

## 3<sup>RD</sup> International Conference on

Surgery and Anesthesia





ttps://www.scitechseries.com/surgery

**&** +44 2045874848

© +44 7383 5073 42

## **Table of Contents**

Keynote Speakers	04
Oral Presentations	05
<b>Keynote Presentations</b>	10
Poster Presentations	13
Oral Presentations	21
Accepted Abstracts	24
Supporting Journals	32

## Our Keynote Speakers



Bernd Blobel
University of Regensburg
Germany



Segundo Mesa Psychiatric Hospital of Havana Cuba



Alireza Heidari California South University USA



Maria Iliakova University of Kansas School of Medicine USA



September 02, 2025

### **Surgery and Anesthesia**

September 02 | Virtual Event

### **Mohannad Safi**

Barnsley Hospital NHS Foundation Trust UK



### Rate of Negative Histology of the Appendix in Children (Age 8-16 Years)

#### Abstract:

**Introduction:** The National Negative Appendicectomy Rate (NAR) is a key measure of emergency surgical care in children. The GIRFT report recommends reducing NAR to 5% to prevent unnecessary surgeries. This study evaluates the NAR in pediatric patients and compliance with diagnostic protocols.

**Methodology:** A retrospective audit was conducted on appendicectomy cases from July 2021 to September 2022, focusing on 18 pediatric cases (ages 8–16). Patient records, imaging results, and histology findings were reviewed to assess compliance and outcomes.

#### **Results:**

- One case (5.5%) had negative histology, aligning with national recommendations.
- Ultrasound scanning (USS) was used in five cases; two confirmed appendicitis, one was negative, and two were inconclusive.
- Two cases with negative USS had positive post-operative histology.
- The average hospital stay was 1.38 days, with 13 patients discharged within 24 hours.

**Discussion:** Structured diagnostic scoring enhances surgical decision-making. One case scored 2.5 (intermediate risk) and another 5 (high risk). MRI for low/moderate-risk cases may reduce unnecessary surgery.

**Conclusion:** The audit confirms compliance with national NAR recommendations. Future improvements should focus on refining risk stratification and integrating advanced imaging. Findings will be shared with the pediatric team at Barnsley and SYB ICS.

#### **Biography**

**Mohannad** has completed his Medicine of doctor (MD) at the age of 24 years from University of Jordan and has been working in the NHS for the last 2 years. He is currently working in General Surgery Department.

### **Surgery and Anesthesia**

September 02 | Virtual Event

#### Swetha Ramani CK

SRM Medical College & Research Centre India



## Life-Threatening anaphylaxis to tranexamic acid in obstetric Surgery: Should routine skin testing be considered?

#### Abstract:

Tranexamic acid (TXA) is a widely used antifibrinolytic agent with a well-established safety profile. It is routinely administered in surgical procedures with anticipated major blood loss to reduce transfusion requirements. In obstetric practice, TXA is recommended both prophylactically and perioperatively to manage postpartum haemorrhage and to lower maternal mortality. Although rare, hypersensitivity reactions to TXA have been reported, but such events remain poorly documented in obstetric surgical settings.

We describe the case of a 30-year-old woman with polycystic ovarian syndrome scheduled for elective laparoscopic sterilization under total intravenous anaesthesia (TIVA) without muscle relaxants. In the immediate postoperative period, following intravenous administration of TXA, the patient developed angioedema and anaphylactic shock. She was stabilized with three doses of intramuscular epinephrine and required a continuous epinephrine infusion for 24 hours. Subsequently, the patient developed stress cardiomyopathy, likely related to epinephrine use and/or the anaphylactic event, resulting in reduced cardiac contractility and heart failure. With continuous inotropic and diuretic support, full recovery was achieved by postoperative day six. The patient was advised to undergo skin prick or intradermal testing for TXA sensitivity after three months.

**Conclusion:** Although TXA is a cornerstone therapy in the prevention and management of surgical and obstetric haemorrhage, clinicians should remain vigilant for the possibility of hypersensitivity reactions, including life-threatening anaphylaxis. In elective procedures where TXA administration is anticipated, preoperative allergy testing may be considered to mitigate the risk of life-threatening adverse events

#### Biography

Swetha is a Professor in the Department of Anaesthesia at SRM Medical College & Research Centre. She earned her MD in Anaesthesiology from the prestigious Madras Medical College, graduating with a Gold Medal. With over 17 years of clinical and academic experience, Dr. Swetha has a special interest in Paediatric and Obstetric Anaesthesia, as well as Airway Management. She has actively contributed to the development of learning aids and innovative anaesthetic equipment designed to simplify the teaching and practice of anaesthetic techniques. Dr. Swetha remains deeply committed to advancing both patient care and anaesthesia education.

7

### **Surgery and Anesthesia**

### September 02 | Virtual Event

### Ahila Abdulameer Majeed Abu-Nayla

American Hospital Dubai UAE

## Comparative outcomes of early vs delayed intubation in the emergency department with respiratory failure

#### Abstract:

**Background:** The timing of intubation in emergency department (ED) patients with acute respiratory failure is a critical decision with potential implications for patient outcomes. Early intubation may reduce complications and ICU resource use, while delayed intubation aims to avoid unnecessary mechanical ventilation and its associated risks.

**Objective:** To evaluate the impact of early versus delayed intubation on clinical outcomes in adult ED patients with respiratory failure.

**Methods:** This systematic review and meta-analysis included 23 studies published between 2004 and 2024 encompassing 12,678 adult patients. Studies compared early intubation (within 24 hours of ED presentation) with delayed intubation, assessing outcomes such as mortality, ICU length of stay, ventilator-free days, and intubation-related complications.

**Results:** Early intubation significantly reduced ICU length of stay by an average of 2.5 days (95% CI: –4.1 to –0.9, p=0.004) and was associated with fewer adverse events, including ventilator-associated pneumonia and complications from emergent intubation. Patients in the early intubation group also had fewer ventilator days on average (6.8 vs. 10.4 days, p=0.01). However, there was no statistically significant difference in mortality between early and delayed intubation groups (RR: 0.95, p=0.37). Heterogeneity among studies was moderate to high, largely due to varied patient populations (including COVID-19 cases) and inconsistent definitions of timing.

**Conclusion:** Early intubation may offer advantages in reducing ICU stay and procedural complications but does not appear to impact overall mortality. Clinical decisions should remain individualized, and further high-quality trials are needed to define optimal timing strategies.

#### **Biography**

Ahila Abdulameer Majeed Abu-Nayla is a medical professional at the American Hospital Dubai, UAE, with expertise in emergency and critical care. Her research focuses on the comparative outcomes of early versus delayed intubation in patients with respiratory failure in the emergency department, contributing valuable insights to optimize clinical decision-making and improve patient survival outcomes.

## 3<sup>rd</sup> International Congress on Surgery and Anesthesia

### September 02 | Virtual Event

#### Tanvi Vashist

Department of Medical Microbiology, PGIMER INDIA



## Comprehensive assessment of wound bio-burden in NSTI biopsies: Integrating aerobic and anaerobic cultures for surgical decision support

#### Abstract:

Necrotizing soft-tissue infections (NSTIs) are aggressive infections characterized by rapid necrosis of the skin, subcutaneous tissue, and deep fascia. Despite their rarity, they pose significant diagnostic and therapeutic challenges, often leading to high morbidity and mortality due to delayed or inadequate treatment. Traditional microbiological cultures play a crucial role in identifying causative pathogens, but their limitations in detecting polymicrobial infections and fastidious organisms necessitate a more comprehensive approach. This study assessed the wound bioburden in 169 NSTI tissue biopsies using both aerobic and anaerobic cultures. Tissue samples were cultured on blood agar and MacConkey plates, with anaerobic incubation performed for 48 hours using the Don Whitley Anaerobic gassing system. Bacterial identification was conducted using matrix-assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF MS). The results demonstrated significant bacterial loads, ranging from 10° to 10<sup>17</sup> cfu/ml/g in necrotic tissues, with many heavily infected cases requiring amputation. A semiguantitative classification system (sterile, scanty, mild, heavy, overburdened) provided a rapid assessment of infection severity, enabling timely clinical decision-making. The findings highlight the importance of integrating both aerobic and anaerobic culture techniques in NSTI diagnosis, ensuring a more accurate representation of microbial diversity. This comprehensive assessment facilitates prompt surgical intervention and optimized patient management. Standardized quantitative and semi-quantitative wound bioburden evaluation at the point of care enhances diagnostic precision and informs critical therapeutic strategies, ultimately improving clinical outcomes in NSTI patients

### Biography

**Tanvi** is a dedicated PhD scholar in the Department of Medical Microbiology, collaborating with the General Surgery department at one of India's most prestigious institutions, the Postgraduate Institute of Medical Education and Research (PGIMER), India. Her research focuses on improving the rapid diagnosis and treatment of infectious diseases by understanding the microbial landscape of various infections. With a strong academic background, she has received multiple awards for her contributions and is recognized as a deserving scholar in her field.



September 02, 2025

### **Surgery and Anesthesia**

September 02 | Virtual Event

### **Bernd Blobel**

University of Regensburg, Medical Faculty Germany



## Managing healthcare transformation towards personalized, preventive, predictive, participative precision medicine ecosystems

#### Abstract:

For meeting the financial, quality and safety challenges as well as expectations of the patients, health and social care systems around the globe currently undergo a transformation towards personalized, preventive, predictive, participative precision medicine (5PM), supported by technology. It considers individual health status, conditions, genetic and genomic dispositions in personal social, occupational, environmental and behavioral context, understanding the pathology of diseases and turning health and social care from reactive to proactive. The aforementioned transformation is strongly supported by technologies such as micro- and nanotechnologies, advanced computing, artificial intelligence, autonomous systems and robotics, knowledge representation and management, etc. Beside their opportunities, those advanced technologies also bear risks to be managed, requiring the detailed consideration from a humanistic, moral and ethical perspective. For enabling communication and cooperation between all actors from different disciplines involved, using different methodologies, perspectives, intentions, languages, we shall understand and formally and consistently represent the multidisciplinary, highly complex and dynamic 5PM ecosystem. The outcome is a system-theoretical, architecture-centric, ontology-based, policy-driven approach for designing and managing intelligent and ethical 5PM ecosystems. The necessary model and framework has been developed by the author and meanwhile standardized as ISO 23903 Interoperability and Integration Reference Architecture. The formal representation of any ecosystem and its development process including examples of practical deployment of the approach are presented in detail. This includes correct systems and standards integration and interoperability solutions.

#### **Biography**

Bernd Blobel received a multi-disciplinary education, covering mathematics, physics, systems engineering, electronics, medicine, informatics and medical informatics, including habilitations in medicine and informatics. He was Head of the Institute for Biometrics and Medical Informatics at the University of Magdeburg, and thereafter Head of the Health Telematics Project Group at the Fraunhofer IIS in Erlangen. Thereafter, he acted until his retirement as Head of the German National eHealth Competence Center at the University of Regensburg. He was leadingly involved in many countries health digitalization as well as electronic health record strategy. He was and is still engaged in international standardization at ISO, CEN, HL7, OMG, IEEE etc. Furthermore, he still engaged in international higher education. He is Fellow of several international academies. References to his publications can be found at https://epub.uni-regensburg.de/view/people/Blobel=3ABernd=3A=3A.html

### **Surgery and Anesthesia**

September 02 | Virtual Event

### Segundo Mesa

Psychiatric Hospital of Havana Cuba



## Direct evidence of viral infection and mitochondrial alterations in the brains of fetuses at high risk for schizophrenia

#### Abstract:

Summary. Background. There are increasing evidences that favor the prenatal beginning of schizophrenia. These evidences point toward intra-uterine environmental factors that act specifically during the second pregnancy trimester producing a direct damage of the brain of the fetus. The current available technology doesn't allow observing what is happening at cellular level since the human brain is not exposed to a direct analysis in that stage of the life in subjects at high risk of developing schizophrenia. Methods. In 1977 we began a direct electron microscopic research of the brain of fetuses at high risk from schizophrenic mothers in order to finding differences at cellular level in relation to controls. Results. In these studies we have observed within the nuclei of neurons the presence of complete and incomplete viral particles that reacted in positive form with antibodies to herpes simplex hominis type I [HSV1] virus, and mitochondria alterations. Conclusion. The importance of these findings can have practical applications in the prevention of the illness keeping in mind its direct relation to the aetiology and physiopathology of schizophrenia. A study of amniotic fluid cells in women at risk of having a schizophrenic offspring is considered. Of being observed the same alterations that those observed previously in the cells of the brain of the studied foetuses, it would intend to these women in risk of having a schizophrenia descendant, previous information of the results, the voluntary medical interruption of the pregnancy or an early anti HSV1 viral treatment as preventive measure of the later development of the illness.

#### **Biography**

Segundo Mesa Castillo. As a specialist in Neurology, he worked for 10 years in the Institute of Neurology of Havana, Cuba. He has worked in Electron Microscopic Studies on Schizophrenia for 32 years. He was awarded with the International Price of the Stanley Foundation Award Program and for the Professional Committee to work as a fellowship position in the Laboratory of the Central Nervous System Studies, National Institute of Neurological Diseases and Stroke under Dr. Joseph Gibbs for a period of 6 months, National Institute of Health, Bethesda, Maryland, Washington D.C. USA, June 5, 1990. At present, he is a member of the Scientific Board of the Psychiatric Hospital of Havana and gives lectures to residents in psychiatry.



September 02, 2025

### **Surgery and Anesthesia**

September 02 | Virtual Event

#### Ibrahim Abuelbeh

Manchester University NHS Foundation Trust UK



The compliance with VTE risk assessment completion and anti-embolism stocking prescription in acute general surgery admissions: Clinical Audit

#### Abstract:

Aims: To assess compliance with NICE guidelines for venous thromboembolism (VTE) risk assessment completion and mechanical prophylaxis prescribing for acutely admitted general surgery patients in a university hospital which is also a trauma center. The guidelines state that all surgical and trauma patients should be assessed to identify the risk of VTE and bleeding as soon as possible after admission to the hospital or by the time of the first consultant review. Also, all patients might have mechanical prophylaxis unless contraindicated.

**Methods:** A retrospective two-cycle audit was conducted using data from handover sheets and electronic patient records (HIVE) to evaluate VTE risk assessment completion and anti-embolism stocking prescriptions for patients admitted under general surgery.

**Results:** In the first audit cycle, 42.86% (15/35) of patients had their VTE assessments completed during admission or within the first consultant review, and 14.29% (5/35) had anti-embolism stockings prescribed, with only 1 patient receiving stockings prescribed within admission or the first consultant review. Interventions included presenting results at departmental quality and safety meeting, posters, emails, word-of-mouth, and integration into junior doctors' induction. A second audit cycle demonstrated significant improvements, with 97.62% (41/42) of patients having their VTE assessments completed and 95.24% (40/42) getting anti-embolism stockings prescribed during admission or by the first consultant review.

**Conclusions:** This audit demonstrated substantial improvement in compliance with NICE guidelines following targeted interventions. The enhanced adherence ensures better patient care and reduces risks of complications. Future efforts will focus on maintaining these standards and promoting sustained guideline adherence.

#### Biography

**Ibrahim Abuelbeh** is a Clinical Fellow in Urology in the United Kingdom. After earning a medical degree from the University of Jordan, he pursued surgical training in general surgery and then in urology, gaining extensive clinical and research experience. Passionate about improving surgical outcomes, Dr. Abuelbeh focuses on both clinical and academic aspects. Actively involved in research and education, he strives to advance urological techniques and patient care. Committed to continuous learning, Dr. Abuelbeh aims to contribute to the evolving field of urology through innovation and expertise.

14

### **Surgery and Anesthesia**

September 02 | Virtual Event

#### Ibrahim Abuelbeh

Manchester University NHS Foundation Trust UK



## The compliance of gentamicin prescription in surgical patients using Hartford regimen: Clinical Audit

#### Abstract:

**Aims:** This audit aimed to evaluate the adherence to prescribing protocols for gentamicin in surgical patients using Hartford regimen, focusing on dose accuracy, therapeutic drug monitoring, and level interpretation.

**Methods:** A two-cycle audit was conducted to assess compliance with local gentamicin prescribing guidelines. Data were collected retrospectively from acutely admitted surgical patients prescribed gentamicin. The first cycle included 15 patients, while the second cycle reviewed 16 patients. Parameters analyzed included the right initial dose, post-dose level measurement and timing, and the accuracy of interpreting therapeutic drug levels. Interventions, including education and revised prescribing protocols, were introduced between the two cycles to address identified deficiencies.

**Results:** In the first audit cycle, 60% of patients received the correct initial dose of gentamicin. Post-dose levels were taken in 90.9% of cases, with 80% measured within the appropriate time frame, and 75% of these levels were interpreted correctly. Hartford regimen was applied correctly in 50% of the cases. Following interventions, the second cycle demonstrated improvements in dose accuracy to 88% and level interpretation to 75%, though a decline was observed in the post dose level taken to 85.7% and timing of post-dose level measurements to 66.6%. Overall, the Hartford regimen was applied correctly in 66.6%. Persistent challenges included inconsistent timing of therapeutic monitoring.

**Conclusions:** The interventions implemented resulted in significant improvements in dosing accuracy but highlighted ongoing issues with the timing of level monitoring. Future strategies should emphasize further education, clear handover, teaching modules and robust documentation systems to enhance compliance and patient safety.

#### **Biography**

**Ibrahim Abuelbeh** is a Clinical Fellow in Urology in the United Kingdom. After earning a medical degree from the University of Jordan, he pursued surgical training in general surgery and then in urology, gaining extensive clinical and research experience. Passionate about improving surgical outcomes, Dr. Abuelbeh focuses on both clinical and academic aspects. Actively involved in research and education, he strives to advance urological techniques and patient care. Committed to continuous learning, Dr. Abuelbeh aims to contribute to the evolving field of urology through innovation and expertise.

15

### **Surgery and Anesthesia**

September 02 | Virtual Event

#### Krish Kondisetti

Tower Health Reading Hospital USA



### Low-Cost Cadaver Lab to Enhance Training of Lower Extremity Peripheral Nerve Decompression

#### Abstract:

**Introduction:** Common fibular nerve (CFN) entrapment can be a significant source of pain and/or lower extremity weakness. While decompression of this nerve has been shown to improve patient symptoms, access to surgical care is often limited due to lack of surgeons with adequate training in nerve decompressions in the lower extremity. One of the main causes of insufficient training experience is lack of hands-on dissection, which can be bridged with cadaver training sessions. However, cadaver lab experiences are often limited due to high costs to training programs.

**Materials & Methods:** At a multisystem teaching hospital, a collaboration was created between the Departments of Podiatry, Plastic Surgery, and Pathology to sequester above-the-knee amputations to provide dissection experiences for trainees prior to being incinerated. This program was provided at zero cost to trainees and held for 3 hours on a monthly basis. During these sessions, a surgeon trained in decompression of the CFN led a 2-hour, hands-on workshop for residents. Trainees completed surveys before and after the dissection of the CFN to evaluate their knowledge, interest, and comfort with CFN decompression.

**Results:** The average participating trainees were PGY-3 residents. After a single 2-hour cadaver lab, surveys from trainees indicated significant increases in interest in learning CFN decompression and confidence with performing the procedure, although statistically significant (P > 0.05). Statistically significant improvements were observed with trainees' familiarity with anatomy of CFN and readiness to perform CFN decompression procedure independently (P < 0.05 for both).

**Conclusion:** A multidisciplinary collaboration can provide a hands-on cadaver-based method for teaching CFN decompression for surgical trainees at zero-cost to the training programs by preserving above-the-knee amputation specimens for dissection labs prior to disposing of the specimens. Significant gains in trainees' confidence, knowledge and interest in CFN decompression are achieved when measured by pre- and post- intervention surveys. Additional gains in interest and confidence in performing the procedure could be achieved after additional training sessions.

### **Biography**

**Krish Kondisetti** is a current medical student at Philadelphia College of Osteopathic Medicine. He completed his BS in Neuroscience and a minor in Chemistry at the University of Pittsburgh. He served as a chief legislative correspondent for Senator Toomey in the US Senate prior to medical school.

### **Surgery and Anesthesia**

September 02 | Virtual Event

### **Amari Eubanks**

Howard University College of Medicine USA



## Increased Risk of Meniscal Degeneration with Oral Contraceptives and Hormone Replacement Therapy

#### Abstract:

Meniscus degeneration is the breakdown of cartilage in the knee that could lead to osteoarthritis, with female athletes at an increased risk. The deficiency of sex hormones (i.e, Estrogen) are known to influence joints, but the impact of elevated hormones is unknown. The study aims to evaluate elevated hormone levels in female athletes with the risk of meniscus injuries. A retrospective cohort study was conducted using the TriNetX Global Collaborative Network. Two cohorts were defined: female athletes aged 15-45 on OCPs or HRT (n=61,888), and a control group of female athletes not on hormonal therapy (n=205,175). The primary outcome was meniscus injuries, including meniscus tears or derangements. Patients with meniscus-related knee injuries and osteoarthritis before hormonal therapy were excluded. Statistical analyses included risk analysis, Kaplan-Meier survival analysis, and frequency analysis over a 5-year follow-up period. OCPs and HRT in female athletes after matching (n=58,265) were positively associated with meniscus injury compared to the control group. OCP and HRT athletes had a risk ratio of 1.369 and an odds ratio of 1.375. Kaplan-Meier Analysis showed similar time-related meniscus injuries (97.59% vs. 97.63%). Users also had a slight increase in subsequent injury, but this did not show statistical significance (3.54 vs. 3.420; p = 0.666). Hormonal therapy slightly increases the number of meniscus related injuries for female athletes. These findings suggest that oral contraception and hormone therapy may impact joint health and should be considered for future risk assessments.

#### **Biography**

Amari Eubanks is a Howard University 2024 alumna and a 2nd year medical student at Howard College of Medicine. Before completing her Bachelor's degree in three years, she was a BS/MD student as an undergraduate student. Her passion for athletics as well as her desire to give back to underserved communities has guided her interest in orthopedic surgery and sports medicine. Amari is committed to addressing health care disparities, and hopes to increase access to high quality surgical care as a future orthopedic surgeon

### **Surgery and Anesthesia**

### September 02 | Virtual Event

#### Zinoubia Hasasna

Philadelphia College of Osteopathic Medicine USA

## The Role of AI in Foot and Ankle Patient Education: A Comparative Analysis of ChatGPT and AOFAS Resources

#### Abstract:

ChatGPT, an AI-powered chatbot, utilizes natural language generation to provide human-like responses across various topics, including medicine. It continuously learns and improves through advanced algorithms. ChatGPT offers up-to-date information on diseases, symptoms, and treatments in healthcare. Its latest iterations, GPT-3.5 and GPT-4.0, enhance accuracy and performance. This study evaluates ChatGPT's patient education capabilities by comparing GPT-3.5 and GPT-4.0 in explaining fifteen foot and ankle orthopedic conditions. Additionally, Foot and Ankle Orthopedic Surgeons assess the accuracy of the provided information.

Fifteen foot and ankle orthopedic conditions were presented to ChatGPT (GPT-3.5 and GPT-4.0) using the standardized prompt: "I have been diagnosed with [condition]. Can you tell me more about it?" The generated responses were compared to publicly available information from the American Orthopaedic Foot & Ankle Society (AOFAS) Foot Care MD patient information sheets within the same time frame. Each inquiry was conducted in a separate chat session to prevent ChatGPT from referencing prior responses. To evaluate the accuracy of ChatGPT's information, two fellowship-trained foot and ankle orthopedic surgeons (A.B. and G.I.P.) independently reviewed the outputs. They categorized their accuracy into four tiers: <50%, 50–74%, 75–99%, or 100% accurate, with each category reflecting an estimated level of correctness.

Compared to the AOFAS FootCare MD website, ChatGPT-4.0 provided a more comprehensive description of symptoms, whereas ChatGPT-3.5 included more risk factors. In contrast, AOFAS offered more detailed treatment options. Regarding accuracy, the majority of conditions evaluated using ChatGPT-3.5 (12 of 15) and ChatGPT-4.0 (13 of 15) were rated as primarily accurate (75%–99%) by both reviewers. Notably, both surgeons consistently classified one condition generated by ChatGPT-3.5 as mostly inaccurate (<50% accuracy). Interobserver agreement for accuracy ratings was poor, with a Cohen's kappa coefficient of -0.02, indicating a lack of consistency between reviewers.

ChatGPT (GPT-3.5 and GPT-4.0) demonstrates a relatively high degree of accuracy in generating patient education materials for foot and ankle orthopedic conditions. However, its ability to provide detailed, condition-specific information remains limited. Specialty organizations, such as the American Orthopaedic Foot & Ankle Society (AOFAS), are the most accurate and reliable sources for comprehensive musculoskeletal information related to foot and ankle pathology.

#### **Biography**

**Zinoubia Hasasna** is affiliated with the Philadelphia College of Osteopathic Medicine, USA, with expertise in medical research and education, contributing to advancements in osteopathic medicine and healthcare practice.



September 02, 2025

### Surgery and Anesthesia

September 02 | Virtual Event

### Sintayehu Samuel

Wachemo University Ethiopia



Incidence and predictors of intraoperative hypoxemia and bradycardia in different age groups of paediatrics in resource constrained teaching and comprehensive specialized hospital: A prospective observational cohort study

#### **Abstract:**

**Background:** Paediatrics requires more oxygen than do adults, which affects how rapidly the body desaturates following apnoea. Children with anatomically complex airways are more likely to experience unfavourable airway events. These adverse events include hypoxemia, bradycardia, cardiac arrest, severe airway damage, and death. The objective of this study was to determine the incidence and predictors of intraoperative hypoxemia and bradycardia in paediatric patients. Methods: A single-arm prospective single-centre cohort study with meticulous random selection was conducted on 422 pediatric patients. Data entry and analysis were performed with the Statistical Package for Social Sciences (SPSS) version 26.00 software. For logistic regression, the Hosmer-Lemeshow goodness-of-fit test was applied. Binomial logistic regression and multivariate analysis were used. Pearson's chi-square test was used to determine the correlation between variables, with p < 0.05 indicating statistical significance.

**RESULTS:** The incidence of intraoperative hypoxemia was 33.3%. Pediatric age (<one year), the presence of comorbidities, the use of muscle relaxants, the use of narcotics, and the duration of surgery (≥one hour) were predictors of intraoperative hypoxemia, with p<0.005 and AOR values of 5.3 (2.1–6.1), 4.1 (1.91–5.34), 3.1 (1.1–5.31), 4.01 (2.5–7.1), and 3.2 (1.41–6.1), respectively. However, the type of surgery was not associated with intraoperative hypoxemia (p=0.081).

**Conclusion:** Pediatric patients who undergo surgery with GA have a high incidence of intraoperative hypoxemia and bradycardia, which is significantly associated with comorbidities, age (<1 year), use of opioids and muscle relaxants and surgeries lasting more than one hour.

#### **Biography**

**Sintayehu Samuel** is an accomplished academic and researcher from Wachemo University, Ethiopia, dedicated to advancing knowledge and innovation in his field. With a passion for education and research, he actively contributes to the development of scholarly work and supports initiatives that enhance learning and community engagement. Sintayehu's work reflects a commitment to improving academic standards and fostering intellectual growth among students and colleagues

22

### **Surgery and Anesthesia**

September 02 | Virtual Event

### **Shubham Dave**

Imperial College School of Medicine UK



#### Abstract:

**Background:** Postoperative Delirium (POD) is a common complication that increases the incidence of a variety of adverse patient outcomes. Routine screening of high-risk patients can mitigate these risks. This Quality Improvement (QI) project took place at Chelsea and West-minster Hospital using Plan-Do-Study-Act (PDSA) cycle methodology. The project aimed to implement a routine POD screening programme as recommended by national and international guidelines.

**Method:** The first cycle formalised a trust-wide guideline specific to perioperative delirium assessment. The second cycle made delirium tools easier to access on trust systems and embedded them into existing clinical workflows. The primary outcome of baseline and post-intervention POD screening rates were compared using Fisher's exact test. The secondary outcomes were self-reported nursing measures (confidence in delirium screening and perceived guideline clarity). Pre-and post-intervention survey scores were compared using the Mann-Whitney U test.

**Results:** POD screening rates increased from a baseline of 2.3% to 71.64% (p<0.0001) in the post-intervention period. Reported confidence and clarity of guidelines significantly increased (p<0.0001) to a median (IQR) of 10/10 (8.75–10). Of those screened, 17.5% (n=11) of patients screened positive for POD. Long term feasibility scores achieved a median (IQR) score of 9/10 (8–10).

**Discussion:** Formalisation of a specific perioperative delirium guideline and its integration with clinical workflows significantly increased screening rates and nursing confidence whilst detecting previously unrecognised cases of POD. This project's interventions can be adopted by trusts facing similar challenges. Further QI is needed to implement delirium management pathways to ensure screening scores inform clinical practice

#### **Biography**

**Shubham Dave** is a fifth-year medical student at Imperial College London and a student ambassador for CLEFT UK. After completing his BSc in Anaesthesia and Critical Care with anaesthetists and plastic surgeons at Chelsea and Westminster Hospital, Shubham is looking to deepen his understanding of surgical care. Having commenced projects on topics ranging from the impacts of prostaglandins on hypopigmentation after severe burns to the impact of routine screening on postoperative delirium incidence and more, Shubham is developing his knowledge on the research process and is grateful for such opportunities early in his career.





September 02, 2025

### John Cedric Mojica

University of the East Ramon Magsaysay Memorial Medical Center, Philippines

Long-term outcomes of Indocyanine Green (ICG) fluorescence imaging-guided lymphadenectomy for gastric cancer: A systematic review and meta-analysis

#### Abstract:

**Background:** Indocyanine Green (ICG) fluorescence has emerged as a transformative imaging-guided lymphadenectomy for enhancing lymph node (LN) dissection in gastric cancer patients undergoing laparoscopic or robotic gastrectomy. However, its long-term oncological outcomes remain inadequately explored.

**Objective:** This meta-analysis aimed to evaluate the long-term survival outcomes of ICG fluorescence-guided lymphadenectomy compared to conventional lymphadenectomy in gastric cancer patients who underwent minimally invasive gastrectomy.

**Methods:** A comprehensive literature search of PubMed, Embase, Cochrane, and Scopus from December 2024 to March 2025 was performed to identify studies directly comparing ICG fluorescence-guided lymphadenectomy with conventional procedures. Hazard ratios (HR) based on Kaplan-Meier curves were extracted using WebPlotDigitizer and the Tierney method while the Risk Ratio (RR) with 95% confidence intervals (CIs) was pooled with a random-effects model. Key outcomes assessed included overall survival (OS), disease-free survival (DFS), and recurrence rates.

**Results:** Eight studies (1 Randomized Controlled Trial and 7 Observational Studies) with a total of 6,837 patients were included, of whom 2,880 (42%) used ICG fluorescence guided-imaging lymphadenectomy. Average follow-up is within 2–5 years period post-surgical. Pooled analysis revealed that ICG fluorescence-guided lymphadenectomy significantly improved OS (HR 0.70; 95% CI 0.56–0.87; p = 0.002; I2 = 0%) and DFS (HR 0.82; 95% CI 0.68–0.98; p = 0.03; I2 = 0%) compared to conventional lymphadenectomy for gastric cancer patients who underwent gastrectomy. Additionally, recurrence rates were significantly lower in the ICG group (12% vs 22%; RR 0.59; 95% CI 0.43–0.82; p = 0.002; I2 = 0%) in comparison to patients who used non-ICG fluorescence in minimally invasive lymphadenectomy.

**Conclusion:** ICG fluorescence-guided lymphadenectomy significantly improved long-term survival and reduced recurrence rates in gastric cancer patients. These findings provide robust evidence supporting the clinical utility of ICG fluorescence in enhancing oncological outcomes for patients who underwent minimally invasive gastrectomy. However, further randomized controlled trials are needed to confirm these benefits and refine our understanding of ICG's long-term impact in gastric cancer surgery.

25

### **Angelina Siino**

Rowan–Virtua School of Osteopathic Medicine USA

The Impact of Sex, Race, and Insurance Status on Postoperative Mortality and Prolonged Hospitalization Following Urgent Isolated CABG Surgery

#### Abstract:

This analysis assesses disparities in predicted postoperative outcomes for isolated coronary artery bypass grafting (CABG) surgery using the Society of Thoracic Surgeons (STS) Shortterm/Operative Risk Calculator. Predictions are modeled on a 'control' patient: a a60-yearold undergoing their first cardiovascular surgery, with urgent status, three-vessel coronary artery disease, and no comorbidities. The variables examined include sex, race, and insurance status (Medicaid vs. commercial insurance). Two primary risk metrics are evaluated: combined morbidity and mortality, and the probability of a prolonged hospital stay (defined as exceeding 14 days). Findings indicate that Medicaid-covered patients consistently face higher projected risks of morbidity, mortality, and extended hospital stays compared to those with commercial insurance, across all demographic subgroups. These disparities suggest a need for further investigation into systemic and institutional factors contributing to such inequities. For instance, the association between Medicaid coverage and prolonged hospitalization may be partially driven by financial incentives tied to extended inpatient care, potentially at the expense of increased patient exposure to hospital-acquired infections. Additionally, female patients demonstrate higher projected morbidity and mortality risks than their male counterparts of the same race, independent of insurance status. The most vulnerable subgroup identified comprises Asian and Black/African American females with Medicaid coverage. These results underscore the impact of intersecting demographic and socioeconomic variables on surgical risk profiles and highlight the urgent need for equity-centered approaches in preoperative risk assessment and healthcare delivery.

#### **Biography**

**Angelina Siino** is a 3rd year medical student at Rowan-Virtua School of Osteopathic Medicine and undergraduate alumni of Tulane University of Louisiana.

### **DyQuan Kearney**

Howard University College of Medicine USA

## Preoperative TXA Lowers Venous Thromboembolism Risk Following Orthopedic Procedures

#### Abstract:

**Background:** Tranexamic acid (TXA) is widely used in orthopedic surgeries to reduce blood loss, but concerns persist regarding its association with thromboembolic complications. This study aimed to compare the incidence of thromboembolic events in patients undergoing spine, knee, or hip surgeries with and without perioperative TXA administration.

**Methods:** Using TriNetX, a federated electronic health record network, we identified 236,482 matched patients in each cohort: one receiving TXA and one not receiving TXA during orthopedic surgery. Propensity score matching was performed on demographics and comorbidities. Outcomes included the incidence and frequency of thromboembolic events within one day post-surgery. Statistical analyses included risk ratio, odds ratio, Kaplan-Meier survival analysis, and t-tests.

**Results:** The TXA group demonstrated a lower incidence of thromboembolic events (0.064%) compared to the non-TXA group (0.092%), corresponding to a risk ratio and odds ratio of 1.43 (95% CI: 1.16–1.76, p = 0.001). Kaplan–Meier analysis revealed significantly higher event–free survival in the TXA group (99.94% vs. 99.91%, p = 0.001). The average number of event instances per patient was not significantly different (TXA: 1.066 vs. No TXA: 1.055; p = 0.676).

**Conclusions:** This large-scale, real-world analysis demonstrates that TXA use in orthopedic surgery is associated with a significantly reduced risk of early postoperative thromboembolic events. The results support TXA's continued use in perioperative protocols, with no evidence of increased event burden among affected patients. Future studies should evaluate longer-term outcomes and specific surgical subtypes.

### **Edward Arenas**

Howard University College of Medicine USA

## Cognitive Protection after Cataract Surgery: Examining Ketamine and Dexmedetomidine in the Elderly

#### Abstract:

Elderly patients undergoing cataract surgery are at increased risk for postoperative cognitive dysfunction (POCD). Previous studies have shown ketamine and dexmedetomidine to have neuroprotective effects. This study aims to examine its association with POCD assessing outcomes postoperatively. Using the TriNetX US Collaborative Network, we analyzed patients aged 65-85 who underwent cataract surgery prior to June 2025. Using ICD-10 codes, POCD was defined as the new onset diagnosis of delirium, dementia, encephalopathy, or depressive disorders at 1 week, 3 months, and 1 year post surgery. Exclusion criteria included pre-existing cognitive impairment, psychiatric illness, psychotropic use, anesthesia allergies, and severe visual impairment. Propensity score matching adjusted for demographics and ASA II/III risk profiles based on common comorbidities. In matched ketamine cohorts (n = 3,733 each), POCD occurred in 0.308% vs. 0.705% at 3 months (p = 0.0182; RR = 2.29) and in 1.315% vs. 2.312% at 1 year (p = 0.0016; RR = 1.76), favoring ketamine. In matched dexmedetomidine cohorts (n = 8,569 each), 1-year POCD was 1.797% vs. 2.389% (p = 0.0094; RR = 1.33), also favoring the treatment group. While short-term effects were not significant, reductions in POCD incidence became apparent by three months and persisted through one year. This supports prior evidence of potential neuroprotective effects of these agents and highlights their relevance in perioperative planning for older adults. Further prospective studies are warranted to validate these associations and clarify underlying mechanisms.

#### Biography

**Edward Arenas** completed his MPH at the University of Michigan and has worked previously as an Epidemiologist at the New York State Department of Health and a Program Coordinator at Baylor College of Medicine. He is currently entering his second year of medical school at Howard University College of Medicine.

### Nicole Maria Chapman

Howard University College of Medicine USA

## Association Between Anesthesia Type and Postoperative Dementia Risk in Older Adults Undergoing Cataract Surgery

#### Abstract:

**Background:** Cataract surgery is increasingly common among older adults, but the type of anesthesia used, general versus local, may influence long-term cognitive outcomes. While local anesthesia is preferred due to reduced preoperative risks, its association with postoperative dementia remains unclear.

**Objective:** To examine the relationship between anesthesia type and the risk of developing unspecified dementia in older adults undergoing cataract surgery.

Methods: This retrospective cohort study used data from the TriNetX Global Collaborative Network, including 147 healthcare organizations. Patients aged ≥60 years who underwent cataract surgery with either general or local anesthesia were selected. After 1:1 propensity score matching, 18,845 patients were included in each cohort. The primary outcome was new-onset unspecified dementia (ICD-10: F03) diagnosed between 90 and 3,650 days post-surgery. Risk analysis and Kaplan- Meier survival analysis were conducted.

**Results:** The dementia incidence was significantly lower in the general anesthesia group (0.4%) compared to the local anesthesia group (1.3%). The risk difference was -0.9% (95% CI: -0.011 to -0.007, p< 0.0001), with a risk ratio of 0.301 and an odds ratio of 0.299. Kaplan-Meier analysis confirmed a lower risk of dementia in the general anesthesia group across all time points.

**Conclusion:** General anesthesia is associated with a significantly lower risk of developing postoperative dementia compared to local anesthesia in older adults undergoing cataract surgery. These findings warrant further investigation into anesthesia's long-term cognitive effects.

#### Biography

**Nicole Chapman** has completed her M.S at the age of 24 years from Georgetown University. She is currently enrolled as a second year medical student at Howard University College of Medicine in Washington D.C. Nicole's areas of interest include anesthesia, cardiology and geriatrics

### **Madison Burnard**

Howard University Department of Anesthesiology USA

Postoperative Opioid Prescriptions Following Cesarean Delivery: A Comparative Analysis of General vs. Epidural Anesthesia

#### Abstract:

**Background:** Cesarean delivery (C-section) is the most commonly performed surgical procedure in the United States and a known contributor to initial opioid exposure among women of reproductive age. While neuraxial (epidural) anesthesia is the preferred technique for cesarean delivery, general anesthesia is still used in select clinical scenarios. Given the ongoing opioid crisis, it is critical to understand how anesthesia modality influences postoperative opioid prescribing patterns.

**Objective:** To evaluate the association between anesthesia type (general vs. epidural) and postoperative opioid prescription rates in women aged 18 to 50 undergoing cesarean delivery, with follow-up extending to 90 days after surgery.

Methods: We conducted a retrospective cohort study using the TriNetX Global Collaborative Network, a federated health research platform of electronic medical records from 148 healthcare organizations. Women aged 18–50 who underwent cesarean delivery between 2005 and 2025 were included. Patients were grouped based on anesthesia type using CPT codes: general anesthesia (01961 only) and epidural anesthesia (01967 or 01968). The primary outcome was receipt of an opioid prescription (morphine, oxycodone, hydromorphone, naloxone, codeine, or tramadol) from day 1 to day 90 after surgery. Risk and survival analyses were conducted using TriNetX tools.

**Results:** A total of 166,774 patients were analyzed (80,394 general anesthesia; 86,380 epidural). Opioid prescriptions were more common in the general anesthesia group (78.0%) compared to the epidural group (67.3%), with a risk difference of 10.7% and an odds ratio of 1.725. Kaplan–Meier survival analysis showed a significantly lower probability of remaining opioid–free at 90 days in the general anesthesia group (21.7% vs. 32.4%, log–rank p < 0.001). The hazard ratio for opioid use was 1.279 (95% CI: 1.264-1.293).

**Conclusions:** Women receiving general anesthesia for cesarean section are more likely to receive opioids postoperatively and receive them earlier than those receiving epidural anesthesia. These findings underscore the importance of anesthesia choice in minimizing opioid exposure and guiding perioperative pain management strategies.

### Jesse Maynard

Howard University College of Medicine USA

### Predicting Epiretinal Membrane Recurrence with Intraop Optical Coherence Tomography Biomarkers

#### Abstract:

**Objective:** To correlate epiretinal membrane (ERM) remnants on intraop optical coherence tomography (iOCT) with ERM recurrence and vision following surgical removal.

**Methods:** Retrospective cohort study of 109 patients who underwent surgery for ERM removal from 2015–2024. Two image readers assessed iOCT images for residual ERM fragments to evaluate recurrence and vision changes at postoperative months 6 and 12. Analyses were performed using Python to calculate Cohen's kappa (κ) for inter-reader agreement, Kolmongorov-Smirnov tests, paired t-tests, two-tailed Fisher's exact tests, and multivariable logistic regression. Risk ratios (RR), odds ratios (OR), and 95% confidence intervals (CI) were reported. P-values < 0.05 were considered statistically significant.

**Results:** Presence of ERM fragments within 1mm of the foveal center on iOCT was associated with a 1.75-fold increased risk of ERM recurrence after postoperative month 12 (RR = 1.75; 95% CI: 1.24-2.46; p < 0.005). After adjusting for central subfoveal thickness, recurrence risk rose to over fivefold (adjusted OR = 5.25; 95% CI: 1.69-16.24; p < 0.005). ERM recurrence was also associated with reduced visual improvement by postoperative month 12. Patients without recurrence gained 2.41  $\pm$  0.69 lines on the eye chart, while those with recurrence gained only 0.57  $\pm$  0.55 lines (p < 0.046).

**Conclusion:** Residual ERM fragments within the 1mm foveal zone on iOCT were associated with significantly higher ERM recurrence rates and reduced visual improvement compared to eyes without fragments.

#### Biography

**Jesse Maynard** earned his undergraduate degree from Rutgers University and then spent many years working in the music industry in the U.S. and abroad. He later completed a post-baccalaureate premedical program at California State University and is now a second-year MD candidate at Howard University College of Medicine.

## Supporting Journal

## Journal of Aesthetic Surgery and Medicine

https://https://scitechjournals.com/journal-of-aesthetic-surgery-and-medicine



## **Upcoming Conference**

We wish to engage with you again in 2026...

**4**<sup>TH</sup> International Conference on

# Surgery and Anesthesia

November 26-27, 2026 | Dubai, UAE

Visit: www.scitechseries.com/surgery



Scitechseries Publishing Limited
71-75 Shelton street, Covent Garden,
London, WC2H 9JQ

Phone: +44-2045874848

Email: info@scitechseries.com

**Questions? Contact** 

Phone: +44 2045874848

WhatsApp: +44 7383507342