed medication.

The risk factors of post-polypectomy bleeding for colorectal polyps after therapeutic colonoscopy in ambulatory surgery center

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Introduction: Post-polypectomy bleeding (PPB) is the most common adverse event of colonoscopic polypectomy, but few large sample studies has explored the PPB factors associated with therapeutic colonoscopy in ambulatory surgery center. Our research aims to investigate the risk factors of PPB for colorectal polyps in ambulatory surgery center.

Materials and Methods: We retrospectively extracted data from the patients with colorectal polyps who underwent endoscopic polypectomy in ambulatory surgery center of West China hospital of Sichuan University between 2014 and 2017.Date included of basic characteristics of patients (gender, age, comorbidities), polyps related features (size, number, location, morphology, histopathology), therapeutic methods of colonoscopy, life history (history of alcohol and tobacco),drug use (anticoagulant or antiplatelet drugs) before colonoscopy, clips use during colonoscopy, early activities and diet after colonoscopy were reviewed. They were followed up by telephone, outpatient reviews and hospitalizations records in 4 weeks after the polypectomy. Patients were divided into bleeding groups and non-bleeding groups according to the hemorrhage occurring, then the rates of PPB in both groups were compared. A multivariable logistic regression model was used to analysis the risk factors of PPB.

Results: A total of 2592 patients with 7271 colorectal polyps were enrolled, including 771 single polyp patients and 1821 multiple polyps patients. 106 patients(4.1%) experienced PPB, 91(85.8%) of which experienced delayed PPB,while 15(14.2%) experienced immediately PPB, and the median time of PPB is 7th day(5,10). The multivariate logistic regression analysis showed that the gender(male),polyps size, therapeutic methods of colonoscopy (hot biopsy forceps,HBF), comorbidity (hypertension), early activities were the independent risk factors of PPB in the single polyp patients($P<0.05$),while comorbidity(hypertension), early activities and diet were associated with PPB in the multiple polyps patients($P<0.05$).

Conclusion: We identified that male,polyps size,the use of hot biopsy forceps, hypertension, inappropriate activities and diet after colorectal polypectomy were the independent risk factors of PPB in ambulatory surgery center.

Ultrasound Caudal Anaesthesia in Children's Day Surgery

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Introduction: Minor abdominal surgery is very common amongst pediatric population. Children less than one year old are always more frequently operated. The outcomes of general and regional anesthesia are usually comparable, except in premature children because of an increased risk of apnea given by general anesthetics. On the other hand caudal anesthesia, using the traditional blind technique, has a high risk of failure. We present a series of patients less than one year old undergoing minor day surgery treated with caudal ultrasound guided anesthesia.

Materials and Methods: We included 20 children aged between 1 month and 1 year old, weighing from 2.5 to 6 Kg, who underwent lower abdominal surgery. Exclusion criteria were neuraxial block contraindications. Monitoring in all patients included ECG, SpO2 and T° and a peripheral venous access was established for hydration. After sedation with intravenous ketamine 2–5 mg/Kg, the patients were placed in the left lateral decubitus position and the caudal block was performed. The neuraxial ultrasound scanning, with a high frequency linear transducer, was performed to identify the sonoanatomy of the sacral cornus. The needle was inserted at the center of the transverse view image below the probe, in out of plane technique. After the assessment of the correct needle tip position in the sacral canal from a sagittal ultrasonographic point of view and a negative aspiration test, the local anesthetic (isobaric bupivacaine 3 mg/Kg diluted at 1 mL/Kg) was administered. Skin incision was performed after twenty minutes from the caudal injection and a previous negative pin prick test. Successful block was defined as the absence of movements or tachycardia at skin incision, with no need for supplemental analgesics. Perioperative vital parameters (HR, SpO2, T°), intraoperative and postoperative need of analgesia, respiratory and cardiovascular complications were recorded.

Results: Ultrasound caudal block permitted to confirm correct needle position and adequate pinprick level in 100% of cases. Each child was spontaneously breathing, no analgesic rescue during surgery and no general anesthesia conversion was needed. No episodes of bradycardia and desaturation happened. Analgesia duration was 6 hours (range 4 – 6 hours). Postoperative fasting period was about 3 hours.

Conclusion: Children are suited for ultrasound guided caudal anesthesia because of their excellent sonoanatomy. This permits a perfect needle positioning, even by inexperienced physicians, reducing the risk of failure.

Ambulatory Surgery in France. Current Situation and Prospects

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Introduction: In France, ambulatory surgery has become a major issue in the management of patients including oncology. The new 2018 health program aimed at a target of 70% share of outpatient surgical activity.

The purpose of this study was to describe ambulatory surgery in France between 2013 and 2016 and to determine how to improve it.

Materials and Methods: Data from the Medicalized Information System Program such as rates of ambulatory surgical procedures performed by age, region, hospital center and Diagnosis Related Groups, have been analysed.

Results: The rate of ambulatory surgical procedures in France (including all specialities) has increased from 47.9% in 2013 to 54.7% in 2016.

Between 2013 and 2016, ophtalmology and stomatology have the higher rates of ambulatory activity (respectively 88% and 70%). Gynecology and ENT occupied the third place with 55%, which represented an increase of 7%. Urology and orthopedics stayed under the national average with 50% (+ 5%) . The lowest rate concerned digestive surgery (30%) but it was also the best increase (+10%) in four years. In 2016, five of the seven surgical specialties were under the new goal and three had an activity under 50%.

It is necessary for each one to set up a new organisation to expend the indications. It imposes constraints for teams to standardise circuits. The rate of ambulatory services in 2016 was 31,6 %. Surgical centers dedicated to outpatients care surgery have not been developed yet.

In France, other reasons explained the differences observed in ambulatory surgery: the age, the region of the patient, but also the type of surgical procedure and the category of the surgical center (private or public). For example, in public surgical centers the ambulatory surgery concerns 44% of the surgical activity against 61.9% in private centers.

In oncology surgery the major procedures are performed in breast surgery and for cutaneous tumors. For breast cancer the circuit are well defined and the goal is to quickly increase share of the ambulatory management.

Conclusion: Compared to other European countries, France has fallen behind in the ambulatory surgery. There is a challenge at each step of the care system in order to respect the medical interest of the patient and the economic interest of the health system.

High resolution for postsurgical follow-up in Major Ambulatory Surgery by telemedicine in area III-IV of the Autonomous Community of Cantabria-North of Spain

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Introduction: Post-surgical assistance to patients from the most peripheral areas of Cantabria involves applying the technology of telecommunications, and improving the quality of healthcare to remote geographical areas. Since this year, a pilot project of post-surgical follow-up of day surgery (DS) by telemedicine and videoconference has been studied in the basic health area of Liébana, Potes health centre.

Materials and Methods: The III.IV area of study extends from the Picos de Europa to Campoo-Reinosa with height from 851 to 2650 meters above sea level. The initial target population by telemedicine is estimated at 5500 inhabitants: the most representative area is Liebana with 2,500 people and Potes with 1,500 inhabitants.

Results: Protocol (postoperative period 48 hours-1 month)

1. Cite for the first cure at 48 hours for primary care for hernias, lipomas, ambulatory surgery, closed hidradenitis, biopsies.
2. Cite DS for varicose veins, pilonidal sinus, open wounds or drainages, laparoscopic cholecystectomy, with first cure in 48-72 hours in External Consultations of the specialty center.
3. In mild complications (bruises, seromas,) call Nursing Consultations for Primary Care or for the patient's home.
4. In major complications (bleeding, infection, pain or fever) go to the unit DS (UDS Service) and then send to the Emergency Department or call in External Consultations in 48–72 hours.

Conclusion: The project will be implemented with the collaboration of the Primary and Specialized Care Managements of area III-IV (Torrelavega Reinosa). The expansion of more peripheral areas is proposed (Campoo-Los Valles and Valle del Nansa), together with a systematized quality assessment protocol.

What is the Cost in Anaesthesia of the CMA of the Community of Cantabria-North of Spain?

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Introduction: The request for preoperative tests in asymptomatic patients does not seem to contribute significantly to the finding of unsuspected pathology, changes in pre / perioperative management or in the prevention of perioperative complications

Materials and Methods: We have made an estimate of the cost that would have suppressed the preoperative tests in our hospital.

Results: A total of 1,429 patients (90.3%) in 2013 and 1,312 (91.5%) who were classified as ASA I and II could be subsidiary of this proposal. In addition, indirect costs should be assessed, especially the time saved by health personnel and patients. Excluding patients coded ASA 0 and patients of the ophthalmology service where 95% of them conventional preoperative is replaced by an interview with the nurse, in our hospital in the different specialties were made during 2013 and 2014 a total of 1,582 and 1,434 preoperatively, respectively. The total cost of the day surgery (DS) in Sierrallana Hospital, makes it very competitive with respect to the price that would be the price order with reductions between (13.22% – 37.62%) and what is more striking, in some processes is still cheaper than the rates of the agreements with a reduction between (2.64% –14.05%) between 2012 and 2013. In the Cantabrian Health Service, the optimal level of use of operating theaters or surgical performance of the 75%.

Conclusion: In general, in surgery without admission, recent evidence suggests that patients of any age and without significant comorbidity, physical status ASA I and II, do not need complementary preoperative tests routinely. The alteration of an analytical test entails the carrying out of new tests or interconsultations to other professionals but it is not usually varied in the indication for DS.

Local infiltration anesthesia as the anesthetic technique of choice for abdominal wall hernias repair in ambulatory surgery

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Introduction: Inguinal hernia repair is one of the most common day surgical procedures, and the local infiltration anesthesia for abdominal wall hernias is a modern trend nowadays. Some of the complications of local infiltration anesthesia are regarding to systemic toxic effects of local anesthetics. The goal of our study was to examine the influence of infiltration anaesthesia on complications during abdominal wall hernias surgery.

Materials and Methods: We analyzed the anesthesia records of all hernia operations of the abdominal wall during 2013, made under general, spinal or local infiltration anesthesia. As complications we consider all the unwanted events during these surgical procedures that required the intervention of Anesthesiologists. Complications were compared according to ASA status, comorbidity and technigues of anesthesia.

Results: During the study period 478 patients were included. General anesthesia was used in 262 (54.8%), local infiltration in 182 (38.1%), spinal in 18 (3.8%) and infiltration anesthesia with analgosedation in 16 (3.3%) cases. Intraoperative complications occurred in 48,1% of patients, statistically more frequent in general anesthesia ($p<0,001$). There was no statistical difference in the frequency of intraoperative complications according to ASA risk groups ($p>0,05$). Bradycardia as the most common complication (26.2%) was statistically more frequent in general anesthesia ($p<0,05$), and there was non-significant difference between preoperative use of antiarrhythmic drugs and occurrence of bradycardia ($p>0,05$). Univariate logistic regression showed that general anesthesia (Odds ratio [OR], 2.98; 95% confidence interval [CI], 1.99-4.45; $P < 0.001$), comorbidity (OR, 1.83; CI, 1.21-2.76; $P = 0.004$) and preoperative use of beta blockers (OR, 1.91; CI, 1.12-3.25; $P = 0.02$) increased the odds for complication. Multiple logistic regression identified general anesthesia as the independent predictor of intraoperative complications (OR, 3.00; CI, 1.99-4.53; $P < 0.001$).

Conclusion: Despite the use of large dose of local anesthetics, intraoperative complications were statistically more frequent during general anesthesia. Local infiltration anesthesia is safe and cost-effective for this kind of surgery.

High post-operative pain scores despite multimodal analgesia in ambulatory anorectal surgery: a prospective cohort study

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Introduction: Ambulatory surgery for anorectal procedures has become widely accepted. Recent reviews recommend a multimodal approach to pain management. However, these recommendations are largely based on single intervention studies. Our goal was to evaluate post-operative pain in patients receiving a multimodal analgesic regimen.

Materials and Methods: All patients undergoing an ambulatory anorectal procedure between December 2015 and September 2016 received a pain diary. Mean pain throughout the day and pain during defecation where recorded on day 0–14 and day 21 postoperatively using a NRS-11. Use of oral analgesics was also recorded.

Results: Forty-two patients completed the pain diary. The use of local anesthetic infiltration did not result in a significant difference in pain scores in this study. Patients who received written information on postoperative pain management and hygienic measures had higher intake of oral analgesics. Despite receiving multimodal analgesic treatment, patients undergoing surgery for hemorrhoids or anal fissures reported pain scores ≥4.

Conclusion: A multimodal analgesic approach consisting of local anesthetic infiltration, multiple oral analgesics and written information seems to be insufficient for certain patient groups after ambulatory anorectal surgery. Especially patients undergoing surgery for hemorrhoids or an anal fissure should receive adequate analgesia. Pain during defecation is problematic and finding a solution for this problem remains challenging. Further research into the combined use of different analgesic modalities is recommended.

Early postoperative pain factor on ambulatory operation of inguinal hernia

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Introduction: Postoperative pain is the most important factor on day surgery for inguinal hernia. I was considering some factors affecting this pain.

Materials and Methods: Subjects were 4019 lesions (4231cases), and pain grade was classified into 5 stages (0: none, 1: feeling pain only moving, 2: sometimes, 3: mild continuous, 4: severe pain). Used in all patients, postoperative analgesic medication and suppositories. I compared several factors in the POD1 by phone and three weeks (POD21). After that I examined the following factors. The period of operation (early: 1–1000, midterm: 1001–2000, recently: 2001-4019), Gender, Age, Skin cutting length and deference of mesh.

Results: The pain on the day after surgery was 0: 43.8%, 1: 32.7%, 2: 5.7%, 3: 17.8%, and only one case of uncontrollable pain was found. At the time of the third week re-examination, 0: 86.6%, 1: 3.1%, 2: 9.3%, 3: 1%, all cases were within self-control. The ratio of male to female was 98: 11, Male had superior postoperative painless cases and there were few cases of persistent pain than female, but there was no particular difference in the third week of the operation. Compared to age group, the older the younger than 20 age group, the more the pain tended to be stronger immediately after surgery. In skin cutting length, less incision was less pain. There was no difference the period of operation and deference of mesh.

Conclusion: The POD1 pain was strong tendency toward women, young people and incision length. Type of mesh and the pain had no correlation.

Forefoot Surgery analysis in an Ambulatory Surgery Unit. A 224 case study

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Introduction: Minimal invasive surgery has permitted that forefoot surgery has been included in ambulatory surgery programs for the last few years. Less incidence of post-operative surgical and anesthetics complications were important factors in his quick acceptance for outpatient surgery among both clinicians and patients.

Locorregional anesthesia, ankle blockade or popliteal nerve blockade, could be the most adequate choice due to his good pain control, less post-anesthetics outcomes and minimal affectation of motor function. In addition eco-guided technical minimize the learning curve, and improve the latency and security by using low dosage of local anesthetic drugs.

The aim of this research is to analyse perioperative management of forefoot Surgery in our Ambulatory Surgery Unit.

Materials and Methods: This research was done in the Ambulatory Surgery Unit located in Duque del Infantado Hospital (Virgen del Rocío hospital, Seville), where specific ambulatory surgical staff develop clinical activity from 8:00 until 20:00.

For one year, clinical information was recorded from patients scheduled for forefoot surgery. Clinical patient's data, anesthetic and surgical details, postoperative outcomes, or inpatients were noted. Modified Chung Scale was established for discharge, all patients were contacted within 24 or 48 hours after surgery.

Results: 224 patients ASA I/II or III were enrolled. The anesthetic techniques were ankle block (184), popliteal nerve blockade (16), spinal anesthesia (18) or general anesthesia (6).

91% of patients receiving ankle blockade did not need stay at the recovery room after surgery, and were discharged after 2'05 h +/-38 min. After discharge, 17 patients had any minor complication into the immediate postoperative home recovery. 16 patients registered EVA more than 4 at home. No admissions or readmissions were registered.

Conclusion: Forefoot Surgery is a suitable surgical procedure in Ambulatory Surgery programs. Locoregional anaesthesia is a cost-effective technique as well as safe and acceptable for patients.

Are we actually offering our best to the patients in Inguinal herniorrhaphy surgery? A survey of 200 cases in an Ambulatory Surgery Unit

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Introduction: Unilateral hernia inguinal surgery is a surgical procedure widely accepted for ambulatory surgery, but results have to be continuously revised in order to maintain quality standards. In our hospital the "gold standard" anaesthetic technique for groin herniorrhaphy is the ilio-inguinal blockade with sedation, even if general or spinal anaesthesia are sometimes used in selected patients. In our unit, we try to avoid this types of alternatives due to their more frequent complications as urinary retention, nausea or vomiting and longer time into our unit.

Our goal is showing the results of 200 unilateral inguinal herniorrhaphies operated in a seven month time period from January to June 2017 in our Ambulatory surgery Unit.

Materials and Methods: This is a retrospective observational study developed in a specific ambulatory surgery unit that is open from 8:00 to 22:00. All patients operated from January to June 2017 were included. Anesthesia technique, postoperative outcomes, and time stay after surgery were registered.

Results: Ilio-Inguinal blockade was employed in 87.5% of cases. 97.5% of patients were discharged in a 4–8 h period after surgery. EVA was under 3 in 100% of patients discharged, but 15% referred EVA 4-6 24 or 48hr after surgery. All complications were minor and no readmissions were detected.

Conclusion: Inguinal herniorrhaphy is a surgical procedure with optimal results in our unit.

Measures focused on improving pain control 24-48 hours after discharge should be studied in order to offer better assistance in postoperative period.

Interdisciplinary prototyping-based Design of an Ambulatory Surgery Center

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Introduction: A Swiss University Hospital is renewing and rebuilding main parts of the hospital campus. Part of this program is the design of a new outpatient clinic, focusing on ambulatory medicine.

The top management of the hospital defined an ambition containing different dimensions of goals and target measures. The main goal was defined as patient first; the ambulatory center should show an exceptionally strong patient orientation. In correspondaence with this goal, different key measures for quality, leadership, employee engagement and profitability were defined.

Additionally, a set of design principles was formulated, e.g. the separation of flows (like patients, employees, material), standardization, visual management and all services to the patient.

Materials and Methods: An interdisciplinary and interprofessional design team was formed, consisting of doctors, nurses, hospital planners, architects and representatives from IT and support services. The design team followed the design thinking approach, prototyping tangible prototypes of main process flows and roles in a 1600 m^2 prototyping zone. The multiple prototyping sessions led to different process designs and layouts of the ambulatory center. The maturity of the design, the resolution of details and the understanding of the underlying change were increased from prototype to prototype. The core part of the multiple testings were process simulations in form of interdisciplinary role plays within the full-size prototypes. Those prototypes were mainly built out of cardboards and low-cost material. This easy-to-change environment was core to allow different perspectives and ideas in an explorative way in short time.

Results: The involvement of all main professional groups from the very beginning of planning assures the integration of all needs from the different professions. The shared act of creating the design together results in a well-grounded final design with a radical patient orientation focusing on patient safety, short door-to-doctor time and high standardization of processes. The design is now the main reference point for the construction process and assures patient first as result.

Conclusion: The creative act of designing and testing the future environment in multiple full-scale prototypes as interdisciplinary design team creates the grounding for radical change in a more sustainable and shorter time span than classical design approaches.

***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.

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