Patient Safety
College of Anaesthesiologists of Ireland

SANI
Safe Anaesthesia Network Ireland

December 16, 2025 Winter 2025 Edition

✦ Safe Anaesthesia Network Ireland Newsletter ✦

YEAR IN REVIEW

WELCOME!

As we close out 2025 and step into a new year of learning, collaboration, and shared commitment to safer anaesthetic practice, we are delighted to bring you the latest edition of the SANI Newsletter. This issue reflects the energy, creativity, and dedication within our community, and we hope it offers both inspiration and practical insights for your daily work.

In this issue, we will feature the winner of the KP Moore Medal at the Patient Safety Conference 2025, Dr Orna Ní Choileáin, whose exceptional contribution to patient safety stood out among a strong field of candidates. Her work serves as a reminder of the impact that thoughtful innovation and perseverance can have on the care we deliver.

We hear from two contrasting ongoing safety projects. One, a quality improvement initiative from University Hospital Limerick, aims to introduce a “WETFLAG” poster into the operating theatre to reduce cognitive burden in a peripheral hospital managing paediatric anaesthesia. The second is a project out of Galway, exploring psychological safety in the operating theatre, followed by a short, deeply personal reflection from the author. This piece serves as a powerful reminder of the human element at the centre of every safety conversation.

We also bring you updates on the latest DAS Guidelines, highlighting key changes relevant to everyday practice, as well as a summary of the findings from the new MBRRACE report, which continues to shine a light on inequalities and areas requiring urgent improvement across maternity in the UK and Ireland.

Finally, this edition also highlights the introduction of NRFit connectors, an important patient safety initiative designed to prevent wrong-route neuraxial drug administration. As NRFit is rolled out across services, we explore what this change means for clinicians, how to prepare teams, and the role of standardisation in reducing avoidable harm.

As always, this newsletter is shaped by the people within our network, those who ask questions, challenge assumptions, and share openly so that we can all do better. We hope you enjoy this issue, and we encourage you to keep sending us your ideas, projects, and reflections. Together, we continue to build a culture where safety, compassion, and learning thrive.

Nollaig Shona Duit,
Dr. Emma May Lyons, SAT 6

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✦ Safe Anaesthesia Network Ireland Newsletter ✦

Letter from the SANI chair

Dear all,

As we finish 2025, I wanted to say thanks to all SANI members and Safety Leads for their ongoing commitment to patient safety. I also want to thank Prof Irene Leonard for spearheading SANI to the great success that it is – I have large shoes to fill!

We've commenced our first SANI network audit, looking at Sip to Send practices around the country. If you haven't completed this, please do, and we hope to present this at Congress this year. Dr. Brian McCloskey and I have a tentative list of SANI webinars for 2026 drawn up, and we hope to publish these in the New Year.

We will also aim to hold a SANI leads day within the first few months of the year. All suggestions for topics are welcome. We're also hoping to produce our newsletter on a quarterly basis and would encourage you to submit your local safety projects. Congratulations to Emma-May for procuring such high quality content in such a short space of time!

I look forward to working with you in the future,

Dr. Aislinn Sherwin
SANI Chair

FEATURE SECTION:

KP MOORE AWARD FEATURE

Celebrating Excellence in Patient Safety

HUMAN RELIABILITY ANALYSIS: SUPRAGLOTTIC JET VENTILATION IN ELECTIVE LARYNGEAL SURGERY

Author: Dr. Orna Ni Choileain, SAT 5

Affiliation: South Infirmary Victoria Hospital

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KP Moore Award Feature

Human Reliability Analysis (HRA) offers structured methods to examine and reduce human error(Kirwan B, 1992). Originally developed for high-risk industries, HRA aims to minimise error through standardisation of tasks. In healthcare, the most frequently used technique is Hierarchical Task Analysis (HTA), which breaks down procedures into smaller, clearly defined steps (Sujan et al., 2020). HTA can be enhanced by the Systematic Human Error Reduction and Prediction Approach (SHERPA), which identifies potential errors and proposes mitigation strategies (Embrey, 1986).

Anaesthesiology is well-suited to HRA as it is a procedure-focused speciality that recognises the influence of human factors on performance. Previous applications within anaesthesia and intensive care include analyses of anaesthetic delivery, endotracheal intubation, and percutaneous tracheostomy(Phipps et al., 2008; Lavelle et al., 2020; Reddy et al., 2020).

Supraglottic jet ventilation was selected for analysis due to its complexity, its dependence on specialised equipment, its variable practice patterns, and its limited training opportunities. Jet ventilation delivers intermittent high-pressure gas into an open airway and is commonly used for laryngeal surgery, as well as during certain difficult airway emergencies(Lyons and Badiger, 2025). Its use is also extending to interventional radiology, cardiology, and advanced bronchoscopy(Lyons and Badiger, 2025). However, it remains a high-risk technique. NAP4 highlighted concerns regarding procedural variability and the need for structured protocols to improve outcomes(Cook TM, 2011).

Study aims

This project used HRA to analyse elective supraglottic jet ventilation. The aims were:

1. To develop a detailed clinical workflow using HTA.
2. To identify possible errors using SHERPA.
3. To propose strategies to strengthen safety, audit, and training.

Methods

A literature review was first performed. Four elective laryngeal procedures using supraglottic jet ventilation were observed. Three experienced consultant anaesthesiologists contributed as subject-matter experts and participated in iterative development of the HTA and SHERPA.

Each substep was analysed using the SHERPA framework. Steps were classified by behaviour type, including action, retrieval, checking, selection, or communication. Each was rated for probability of error and criticality, and these were combined to calculate overall risk. Recovery potential, meaning whether the error could be detected before causing harm, was also assessed. Mitigation strategies were then identified at individual, equipment, environmental, and organisational levels.

KP Moore Award Feature

Results

The final HTA contained 214 substeps across five phases: preparation, induction, preparation for jet ventilation, commencement of supraglottic jet ventilation, and end of procedure.
The SHERPA identified that 45.7 per cent of potential errors were likely to pose a high risk of harm. Risk was concentrated in induction and during the delivery of jet ventilation. Frequent themes included communication failures, unfamiliarity with equipment, and delayed recognition of complications.

Safety strategies

Four safety priorities emerged:

1. Checklists
Approximately 70 percent of the preparation steps involve checking or information retrieval. A structured checklist may reduce omissions and standardise practice.

2. Simulation and practice
Variation in equipment and technique across hospitals contributes to unfamiliarity. Regular simulation supports skill development, decision-making, and team communication.

3. Consultant supervision
Consultant involvement during high-risk phases supports trainees and improves situational awareness.

4. Structured communication
A brief pre-procedural pause before transferring airway control encourages clarity and closed-loop communication.

I was honoured to receive the KP Moore Medal at NAPSAC 2025 and very grateful to Mrs Helen Moore for presenting the award despite the inclement conditions due to Storm Claudia.

Many thanks to the SANI newsletter editors for sharing details of this project, which formed part of my MSc in Simulation and Patient Safety at the University of Galway. The work was conducted in the South Infirmary, Victoria University Hospital. I am very grateful to Dr Tony Hennessy for his help and guidance.

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✦ Ongoing Safety Projects ✦

ENHANCING PAEDIATRIC PATIENT SAFETY THROUGH WETFLAG: A QUALITY IMPROVEMENT INITIATIVE IN ANAESTHESIA ACROSS HSE MIDWEST HOSPITALS

Author: Dr Saira Asghar

Affiliations: University Hospital Limerick

Ensuring paediatric patient safety in anaesthesia is paramount due to the serious and time-critical nature of paediatric emergencies. Delivering safe care requires ongoing audit, improvement of current practices, and the development of new safety initiatives. We conducted a quality improvement project (QIP) across the Anaesthesia Departments of the HSE Midwest sites—University Hospital Limerick, Croom Hospital, Ennis Hospital, and Nenagh Hospital—from June to November 2025. The project aimed to improve paediatric patient safety by assessing and enhancing Anaesthetic NCHDs' knowledge and familiarity with "WETFLAG" (Weight, Energy, Tube, Fluid, Lorazepam, Adrenaline IV, Glucose) in line with the 2023 APLS update, and by strengthening their understanding of paediatric emergency management using WETFLAG and APLS algorithms.

Pre- and post-teaching surveys were completed, and WETFLAG[1] and APLS Aide Memoire[2] posters were placed in operating theatres to support real-time calculation and recording of weight-based WETFLAG doses for each paediatric patient. As relevant to anaesthetic practice, Suxamethonium (IV/IM) and Atropine doses were added to create WETFLAGSA for intraoperative laryngospasm and bradycardia management.

The pre-teaching survey (≈70% response rate) showed that although 90% of NCHDs were aware of WETFLAG, their accuracy and confidence in applying it improved to 100% among teaching session attendees. Awareness of the updated APLS guidance and understanding of paediatric emergency algorithms also increased. We additionally audited completion of Paediatric Life Support (PLS/APLS) certification; over 50% of respondents had no current certification, though APLS and PLS were the most commonly completed courses. The QIP emphasised the importance of maintaining paediatric life support training.

All respondents (100%) agreed that WETFLAG is a valuable clinical and teaching tool for improving paediatric patient safety in anaesthesia.

Our QIP represents an initiative aimed at increasing preparedness, reducing cognitive load, and improving the efficient and effective management of paediatric emergencies—ultimately enhancing paediatric patient safety in Anaesthesia using the simple APLS acronym "WETFLAG," particularly for practitioners who infrequently manage paediatric cases. It is a low-cost, simple, guideline-driven, effective, and replicable initiative with the potential for scalability and adoption by other hospitals that care for paediatric patients. We believe that this initiative, together with an emphasis on completing Paediatric Life Support certifications and standardising paediatric resuscitation algorithms according to the recent APLS update, will prove immensely useful not only in Anaesthesia but also across any hospital or department managing paediatric patients.

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[SA(1]Again - Consultant input?

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SPEAKING UP FOR SAFETY: INSIGHTS FROM AN IRISH STUDY ON UNPROFESSIONAL BEHAVIOUR IN THE OPERATING ROOM

Author: Prof Maya Contreras[1] and Prof Patrick Flood[2]

Affiliations: 1. Galway University Hospital, Dept. Anaesthesia and Intensive Care Medicine; 2. Dublin City University, Business School

Introduction

Unprofessional behaviour (UPB) in healthcare - including rudeness, intimidation, shouting, exclusion, and discrimination - continues to undermine teamwork, staff wellbeing, and patient safety[1]. While international studies show that 20-38% of healthcare workers experience such behaviours[2-3], far less is known about their impact within the Irish operating room (OR) environment.

Our recent mixed-methods study carried out in the Perioperative Department of a tertiary-level University Hospital in Ireland provides valuable insight into how OR staff experience and respond to UPB. Thirteen staff members (anaesthesiologists, surgeons, and nurses) completed a survey, and 12 participated in in-depth interviews. Participants represented a diverse mix of grades, genders, and nationalities, reflecting typical OR team composition in Ireland.

What UPB Looks Like in the Irish Operating Room

Survey data suggested that UPB occurred “occasionally”: 38.5% observed it monthly, 30.8% every six months, and 15.4% weekly. However, interview data revealed that low-level harm behaviours such as rudeness, dismissiveness, and exclusion were commonly reported and often experienced far more frequently. Almost all participants (92%) had witnessed or experienced yelling, belittling, blaming, or condescending comments, mainly from senior clinicians.

Other team-undermining behaviours, such as ignoring concerns, excluding individuals from decision-making, or imposing unrealistic demands, were frequently described, particularly by nursing staff. Some participants also reported microaggressions, gender bias, and discrimination, including fewer learning opportunities, sexist remarks, and unwelcome physical contact - findings that mirror international data on sexism and burnout in surgery and anaesthesia[4].

Why Speaking Up Is Difficult

Despite understanding the risks associated with UPB, many staff felt unable to challenge it. In the survey, 46% said they were unlikely to speak up, 30% were unsure, and only 23% would likely act. Interview findings highlighted fear, hierarchy, cultural norms, and career vulnerability as the main drivers of silence - especially among trainees who worried about negative consequences for their progression. Others remained silent to avoid disrupting surgery or jeopardising patient care, prioritising clinical stability over interpersonal conflict. For some, shock, emotional overwhelm, or a belief that raising concerns would not lead to meaningful change also contributed to silence.

The emotional impact was significant. Participants described anger, shame, guilt, anxiety, and disillusionment, with some reporting moral distress, reduced confidence, or thoughts of leaving the specialty. UPB was seen as damaging to trust, communication, learning, and patient safety, contributing to delays, errors, and hesitation to question decisions or reporting concerns.

What Needs to Change while Moving Forward

Staff identified several priorities to strengthen communication and safety culture in the OR, including clear behavioural standards with consistent accountability, confidential non-punitive reporting systems, and leadership and people-management training for senior clinicians. They emphasised the need for independent mediators, improved workflow and staffing, and structured team practices such as pre-briefs/huddles and debriefs. Stronger mentorship for trainees and embedding psychological safety and speaking-up training in healthcare education were also highlighted. These findings echo international evidence and underline a clear message:

Creating an operating room culture where staff can speak up safely is not optional - it is fundamental to safe, high-quality surgical care!

Disclosure: This is a Masters in Work and Organizational Behaviour Sciences research project carried out by Dr Maya Contreras at DCU Business School.

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****Post Project Reflection by Dr. Maya Contreras, University Hospital Galway**

Where Research Meets Relationship: Reflections on Psychological Safety and Shared Experiences

Undertaking the research project in a field that involves sensitive critical incidents related to incivility or unprofessional behaviour in the OR became far more than an academic exercise for me. It evolved into a deeply personal and emotional journey. Listening to colleagues share their experiences stirred strong emotions within me - from curiosity and concern to empathy, sadness, and, at times, quiet discomfort as their stories echoed my own experiences. These conversations challenged my assumptions and deepened my understanding of the emotional and cognitive responses that influence whether we speak up or stay silent.

The project also reshaped how I see my work environment. I became more aware of the invisible pressures people carry and how profoundly psychological safety shapes not only individual well-being, but also clinical decision-making and patient safety. While I remained reflexive about my own position as a researcher embedded in this community, that closeness allowed me to appreciate and understand better the subtle emotional and cultural dynamics that might otherwise go unseen. I felt deeply grateful for the openness, trust, and vulnerability shown by my colleagues - their voices continue to influence how I think about safety, compassion, and speaking up in healthcare, and the importance of appreciating each other's contributions when caring for our patients. After all, we are all in this together…

Maya Contreras

✦ Patient Safety Updates ✦

DIFFICULT AIRWAY SOCIETY GUIDELINES, 2025

Author: Dr. Lauren Walsh, SAT 6

New DAS guidelines were launched at the World Airway Management Meeting in Florence, Italy, in November 2025. The new guidelines aim to highlight the importance of maximising the success rate of a 1st intubation attempt rather than focusing on the management of a failed intubation.

The importance of the airway assessment before induction of anaesthesia was emphasised with recognition of the physiologically difficult airway. The new guidelines emphasised that awake tracheal intubation should be considered if difficulty is anticipated with plans A, B, C, or D. Equipment for plans A, B, C, and D should be available in all areas where anaesthesia is administered, and the airway plan should be discussed as part of the theatre team debrief prior to induction.

Airway safety after hours remains a key concern, and the latest guidance highlights several practical steps that teams can take to improve outcomes.

To begin, clinicians are encouraged to use an airway checklist before any emergency tracheal intubation, helping to reduce cognitive load and avoid overlooked essentials. Confirming working end-tidal CO_2 and audible SpO_2 before induction is emphasised as a simple but critical safeguard.

When it comes to securing the airway, the recommendations are clear: use neuromuscular blockers and do not delay their administration to check facemask ventilation. Effective pre-oxygenation, for every patient, remains absolute, ideally performed in a head-up position with positive pressure. In cases where difficulty is anticipated, high-flow nasal oxygen for PERoxygenation provides an added buffer.
The guidance also reinforces the now widespread shift toward videolaryngoscopy as the recommended first-line approach. After placement, sustained exhaled CO_2 should be used to confirm successful tracheal intubation.

In the event of a failed intubation, the use of a second-generation supraglottic airway device is advised. When emergency front-of-neck access becomes necessary, the safest route remains a midline vertical incision. While cricoid force is neither advised nor discouraged, it is advised that cricoid force should be released if it adversely affects the laryngoscopy view, and providers should receive regular training in the correct application.

For the patients living with obesity, the guidance adds several considerations. It is advised that awake tracheal intubation should be considered, and they should be pre-oxygenated in a 30-degree head-up position. Additional recommendations for the obese population include considering moving the patient to theatre for airway management, use of high-flow nasal oxygen for PERoxygenation, and early consideration of second-generation supraglottic airway devices if difficulty with facemask ventilation proves a challenge.

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UPDATE ON MBRRACE REPORT, 2025

Author: Dr. Catriona Hayes, SAT 4, National Maternity Hospital, Holles Street

The latest MBRRACE-UK 2025 report has been released, highlighting ongoing and significant inequalities in maternal outcomes across the UK and Ireland.

MBRRACE provides national surveillance of deaths during and after pregnancy, alongside confidential enquiries into the care women received. This year's triennial report examines maternal deaths between 2021 and 2023. During this period, 257 women died between conception and 42 days postpartum, a mortality rate unchanged since 2018. In contrast, late maternal deaths continue to rise: 327 women died between six weeks and one year after pregnancy, at a rate of 16.32 per 100,000 maternities.

Among early maternal deaths, a third of women were still pregnant at the time of death. Pre-existing medical conditions, particularly obesity, were the most common contributors, alongside inadequate antenatal care, age over 40, socioeconomic deprivation, and non-white ethnicity. 14 % of women who died later in the postnatal period were seen to have multiple disadvantages[SA(1].

Thrombosis and thromboembolism again emerged as the leading cause of early maternal death, accounting for twice as many deaths as any other direct cause. Cardiac disease and COVID-19 were joint second. For late maternal deaths, psychiatric illness dominates, with nearly a third attributable to mental health conditions and almost one in five caused by suicide.

The confidential enquiries identified that 45% of women who died may have had a different outcome with improved care, underscoring persistent challenges in equitable access to high-quality antenatal support.

One of the most disturbing patterns highlighted is the rise in domestic violence, with 14 women dying as a result of homicide, 93% at the hands of a partner. Half had disclosed abuse during pregnancy, and the report suggests 38% of these deaths may have been preventable had appropriate action been taken.

Deaths from hypertensive disorders remained stable at 0.28 per 100,000 maternities. However, substandard care was common, with inconsistent blood pressure monitoring, poor documentation of pre-pregnancy counselling, and underuse of PLGF testing, a biomarker used to assess the risk of placental dysfunction, though aspirin prophylaxis was appropriately prescribed.

Seventy-nine women died from pregnancy-related heart disease, a third of them in the first six weeks postpartum. While mortality rates were similar to previous reports, the pattern shifted towards increasing ischaemic heart disease and sudden arrhythmic death. Most women had no known cardiac history but did have significant risk factors such as smoking, obesity, or social deprivation. The report concluded that 86% of these deaths might have been avoidable.

The rise in postnatal suicide is particularly concerning. Most women died violently, with hanging the most common mechanism. Experiencing the death of a child was a contributing factor in a third of cases.

Across all categories, the report identifies clear opportunities to improve care. Pre-conception counselling, optimisation of chronic medical conditions, smoking cessation, and weight-management support were frequently missing. Tools such as the FIGO Pregnancy Passport can help guide follow-up care for women at cardiometabolic risk, yet remain underutilised. Many women who died had previous pregnancies, highlighting repeated missed opportunities for intervention.

Mental health care requires renewed focus, with a need for greater vigilance during clinical encounters, earlier escalation, and review of restrictive referral criteria. The report also emphasises universal training for frontline staff in domestic abuse recognition, screening, and response.

Despite improvements in some areas, the latest MBRRACE report makes clear that major challenges persist. It provides a vital opportunity to identify gaps, reduce risk, and continue improving maternal and neonatal outcomes across the UK and Ireland.

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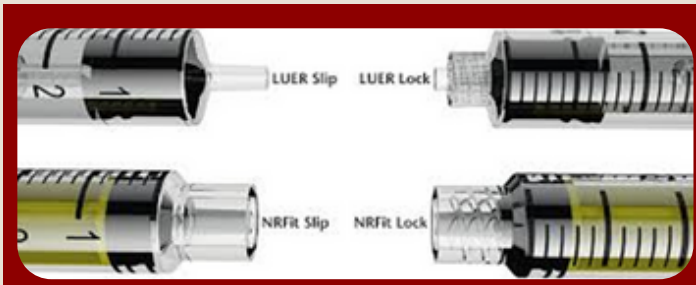
INTRODUCING...

NRFIT CONNECTORS IN IRISH HEALTHCARE: A MAJOR STEP FORWARD IN PATIENT SAFETY

Author: Dr. Tara Banon, SAT 6, Prof Terry Tan, Coombe Hospital.

Under the HSE's National Patient Safety Alert issued on 26 November 2025, organisations where neuraxial or regional anaesthesia procedures are performed are required to transition to NRFit devices over the next two years. The introduction of NRFit connectors across the Irish health service to improve patient safety in procedures involving spinal, epidural, and regional anaesthesia marks a significant advance in reducing the risk of wrong-route medication errors, a category of preventable harm that can have serious or even fatal consequences.

NRFit is a new, internationally recognised connector standard (ISO 80369-6) designed specifically for medical devices used in neuraxial and regional anaesthesia procedures. Unlike the traditional Luer connector, which is universal and fits different medical devices, NRFit connectors are intentionally incompatible with connectors used for intravenous infusions or enteral feeding systems.



Traditional Luer connectors have been used universally across IV, neuraxial, enteral, and other systems for decades. Their universality has been convenient, but it also enables misconnections when drugs intended for one route are inadvertently delivered via another. International incident reports have documented cases such as:

- Intrathecal administration of medications intended for IV use
- IV administration of drugs prepared for epidural delivery
- Misconnection of epidural infusions to peripheral IV access

These errors are rare but high-severity and almost always preventable. As anaesthesiologists, we routinely manage high-risk routes of administration, including the risk of wrong-route administration. Patients are subsequently transferred to other clinical sites, wherein clinicians and other members of staff are less familiar with this equipment, further increasing this risk.

NRFit addresses this by introducing a purpose-designed, route-specific connector for neuraxial and regional anaesthesia procedures. NRFit connectors are:

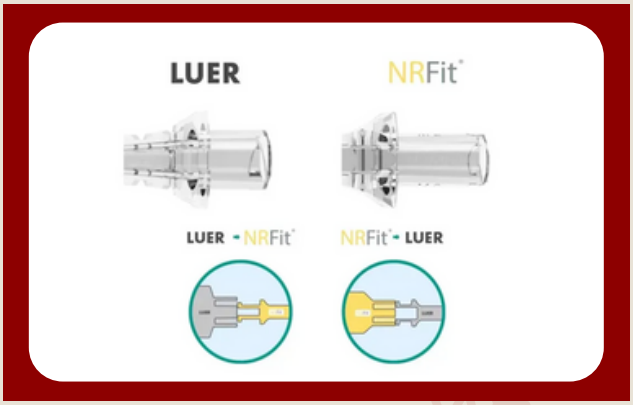
- Incompatible with all Luer connectors, preventing cross-connection
- Longer, with a smaller diameter, providing tactile and visual differentiation
- Standardised internationally to support global device harmonisation

The clinical aim is simple: eliminate the possibility of IV-to-neuraxial misconnections at source. NRFit will apply to all procedures and devices where the neuraxial or regional route is used, including:

- Spinal anaesthesia
- Epidural anaesthesia and analgesia
- Combined spinal–epidural techniques
- Peripheral nerve blocks, where regional catheters are used
- Epidural blood patches
- Lumbar puncture procedures performed by anaesthesiology services

The change encompasses syringes, needles, catheters, filter sets, infusion lines, pumps (where compatible), and sampling equipment.
The NRFit standard has been adopted in health systems internationally, including the NHS in the UK, where all relevant services have been transitioning to NRFit connectors to reduce wrong-route errors.

The introduction of NRFit connectors reflects a continued commitment to patient safety and harm prevention, and as anaesthesiologists, we remain at the forefront of these efforts. The HSE, the College of Anaesthesiologists, and the Patient Safety and Quality Improvement team will work together towards meeting this goal over the coming year.



Upcoming events

SAVE THE DATES FOR YOUR CALENDAR

In January, the Emerging Leaders Conference will take place at the College of Anaesthesia in Merrion Square on Thursday, 22nd, and Friday, 23rd January. This two-day event promises to bring together the next generation of clinical leaders for learning, discussion, and inspiration, and is not to be missed.

The Association of Anaesthetists' Winter Scientific Meeting 2026 will take place on 15-16 January 2026. WEII Centre, London.

Upcoming events

SAVE THE DATES FOR YOUR CALENDAR

The Sylvester O'Halloran Perioperative Symposium will take place in Limerick in February 2026, offering a well-established forum for Anaesthesiologists, Surgeons, educators and researchers to come together for scientific exchange and professional discussion. The meeting continues to attract delegates from across Ireland and beyond.

CAI Annual Congress will take place on may 20th - 22nd in O'Reilly Hall, UCD, Belfield, Dublin 4.

Upcoming events

SAVE THE DATES FOR YOUR CALENDAR

Finally, the Annual Conferring Ceremony 2026 will take place on June 19th in O'Reilly Hall, UCD, Belfield, Dublin 4.