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# Editorial

*David Bunting, Editor-in-Chief*

Welcome to *Ambulatory Surgery*. This supplementary edition of the Journal contains the remaining abstracts presented at the 16<sup>th</sup> International Congress on Ambulatory Surgery, which took place in Dubrovnik, Croatia on 18<sup>th</sup> to 20<sup>th</sup> May, 2026.

We encourage all authors to submit full manuscripts of their work for consideration of publication in future scheduled editions of the journal.

**David Bunting**  
Editor-in-Chief

# Clinical safety in health IT: an international perspective

*Ian Jackson*

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Digital health information technology is transforming patient care across Europe and beyond, yet the safety risks associated with its implementation remain poorly understood by many clinical practitioners. This talk examines the growing evidence that health IT failures represent a significant and largely preventable source of patient harm, drawing on documented case studies from across Europe to illustrate recurring failure patterns.

Three case studies anchor the discussion. The 2017 WannaCry ransomware attack on the NHS—which resulted in over 19,000 cancelled appointments, 139 urgent cancer referrals disrupted, and an estimated £92 million in costs—demonstrates the consequences of deploying and operating IT systems without formal clinical risk governance. The large-scale Epic electronic health record implementations in Denmark and Finland, troubled for years after go-live with clinician dissatisfaction rates exceeding 90% in some measures, illustrate what happens when usability and local clinical requirements are not assessed before deployment. A 20-year review of Dutch hospital IT failures, in which 95% of serious incidents occurred after 2010 as digital dependency increased, highlights that this is not an emerging problem—it is an accelerating one.

Across these cases, the same failure modes recur: no pre-deployment clinical risk assessment, poor system usability, absence of meaningful clinical engagement, unpatched or legacy infrastructure, and chronic under-reporting of IT-related incidents.

In England, NHS Digital's mandatory clinical safety standards—DCB0129 for IT system manufacturers and DCB0160 for deploying health organisations—provide a structured framework that directly addresses each of these failure modes. Central to this framework is the role of the Clinical Safety Officer: a senior registered clinician with responsibility for hazard identification, risk assessment, and the production of a documented safety case before any system goes live.

This talk argues that digital clinical safety is not a technical or administrative matter—it is a core clinical responsibility. Clinicians at all levels have an essential role in identifying hazards, refusing unsafe workarounds, and engaging in IT procurement and deployment processes. The international evidence makes clear that when clinical voices are absent from digital decision-making, patients pay the price.

# Intranasal dexmedetomidine for preoperative sedation in pediatric outpatient dental anesthesia: a retrospective observational study of 347 children

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## Background

Preoperative anxiety and difficulty with separation from parents are common challenges in children undergoing outpatient dental procedures under anesthesia. Intranasal dexmedetomidine has emerged as a promising non-invasive option for pediatric premedication. The aim of this study was to evaluate the clinical effectiveness of intranasal dexmedetomidine for preoperative sedation in children undergoing outpatient dental anesthesia.

## Methods

In this retrospective single-center observational study, 347 children scheduled for outpatient dental treatment under general anesthesia received intranasal dexmedetomidine (4 µg/kg) as premedication, administered via a mucosal atomization device. Sedation depth was assessed using the University of Michigan Sedation Scale (UMSS). In addition, the time to onset of observable sedation and perioperative adverse events were recorded and analyzed.

## Results

Sedation depth assessed using the University of Michigan Sedation Scale (UMSS) showed that 6 children (1.7%) reached UMSS level 1, 27 (7.8%) UMSS level 2, 134 (38.6%) UMSS level 3,

and 180 (51.9%) UMSS level 4. Overall, 314 children (90.5%) achieved adequate to deep sedation (UMSS 3–4). Successful separation from parents for induction of anesthesia was possible in 288 children (83.0%). The first observable signs of sedation occurred within 10 minutes in 240 children (69.2%), within 15 minutes in 56 children (16.1%), and within 25 minutes in 18 children (5.2%). Adverse events were uncommon and included bradycardia in 13 patients (3.7%) and agitation in 11 patients (3.2%). No cases of respiratory depression or other severe complications were observed.

## Conclusion

Intranasal dexmedetomidine was associated with a high rate of adequate sedation, with more than 90% of children reaching UMSS levels 3–4, and facilitated parental separation in the majority of cases. Sedation onset occurred within 10–15 minutes in most patients, supporting its suitability for use in structured ambulatory settings. Adverse events were infrequent and generally mild. These findings suggest that intranasal dexmedetomidine is a feasible and well-tolerated non-invasive option for premedication in pediatric outpatient dental anesthesia.

Further comparative and randomized studies are needed to better define its role relative to other premedication strategies.

# Into the blue: finding strength in year-round sea swimming

Ana Bosak Versic

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## Background

For anyone overwhelmed by daily high-stress —endless shifts, tasks extending beyond regular hours, difficult decisions, relentless pressure— true strength can feel just out of reach. Yet, plunging into the blue sea year-round has, in recent years, been my lifeline: a cold rush that rebuilds from within.

## Objective

To celebrate sea swimming as an emotional anchor for the overworked, unleashing “good hormones” that restore joy, focus, and unshakeable resilience.

## Methods

Inspired by years of personal experience and stories from fellow high-stress warriors.

## Results

The blue awakens a hormonal symphony —endorphins flooding with euphoric calm, dopamine sparking delight, norepinephrine sharpening focus and courage. Physically, it enhances circulation, eases joint stiffness through anti-inflammatory effects, and bolsters immunity for enduring high-stress demands. Stress melts away, replaced by glowing resilience. It is not data; it is the feeling —the post-swim glow that reignites weary spirits.

## Conclusion

Into the blue we dive, where waves cradle weary hearts and hormones sing of strength. This is for every high-stress hero: your reset awaits in the sea’s wild embrace. Come and feel alive again.

# Ambulatory surgery in Croatia

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## Background

Over the past decade, Croatia has rapidly advanced ambulatory surgery, integrating modern infrastructure with EU standards to deliver efficient day-case care. Facilities in major cities and beyond now manage a wide range of procedures, reducing hospital burdens while prioritising patient safety and rapid recovery.

## Objective

To review the development, achievements, and challenges of ambulatory surgery in Croatia, highlighting its potential.

## Methods

Analysis of national health data, institutional reports from key centres, and procedural insights from recent years. Focus on specialties including general, orthopaedic, ENT,

and paediatric day cases, with qualitative insights from clinical practice.

## Results

Croatia performs a substantial number of ambulatory procedures annually, achieving low infection rates and high rates of same-day discharge in leading units. Major centers excel in minimally invasive techniques, supported by multidisciplinary teams and advanced diagnostics.

## Conclusion

Croatia's ambulatory surgery model exemplifies scalable, high-quality day-case care suitable for global adoption. It offers actionable insights on infrastructure optimisation, patient-focused workflows, and interdisciplinary collaboration to advance international outpatient standards.

# The principles of ambulatory surgery

Marie-Louise Ulsøe

Association of the Ambulatory Surgery in Denmark

## Introduction

Ambulatory surgery has become a cornerstone of the Danish healthcare system, supported by national strategies promoting efficiency, patient involvement, and high clinical quality. Denmark has one of the highest proportions of ambulatory surgical procedures in Europe, enabled by standardized pathways, strong interdisciplinary collaboration, and a patient-centred approach. Understanding the principles that guide Danish ambulatory surgery is essential for sharing best practices internationally.

## Aim

The aim of this presentation is to outline the core principles that underpin ambulatory surgery in Denmark, including organizational structures, clinical standards, and patient-centred practices that support safe, efficient, and high-quality ambulatory surgical care.

## Methods

This descriptive analysis draws on national guidelines, clinical practice standards, and operational models from Danish ambulatory surgical units. Key principles were identified through review of documents, workflow observations, and interdisciplinary discussions with clinicians involved in perioperative care.

## Results

Five overarching principles were identified as central to Danish ambulatory surgery:

1. Standardized, evidence-based pathways ensuring predictable, safe, and efficient patient flows.
2. Comprehensive preoperative assessment and patient education, enabling shared decision-making and optimal preparation.
3. Interdisciplinary teamwork, with clear role distribution between surgeons, anaesthesiologists, and nurses.
4. Strength discharge criteria and structured postoperative support, promoting safe same-day recovery.
5. Continuous quality monitoring, including patient-reported outcomes and systematic evaluation of complications, cancellations, and unplanned admissions.

Together, these principles contribute to high patient satisfaction, low complication rates, and strong operational performance across Danish ambulatory surgical units.

## Conclusion

Ambulatory surgery in Denmark is built on a robust framework of standardization, patient involvement, and interdisciplinary collaboration. These principles support safe, efficient, and patient-centred surgical care and have enabled Denmark to achieve a high level of maturity within ambulatory surgery. The Danish model may serve as inspiration for international efforts to expand and optimize ambulatory surgical services.

# The role of nurses in ambulatory surgery

Marie-Louise Ulsøe

Association of the Ambulatory Surgery in Denmark

## Introduction

Ambulatory surgery has expanded rapidly worldwide, driven by advances in surgical techniques, anesthesia, and perioperative care. As procedures become increasingly complex, the nurse's role is central to ensuring patient safety, continuity of care, and high-quality outcomes across the short but intensive perioperative pathway. Despite this, the specific contributions of nurses in day surgery remain under-described in the international literature.

## Aim

The aim of this presentation is to explore and describe the multifaceted role of the nurse in modern ambulatory surgery, with a focus on patient preparation, clinical assessment, coordination, and postoperative support.

## Methods

The presentation is based on current clinical practice, supported by observational data from a high-volume ambulatory surgical unit. Key nursing responsibilities were mapped across the perioperative timeline, including preoperative assessment, intraoperative collaboration, discharge criteria evaluation, and postoperative follow-up.

## Results

Findings demonstrate that nurses play a pivotal role in optimizing the ambulatory surgical pathway. Preoperatively, nurses ensure patient readiness through targeted assessment, education, and risk identification. Intraoperatively, they contribute to workflow efficiency and patient safety through interdisciplinary coordination. Postoperatively, nurses lead discharge decision-making, provide individualized instructions, and support early recovery through structured follow-up.

## Conclusion

Nurses are essential to the success of modern ambulatory surgery. Their comprehensive clinical assessments, patient-centred communication, and coordination across the perioperative pathway strengthen safety, efficiency, and continuity of care. As ambulatory surgery continues to expand globally, recognizing and further developing the nurse's specialized competencies will be critical to sustaining high-quality outcomes and supporting patients through an increasingly streamlined surgical experience.

# Complication in pediatric day surgery

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Ambulatory surgery has become a central component of modern pediatric surgical practice, offering reduced hospital stays, lower healthcare costs, and faster recovery for children. Despite its overall safety profile, complications do occur and may significantly impact patient outcomes, parental satisfaction, and healthcare utilization. This presentation provides an overview of the most relevant intraoperative and postoperative complications encountered in pediatric day-case surgery, with a focus on their incidence, underlying risk factors, and evidence-based preventive strategies.

Data from recent clinical experience and published literature indicate an overall complication rate of 10-12%, with unplanned admission rates ranging from 0.4% to 3.5%. The most frequent issues include anesthesia-related events,

postoperative pain, nausea and vomiting, bleeding, and wound complications, all of which may lead to unexpected hospital admissions. Younger age, comorbidities, airway anomalies, and certain types of surgical procedures are associated with an increased risk of adverse events. Particular attention is given to the management of perioperative anxiety, optimization of fluid therapy, implementation of multimodal analgesia, and standardization of postoperative care pathways.

Through the analysis of common clinical scenarios and practical recommendations, this presentation aims to support pediatric surgeons and anesthesiologists in improving patient safety, minimizing preventable complications, and enhancing the overall quality of care in ambulatory pediatric surgery.

# New procedures in Ambulatory Surgery

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The number of complex and highly specialised procedures performed as day cases will increase in the coming years. However, there are two premises for including a procedure in an outpatient setting: preserving the quality level and ensuring the patient's safety.

Some examples of new procedures recently included in the Ambulatory Surgery basket are shown in the presentation. Metabolic surgery, intestinal resections, pelvic floor reconstruction, joint arthroplasties, minimally invasive spine surgery, radical prostatectomies and nephrectomies, coronary endovascular interventions. Many of them were unthinkable just a few years ago.

The requirements for introducing a new procedure in outpatient surgery include a developed Ambulatory Surgery Unit with Quality Management Programmes (with an involved and trained staff: nurses, doctors and managers), an accurate

patient selection process (in which enhanced recovery protocols are desirable) and written standard operating procedures/pathways to improve learning and guide further implementation). Moreover, the use of new anaesthetic techniques and drugs will be very useful (postoperative analgesia). Obviously, Minimally Invasive Surgery and Robotics will play an essential role. Finally, new methods for early follow up of the patients (E-health) should be developed. It is mandatory that continuing procedural ambulatory shifts requires research in order to develop risk stratification and prediction models for the selection of the proper patient, procedure, and surgery location. Therefore, the questions that we should respond to are: "Can this operation on this patient be performed on an ambulatory basis?" and "Do I have to admit this patient as an inpatient for this surgical procedure?"

# Reducing postoperative morbidity and pain using benchmarking and scoreboards

*Mads Henrik Moxness*

President of the Norwegian Association of Day Surgery (NORDAF)

The lecture examines how benchmarking outcomes through the Norwegian Tonsil Surgery Register (NTSR) can reduce postoperative pain and morbidity in day-case tonsil surgery. Tonsil procedures are among the most common ENT surgeries in Norway, with notable variation in indications, patient populations, and surgical techniques. The NTSR, established in 2017, combines clinical data with patient-reported outcome measures (PROMs), enabling national comparisons and supporting data-driven quality improvement.

Key outcomes include readmissions due to postoperative bleeding, healthcare contact related to pain or infection,

and long-term symptom resolution. Results demonstrate differences between children and adults, as well as the impact of surgical technique on complications and recovery. Increasing registry coverage has improved data reliability and benchmarking potential. Despite limitations such as variable participation and case-mix differences, the NTSR provides a valuable framework for continuous quality improvement. Benchmarking outcomes promotes safer surgical practice, enhances patient information, and supports more standardized, evidence-based approaches in modern day surgery.

# Pre-operative assessment clinics for high-risk patients

*R. Tibble*

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Pre-operative assessment (POA) is vital for an efficient day surgery pathway. It should avoid exclusion for age, ASA grade or BMI alone. Dedicated multi-disciplinary POA can enable ASA grade 4, older, frail or multi-morbid patients to undergo successful same day discharge.

We run a virtual high risk anaesthetic review clinic (VAR), in conjunction with cardiology, respiratory and endocrine specialists allowing older, frail patients access to day surgery avoiding overnight stays and bed blocking. ASA grade, Clinical Frailty Score (CFS), age and multi-morbidity and outcomes were audited.

## Demographics

559 patients in 1 year. 51% urology. 49% general surgery, breast, maxillofacial, ENT surgery. 97% had multi morbidity, ASA score 3 or 4. 14% were ASA 4, 22% CFS 6 or greater indicating very high risk.

## Demographics VAR subset

176 patients were listed for bladder tumour resection or cystodiathermy in 1 year.

These were the most elderly and frail patients with the most co-morbidities

41% were over 80 years old, 6% over 90y, 23% ASA 4, 12% CFS 7 or above.

## Outcomes

162/176 were offered surgery. 14 moved onto palliative non surgical pathways.

110 were offered day surgery with 87 successful same day discharge. Unplanned admissions were catheter related. No cancellations on day of surgery. No deaths within 30 days.

## Conclusions

Targeted focussed day surgery POA for older, frail, co-morbid patients increases successful day surgery outcomes, saving money and bed days.

# Anal fistula laser closure: a brand new guideline for day care surgery

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## Introduction

Fistula tract laser closure (FILAC) represents a minimally invasive sphincter-sparing technique for managing fistula in ano, because of this is a perfect method for day care surgery. Despite its increasing adaption, significant variations exist in the application of FILAC in daily practice.

## Aim

The author, founder member of the International Society of Laser Proctology, took part in a group of surgeons with extensive experience in the procedure. The aim was to make a publication with consensual recommendations.

## Methods

Recommendations for the procedure were formulated by the recommendation development group (RDG), following

systematic literature research and discussion amongst experts where no substantial literature was available. The developed recommendations were voted upon by panelists from 13 nations.

## Results

The 25 detailed recommendations collectively address the full spectrum of FILAC procedures. (Short video presentation included).

The scientific work was published in Techniques in Coloproctology in April 2025.

## Conclusion

Fistula tract laser closure is a popular and minimal invasive technique in day care surgery. This coherent framework is anticipated not only standardize but also to refine the FILAC technique to ensure best possible surgical outcomes while preserving patient safety.

# Quality and performance of ambulatory surgery centers

*Leopoldo V. Rodriguez*

Associate Professor Anesthesiology, Medical University of South Carolina and Regional Anesthesia. Director for AMSURG LLC. He is Chair of the IAAS Quality of Care Assessment and Benchmarking Committee and Past President of SAMBA

Ambulatory Surgery Centers (ASCs) represent one of the most efficient and scalable models of modern surgical care, delivering high-value, patient-centered services across diverse health systems. As global surgical volume shifts toward the outpatient setting, increasing patient complexity and resource constraints require a disciplined, evidence-based approach to measuring and improving performance.

This presentation proposes a globally applicable framework for ASC quality built on three pillars: benchmarking, integrated risk management and quality improvement (RM-QI), and patient-centered outcomes. Quality is defined as the composite of service, safety, efficiency, and clinical outcomes, aligned with stakeholder expectations. Benchmarking is the systematic comparison of performance against internal baselines and external standards, remains the most effective method to identify variation, prioritize interventions, and sustain improvement.

A pragmatic, internationally scalable dataset is emphasized, including key outcomes such as mortality, unplanned transfers of care, major complications, and patient-reported experience and outcome measures (PREMs/PROMs).

These metrics are complemented by high-yield operational indicators, including first-case on-time starts, cancellations, and throughput efficiency. Integration of RM and QI into a unified governance structure enables continuous learning through data-driven methodologies such as Plan-Do-Study-Act cycles and root-cause analysis.

Special emphasis is placed on preoperative evaluation and patient selection as the highest-leverage interventions to reduce preventable cancellations, complications, and hospital transfers.

By aligning measurement with meaningful outcomes and embedding benchmarking into routine operations, ASCs can achieve high reliability, improve patient outcomes, and strengthen financial sustainability across varied international contexts.

## Pre-Anesthesia Clinic Workflow to Prevent Cancellations

*Leopoldo V. Rodriguez*

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Ambulatory Surgery Centers (ASCs) worldwide are expanding in scope and complexity, yet preventable same-day cancellations remain a universal challenge, negatively impacting patient safety, operating room efficiency, and financial sustainability.

Many pre-anesthesia clinics operate in a reactive, fragmented manner, resulting in last-minute discoveries such as unmanaged medications, incomplete medical evaluations, or unrecognized high-risk comorbidities. This presentation proposes a transition from chaotic, reactive pre-anesthesia processes to a structured, proactive Pre-Anesthesia Testing (PAT) clinic workflow designed to prevent cancellations and improve perioperative outcomes.

The proposed model integrates four core components: (1) early patient engagement using a standardized pre-anesthesia questionnaire, (2) a color-coded risk stratification system (Red-Orange-Yellow) to identify patients requiring

optimization, delay, or referral, (3) evidence-based medication management protocols addressing high-risk agents such as anticoagulants, and (4) streamlined communication pathways with primary care physicians and specialists through structured consultation tools.

Aligned with contemporary perioperative guidelines, including the 2024 AHA/ACC recommendations, this workflow emphasizes early risk detection, multidisciplinary coordination, and appropriate case selection based on patient, procedure, and facility capabilities. By shifting assessment from the day of surgery to days or weeks in advance, ASCs can reduce cancellations, prevent unplanned transfers to hospitals, and optimize operating room utilization.

This model provides a globally adaptable framework for organizing pre-anesthesia clinics, supporting high-reliability, efficient, and patient-centered ambulatory surgical care across diverse healthcare systems worldwide.

# **The Brazilian National Policy for Ambulatory Surgery (PNCA): a strategic roadmap to overcome the surgical backlog through dehospitalization**

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Brazil currently faces a structural crisis within its Unified Health System (SUS), with a waiting list for elective surgeries exceeding 1.2 million patients. Historically, the national response has relied on sporadic surgical marathons (“mutirões”) which, while providing temporary relief, fail to address the systemic lack of dedicated operating room capacity and specialized multidisciplinary teams. In response to this challenge, the Brazilian Society for Ambulatory Surgery (SOBRACAM) has led the development of the National Policy for Ambulatory Surgery (PNCA). This initiative aims to institutionalize day surgery as a fundamental pillar of the national healthcare framework through a multi-stakeholder consensus involving the Ministry of Health, the National Council of Health Secretaries (CONASS), and the Brazilian Parliament. The PNCA is structured upon four strategic pillars: the establishment

of autonomous Ambulatory Surgery Units (UCAs), the implementation of standardized clinical and safety protocols, specialized workforce training, and the creation of a sustainable financing model. By aligning with international benchmarks, the policy seeks to transition up to 80% of elective procedures to the ambulatory setting, targeting a reduction in costs per procedure by 10% to 50%, a decrease in hospital-acquired infections, and faster socioeconomic reintegration for patients. Furthermore, the proposed legislative framework integrates these UCAs into the existing primary care and emergency networks. Ultimately, the PNCA represents a significant paradigm shift in Brazilian healthcare, moving from episodic interventions toward a permanent, efficient, and scalable model designed to ensure surgical equity and fiscal sustainability for the country’s universal health system.

## **Proctology and therapeutic endoscopy in freestanding ultra-compact ambulatory surgery units: redefining efficiency and patient care**

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Diretor Médico na Bloco Cirúrgico - Cirurgia Ambulatorial

The global trend toward dehospitalization has accelerated the development of specialized healthcare facilities that prioritize efficiency without compromising safety. This presentation explores the implementation and outcomes of Proctology and Therapeutic Endoscopy within a Freestanding Ultra-Compact Ambulatory Surgery Unit (UCASU) model. By decoupling elective procedures from the traditional hospital environment, these specialized units address the growing demand for surgical care while minimizing overhead costs and hospital-acquired infection risks. The ultra-compact model relies on optimized workflows, multidisciplinary teams, and rigorous patient selection criteria to ensure clinical excellence. In the field of

Coloproctology, procedures such as hemorrhoidectomies, fistulotomies, and advanced therapeutic endoscopies (including complex mucosectomies) are successfully transitioned to this setting through standardized anesthesia protocols and appropriate pathways. This approach not only enhances the patient experience by providing a more personalized and less intimidating environment but also contributes significantly to the sustainability of the health system. The findings suggest that the integration of Proctology and Endoscopy in freestanding ultra-compact units represents a viable and highly efficient paradigm for modern surgical practice, offering a scalable solution to optimize resource allocation.

# Metamizole as an alternative analgesic for post-operative pain relief: a systematic review

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## Introduction

Metamizole, also known as dipyrone, is a controversial analgesic, commonly used to treat postoperative pain, colic pain, cancer pain, and migraine. However, the considerable controversy surrounding the risk of metamizole has led to varying levels of use and regulatory restrictions across countries. Setting aside this rare but dangerous side effect, metamizole could still be a useful analgesic, given the rising interests in non-opioid alternatives and multimodal analgesia.

## Aim

To assess the analgesic effect of metamizole compared with other commonly used analgesics in the post-operative period.

## Methods

This systematic review searched five databases, PubMed, Embase, Google Scholar, Web of Science and Scopus up to February 2025, for randomized controlled trials, comparing metamizole with any other analgesic, administered orally, intravenously or intramuscularly, to a population of any age, any gender or any surgical need, except for dental surgery with local anaesthesia. As outcome, pain relief must be measured by a validated pain scale (NRS/VAS). Only accessible, English-written studies could be included.

The Cochrane Risk of Bias tool version 2 was used to assess the risk of bias, and P-value pooling was performed to synthesize the study results.

## Results

Twenty-one studies were included, comparing metamizole with paracetamol, ibuprofen, ketoprofen, diclofenac, parecoxib, dexketoprofen trometamol, tramadol and placebo. Eighteen studies suggest that metamizole is equally effective as a post-operative analgesic, despite evidence is lacking. The results of the P-value pooling are consistent with this finding. As secondary outcomes, the adverse effect profile in the post-operative period was found to be equal to the analgesics compared with in fourteen trials. Fourteen studies reported no difference in the use of rescue medication. Regarding the secondary outcomes, due to insufficient data, no study could prove equality.

## Conclusion

Metamizole appears to be equally effective as a postoperative analgesic, compared to other commonly used analgesics, yet this review could not prove any equality, superiority or inferiority. More research is needed to prove its place in the postoperative setting.

# General anesthesia for the special needs patient for dental restoration

*M. Coppens*

Professor in Anaesthesia at Ghent University Hospital, Belgium

The perioperative anesthetic management of patients with special needs represents a complex and increasingly relevant challenge in modern clinical practice. This heterogeneous population includes individuals with autism spectrum disorder, intellectual disability, motor dysfunction such as cerebral palsy or epilepsy, and craniofacial anomalies including Down syndrome. These patients frequently present with impaired communication, heightened anxiety, behavioral disturbances, and multiple comorbidities, all of which complicate standard perioperative care pathways. A central objective in their management is to make the entire perioperative journey as comfortable and minimally traumatic as possible. However, conventional pathways—characterized by multiple transitions, prolonged waiting times, and overstimulating environments—are often poorly tolerated. Anxiety tends to peak during induction of anesthesia and is associated with increased postoperative pain, delayed recovery, and reduced cooperation. Behavioral strategies such as maintaining a low-stimulus environment, using calm and structured communication, allowing sufficient time for adaptation, and involving caregivers are essential to reduce distress and improve patient cooperation.

Pharmacological considerations are equally important, as patients with special needs may exhibit altered responses to anesthetic agents, including increased requirements for neuromuscular blockers and delayed emergence from anesthesia. Premedication plays a key role in reducing anxiety, and improved formulations such as orally administered midazolam in cyclodextrin enhance acceptance and effectiveness compared to traditional routes. To address the limitations of standard care, alternative perioperative pathways have been developed. These include digital preoperative assessments, minimizing fasting and waiting times, initiating premedication prior to hospital admission, and facilitating direct transfer from arrival to the operating room. Such approaches significantly reduce environmental stressors and improve overall workflow efficiency. Postoperative care should incorporate adapted discharge criteria and observational pain assessment tools tailored to patients with cognitive impairment. Ultimately, individualized, patient-centered perioperative strategies that integrate behavioral, pharmacological, and organizational adaptations are essential to improve safety, patient experience, and caregiver satisfaction in this vulnerable population.

## Progress to complex surgeries on an outpatient basis

*Alejandro Langberg Bacigalupo*

Officer of the General Assembly, International Association of Ambulatory Surgery

Ambulatory surgery is transforming the future of surgical care, with a growing number of procedures migrating from the hospital setting to more efficient, patient-centered models. Discover how it's possible to perform more complex procedures outside the traditional hospital environment without compromising safety or quality, supported by international best practices.

Throughout this presentation, you will learn the key pillars for success, such as phased implementation, multidisciplinary teamwork, and appropriate patient selection based on clinical and social criteria. We will

also address other essential aspects, including optimizing anesthetic techniques, pain management, and the importance of having appropriate infrastructure and equipment.

Furthermore, we will explore how preoperative education of the patient and their family plays a fundamental role in promoting safer recovery and higher satisfaction rates. This presentation offers a practical and strategic perspective for professionals involved in managing ambulatory surgery programs who seek to innovate, optimize outcomes, and take them to the next level.

# Evaluation of postmenopausal bleeding at the Clinical Hospital Center Rijeka in 2025

Lana Glavan, Danilo Vejnović, Damir Čerimagić, Marina Pranjić, Tea Škoda

Clinical Hospital Center Rijeka

Postmenopausal bleeding is defined as vaginal bleeding occurring more than one year after the final menstrual period. Bleeding in the postmenopausal period is considered abnormal and accounts for approximately two-thirds of all gynecological consultations among postmenopausal patients. The most common etiologies include vaginal or endometrial atrophy, endometrial hyperplasia and polyps, urogenital infections, medication use (including anticoagulant therapy, estrogen therapy, and tamoxifen), uterine fibroids, malignant diseases of the genital tract, and the presence of foreign bodies<sup>1</sup>. One of the earliest clinical manifestations of endometrial malignancy is postmenopausal bleeding. Given the rising incidence of this malignancy, it is essential to further develop and implement effective strategies for its early detection. The risk of endometrial carcinoma in patients presenting with postmenopausal vaginal bleeding is approximately 9%. Early detection and appropriate diagnostic evaluation of postmenopausal bleeding may identify up to 90% of endometrial carcinoma cases<sup>2</sup>. Postmenopausal bleeding represents one of the primary indications for hysteroscopy. Hysteroscopy is a procedure involving the insertion of a rigid or flexible hysteroscope

through the cervical canal into the uterine cavity, with the use of a distension medium to allow complete visualization of the uterine cavity<sup>3</sup>. At the Clinical Hospital Center Rijeka, evaluation of postmenopausal bleeding is performed by means of endometrial biopsy during hysteroscopy, followed by histopathological analysis. This procedure is carried out within the framework of the Day Hospital and one-day gynecological surgery program, which has demonstrated significant psychological benefits for patients, while simultaneously reducing hospital stay and thereby decreasing the risk of hospital-associated complications.

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# Joint replacement as an ambulatory surgery

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Ambulatory joint replacement has revolutionized orthopedic care by enabling hip, knee, and shoulder arthroplasty to be performed safely in outpatient settings. Thanks to advances in surgical techniques, anesthesia, pain management, and post-operative protocols, patients can return home the same day, which supports faster recovery, minimizes hospital-acquired infections, and boosts satisfaction. Careful patient selection is essential, ensuring only those who meet health criteria are considered for this approach. Multidisciplinary collaboration - including surgeons, anesthesiologists, nurses, and physical therapists - provides comprehensive perioperative care and addresses potential complications. Thorough preoperative education helps reduce anxiety and prepares patients for early discharge, empowering them to engage actively in their recovery and fostering realistic expectations. During surgery, priorities include efficiency, safety, and consistency, while postoperative care emphasizes

early mobilization and proactive symptom management, such as pain and nausea control. Patients are discharged based on specific medical criteria, not a predetermined timeline, ensuring safety and optimal results. Ambulatory joint replacement streamlines hospital operations, allowing resources to be used more effectively and helping patients recover comfortably at home. Despite its many advantages, this approach brings challenges that require robust follow-up and ongoing patient support. Success depends on coordinated healthcare teams, effective communication, and reliable post-discharge support. By proactively managing risks and maintaining comprehensive follow-up, ambulatory joint replacement remains a safe and efficient option. When guided by Enhanced Recovery After Surgery (ERAS) principles and strong interdisciplinary teamwork, this method optimizes both clinical outcomes and patient satisfaction.

# Education and empowerment of nurses in rapid recovery pathways

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This presentation explores the critical role of nurses in rapid recovery pathways, also known as Enhanced Recovery After Surgery (ERAS) programs, and emphasizes how education and empowerment drive improved patient outcomes. Rapid recovery pathways are evidence-based, multidisciplinary care models designed to minimize surgical stress, maintain physiological function, and accelerate recovery, ultimately reducing hospital stays without compromising quality or safety. Nurses serve as the backbone of these pathways, providing continuous patient support, education, and individualized care throughout all stages of the surgical journey—from preoperative preparation to postoperative coaching and early mobilization. Empowering nurses involves equipping them with ongoing education, clear protocols, and opportunities for clinical judgment within their scope of practice. Key educational elements include

understanding rapid recovery principles, pain management strategies, nutrition and mobilization protocols, and effective communication skills. Empowered nurses are encouraged to ask questions, seek improvements, and actively participate as valued members of the multidisciplinary team. This empowerment leads to greater protocol adherence, improved patient engagement, enhanced pain control, reduced complications, and higher satisfaction for both patients and staff. Despite the clear benefits, challenges such as time constraints, resistance to change, and knowledge gaps can hinder nurses' empowerment. Solutions include targeted education, strong leadership support, and continuous quality improvement. Ultimately, investing in the education and empowerment of nursing teams is essential for the success of rapid recovery pathways, ensuring high-quality, efficient, and patient-centered care.

## Ambulatory emergency surgery

*Fernando Docobo Durantez*

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### Introduction

Patients presenting with acute conditions requiring urgent surgery can be efficiently and effectively treated as day cases via a semi-elective pathway using the principles of same day emergency care.

### Patient selection

Patients suitable for same day emergency surgical care include those with conditions that can be treated immediately and are safe to be discharged the same day. Relative and absolute contraindications must be evaluated.

### Ambulatory pathway

Patients follow a predetermined pathway and be discharged on a temporary basis to the comfort of their own homes awaiting their planned procedure. Tracking is used to keep a record of such patients who may need to return for further tests, treatment and clinical review, a concept known as the 'virtual ward'. Patient details are recorded and added to the 'virtual ward' patient list, facilitated by hospital digital technology systems.

There should be standardised procedures and written protocols covering 'hot clinics', pre-operative preparation, operative scheduling procedures, postoperative care and follow-up.

### Ambulatory emergency surgical procedures

- Abscess drainage.
- Inguinal and umbilical hernias without strangulation.
- Haemorrhoids, acute anal fistula disease.
- Acute appendicitis.
- Diverticulitis.
- Biliary pathology: Early laparoscopic cholecystectomy.
- Biopsy: Temporal artery and superficial lymph node.
- Gynaecology: Abortion. Laparoscopic surgery for ectopic pregnancy and ovarian cyst complications.
- Orthopaedic trauma: arthroscopy; manipulation under anaesthesia of fractures and cast application; removal of superficial bodies; primary reduction and/or fixation of fractures of the forearm, wrist, hand and ankle; primary tendon repair in the hand or wrist; Achilles tendon repair.
- Oral and Maxillofacial: Fracture of the nose, mandible and zygomatic bones.

# IAAS. Ambulatory surgery training

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## Introduction

Training in Day Surgery is essential for all surgical specialists due to the high percentage of interventions performed without hospitalization, their effectiveness and safety is over 85%.

Teaching must be based on scientific evidence and on the acquisition of professional competencies: learning by restructuring and readjustment, less cumulative and based on the acquisition of:

- Knowledge: content understanding.
- Skills: procedures.
- Attitudes: being/knowing when and how to act.

## Undergraduate period

Surgical training in outpatient surgery programs should begin during undergraduate studies to impart knowledge to all future doctors, not only those in surgical fields.

Both theoretical and practical training should be carried out during this period.

## Postgraduate period

Participation of anesthesia residents and surgical specialties involved in Day Surgery Units is currently considered a basic rotation for their training programs.

Based on the acquisition of professional competencies.

The rotation, including all activities performed there, should be adequately evaluated to demonstrate the fulfilment of minimum standards and the achievement level of proposed objectives.

In addition to the general knowledge acquired in undergraduate studies, should include:

- Structural and organizational knowledge of the Day Surgery care circuit.
- Care circuits from Primary Care, patient selection and inclusion criteria, waiting list management, etc.
- Selection criteria for procedures, anaesthesia, analgesia types and surgical procedures.
- Discharge criteria, postoperative home controls, and outcome evaluation.

## Continuous training

Day Surgery Units must facilitate continuing education, research, and teaching activities for their professionals and external staff.

# Contribution of robotic platforms to day case surgery

*David Bunting*

Past President, British Association of Day Surgery

This presentation explores the evolving role of robotic surgery within day surgery pathways, highlighting its potential to transform ambulatory care delivery. It begins with an introduction to robotic-assisted surgery as an advanced form of minimally invasive surgery, designed to enhance surgical precision, dexterity, and visualisation beyond conventional techniques.

The presentation then examines current trends, noting the rapid expansion of robotic platforms across multiple specialties including urology, colorectal, gynaecology, and general surgery. Adoption is accelerating within the NHS and internationally, with projections suggesting a substantial rise in robot-assisted procedures over the next decade as technology becomes embedded in routine surgical care. This growth reflects increasing confidence in robotic systems and their applicability to both complex and high-volume procedures. Key advantages of robotic surgery are explored, including enhanced precision, tremor filtration, and improved

ergonomics for surgeons. It is hoped these advantages will translate into clinical benefits such as reduced tissue trauma, less postoperative pain, and faster recovery. Evidence indicates that robotic approaches are associated with shorter hospital stays and, in some cases, enable same-day discharge or short-stay pathways, aligning closely with the principles of day surgery.

A deeper analysis considers operative times and length of stay. While early adoption may be associated with longer operating times due to learning curves, outcomes consistently demonstrate reductions in length of stay compared to open surgery.

In summary, robotic surgery represents a significant opportunity to expand the scope of ambulatory surgery. Future directions include increased integration into day-case pathways, advances in automation and artificial intelligence, and continued focus on efficiency, scalability, and patient-centred outcomes.

# Data-driven improvement tools and benchmarking systems in the English National Health Service

*David Bunting*

Past President, British Association of Day Surgery

This presentation explores the growing role of data-driven improvement tools and benchmarking systems in enhancing day surgery performance across the English National Health Service (NHS). Day surgery offers significant benefits in terms of patient experience, clinical outcomes, and system efficiency. However, variation in day surgery rates persists between organisations, highlighting the need for robust benchmarking and performance analysis.

The British Association of Day Surgery (BADs) has developed a comprehensive Directory of Procedures, which sets benchmark day surgery rates for over 300 procedures.

This database, historically limited to BADs members and directory subscribers, is soon to become widely accessible to all NHS users. This increased accessibility represents a major opportunity for standardisation and transparency in performance measurement.

In parallel, the NHS England's Model Health System is a data-driven improvement tool providing an interactive web-based platform that enables healthcare organisations to explore performance metrics across multiple domains, including productivity, quality, and patient outcomes. By integrating BADs benchmarks with Model Health System analytics, hospitals can assess their current day surgery rates, track historical trends, and identify unwarranted variation.

Together, these tools empower clinical teams and managers to make evidence-based decisions, prioritise high-impact improvements, and align local practice with national best standards. The presentation will demonstrate how combining benchmarking data with system-wide analytics can support continuous improvement, reduce variation, and ultimately enhance the delivery of day surgery services across the NHS.

## Doctors and leisure: keep fit

*David Bunting*

Past President, British Association of Day Surgery

### Why should doctors keep fit?

As doctors, we spend a lot of time encouraging our patients to stay healthy, but we don't always apply the same advice to ourselves. Long hours, night shifts, and the general demands of the job can make it difficult to prioritise fitness. But keeping active isn't just a lifestyle choice for us it's essential. Exercise plays a key role in reducing stress, improving sleep, and maintaining both physical and mental resilience. Even short, regular activity can make a significant difference to our energy levels and overall wellbeing.

### Exercise categories

Cardiovascular exercise (cardio)

Low intensity or aerobic exercise reduces resting heart rate, improves maximal fat oxidation, metabolic health, cardiovascular health and lung capacity. High intensity exercise or interval training provides similar benefits and specifically improves VO<sub>2</sub>max associated with reduced overall mortality and death from cardiovascular disease.

Resistance training

As we grow older, maintaining muscle mass and strength becomes harder but is vital for metabolic health, reducing risk of falls and maintaining bone density. Resistance training builds strength and improves posture. Calisthenics

is an incredibly practical way to resistance train. It can be done anywhere, requires no equipment, and it's easy to fit into a busy schedule. Calisthenics includes many isometric exercises which have specifically been shown to reduce blood pressure.

### Summary

- Sports combining the benefits of exercise with travel, spending time outside, and social connection may offer even greater health benefits.
- As doctors, we're role models. When we prioritise our own health, we become better clinicians and we're more credible when advising patients to do the same.
- Exercise doesn't have to be time-consuming. Even 20-30 minutes, or short 'micro-workouts', can be effective.

### Which exercise should I do?

- Consistency is more important than intensity, so for you, the best exercise is the one that is sustainable –that is enjoyable, accessible, and fits in with your lifestyle.
- Keeping fit isn't about perfection, it's about making small, sustainable habits part of everyday life. By doing that, we not only improve our own wellbeing, but also become better clinicians.

# Planning and coordination of the patient pathway respecting patients' time

Morith Østerø Grøne

Department of Surgery, Regional Hospital North Jutland, Hjørring, Denmark

## Introduction

Efficient planning and coordination of elective surgical pathways are essential to ensure quality of care, continuity, and respect for patients' time. In outpatient elective surgical pathways, patients typically have contact with several departments and healthcare professionals. Thus, preoperative assessment, interdisciplinary and cross-departmental coordination, surgical flow, and discharge processes play a critical role. Increasing pathway complexity, growing pressure on healthcare resources, and prolonged in-hospital waiting times have highlighted limitations in existing planning practices. At Regional Hospital North Jutland this has led to rethinking how elective surgical pathways are planned to improve patient-centered care while optimizing clinical workflow and resource utilization.

## Aim

To examine the outpatient elective surgical pathway and develop an experience-based system to improve flow, reduce unnecessary time use, and enhance the patient experience, with particular focus on patients with special needs.

## Method

The pilot study started in 2024 and is based on observations in the outpatient clinic, at the surgical ward and in postoperative unit as well as review of patient records and experiences of nurses and other healthcare professionals involved in the pathway.

The focus of this study is preoperative information (in-person or digital consultation), visitation and risk assessment

(ASA, comorbidity, social issues and age). Moreover, surgical flow, interdisciplinary communication, discharge processes and cancellations.

## Results

Analysis of preliminary observations and data demonstrated that structured planning and clearly defined workflows considerably improved pathway continuity and quality. This has already led to changes in daily clinical practice. Digital preoperative information was associated with increased patient satisfaction, improved preparedness, and a substantial reduction in surgical cancellations. Vulnerable patients, including patients with cognitive impairment, limited health literacy, or complex medication regimens, experienced less in-hospital waiting time and were less frequently affected by cancellations.

Effective collaboration and information exchange between outpatient clinics, operating units, and recovery wards were identified as critical to maintaining efficient patient flow. A differentiated, needs-based planning approach proved essential to ensuring respect for patients' time.

## Conclusion

Structured planning, clear communication, and cross-departmental coordination are essential to ensure efficient elective surgical pathways. A patient-centered approach proved essential to ensuring a better patient experience respecting patients' time.

# Progress to complex surgeries on an outpatient basis

Alejandro Langberg Bacigalupo

Officer of the General Assembly, International Association of Ambulatory Surgery

Ambulatory surgery is transforming the future of surgical care, with a growing number of procedures migrating from the hospital setting to more efficient, patient-centered models. Discover how it's possible to perform more complex procedures outside the traditional hospital environment without compromising safety or quality, supported by international best practices.

Throughout this presentation, you will learn the key pillars for success, such as phased implementation, multidisciplinary teamwork, and appropriate patient selection based on clinical and social criteria. We will also address other essential

aspects, including optimizing anesthetic techniques, pain management, and the importance of having appropriate infrastructure and equipment.

Furthermore, we will explore how preoperative education of the patient and their family plays a fundamental role in promoting safer recovery and higher satisfaction rates.

This presentation offers a practical and strategic perspective for professionals involved in managing ambulatory surgery programs who seek to innovate, optimize outcomes, and take them to the next level.

# Ready for anything: building a resilient ambulatory surgery centre

*Erik Litonius*

Adjunct Professor (Docent). Helsinki University Hospital and University of Helsinki, Helsinki, Finland

The ambulatory surgery centre (ASC) was designed for healthy patients undergoing low-risk procedures, yet the reality of modern ambulatory practice looks very different. Higher-acuity cases are migrating rapidly into outpatient settings, driven by advances in surgical technique, anaesthesia protocols, and payer incentives<sup>1,2</sup>. This expanding complexity demands a new approach to safety, one that goes beyond regulatory compliance and emergency checklists toward genuine organisational resilience.

This presentation proposes three interdependent pillars of ASC resilience. The first reframes patient selection as a living, multidisciplinary process that must co-evolve with the centre's case mix, because the most resilient ASC is one that rarely needs its crash cart<sup>1,2</sup>. The second makes the case for regular in-situ simulation of high-stakes perioperative emergencies, drawing on evidence that structured team rehearsal and crisis cognitive aids dramatically reduce failures during critical events<sup>3,4</sup>. The third draws on the Safety-II framework to argue that resilience is built not in moments of crisis but in everyday practice: learning from what goes right, fostering psychological safety, and deliberately cultivating the

organisational capacity to respond, monitor, learn, and anticipate<sup>5,6</sup>.

Taken together, these pillars offer a practical roadmap for ASCs seeking to match their growing clinical ambition with the adaptive capacity to support it safely.

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# Toy soldiers and scalpels: a doctor's case for miniature wargaming

*Erik Litonius*

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Physicians are frequently counselled to maintain hobbies for balance against the demands of clinical work, yet the leisure pursuits of doctors remain under-examined and occasionally misunderstood. This talk presents a first-person account of one such pursuit: Warhammer, the world's most popular miniature wargaming system, and a hobby that combines artistry, strategic thinking, and community in ways that may surprise a medical audience.

Miniature wargaming traces its origins to nineteenth-century Prussian military training exercises and evolved through figures like H. G. Wells before becoming a global pastime<sup>1</sup>. Today, Games Workshop's Warhammer franchise encompasses tabletop strategy games, an extensive fiction library, and, at its heart, the painstaking assembly and painting of miniature figures. The hobby engages a worldwide community of millions, from casual painters to competitive tournament players.

This presentation explores why a working physician chooses to spend scarce free time gluing tiny soldiers together. It examines the creative and meditative aspects of miniature painting, the social bonds forged across gaming tables, and the perhaps unexpected parallels between clinical reasoning

and tabletop strategy. Along the way, it offers a light-hearted look at the stigma (and secret pride) of maintaining an intensely nerdy hobby in a professional environment. Leisure activities that demand focused attention, fine motor skill, and genuine social interaction are not merely escapism but a meaningful counterweight to the cognitive and emotional load of medical practice<sup>2,3</sup>. In a profession where burnout is endemic, finding something that fully absorbs you outside the hospital may be less indulgent than it sounds.

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# Predict, Automate, Personalise: Artificial Intelligence in Ambulatory Surgery

**Erik Litonius**

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Artificial intelligence (AI) is poised to reshape ambulatory surgery across the entire perioperative pathway. This lecture presents a translational framework organised around three pillars (Predict, Automate, and Personalise) to help day-surgery teams evaluate where AI can deliver meaningful clinical value today and where it remains investigational.

In the Predict domain, machine-learning models trained on large perioperative datasets now show clinically useful accuracy for preoperative risk stratification, prediction of unplanned admission after day surgery, postoperative nausea and vomiting, and acute pain trajectories<sup>1,2</sup>. Tools such as MySurgeryRisk illustrate how predictive analytics can support patient selection and shared decision-making, though external validation and equity audits remain essential.

Under Automate, closed-loop anaesthesia delivery systems for propofol and remifentanyl have reached late-stage clinical trials, demonstrating non-inferior or superior haemodynamic stability compared with manual titration<sup>3</sup>. AI-driven scheduling optimisation, real-time physiological monitoring, and automated documentation offer further efficiency gains in high-throughput ambulatory settings.

The Personalise pillar addresses the next frontier: individualised anaesthetic and enhanced-recovery protocols

informed by pharmacogenomics and continuous remote monitoring via wearables and digital health platforms<sup>4</sup>. AI-powered chatbots and adaptive follow-up pathways are being piloted to improve recovery quality and patient experience after discharge.

Throughout, the lecture critically appraises the level of evidence behind each application and examines barriers to implementation, from algorithmic bias and regulatory requirements under the EU AI Act to the thorny question of clinician trust<sup>5</sup>.

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## Day surgery around the world: safety first

**Arnaldo Valedon**

MD, MBA, FASA, SAMBA-F

Ambulatory surgery (AS) has emerged as a globally adopted, high-value model of care with patient safety as its central pillar. Robust evidence from large population datasets, including analyses of over 6 million patients, demonstrates that outpatient surgery is associated with lower 30-day mortality and morbidity compared to inpatient care when appropriate patient selection is applied.

Complication rates are significantly reduced, with studies showing up to a 62% lower adjusted risk of postoperative complications, including decreased bleeding, infections, venous thromboembolism, and transfusion requirements. These findings are consistent across multiple specialties, including orthopedic, endocrine, and bariatric surgery, with no increase in readmissions, reoperations, or long-term adverse outcomes.

Data from ambulatory surgery centers (ASCs) further reinforce this safety profile, demonstrating equal or superior outcomes compared to hospital outpatient departments,

even in older and medically complex patients. Reported mortality remains very low (0.037% at 3 days and 0.13% at 30 days), and same-day discharge does not increase major morbidity. Patients treated in AS settings are less likely to require hospital admission or emergency care within 7–30 days postoperatively.

This safety advantage is driven by system design: rigorous patient selection, standardized perioperative pathways such as enhanced recovery protocols, minimally invasive techniques, and strict regulatory oversight. Additionally, AS reduces exposure to hospital-acquired complications while improving patient satisfaction and recovery.

In conclusion, ambulatory surgery is not only as safe as inpatient surgery but often safer, delivering superior outcomes through structured, evidence-based perioperative care. Sustaining this safety will require continued focus on patient selection, protocol adherence, and data-driven quality improvement as surgical complexity evolves.

# Frailty and Ambulatory Surgery: Assessment, Optimization, and Outcomes

**Arnaldo Valedon**

MD, MBA, FASA, SAMBA-F

Frailty is increasingly recognized as a critical determinant of perioperative outcomes, particularly in the growing population of older adults undergoing ambulatory surgery. Although most patients over age 65 experience favorable surgical outcomes, frailty—independent of chronological age—is strongly associated with increased complications, unplanned admissions, emergency department visits, and mortality. Despite this, routine preoperative frailty assessment remains underutilized.

Frailty is a multidimensional syndrome encompassing physical performance, mobility, nutrition, cognition, and mental health. Its prevalence varies widely depending on the assessment method, ranging from <10% using diagnosis-based approaches to 30–40% with multidimensional clinical tools. Over 40 frailty instruments exist, broadly categorized into deficit accumulation models and physical phenotype models, yet no gold standard has been established.

Commonly used tools include the Fried Phenotype, Frailty Index, Clinical Frailty Scale (CFS), and Edmonton Frail Scale (EFS), each with distinct advantages and limitations related to feasibility, predictive accuracy, and clinical applicability. Among these, the CFS appears most practical for routine preoperative use, while evidence suggests comparable predictive performance across major instruments.

The primary goal of frailty detection is not only risk stratification but also identification of modifiable factors to guide prehabilitation and perioperative optimization. Key domains include nutrition, functional status, cognition, and psychosocial support.

In conclusion, frailty assessment should play a central role in patient selection and perioperative planning for ambulatory surgery. Future efforts should focus on integrating feasible screening tools into routine practice and generating stronger evidence to guide targeted perioperative interventions.

## Efficient Scheduling in Ambulatory Surgery

**Douglas McWhinnie**

Past President, International Association of Ambulatory Surgery

The role of scheduling is the optimisation of the ambulatory patient pathway, through allocation of staff and equipment, capacity planning and workflow management. Efficient scheduling requires investment in preassessment to ensure a pool of patients are ready and waiting for their surgical procedure. The aim of scheduling to ensure zero cancellations on the day of surgery and 100% utilisation of operating theatre resources.

Operating list planning usually starts around 6 weeks beforehand with staff annual leave finalised to ensure staffing levels are sufficient to run a safe and efficient theatre. At 4 weeks, surgeons sign off their lists and by 2 weeks lists are 'locked down' and finalised. Patient reminders are sent in the run-up to their operation to reduce 'no shows'.

Same-day cancellations run at around 10% of patients with half of these cancellations due to the non-attendance of the patient. Common reasons for clinician cancellations include changes in patients' health since preassessment, fasting or medication errors and issues with the preassessment process itself. Approximately 15% of same-day cancellations occur when the operation is considered by the surgeon to be incorrect or unnecessary. The worst offenders by specialty are orthopaedics, gynaecology and general surgery.

Scheduling efficiently and accurately requires adequate resourcing but when conducted in a timely manner, with regular patient reminders, can ensure on the day cancellations are kept to a minimum.

# Operating Theatre Performance in Ambulatory Surgery

*Douglas McWhinnie*

Past President, International Association of Ambulatory Surgery

The operating department is one of the high cost areas in any hospital with a basic operating list costing around 1200 € per hour or 20 € per minute. These costs are dependent on the complexity and consumables required in individual lists. Efficiency is therefore key in reducing operating costs but this can be measured in a number of different ways providing a multitude of different answers.

The most accurate method of measuring theatre efficiency is to measure 'touchtime', where actual time used for operating is calculated as a percentage of the total list time. Gap time, which is the measured time between cases accounts for 12% of total list time. Most hospitals allocate sufficient work

on their lists to fill 85% of available time. Higher targets run the risk of routinely over-running with its implications for additional staffing costs and schedule disruption. Therefore a well-run operating list may only be used for 73% of the available touchtime.

Many hospitals unduly focus on reducing gap times or ensuring a prompt start to a theatre list. While they are important performance indicators, they account for around only 10-20% of lost operating time. Cancelled theatre cases create a greater and more significant impact in loss of theatre productivity and efficiency programmes should be directed to strategies to minimise same-day cancellations.

## Implementation of sedation

*René van der Voort*

Sedation Practice Specialist at Albert Schweitzer Hospital, The Netherlands

This presentation introduces the role of the Sedation Practitioner, a specially trained nurse anesthetist who independently provides moderate to deep procedural sedation and analgesia (PSA) without the direct presence of an anesthesiologist.

An overview is given of the growing number of PSA procedures at the Albert Schweitzer Hospital, as well as the wide range of specialties involved, including gastroenterology, pulmonology, cardiology, and others.

The presentation then focuses on three high-risk procedures: ERCP, EBUS, and electrical cardioversion

(ECV). For ERCP, the evolution toward propofol-based sedation and increased use of ambulatory care is discussed. EBUS is highlighted as a complex pulmonary procedure requiring careful sedation management. In addition, ongoing developments in optimizing the planning and organization of ECV are presented, with the aim of improving both efficiency and patient experience.

Together, these examples illustrate the expanding role and value of Sedation Practitioners in managing high-risk procedures safely and effectively.

# Current status and challenges of ambulatory surgery in Japan

Norihito Wada, Hiroki Imazu

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## Introduction

In Japan, ambulatory surgery is strictly defined by the national health insurance system as “admission, surgery, and discharge occurring on the same calendar day”. Historically, the Japanese healthcare system has been characterized by some of the longest average hospital stays among OECD countries. However, the aging population and the need for medical cost containment have accelerated the shift toward outpatient models, supported by the evolution of minimally invasive techniques and shorter-acting anesthetics.

## Aim

This study aims to analyze the current clinical implementation of ambulatory surgery in Japan, evaluate the impact of the 2024 national medical fee revision, and identify structural and cultural barriers to its further expansion compared to international standards.

## Methods

A comprehensive review was conducted using Japanese national medical statistics, clinical guidelines for representative procedures (such as inguinal hernia repair and cataract surgery), and the 2024 Japanese Medical Fee Revision documents issued by the Ministry of Health, Labour and Welfare. International comparisons were performed using OECD Health Statistics.

## Results

Clinical standardization is most advanced in ophthalmology and general surgery. While inguinal hernia repair is increasingly performed as a day case, the 2024 reimbursement revision significantly impacted the sector by halving the “Short-stay Surgery Basic Fee 1” (e.g., from 1,588 to 795 points for cases with anesthesia). This reduction poses a financial challenge for specialized clinics. Furthermore, Japan’s average hospital stay remains high (27.3 days) compared to the OECD average (9.7 days), reflecting a persistent “inpatient culture” among both providers and patients. Although patient satisfaction with day surgery is high (approximately 83%), concerns regarding postoperative home care and perioperative anxiety remain prevalent.

## Conclusion

Ambulatory surgery in Japan is at a critical turning point. While clinical safety and technical standards are high, the sustainability of the model is challenged by recent reimbursement cuts and deeply rooted social preferences for hospitalization. To overcome these barriers, Japan must optimize regional medical networks and integrate digital health technologies, such as remote monitoring, to ensure patient safety and confidence at home.

# A clinical guide through the percutaneous vertebroplasty in Croatia

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Percutaneous vertebroplasty is minimally invasive, image – guided therapy used to relieve pain from a vertebral body fracture osteoporotic or malignant fractures.

The patients who don't respond to conservative treatment or who continue to have severe pain may be helped by this method.

In Dubrovnik general Hospital and Croatia in general, this procedure is performed by spine surgeon or interventional radiologist or traumatology-orthopaedic surgeon as well.

We represent a group of total number of 12 patients underwent percutaneous vertebroplasty procedure, aging from 47 to 84 years, in one year period. Posttraumatic

vertebral compression fractures of thoracal or lumbar spine suffered two female (age 70 and 81) and two male patients (47 and 75 years); Pathologic (osteoporotic) fractures, suffered three male (age 70, 72, 81) and one female patient (age 61). There were four men (age 61, 78, 82, 84 year) with neoplastic disease spreading into thoracal spine (Th 9, Th11 and Th 12) and lumbar spine (L1, L2, L4).

Two patients (age 61) with osteolytic lesions Th 9 and Th 11 and osteoporotic L1 and L3 vertebral body lesions (age 81) underwent vertebroplasty of two vertebra. All patients left hospital in good general conditions with no pain in the region of intervention.

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*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.

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

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