

# RACS Annual Research Conference (ARC) 2025

Featuring Jepson Lecturer  
**Professor Graeme Clark**

**Friday 14 & Saturday 15 November 2025**

Royal Australasian College of Surgeons,  
College of Surgeons Gardens  
250-290 Spring Street, East Melbourne VIC 3002



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# Day 1: Friday 14 November 2025

# RACS Annual Research Conference 2025

## Friday 14 November 2025

|         |                                                                                                                                             |                                                                                                                                                                      |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:15AM | Arrival and Registration                                                                                                                    |                                                                                                                                                                      |
| 08:45AM | Acknowledgement of Country, Welcome by Chair of Academic Surgery Committee<br>Chair: Professor Jonathan Karpelowsky                         |                                                                                                                                                                      |
| 08:50AM | SESSION 1: Driving equity in surgical research - Chairs: Dr Cameron Wells                                                                   |                                                                                                                                                                      |
|         | Health Equity at the Intersections: Addressing the Needs of Marginalised Communities - Prof Cathy Vaughan                                   |                                                                                                                                                                      |
|         | Decolonising academic surgery - Dr Meg Beaumont                                                                                             |                                                                                                                                                                      |
|         | Aboriginal Voices in Surgical Research - Dr Justin Cain                                                                                     |                                                                                                                                                                      |
|         | Panel Discussion – Q & A                                                                                                                    |                                                                                                                                                                      |
|         | SRS PRESENTATIONS 1                                                                                                                         |                                                                                                                                                                      |
|         | Scientific research presentation - Professor Timothy Donahue (USA)                                                                          |                                                                                                                                                                      |
| 09:50AM | Oral SRS Presentations - Training Room 2<br>Chairs: Dr Helen Mohan and A/Prof Joseph Phillips                                               | Oral SRS Presentations - Hughes Room<br>Chairs: A/Prof Sarah Thompson and Dr Alice King                                                                              |
|         | Acute Aortic Syndrome: A Kaupapa Māori Qualitative Study of Patient Understanding and Experiences in Aotearoa New Zealand (Dr Meg Beaumont) |                                                                                                                                                                      |
|         | Appendicitis Scoring Systems in Low- and Lower-Middle-income Countries: A Systematic Review and Meta-Analysis (Dr Renato Pitesa)            | Synergising immune activation in anal squamous cell carcinoma (ASCC) with Photo-Immunotherapy (PIT): Translational evidence from preclinical models (Dr Wei Mou Lim) |
|         | Spinal infection: an evolving clinical and public health challenge (Dr Vuong Phan)                                                          | Clinical versus pathological staging of rectal cancer—The challenges in understaging rectal cancer (Dr Katherine Suter)                                              |
| 10:35AM | Quick fire SRS Presentations - Training Room 2<br>Chairs: Dr Helen Mohan and A/Prof Joseph Phillips                                         | Quick fire SRS Presentations - Hughes Room<br>Chairs: A/Prof Sarah Thompson and Dr Alice King                                                                        |
|         | Patient factors influencing willingness to participate in abdominal aortic aneurysm trials: a mixed-methods study (Mr Pokuan Tu)            | Ascending aortic endovascular procedures and stroke rates (Miss Hazera Akan)                                                                                         |
|         | From Evidence to Action: Tackling Gender Disparities in Vascular Care (Dr Lara Dearie)                                                      | Pre-operative Predictors of Post-Hepatectomy liver failure: A Systematic Review (Dr Stephanie Sum)                                                                   |
|         | Optimisation of Dose and Timing of Indocyanine Green in Laparoscopic Cholecystectomies: RCT Protocol Development (Mr Harrison Chen)         | Type I interferon expression in pancreatic ductal adenocarcinoma (Dr Anna Mealy)                                                                                     |
| 10:45AM | Morning Tea break                                                                                                                           |                                                                                                                                                                      |



# RACS Annual Research Conference 2025

## Friday 14 November 2025

|                                                                                                                                                                                                                                                        |                                                                                                                                    |                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:10AM                                                                                                                                                                                                                                                | SESSION 2: Jepson Lecturer<br>Introduction and Chair: Professor Raymond Sacks                                                      |                                                                                                                                                     |
| World-renound pioneering inventor of the multi-channel cochlear implant, a breakthrough that restored hearing to over half a million peopleglobally. His landmark research revolutionised deafness treatment and founded the field of medical bionics. |                                                                                                                                    |                                                                                                                                                     |
|                                                                                                                                                                                                                                                        | SRS PRESENTATIONS 2                                                                                                                |                                                                                                                                                     |
| Scientific research presentation - A/Prof Joseph Phillips (USA)                                                                                                                                                                                        |                                                                                                                                    |                                                                                                                                                     |
| 11:50AM                                                                                                                                                                                                                                                | Oral SRS Presentations - Training Room 2<br>Chairs: Professor Jonathan Karpelowsky and Professor Vikas Dudeja                      |                                                                                                                                                     |
| Compliance and Toxicity of Total Neoadjuvant Therapy in Locally Advanced Rectal Cancer: A Systematic Review and Network Meta-analysis (Dr Warren Seow)                                                                                                 |                                                                                                                                    |                                                                                                                                                     |
| An Innovative Perivascular Cuff Model of Neointimal Hyperplasia (Dr Aaron Tran)                                                                                                                                                                        |                                                                                                                                    |                                                                                                                                                     |
| Do perioperative synbiotics reduce total postoperative infection rates following elective colorectal resection? A randomized controlled trial (Dr Claudia Paterson)                                                                                    |                                                                                                                                    |                                                                                                                                                     |
| High-Resolution Body Surface Gastric Mapping in Post-Oesophagectomy Patients: An Evaluation of the Gastric Conduit Function (Dr Jonathan Sivakumar)                                                                                                    |                                                                                                                                    |                                                                                                                                                     |
| Peritoneal tumour DNA in Gastroesophageal Cancer: results from interim analysis (Dr Zexi Allan)                                                                                                                                                        |                                                                                                                                    |                                                                                                                                                     |
| 12:50PM                                                                                                                                                                                                                                                | Lunch                                                                                                                              |                                                                                                                                                     |
| 1:35PM                                                                                                                                                                                                                                                 | Session 3: Making Meaning: Communicating Research with Purpose and Power<br>Chair: Dr Alice King                                   |                                                                                                                                                     |
| Is it time to rethink research communication? What do people hear and understand - Dr Siobhan McKay                                                                                                                                                    |                                                                                                                                    |                                                                                                                                                     |
| From Lived Experience to Investigative Advocacy Excerpts from "Processed" by Lucie Morris-Marr - Ms Amanda McKay                                                                                                                                       |                                                                                                                                    |                                                                                                                                                     |
| Impact is a Skill: Building Research That Reaches Beyond the Journal - Professor Lisa M Given                                                                                                                                                          |                                                                                                                                    |                                                                                                                                                     |
| Panel Discussion – Q & A                                                                                                                                                                                                                               |                                                                                                                                    |                                                                                                                                                     |
|                                                                                                                                                                                                                                                        | SRS PRESENTATIONS 3                                                                                                                |                                                                                                                                                     |
| 2:25PM                                                                                                                                                                                                                                                 | Oral SRS Presentations - Training Room 2<br>Chairs: Prof Guy Maddern and Prof Juliet Emamaullee                                    | Oral SRS Presentations - Hughes Room<br>Chair: Prof Timothy Donahue                                                                                 |
|                                                                                                                                                                                                                                                        | The Impact of Proactive Inpatient Glycaemic Intervention on Trauma Patient Outcomes: A Retrospective Cohort Study (Ms Andrea Chan) | The Cost of Complications: Economic Burden of Adverse Events Following ERCP and Laparoscopic CBD Exploration (Dr Lily Owens)                        |
|                                                                                                                                                                                                                                                        | Using Drain Biomarkers To Detect Anastomotic Leaks Following Colorectal Surgery: A Systematic Review (Mr Samuel Lewis)             | Role of MRI Cervical Spine in trauma patients after a negative CT Cervical spine at a Metropolitan Trauma Service (Dr Sheik Mohammad Azhar Auckloo) |

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# RACS Annual Research Conference 2025

## Friday 14 November 2025

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|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:45PM | Quick fire SRS Presentations - Training Room 2<br>Chairs: Prof Guy Maddern and Prof Juliet Emamaullee                                                                       | Quick fire SRS Presentations - Hughes Room<br>Chair: Prof Timothy Donahue                                                                                              |
|        | Phasix, Alternative Mesh, or Primary Closure in Bilateral DIEP Donor Sites: Early Abdominal Morbidity and PROMs (Mr Johnathan Lu)                                           | Nomogram-Guided Sentinel Node Strategy in Early Breast Cancer: Evaluation and Comparison with Current De-escalation Approaches (Mr Justin James)                       |
|        | Supramaximal versus gross-total resection of glioblastoma: a single-centre survival analysis based on residual non-contrast enhancing tumour volume (Mr Aland Goran)        | Survival analysis after surgical resection of pancreatic neuroendocrine tumours: A single Centre experience (Dr Amalan Thuraisingam)                                   |
|        | Seamguard Reinforcement and Post-Operative Pancreatic Fistula: An Empirical Study of a Western Australian Hospital (Dr Nazmus Sakib)                                        | Lateral opening wedge distal femoral osteotomy for symptomatic lateral compartment osteoarthritis: Survivorship and predictive factors at mean 10-year (Mr Kevin Qian) |
| 2:55PM | Afternoon Tea Break                                                                                                                                                         |                                                                                                                                                                        |
| 3:20PM | Session 4: Launching trials<br>Chairs: Professor Amanda Dawson and Professor Timothy Donahue                                                                                |                                                                                                                                                                        |
|        | The pearls and pitfalls of running therapeutic trials - Professor Vikas Dudeja (USA)                                                                                        |                                                                                                                                                                        |
|        | Successes and challenges of collaborative trainee-led research - Associate Professor David Liu                                                                              |                                                                                                                                                                        |
|        | What can the ANZ surgical community learn from large-scale ICU trial networks - how to embed trials in routine practice - Professor Andrew Udy                              |                                                                                                                                                                        |
|        | Panel Discussion – Q & A                                                                                                                                                    |                                                                                                                                                                        |
|        | SRS PRESENTATIONS 4                                                                                                                                                         |                                                                                                                                                                        |
| 4:20pm | Oral SRS Presentations - Training Room 2<br>Chairs: Professor Craig McBride and Dr Geraldine Ooi                                                                            | Oral SRS Presentations - Hughes Room<br>Chair: A/Prof Anthony Glover                                                                                                   |
|        | Improving cytoreductive surgery and hyperthermic intraperitoneal chemotherapy – understanding molecular mutations in colorectal peritoneal metastases (Dr Amanda Liesegang) | The SER2VE Study: Surgical Education for Residents and Registrars in Victoria Evaluation (Dr Teagan Fink)                                                              |
|        | Measuring the ‘Complication Spiral’ and Failure to Rescue in Gastrointestinal Cancer Surgery: A national cohort study in Aotearoa New Zealand (Mr Surya Akash Boppana)      | An Innovative Perivascular Cuff Model of Neointimal Hyperplasia: Assessment of Periprocedural Morbidity and Mortality (Dr Aaron Tran)                                  |
|        | Filtered water in colonoscopy: a prospective sustainability project (Dr Michael Rouse)                                                                                      | Early drain colour change for detection of Clinically Relevant Postoperative Pancreatic Fistula (CR-POPF) (Dr Yuchen Luo)                                              |

# RACS Annual Research Conference 2025

## Friday 14 November 2025

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|--------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4:50pm | Quick fire SRS Presentations - Training Room 2<br>Chairs: Professor Craig McBride and Dr Geraldine Ooi                                           | Quick fire SRS Presentations - Hughes Room<br>Chair: A/Prof Anthony Glover                                                                                              |
|        | Analysis of Trends in Registration of Randomised Clinical Trials of Surgical Interventions, 2013 to 2022 (Miss Suzen Agharia)                    | Determinants of Patient Experience in Telehealth Breast Cancer Surveillance (Dr Tess Howard)                                                                            |
|        | Adopting Intraoperative Radiotherapy (IORT) for Women with Early Breast Cancer: Australian experience and our research protocol (Dr Lawrence Lu) | Surgical Predictors of Abdominal Strength Recovery After Flap Reconstruction Using Lumbar Flexion Manometry (Mr Johnathan Lu)                                           |
|        | Contrast-Enhanced Mammography in the Management of Breast Lesions: A single institution experience (Dr Isabelle Huynh)                           | Immunological Profiles in Patients Undergoing Distal Pancreatectomy with Splenic Preservation versus Distal Pancreatectomy with Concurrent Splenectomy (Dr Prue Ashton) |
| 5:00PM | End of Day 1                                                                                                                                     |                                                                                                                                                                         |
| 6:30PM | Annual Research Conference Delegates Dinner<br>Advanced ticket purchase required                                                                 |                                                                                                                                                                         |

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# Day 2: Saturday 15 November 2025



# RACS Annual Research Conference 2025

## Saturday 15 November 2025

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|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:00AM | Delphi Registration                                                                                                                                           |                                                                                                                                                 |
| 08:15AM | Session 5: Breakfast Research Delphi Session (Registrants Only)<br>Chairs: Dr Siobhan McKay and Ms Chatnapa Yodkitudomying (Mint)                             |                                                                                                                                                 |
| 09:00AM | Acknowledgement of Country, Welcome by Chair of Academic Surgery Committee<br>Chair: Professor Jonathan Karpelowsky                                           |                                                                                                                                                 |
| 09:05AM | Session 6: The Future of Surgical Practice<br>Chairs: Dr Russell Hodgson and Dr Siobhan McKay                                                                 |                                                                                                                                                 |
|         | Reducing Healthcare's footprint: Innovations in sustainable practice - Professor Forbes McGain                                                                |                                                                                                                                                 |
|         | How Climate Change Is Reshaping Surgical Care: What We Know and What We Must Do - Professor Guy Maddern                                                       |                                                                                                                                                 |
|         | Panel Discussion – Q & A                                                                                                                                      |                                                                                                                                                 |
| 09:50AM | Session 7: Innovation in Surgery<br>Chair: Professor Matthew Read                                                                                             |                                                                                                                                                 |
|         | Beyond Funding: Maximising Value from Industry Collaborations - Mr William Downey                                                                             |                                                                                                                                                 |
|         | Attracting venture capital investment in surgical innovation - Ms Poppy Trehwella                                                                             |                                                                                                                                                 |
|         | Empowering surgeon-led innovation - Dr Brandon Carp                                                                                                           |                                                                                                                                                 |
|         | Panel Discussion – Q & A                                                                                                                                      |                                                                                                                                                 |
| 10:40AM | Morning Tea break                                                                                                                                             |                                                                                                                                                 |
|         | SRS PRESENTATIONS 5                                                                                                                                           |                                                                                                                                                 |
| 11:00AM | Scientific research presentation - Professor Vikas Dudeja (USA)                                                                                               |                                                                                                                                                 |
| 11:15AM | Oral SRS Presentations - Training Room 2<br>Chairs: Dr Deborah Wright and Dr Cameron Wells                                                                    | Oral SRS Presentations - Hughes Room<br>Chairs: A/Prof Anthony Glover and Prof Juliet Emamaullee                                                |
|         | Is neurotrauma training in rural New South Wales still required following the implementation of the New South Wales State Trauma Plan? (Dr Joey Yusof Vessey) | Laparoscopic common bile duct exploration for the next generation: A rationale for junior surgeons to operate (Dr Yuchen Luo)                   |
|         | Evaluating Telehealth for Breast Cancer Follow-Up: Patient Perspectives and Oncological Safety from a Metropolitan Unit (Dr Tess Howard)                      | Postoperative Metronidazole for Preventing Crohn's Disease Recurrence: A Meta-Analysis of Efficacy and Safety (Dr Caitlin Zhang)                |
|         | Outcomes and Reoperation Following Minimally-Invasive Lumbar Decompression Surgery (Mr Aaron Lerch)                                                           | Pushing the Boundaries of Organ Perfusion - Transcriptomic Profiling of Human Livers on Long-Term Normothermic Machine Perfusion (Dr Anita Niu) |
|         | Restoring gastric contractile function with neural gastric electrical stimulation in an acute porcine model (Dr Jonathan Sivakumar)                           | Revisiting Diet and Appendicitis: A Systematic Review and Meta-Analysis (Dr Renato Pitesa)                                                      |

# RACS Annual Research Conference 2025

**Saturday 15 November 2025**

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|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:55PM | Quick fire SRS Presentations - Training Room 2<br>Chairs: Dr Deborah Wright and Dr Cameron Wells                                                                     | Quick fire SRS Presentations - Hughes Room<br>Chairs: A/Prof Anthony Glover and Prof Juliet Emamaullee                                                                  |
|         | Does use of mechanical bowel preparation and oral antibiotics before elective colorectal resection reduce total postoperative infection rates? (Dr Claudia Paterson) | Patients' Perspectives on the Acceptability of Acupuncture as Treatment for Aromatase Inhibitor-Induced Arthralgia in Hormone-Positive Breast Cancer (Dr Isaac Buratto) |
|         | Effectiveness of using a bioabsorbable implant (Latera) to treat nasal valve collapse in patients with nasal obstruction (Dr Huyen Lai)                              | A 22-year experience with aortic endograft infection: Management and Results Using Updated Outcome Definitions (Dr William Ju)                                          |
|         | Using machine learning to create more clinically translatable risk prediction scores for paediatric appendicitis (Dr Sanjeev Khurana)                                | A Regional Centre's Experience with Hookwire Localisation in Breast Cancer Management (Dr Isabelle Huynh)                                                               |
|         | Safety and Patient-reported Outcome Measures in Elderly Patients Undergoing Totally extraperitoneal (TEP) Inguinal Hernia Repair (Dr Sarah Mahmood)                  | How does Transperineal Ultrasound compare with Defaecation Proctography for the assessment of Obstructed Defaecation - A Systematic Review (Dr Lashnika Bandaranayake)  |
| 12:10AM | Session 8: Invited USA presenters from the Society of University Surgeons and Association for Academic Surgery                                                       |                                                                                                                                                                         |
|         | Increase in the burden of congenital anomalies in infants following 2021 early pregnancy abortion ban - Dr Alice King (USA)                                          |                                                                                                                                                                         |
|         | Designing a Research Portfolio that Lasts: Navigating the Academic-Clinical Interface - Professor Vikas Dudeja (USA)                                                 |                                                                                                                                                                         |
|         | Panel Discussion - Q & A                                                                                                                                             |                                                                                                                                                                         |
| 12:50PM | Lunch Break                                                                                                                                                          |                                                                                                                                                                         |
|         | SRS PRESENTATIONS 6                                                                                                                                                  |                                                                                                                                                                         |
| 1:35PM  | Scientific research presentation - Professor Juliet Emamaullee (USA)                                                                                                 |                                                                                                                                                                         |
| 1:50PM  | Oral SRS Presentations - Training Room 2<br>Chairs: Dr Siobhan McKay and Professor Vikas Dudeja                                                                      | Oral SRS Presentations - Hughes Room<br>Chairs: Prof Amanda Dawson and A/Prof Joseph Phillips                                                                           |
|         | Modified APPEND Score for the Diagnosis of Acute Appendicitis in a New Zealand Pasifika Population (Dr Renato Pitesa)                                                | Timing Matters: Economic Consequences of Pre-, Intra-, and Post-Operative ERCP for the Management of Common Bile Duct Stones (Dr Tess Howard)                           |
|         | Effect of Timing and Modality of Intervention on Juxta-Anastomotic Arteriovenous Fistula Stenosis: A Retrospective Cohort Study (Dr Harsh Patel)                     | Colonoscopy surveillance: a Queensland study (Dr Yiu Ming Ho)                                                                                                           |
|         | How do postoperative outcomes in breast conserving surgery compare to mastectomy? A 12-month retrospective audit in a regional health district (Dr Lorane Gaborit)   | Glioblastoma in New Zealand: Understanding demographics, tumour and treatment characteristics and outcomes - a retrospective cohort analysis (Dr Ben Harley)            |
|         | Turning Up the Heat: Warm Humidified CO2 to Improve Bowel Recovery in Open Colorectal Surgery (Dr Kumail Jaffry)                                                     | Video-Based Assessment of Operative Competency in Laparoscopic Cholecystectomy: A Prospective Study to Inform Rubric Design (Dr Yuchen Luo)                             |

# RACS Annual Research Conference 2025

## Saturday 15 November 2025

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|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:30PM | Quick fire SRS Presentations - Training Room 2<br>Chairs: Dr Siobhan McKay and Professor Vikas Dudeja                                                                        | Quick fire SRS Presentations - Hughes Room<br>Chairs: Prof Amanda Dawson and A/Prof Joseph Phillips                                                                    |
|        | Risk Factors for Reoperation after Minimally Invasive Spinal Fusions (Mr Aaron Lerch)                                                                                        | Satisfactory 10-year survivorship of medial opening wedge high tibial osteotomy for isolated medial compartment osteoarthritis and varus alignment: An (Mr Kevin Qian) |
|        | Quantifying General Surgery trainees' experience of colorectal anastomosis in Australia (Dr Nishat Siddique)                                                                 | Current Trends of Body Contouring Surgery After Massive Weight Loss in Australia (Dr Nathan Bui)                                                                       |
|        | Development of a Screening Tool to Predict Risk of PTSD In Patients With Traumatic Physical Injury - an Implementation Project (Dr Siska Falconer)                           | Surgical Complexity and Outcomes of Completion Cholecystectomy: A Meta-Analysis (Mr Nicolas Smith)                                                                     |
|        | Comparing the Epidemiology and Resource Utilisation of Biliary and Alcoholic Pancreatitis Over 15 Years (Dr Anna Mealy)                                                      | Obesity Selectively Increases Intraoperative Risk in Left-Sided Colon Cancer Surgery: A Retrospective Cohort Study (Dr Simon Xu)                                       |
| 2:45PM | Session 9: Collaboration in Surgical Research<br>Chairs; Professor Amanda Dawson, Dr Helen Mohan and Dr Cameron Wells                                                        |                                                                                                                                                                        |
|        | SUGAR (StUdy of perioperative Glycaemic management and its impAct on suRgical outcomes) study - Nicolas Smith                                                                |                                                                                                                                                                        |
|        | Score-based Identification of GastroiNtestinal Anastomotic Leaks (SIGNAL) - Adam Cristaudo                                                                                   |                                                                                                                                                                        |
|        | Cyclo-AP (Randomised Controlled Trial of Cyclo-Oxygenase-2 Inhibitors in Acute Pancreatitis) - Laura Casey                                                                   |                                                                                                                                                                        |
|        | How to generate an impactful global collaboration - Professor Rob Ramsay                                                                                                     |                                                                                                                                                                        |
| 3:20PM | Afternoon Tea Break                                                                                                                                                          |                                                                                                                                                                        |
|        | SRS PRESENTATIONS 7                                                                                                                                                          |                                                                                                                                                                        |
| 3:35PM | Oral SRS Presentations - Training Room 2<br>Chairs: Dr Russell Hodgson and Dr Alice King                                                                                     | Oral SRS Presentations - Hughes Room<br>Chairs: Professor Chris Pyke and Dr Siobhan McKay                                                                              |
|        | Establishing Ex Vivo Normothermic Machine Perfusion to Increase Use of Marginal Donor Kidneys: A Pilot Study and Clinical Transition (Dr Qi Rui Soh)                         | Discharge practices following functional endoscopy sinus surgery (FESS): An Australian Retrospective Audit (Dr Huyen Lai)                                              |
|        | Safety and Efficacy of Managing Ureteric Strictures Utilising Lingual Mucosa Graft Ureteroplasty: An Early Systematic Review of the Literature (Dr Benjamin Ngie Xiong Wong) | Intentional pre-operative weight loss for obesity in patients undergoing gastrointestinal cancer resections: A systematic review and meta-analysis (Dr Anna Mealy)     |

# RACS Annual Research Conference 2025

## Saturday 15 November 2025

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|--------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 4:00PM | Quick fire SRS Presentations - Training Room 2<br>Chairs: Dr Russell Hodgson and Dr Alice King                       | Quick fire SRS Presentations - Hughes Room<br>Chairs: Professor Chris Pyke and Dr Siobhan McKay                      |
|        | Ileostomy Reversal Rates and Outcomes in a Regional Centre: A Five-Year Cohort Study (Dr Jessica Hanna)              | Drug-Coated Balloons in Infrapopliteal Arterial Disease: Evidence, Efficacy, and Future Directions (Dr Calyb Austin) |
|        | Routine Appendicectomy During Endometriosis Surgery: A Systematic Review (Dr Lashnika Bandaranayake)                 | Factors Influencing Reoperation in Bisphosphonates Associated Atypical Femoral Fractures (Mr Zhaolong Xiang)         |
|        | The Impact of Obesity on Intraoperative Complications in Rectal Cancer (Dr Simon Xu)                                 | Predictors of intervention in lower gastrointestinal bleeding (Dr Kerrilee Young)                                    |
| 4:10pm | Session 10: The Hidden Architecture of Academic Surgery: Thriving, Not Just Surviving<br>Chair: Professor Chris Pyke |                                                                                                                      |
|        | Strategies for Academic Surgeons to Achieve and Sustain Excellence - Professor Timothy Donahue (USA)                 |                                                                                                                      |
|        | Panel Discussion - Q & A                                                                                             |                                                                                                                      |
| 4:30PM | Session 11: Prize presentations and close<br>Chairs: Professor Matthew Read and Professor Chris Pyke                 |                                                                                                                      |
| 5:00PM | End of Program                                                                                                       |                                                                                                                      |

## Welcome from the Chair of Academic Surgery Committee



**Professor Jonathan Karpelowsky**

**On behalf of the Academic Surgery Committee, it is my great pleasure to welcome you to the Royal Australasian College of Surgeons Annual Research Conference 2025.**

The conference provides an outstanding opportunity for surgeons, researchers, and trainees to come together, share their work, and engage in thoughtful discussion about the future of surgical research and practice.

It is a celebration of innovation, collaboration, and academic excellence across our profession.

This year, we are honoured to welcome Professor Graeme Clark AC as the Jepson Lecturer. Professor Clark's pioneering contributions to the development of the bionic ear have transformed lives worldwide and continue to inspire new generations of surgeon-scientists.

We are also delighted to host distinguished international guests, including:

- Professor Vikas Dudeja, an accomplished leader in hepatobiliary and pancreatic surgery whose research is advancing the boundaries of surgical science;
- Dr Alice King, whose expertise in trauma and critical care brings valuable global insights; and
- Professor Juliet Emamaullee, Professor Timothy Donahue, and Associate Professor Joseph Phillips, who contributed to the Developing a Career and Skills in Academic Surgery Conference yesterday and now join us for the ARC, further enriching our international collaboration.

Their participation highlights the spirit of global partnership that strengthens our shared pursuit of excellence in surgery. I look forward to the dynamic conversations, new connections, and inspiring ideas that will emerge over the course of the meeting.

Thank you for joining us in Melbourne for what promises to be an exciting and memorable conference.

## Welcome from the Conference Co-Chairs



**Professor Matthew Read**

On behalf of the Academic Surgery Committee, we are delighted to welcome you to the RACS Annual Research Conference 2025.

This year's program reflects the strength and growth of academic surgery, with a record increase in abstract submissions and the addition of a Delphi session designed to foster collaboration and shape future research priorities.

We are honoured to welcome Professor Graeme Clark AC as the Jepson Lecturer and are pleased to host distinguished international guests Professor Vikas Dudeja, Dr Alice King, Professor Juliet Emamaullee, Professor Timothy Donahue, and Associate Professor Joseph Phillips.

We look forward to the discussions and connections that will make this conference both engaging and memorable.

**Professor Matthew Read and Dr Siobhan McKay  
Co-Chairs, RACS Annual Research Conference 2025**



**Dr Siobhan McKay**



## Jepson Lecturer



**Professor Graeme Clark AC**

**Graeme Clark AC, MS(Syd), PhD(Syd), FRACS, (Hon) FRCS, (Hon) FRCSI, FAA, FTSE FRS**

**Lasker Laureate, Lister Medal, Russ Prize, Zulch Prize, Zotterman Medal**

Graeme Clark led the research that resulted in the first clinically successful multi-channel cochlear implant. His basic neurophysiological research was crucial in discovering how to code speech with electrical stimulation of the brain and do so safely, including with a minimal risk of meningitis.

This work combined with the psychophysics and speech research he directed made it the first sensory-neural prosthesis to effectively bring electronic technology into functional relationship with the central nervous system and human consciousness.

This research undertaken principally at the University of Melbourne led to the creation of Australia's leading bioengineering company Cochlear Limited. In 1985 the multi-channel cochlear implant was the first in the world to be approved by the US Food & Drug Administration (FDA) as safe and effective for adults who developed a severe-profound hearing loss.

The studies undertaken by his clinic at the Eye & Ear Hospital also established the multi-channel implant enabled severely-profoundly deaf children achieve near normal spoken language. In 1990 it was the first cochlear implant of any type to be approved by the FDA or any world regulatory body as safe and effective for children.

This established that it was thus the first major advance in helping these children communicate in the last 250 years. He also successfully carried out the first bilateral and bimodal cochlear implants. The development of the multi-channel cochlear implant has helped create a new discipline Medical Bionics emphasizing the restoration of vision, spinal cord function and drug-resistant epilepsy. It has also helped establish Biomedical Engineering as a major area for interdisciplinary studies in Engineering, Medicine and Science.



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**94<sup>TH</sup> RACS ANNUAL  
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Thursday 30 April –  
Sunday 3 May 2026

[asc.surgeons.org](http://asc.surgeons.org) #RACS26

**PERTH 2026**







**Timothy Donahue**  
USA

Dr. Timothy R. Donahue, MD, is a Professor of Surgery at the David Geffen School of Medicine at UCLA, with a joint appointment in the Department of Molecular and Medical Pharmacology.

He serves as the Chief of the Division of Surgical Oncology and Vice Chair for Cancer Care in the Department of Surgery. As the Garry Shandling Chair in Pancreatic Surgery and Director of the UCLA Agi Hirshberg Center for Pancreatic Diseases, he leads one of the nation's top multidisciplinary programs in pancreatic diseases, including cancer.

As Medical Director for Cancer Services, Dr. Donahue collaborates with senior leadership to enhance UCLA's clinical cancer programs, strengthening the institution's reputation in oncology care and treatment.

Performing up to three pancreatic surgeries weekly, Dr. Donahue focuses on complex cases involving borderline resectable and locally advanced pancreatic cancer. He advocates for extended preoperative chemo or radiation therapy to better select surgical candidates, which has contributed to improved patient survival rates.

In addition to clinical work, Dr. Donahue leads an NIH-funded laboratory developing better treatments and early diagnostic markers for pancreatic cancer. His translational research bridges laboratory discoveries to clinical trials, enabling investigator-initiated studies that advance patient care. Optimistic about future breakthroughs, he envisions significant advances in pancreatic cancer therapy during his career.

Nationally, Dr. Donahue has served as President of the Society of University Surgeons and Chair of the Surgical Research Committee for the American College of Surgeons. He co-Chairs the NIH Advancing Therapeutics Study Section, advocating for surgeon-scientists in translational research.

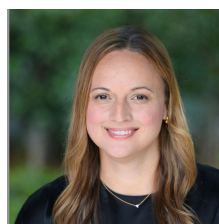


**Vikas Dudeja**  
USA

President-elect of the Association for Academic Surgery and recently appointed Chair and Department Executive Officer (DEO) of the Department of Surgery at the University of Iowa Carver College of Medicine,

Professor Vikas Dudeja is a leading surgeon-scientist in pancreatic and hepatobiliary oncology.

Previously, as a tenured professor and director at University of Alabama at Birmingham, his National Institutes of Health (NIH), Department of Defence-, and Department of Veterans Affairs-funded laboratory explores pancreatic cancer and pancreatitis pathobiology and translational therapies.



**Juliet Emamaullee**  
USA

Professor Juliet Emamaullee is the Developing a Career in Academic Surgery Course Liaison for the Association for Academic Surgery (AAS) in the United States.

She is a liver and kidney transplant surgeon and serves as the Associate Chief of the Division of Clinical Research in the Department of Surgery at USC's Keck School of Medicine. Her laboratory applies systems immunology to personalise diagnostics and therapies in liver transplantation and rejection.



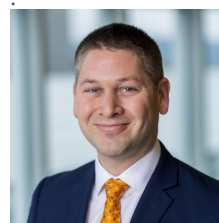
**Alice King**  
St Louis, USA

Dr. King trained as a biomedical engineer at Cornell University before completing her general surgery residency at the University of Cincinnati and a pediatric surgery fellowship at Washington University in St. Louis.

As the Co-Director of the Texas Children's Fetal Center, Dr. King works closely with a multidisciplinary care team to create the best possible treatment plans and advocate for patient centered care.

She provides comprehensive neonatal and pediatric surgical care, with a focus on minimally invasive thoracic and abdominal procedures for children of all ages. Her clinical interests include neonatal and fetal surgery, particularly conditions such as congenital diaphragmatic hernia, omphalocele, gastroschisis, and the use of extracorporeal membrane oxygenation (ECMO).

Dr. King's research focuses on advancing fetal surgery techniques and improving healthcare access, surgical needs, and outcomes for patients with congenital anomalies."



**Joseph Phillips**  
USA

The AAS/RACS Younger Fellows Leadership Exchange is a prestigious program designed to foster international collaboration between emerging surgical leaders in the Association for Academic Surgery (AAS) and the Royal Australasian College of Surgeons (RACS).

Associate Professor Joseph Phillips, was awarded the AAS/RACS Younger Fellows Committee Leadership Exchange for 2025

An Associate Professor at Dartmouth's Geisel School of Medicine and Dartmouth-Hitchcock Medical Centre, A/Prof. Joseph D. Phillips is a thoracic surgeon excelling in minimally invasive and robotic oncologic surgery.

His research focuses on tumour immunology in non-small cell lung cancer, particularly the role of immune cells and tumour-draining lymph nodes—knowledge that may translate into future cell-based immune therapies. He also serves on leadership committees for the AAS.

# RACS Section of Academic Surgery Invited Speakers and Local Faculty



**Meg Beaumont**  
New Zealand

Meg Beaumont (Ngāti Maniapoto, Ngāpuhi) is an unaccredited surgical registrar at Auckland City Hospital, currently undertaking a Masters in Health Sciences.

Her research work focuses on the intersection between clinical practice, surgical education, and health equity, with a particular focus on Māori health outcomes in vascular surgery.

She has contributed to initiatives and peer reviewed publications aimed to challenge Eurocentric paradigms that shape knowledge production within surgery, traditional mentorship structures, and existing institutional hierarchies.

Her research interests include Kaupapa Māori qualitative analysis, vascular surgical outcomes for wāhine Māori, and equitable policy development for clinical practice.

She is particularly interested in how colonial legacies continue to shape who becomes a surgeon, what knowledge is valued, and whose voices are heard within academic spaces.



**Justin Cain**  
New South Wales

Dr Justin Cain is a SET 3 Vascular Surgery Trainee currently based in Wollongong NSW.

He is descendant of the Gamilaroi and Yuin tribes of NSW and is the first Aboriginal Trainee accepted to the vascular surgery training program.

Justin is passionate about the intersections between social determinants of health and surgery. He has experience working in different communities from metropolitan and rural NSW, Northern Territory, Tasmania, and Aotearoa-New Zealand.

Dr Cain also has a special interest in Indigenous health outcomes and translational research. In 2022 he was awarded the University of Wollongong's Young Alumni of the Year for his commitment to Indigenous health and has been a convenor of the Indigenous Health section of the RACS ASC.



**Brandon Carp**  
Victoria

Brandon's professional journey spans three phases: clinician, entrepreneur, and advisor. Graduating with honours in medicine in 1987, he practiced as a clinician until 2008.

He has founded a number of innovative healthcare organisations most notable Unified Healthcare Group (UHG), a leading B2B digital health company, where he served as managing director from 1997 until 2014, then as executive chairman until its acquisition in 2019 by US private equity backed Examworks.

Brandon today leverages his experience as a medical practitioner and entrepreneur to build and advise a portfolio of commercial and not-for-profit healthcare organisations. He is passionate about the role doctors and other clinicians can play to transform healthcare through innovation.

He plays an important role on the board of Murdoch Children's Research Institute and through his position on its Innovation Committee. In 2022 he was instrumental in the successful University of Melbourne-led bid to establish the Australian Clinical Entrepreneur Program (AUSCEP), a program designed to develop entrepreneurial skills and networks to advance clinician-led innovation.

He continues to contribute to this unique program as the National Entrepreneurial Lead. In 2023 he founded the Australian Society for Medical Entrepreneurship and Innovation (ASME) a not-for-profit whose purpose is to inspire and empower clinicians to improve healthcare through innovation.

**William Downey**  
New South Wales



William Downey is the Strategic Solutions Lead for Johnson & Johnson MedTech in Australia and New Zealand.

With a career spanning over a decade in healthcare innovation, William brings a wealth of experience in designing and implementing integrated care pathways that enhance surgical outcomes and operational efficiency across public and private health systems combining change management with digital technologies.

At Johnson & Johnson MedTech, William leads strategic initiatives focused on orthopaedic, cardiac and surgery platforms and is a frequent collaborator with clinical leaders, including surgeons and hospital executives and has played a key role in shaping education and contracting frameworks for surgical faculty involved in digital advisory and capital projects.

His approach combines clinical insight, operational strategy, and digital enablement to support hospitals in delivering high-quality, patient-centred care. His team have implemented a variety of change management programs included ERAS programs, theatre efficiency project and many other hospital efficiency programs.

He is a passionate believer in the role industry can have to enhance surgical outcomes and deliver true value based healthcare through partnering on more than just selling products but contracting to deliver patient outcomes.

# RACS Section of Academic Surgery Invited Speakers and Local Faculty



## Lisa Given

### Victoria

Professor Lisa M. Given (FASSA, FASIS&T) is Director, Social Change Enabling Impact Platform, Director, Centre for Human-AI Information Environments, and Professor of Information Sciences, RMIT University (Melbourne).

Her interdisciplinary research in human information behaviour brings a critical, social research lens to studies of technology use and user-focused design, including people's experiences of artificial intelligence.

Her studies embed social change, focusing on diverse settings and populations, including in healthcare, workplaces, schools, and everyday life. A Fellow, and former President, of the Association for Information Science and Technology,

Prof Given is a Fellow of the Academy of the Social Sciences in Australia, a member of the International Panel on the Information Environment's Science and Methodology Committee, and lead author of *Looking for Information: Examining Research on How People Engage with Information* (2023).



## David Liu

### Victoria

David Liu is an Oesophago-gastric and General Surgeon practicing at Austin Health and the Peter MacCallum Cancer Centre, Victoria, Australia.

He is also an Associate Professor within The University of Melbourne, Department of Surgery. David has a passion for service innovation, translational biology, and clinical collaborative research, focussing on both benign and malignant upper gastrointestinal diseases, as well as general surgical conditions.

He is widely published and has a strong track record for attracting research funding. Moreover, David leads the Victorian Interventional Research and Trials Unit at Austin Health, which canvases a wide portfolio of Phase 1 to 3 clinical trials and translational studies that are investigator-led and industry sponsored.



## Guy Maddern

### South Australia

Professor Guy Maddern is the RP Jepson Professor of Surgery at the University of Adelaide.

He is also Director of Research at the Basil Hetzel Institute for Translational Health Research at The Queen Elizabeth Hospital and Director, Surgical Research and Evaluation (incorporating ASERNIP-S) of the Royal Australasian College of Surgeons.

He was trained at the University of Adelaide and became a Fellow of the Royal Australasian College of Surgeons in 1989. He has over 700 publications in scientific journals, an h-factor of 74, and has contributed to over a dozen surgical texts.

Clinical interests include colorectal hepatic metastatic disease, minimally invasive surgery, incident monitoring and assessment of new technologies in surgical practice. In more recent times he has co-authored a book on climate change and its impact on surgical practice.



## Forbes McGain

### Victoria

Forbes McGain is the Director of the Footscray Hospital ICU, and an anaesthetist and intensive care physician at Western Health, Melbourne.

Forbes is also Associate Dean of Sustainable Healthcare at the University of Melbourne Faculty of Medicine, Dentistry, and Health Sciences. Forbes is a clinician researcher with broad interests and publications spanning from healthcare sustainability, to ICU multicentre clinical trials, and to COVID-19 patented inventions. Forbes remains keenly involved in teaching intensive care and anaesthesia for junior doctors and students, as well as being engaged in all sorts of environmental sustainability efforts.



## Amanda McKay

### Victoria

Amanda is the audio book narrator of *Processed: How the processed meat industry is killing us with the food we love* by Lucie Morris-Marr.

Amanda is British born actor and voiceover artist who has narrated many audio books, most notably *Fallen: The Inside Story of The Secret Trial and Conviction of Cardinal George Pell*.

Her recent performing credits include: *Romeo and Juliet* and *The Merchant of Venice* for Melbourne Shakespeare Company, voice work on *The Portable Door* for the Jim Henson Company, *INXS: Never Tear Us Apart* for Channel 7 and most recently a featured role in *Anavasi*, a documentary film by award winning film maker Christopher Kay.



## Siobhan McKay

### Victoria

Dr Siobhan McKay MBBS BMedSci DipEd PhD FRACS FRCS(Eng) is a specialist hepatopancreatobiliary and general surgeon based in Melbourne. She completed her PhD at Imperial College London on the molecular

characterisation of cholangiocarcinoma and subsequently served as an Academic Clinical Lecturer in the UK and Associate Surgical Specialty Lead for Pancreatic Cancer for the Royal College of Surgeons of England. She has led national and international collaborative studies, including as Vice-Chair of the West Midlands Research Collaborative and HPB lead for the COVID-Surg Study. Dr McKay undertook advanced fellowships in robotic HPB surgery (Royal North Shore Hospital, Sydney) and complex abdominal wall reconstruction (The Alfred, Melbourne). She is a consultant at Northern Health and Senior Clinical Lecturer at the University of Melbourne. Her academic interests include minimally invasive and robotic HPB surgery, complex hernia repair, perioperative optimisation and surgical education. Dr McKay is pleased to serve as Convenor for the Annual Research Conference.



# RACS Section of Academic Surgery Invited Speakers and Local Faculty



**Rob Ramsay**  
Victoria

Prof Rob Ramsay, Peter MacCallum Cancer Centre, Melbourne, Australia.

Until recently Rob was co-head of the gastroenterology cancer program and head of the Differentiation and Transcription Laboratory at Peter MacCallum Cancer Centre. He is a molecular biologist by training and specializing in transcriptional regulation. His career-long interest in the oncoprotein MYB began in New York and has continued to this day moving from biochemistry to clinical trials. He arguably remains the leader in the role of MYB in tumourigenesis. Over the last and a half decade and a half, he shifted his lab's focus to the areas of tumour immunology, immune gene dysregulation and associated inflammation-mediated events that predispose to carcinogenesis. Rob is now semi-retired serving in consultancy roles and participating in on-going and planned clinical trials at Peter Mac. He is a member of the lower GI MDM and continues to supervise surgeon-PhD students particularly with Surgical Oncology Head, Sandy Heriot. He has led the laboratory/translational aspects of several clinical trials. The first was in 2005 – a Phase II Trial of Thalidomide and Celecoxib in Multiple Myeloma and subsequently surgery trials CIGAR4, PERIPROTECT, MATCH and GI trials TARGOVAX-TGO-02, MYPHSIMO and AVEREC.

He is a Board Director and Company Secretary of the Australasian Gastrointestinal Trials Group an organization focused on clinical trial development and delivery.

His lab pioneered the use of organoids along with innovative immune function assays publishing the first use of mouse and human colorectal cancer organoids in Australia. Rob's major disease expertise is CRC, peritoneal carcinomatosis, HPV-driven perineal squamous cell carcinomas (eg, anal, penile) and the rare cancer-adenoid cystic carcinoma. Recent developments in photodynamic agents combined with immunotherapies have been embraced to address a clinical gap in the management of anal and other SCCs.



**Poppy Trehwella**  
Victoria

Poppy is a Partner at Paloma, Australia's largest venture studio. Paloma builds and funds high-growth software ventures and has grown a portfolio now worth more than half a billion dollars.

Previously, she was Director of Programs & Partnerships at Australia's largest entrepreneurial network, where she led a flagship program for 50 of Melbourne's top tech founders, including several unicorn founders.



**Andrew Udy**  
Victoria

Andrew is Head of Research at The Alfred ICU, Melbourne VIC, and Deputy Director, Australian and New Zealand Intensive Care Research Centre - Monash University. His research interests include sepsis, traumatic brain injury, neurocritical care, and extra-corporeal membrane oxygenation.

He is passionate about supporting trainees/early-career clinician-scientists, and increasing diversity in clinical research. Andrew is Vice-Chair of the Australian and New Zealand Intensive Care Society (ANZICS) - Clinical Trials Group (CTG), and is a proud product of Aotearoa New Zealand.



**Cathy Vaughan**  
Victoria

Professor Cathy Vaughan is Director of the Nossal Institute for Global Health and Chair of Global Health at the Melbourne School of Population and Global Health, The University of Melbourne.

Cathy has worked as a researcher and practitioner in diverse settings in Asia, the Pacific, and with populations experiencing health inequalities in Australia, for over 25 years. Her current research focuses on the impact of intersecting inequalities on health, and in particular on the ways intersecting inequalities shape experiences of gender-based violence and the effectiveness of violence prevention and response initiatives. This includes a particular focus on technology-facilitated gender-based violence in Asia and the Pacific, and on strengthening responses to violence against migrant and refugee women, and women of faith, in Australia.

Cathy has extensive experience using qualitative and participatory research methods to work with groups including migrant and refugee women, women with disability, faith communities and young people to generate evidence about the social and structural underpinnings of health. She uses her expertise in co-design approaches to work with community groups, NGOs and government departments to strengthen the use of research in the development, implementation and evaluation of health programs in settings across Asia and the Pacific.

Cathy has taught into the Master of Public Health program at The University of Melbourne since 2011, coordinating subjects on participatory research methodologies and community engagement, and on women's health. She also currently co-leads the kNOWVAWdata course to strengthen capacity to conduct safe, ethical and rigorous research on violence against women in low and middle income countries; is a Director of the WHO Collaborating Centre for Women's Health; and leads the Co-Design and Consumer Involvement node of the Methods and Implementation Support for Clinical and Health research hub (MISCH) at the university.

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# 2025 SRS Oral Presentations



## PERITONEAL TUMOUR DNA IN GASTROESOPHAGEAL CANCER: RESULTS FROM INTERIM ANALYSIS

**Zexi Allan** (presenter 1,2), Yuxuan Wang (3), Jeanne Tie (2,4,5), Niall Tebbutt (6), Nicholas Clemons (1,2), Nickolas Papadopoulos (3), Kenneth Kinzler (3), Bert Vogelstein (3), David S. Liu (7-10)

1. Division of Cancer Research, Peter MacCallum Cancer Centre, 305 Grattan Street, Parkville, Victoria, 3000, Australia
2. Sir Peter MacCallum Department of Oncology, University of Melbourne, Grattan Street, Parkville, Victoria, 3000, Australia

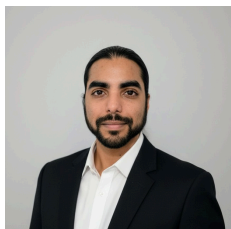
3. The Johns Hopkins Oncology Center, Program in Human Genetics, and The Howard Hughes Medical Institute, The Johns Hopkins University School of Medicine, 424 N. Bond Street, Baltimore, 21231, Maryland, USA
4. Department of Medical Oncology, Peter MacCallum Cancer Centre, 305 Grattan Street, Parkville, Victoria, 3000, Australia
5. The Walter and Eliza Hall Institute of Medical Research, 1G Royal Parade, Parkville, Victoria, 3052, Australia
6. Department of Medical Oncology, Austin Health, 145 Studley Road, Heidelberg, Victoria, 3084, Australia
7. Department of Surgery, University of Melbourne, Grattan Street, Parkville, Victoria, 3000, Australia
8. Division of Cancer Surgery, Peter MacCallum Cancer Centre, 305 Grattan Street, Parkville, Victoria, 3000, Australia
9. Upper Gastrointestinal Surgery Unit, Division of Surgery, Anaesthesia, and Procedural Medicine, Austin Health, 145 Studley Road, Heidelberg, Victoria, 3084, Australia
10. General and Gastrointestinal Surgery Research and Trials Group, The University of Melbourne Department of Surgery, Austin Health, 145 Studley Road, Heidelberg, Victoria, 3084, Australia.

**Introduction:** Gastroesophageal cancers commonly spread to the peritoneum. The routine practice of peritoneal lavage and cytology (PLC) has a variable sensitivity of 10%–80% in detecting peritoneal micrometastasis in gastroesophageal cancers. Peritoneal tumour DNA (ptDNA) is tumour-derived DNA detectable in peritoneal lavage fluid. We aimed to test a ptDNA detection platform, validate its sensitivity and specificity against PLC, and evaluate its role in predicting survival outcomes.

**Methods:** Peritoneal lavage fluid was prospectively collected at staging laparoscopy from 41 patients with gastroesophageal cancer. Cytology and peritoneal metastases were confirmed by histopathology. A tumour-informed ptDNA testing was performed via whole-genome sequencing on peritoneal fluids. Disease-free survival and peritoneal-specific event-free survival were recorded during follow-up.

**Results:** 9 out of 41 patients were cytology-positive or had macroscopic peritoneal disease, and all tested positive for ptDNA. The remaining 32 cytology-negative patients without macroscopic peritoneal disease underwent curative-intent treatment, of which 15 were ptDNA-positive and 17 were ptDNA-negative. The median follow-up was 16 (4–24) months. DFS was 60% in the ptDNA-positive group and 82.4% in the ptDNA-negative group (HR = 2.69, 95% CI 0.71 – 10.12, P = 0.14). PSS was 66.7% in the ptDNA-positive group and 100% in the ptDNA-negative group (HR = 9.7, 95% CI 1.66 – 56.82, P = 0.01).

**Conclusions:** Results demonstrate that a tumor-informed ptDNA detection platform is feasible and highly sensitive in gastroesophageal cancer. Early survival outcomes suggest that ptDNA predicts peritoneal specific survival and the use of ptDNA is potentially more sensitive and specific than PLC in detecting peritoneal micrometastasis.



## ROLE OF MRI CERVICAL SPINE IN TRAUMA PATIENTS AFTER A NEGATIVE CT CERVICAL SPINE AT A METROPOLITAN TRAUMA SERVICE

**Sheik Mohammad Azhar Auckloo** (presenter, 1), Kerrilee Young (1), Russell Hodgson (1, 2)

1. Northern Health, Epping, Victoria
2. Department of Surgery, University of Melbourne, Victoria

**Introduction:** Possible cervical spine (C-Spine) injury is a major concern for trauma patients. After clinical assessment, high risk patients are imaged with CT. In a previous meta-analysis, CT was a safe and accurate way of detecting injury. In clinical practice however where, uncertainty persists such as when neurological deficits or tenderness prevail, MRI is usually considered.

**Methods:** A retrospective review was conducted of adult trauma patients at a metropolitan hospital from 2018–2022 undergoing C-Spine MRI after CT demonstrated no injury. Data was analysed to investigate whether MRI findings resulted in change in management, and how this differed with pretest indication including tenderness and neurology. Length of stay due to MRI delays was also assessed.

### Results:

Of 245 patients, 47% were male; mean age was 44-years. MRI was positive in 48 patients (20%) with 20 patients requiring significant management change (8%), including orthotics (n=18, 7%) and transfer to a neurosurgical unit (n=2, <1%). Inconclusive CT report independently predicted change in management (OR 7, p=0.017) whilst neither neurological deficits nor C-spine tenderness were individually significantly predictive. MRI was associated with significant delays in establishing disposition, adding a mean 15.6 hours of extra investigation time.

**Conclusion:** In trauma patients with negative or inconclusive C-spine CT, MRI precipitated altered management in a small minority. Neurological deficits and tenderness alone poorly correlated with change in management, whilst inconclusive CT was a strong predictor. MRI substantially extended admission length. The use of MRI should be considered carefully to prevent unnecessary delays and poor allocation of resources.





## **ACUTE AORTIC SYNDROME: A KAUPAPA MĀORI QUALITATIVE STUDY OF PATIENT UNDERSTANDING AND EXPERIENCES IN AOTEAROA NEW ZEALAND**

**Meg Beaumont** (presenter, 1, 2), Steve Waqanivavalagi (1,2), Helen Knight, Anastasia Dean (1).

1. Auckland Regional Vascular Service, Auckland

2. The University of Auckland Faculty of Medical and Health Sciences

**Introduction:** Acute aortic syndrome (AAS) disproportionately impacts Māori and Pacific populations in Aotearoa New Zealand (AoNZ), with Māori affected at a younger age. Few international qualitative studies report physical and psychological sequelae following AAS – most report results of quality-of-life surveys. This study aims to characterize young patients' experiences of AAS in AoNZ, in both acute and chronic phases.

**Methods:** Semi-structured interviews were conducted with patients with a known AAS diagnosis. Reflexive thematic methodology was utilised in analysis, through reading transcripts, and identifying key themes from interviews. Themes were collated and reviewed together by the researchers, then categorised according to concept and applicability.

**Results:** 15 patients under 65 years of age at the time of AAS participated in semi structured interviews, with 33% identifying as Māori, and 33% as Pacific Peoples. Most patients demonstrated understanding of their diagnosis and need for ongoing surveillance. All patients reported life profoundly changed following diagnosis, with long-term physical and psychological sequelae. Additional themes identified included loss of ability to work, financial stressors; impact on role as caregiver; and loss of social connection outside of family/whānau. Overall, there was a high level of trust in the health system, however some responses related to not being heard or believed.

**Conclusion:** Patients with AAS report impact to quality of life, with effect on ability to work, sense of identity, and independence; financial or physical. Given the overrepresentation of indigenous peoples in young dissection patients, further work is required to characterise inequities, to inform equity-based surveillance and intervention.



## **MEASURING THE 'COMPLICATION SPIRAL' AND FAILURE TO RESCUE IN GASTROINTESTINAL CANCER SURGERY: A NATIONAL COHORT STUDY IN AOTEAROA NEW ZEALAND**

**Surya Akash Boppana** (presenter, 1), Cameron Wells (1), Chris Varghese (1, 2), Greg O'Grady (1,3), Ian Bissett (1,3)

1. Department of Surgery, University of Auckland, Auckland, New Zealand

2. Department of Surgery, Mayo Clinic, Rochester, MN, United States

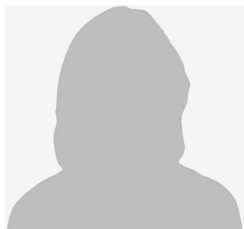
3. Department of Surgery, Auckland City Hospital, Auckland, New Zealand

**Introduction:** Failure to rescue (FTR), the mortality rate after post-operative complications, is a quality metric contributing to hospital variation in mortality. Patients can 'spiral' into complication cascades, challenging hospitals' capacity to rescue patients from death. This study evaluated how the number and type of complications influence FTR rates following gastrointestinal (GI) and hepatopancreatobiliary (HPB) cancer surgery and how complication rates, clusters and FTR rates vary across hospitals.

**Methods:** A retrospective population-based cohort study was conducted using linked national registry data from New Zealand Cancer Registry and National Minimum Dataset. Patients were grouped by the number of complications (1 to 5+), and FTR rates were calculated. Latent class analysis identified complication clusters. Risk- and reliability-adjusted complication rate, cluster proportion, and FTR rates were compared across FTR quartiles.

**Results:** 31,199 patients across 20 hospitals were included from 2005–2020, with 14,464 experiencing  $\geq 1$  complication. FTR rates increased concordantly with the number of complications ( $p < 0.001$ ). The rate of multiple complications was similar between hospitals, however variation existed in FTR across all complication groups ( $p < 0.001$ ). Five common clusters of post-operative complications were identified: Surgical Site Infections, Bleeding, Cardiorespiratory, Serious Surgical, and Severe Respiratory. Cluster proportions were comparable across hospitals, but FTR rates varied between centres for all clusters ( $p < 0.001$ ).

**Conclusion:** Hospitals vary in their capacity to rescue patients independent of complication burden or cluster frequency. System-level factors likely influence this variation, highlighting the need for targeted hospital interventions to recognise and respond to patients in a 'complication spiral'.



## THE IMPACT OF PROACTIVE INPATIENT GLYCAEMIC INTERVENTION ON TRAUMA PATIENT OUTCOMES: A RETROSPECTIVE COHORT STUDY

**Andrea Chan** (presenter, 1), Rahul D Barmanray (1, 2, 3), Mervyn Kyi (1, 2, 3), Peter Colman (1, 2), Leon Worth (1), Minh Le (2), Emily Sun (2), David Read (1), Kellie Gumm (1), Spiros Fourlanos (1, 2, 3)

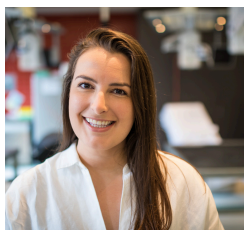
1. Department of Medicine, The Royal Melbourne Hospital, The University of Melbourne, Melbourne, Australia.
2. Department of Diabetes & Endocrinology, The Royal Melbourne Hospital, Melbourne, Australia.
3. Australian Centre for Accelerating Diabetes Innovations, The University of Melbourne, Melbourne, Australia.

**Introduction:** Hyperglycaemia is a common yet understudied complication in trauma patients, associated with adverse outcomes. The benefits of proactive glycaemic intervention in this population remain unclear. This study investigates whether early specialist-led glycaemic intervention improves clinical outcomes in trauma inpatients.

**Methods:** This study is a sub-analysis of the STOIC-D Surgery randomised controlled trial, conducted at a Level 1 trauma centre. Eligible participants were adult trauma patients with pre-existing diabetes or newly detected hyperglycaemia (random glucose  $\geq 11.1$  mmol/L). Patients were randomised into two groups: those receiving standard diabetes care or early glycaemic intervention by specialist diabetes team. Primary outcome was median patient-day mean glucose. Secondary outcomes included healthcare associated infection and mortality. Multivariable logistic and linear regression models were applied, adjusting for injury severity score (ISS), age, diabetes status, and comorbidities.

**Results:** Between 18 February 2021 and 17 December 2021, 221 admissions to trauma service met inclusion criteria. Median age was 61 years, 72% were male, 103 (47%) had pre-existing diabetes, and mean HbA1c was 6.7%. The 111 admissions in intervention group compared with the 110 in control group demonstrated lower median PDMG (8.1 vs. 8.5 mmol/L), reduced HAI incidence (18% vs. 30%), and reduced mortality (6.3% vs. 14%). On multivariable logistic regression, both allocation to the control group and longer length of stay remained independently associated with HAI incidence.

**Conclusion:** In trauma surgical inpatients, early specialist-led glycaemic intervention significantly improves clinical outcomes, supporting its integration into routine care. Future research should focus on validating these findings in larger, multicentre prospective trials.



## THE SER2VE STUDY: SURGICAL EDUCATION FOR RESIDENTS AND REGISTRARS IN VICTORIA EVALUATION

**Dr Teagan Fink** (presenter, 1,2), Kathryn Cyr (2), Dr James Dimou (2, 3)

- 1 Department of General Surgery, Royal Melbourne Hospital, VIC AUS
- 2 Department of Surgery, Melbourne Medical School, The University of Melbourne VIC AUS
- 3 Department of Neurosurgery, Royal Melbourne Hospital, VIC AUS

**Introduction:** In the current surgical training landscape, many junior doctors spend extended periods in service provision roles without a formal training appointment or job security. Only one-third of applicants to the Surgical Education and Training (SET) succeed. This study aimed to explore the challenges faced by pre-SETs in their pursuit of surgical careers.

**Methods:** An anonymous REDCAP survey was distributed to pre-SETs at all Victorian hospitals between September 2024 and January 2025. Descriptive statistics and qualitative responses were collated. Ethics approval was obtained (HREC 2023-28376-47455-1).

**Results:** Participants were predominantly female (56%), aged 26-35 (82%), and postgraduate year four or more (67%). A third of participants undertook weekly protected teaching, and 53% received no effective feedback – reporting that formal supervisors and specific feedback can aid in feeling lost in the system. Pre-SETs worked a median of 66 (30-100) hours per week, and 65% undertook surgical research. 79% of participants have considered alternative career pathways, but just 15% discussed this with their surgical mentors. Qualitative responses from pre-SETs state the annual job application season “lacks transparency, “isolating” and is “taking over our lives”. Short-term competitive contracts and the lack of formal training impact their psychosocial (74%) and financial (55%) well-being.

**Conclusion:** The SER2VE study highlights the significant challenges facing pre-SETs. Participants proposed several practical strategies for improvement at both individual and institutional levels. Enhancing effective feedback, structured education, mentorship, and support for career security and progression are critical for improving the pre-SET training experience.



## HOW DO POSTOPERATIVE OUTCOMES IN BREAST CONSERVING SURGERY COMPARE TO MASTECTOMY? A 12-MONTH RETROSPECTIVE AUDIT IN A REGIONAL HEALTH DISTRICT

**Lorane Gaborit** (presenter, 1), Kate FitzGerald (1)

1. Wagga Wagga Base Hospital, Wagga Wagga, New South Wales

**Introduction:** Advances in oncoplastic surgery have led a shift towards breast conserving surgery in the management of breast cancer. These approaches often require adjuvant therapy which may be delayed by postoperative complications or margin re-excision. In our health district, we identified a need to describe the incidence of complications, re-excision and time to adjuvant therapy after surgery.

**Methods:** We undertook a retrospective audit of breast cancer patients undergoing surgery between January 1 and December 31, 2024, in our regional health district.

**Results:** There were 80 index surgeries. Twenty-four patients (30%) experienced a 90-day postoperative complication, most commonly a haematoma or seroma (19%) followed by surgical site infection (6%), skin, fat or nipple necrosis (6%) and wound dehiscence (5%). Rurality in terms of distance from treating hospital was not associated with developing a complication. The complication rate was highest for therapeutic mammoplasty (62%, n=13) compared to mastectomy (45%, n=22) and wide local excision (20%, n=45) ( $p=0.002$ ). Mean time to adjuvant therapy was 8 weeks and there was no significant difference between procedure groups ( $p=0.395$ ). The most frequent reason for delay was re-excision or mastectomy for involved margins (n=6) and wound management (n=5). Among patients who underwent wide local excision or therapeutic mammoplasty, rate of re-operation for margins was 16%.

**Conclusion:** Despite being associated with a higher complication rate compared to mastectomy, breast conserving surgery was not associated with a difference in time to adjuvant treatment. Reducing histopathology and surgical wait times and staff upskilling in wound management may provide future opportunities to reduce delays.



## GLIOBLASTOMA IN NEW ZEALAND: UNDERSTANDING DEMOGRAPHICS, TUMOUR AND TREATMENT CHARACTERISTICS AND OUTCOMES - A RETROSPECTIVE COHORT ANALYSIS

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On behalf of the New Zealand HistoMol GBM Collaborative

**Introduction:** Glioblastoma represents one of the deadliest primary brain cancers and has undergone frequent diagnostic classification changes. New Zealand is a geographically isolated nation facilitating a national cohort analysis. This study looks at glioblastoma diagnosis and outcomes, including radiation treatment, across New Zealand for a calendar year.

**Methods:** Patients diagnosed with glioblastoma according to the 2021 WHO guidelines were identified across the 5 neurosurgical units in New Zealand between 01/01/2021-31/12/2021. A total of 184 patients were included.

**Results:** Crude incidence was 35 diagnoses per million population, and median overall survival (OS) was 10.6 months, which did not differ between units ( $p=0.782$ ). Gross total resection (GTR) was associated with longest survival (median OS 20 months) vs non-GTR resection (11.3 months) and biopsy (4 months,  $p<0.001$ ). Patients receiving chemoradiotherapy had median OS of 19.0 months with conventional STUPP protocol fractionation and 11.8 months with hypofractionated radiotherapy ( $p<0.001$ ). Median time to radiotherapy (TTR) was 41 days (range: 14-245 days) and 14.6% had extended TTR ( $> 8$  weeks). There was no significant OS difference for patients with extended TTR (16.7 months) compared to those with earlier radiotherapy (12.6 months,  $p=0.538$ ), even when analysing STUPP protocol patients only (extended TTR 26.0 vs 18.7 months,  $p=0.911$ ).

**Conclusion:** This study is the first national cohort for glioblastoma patients diagnosed according to the 2021 WHO guidelines across a calendar year. We identified New Zealand population OS rates that match international cohorts and practice changing clinical trials, and we found no difference in OS depending on TTR.



## COLONOSCOPY SURVEILLANCE: A QUEENSLAND STUDY

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**Introduction:** The colonoscopy is a limiting but in increasingly demanded resource. Its efficiency of utilisation has however not adequately evaluated. The purpose of this study is to examine colonoscopy surveillance practices in Queensland and to quantify surveillance guideline adherence: the colonic polyp surveillance and the post colorectal cancer resection surveillance.

**Methods:** This project has three phases; The first phase is a systematic review and meta-analysis of the polyp surveillance colonoscopy adherence rate to the corresponding country-specific guidelines. The second phase will be an audit on the colonoscopies performed locally in Central Queensland. The third phase will be an analysis of patients from a large Queensland-based database (the COS-Q), which contains collections of cross-linked databases of individuals with cancer related data.

**Results:** The first phase: 16 studies (11,172 participants) were identified and included in the analysis. Overall, pooled findings showed 38% (95%CI: 30%-47%) of colonoscopies were performed earlier than their selected guidelines. The second phase: 2814 patients were identified during the study period. 56-68% of the surveillance colonoscopies were performed earlier than the recommended surveillance intervals. The third phase: A total of 11,087 patients with a resection for colorectal cancer in the COS-Q study were identified. Of the included patients, 82.1% had their first surveillance colonoscopy as recommended by the Guidelines. After the first post-operative surveillance colonoscopy without polypectomy, 96.4% had a second surveillance colonoscopy early.

**Conclusion:** A significant proportion of surveillance was performed earlier than recommended guidelines. Overuse of colonoscopy represents excessive use of healthcare resources and should be avoided.



## EVALUATING TELEHEALTH FOR BREAST CANCER FOLLOW-UP: PATIENT PERSPECTIVES AND ONCOLOGICAL SAFETY FROM A METROPOLITAN UNIT

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**Introduction:** Telehealth has become a permanent feature of clinical practice since its rapid adoption during the COVID-19 pandemic. While it offers clear logistical advantages, its role in long-term breast cancer (BC) surveillance requires validation. We aimed to assess both safety and patient perspectives of telehealth follow-up (TF) in a dedicated breast unit.

**Methods:** Over a six-month period in 2023, consecutive patients attending TF for BC surveillance at a metropolitan centre were identified. Clinical audit data regarding surgical history, imaging availability, and cancer outcomes were reviewed. In parallel, participants completed a structured survey on satisfaction, preferences, and acceptability.

**Results:** Seventy women were followed up via TF (mean age 61.7 years, range 33-85). The cohort included 62.9% breast-conserving surgery, 35.7% mastectomy, and 1.4% axillary clearance without primary. Surveillance imaging was available for 82.9% at the time of TF. No patients required conversion to face-to-face review, and no interval cancers were observed. Two patients underwent additional imaging with benign results. Sixty-three patients completed the survey. Overall satisfaction was high (93.7%), and 93.7% felt their concerns were addressed. More than half (52.4%) expressed a preference for TF, while 33.3% favoured in-person review and 14.3% had no preference. Nearly all (96.8%) reported confidence in requesting face-to-face consultation if necessary.

**Conclusion:** Telehealth appears to be a safe and acceptable modality for BC surveillance, with high levels of patient satisfaction and no adverse oncological outcomes observed in this series. Ongoing evaluation in larger, multi-centre cohorts with longer follow-up is required to validate its long-term role.





## **TIMING MATTERS: ECONOMIC CONSEQUENCES OF PRE-, INTRA-, AND POST-OPERATIVE ERCP FOR THE MANAGEMENT OF COMMON BILE DUCT STONES**

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**Background:** While ERCP is widely used for choledocholithiasis, the timing relative to laparoscopic cholecystectomy (LC) varies between institutions. This study evaluates the economic impact of pre-, intra-, and post-operative ERCP.

**Methods:** Retrospective review of 47 consecutive patients undergoing ERCP for CBD stones in conjunction with LC (2014–2018). Patients were stratified by timing of ERCP (pre-, intra-, or post-LC). Admission details, length of stay (LOS), number of procedures, and stone-related admission costs over 5 years from index procedure were analysed.

**Results:** Pre-operative ERCP was associated with the highest long-term costs (mean 5-year total \$33,743), followed by post-operative ERCP (\$29,147) and intra-operative ERCP (\$22,935). Theatre expenditure was greatest for pre-operative ERCP (\$6,545) compared to post-operative (\$6,253) and intra-operative (\$4,693) procedures. LOS was longer for staged approaches, and patients undergoing pre- or post-operative ERCP required more procedures overall. Across the cohort, the mean number of procedures was 2.06, with staged ERCP pathways significantly increasing resource utilisation.

**Conclusion:** Within ERCP-based management of CBD stones, timing has a significant impact on long-term cost and efficiency. Pre-operative ERCP incurs the highest economic burden, while intra-operative ERCP is the most cost-efficient approach but is limited by practical and logistical barriers. Centres reliant on ERCP should consider pathway optimisation to reduce staging, minimise duplication of procedures, and improve cost-effectiveness.



## **TURNING UP THE HEAT: WARM HUMIDIFIED CO<sub>2</sub> TO IMPROVE BOWEL RECOVERY IN OPEN COLORECTAL SURGERY**

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**Introduction:** Delayed return of bowel function after open colorectal surgery contributes to postoperative ileus (POI), prolonged hospital stays, and increased healthcare costs. While warm humidified CO<sub>2</sub> insufflation (WHCI) benefits laparoscopic surgery, its role in open procedures remains unclear.

**Methods:** A systematic review and meta-analysis of RCTs comparing WHCI with standard care in open abdominal surgery was conducted (databases: PubMed, OVID, Cochrane, Google Scholar; until Jan 2025). Outcomes included time to first flatus, stool passage, and incidence of POI.

**Results:** Nine RCTs met inclusion criteria (modest sample sizes, methodological variability). WHCI significantly reduced time to first flatus (2.5 vs 5.0 days,  $p = 0.008$ ), trended towards earlier stool passage (3.7 vs 5.5 days,  $p = 0.092$ ), and showed fewer POI cases (OR 0.26,  $p = 0.074$ ).

**Future Directions:** We have launched the first large-scale, multicentre RCT (ACTRN12625000087459) powered to evaluate WHCI's effect on bowel recovery after open colorectal resection using the HumiGard system. The primary outcome is time to return of bowel function (flatus or stool by 24, 48, and 72 hours).

**Conclusion:** Early data suggest WHCI may expedite bowel function recovery in open abdominal surgery. A definitive RCT will be underway, with potential implications for ERAS protocols to improve surgical recovery and reduce costs.





## DISCHARGE PRACTICES FOLLOWING FUNCTIONAL ENDOSCOPY SINUS SURGERY (FESS): AN AUSTRALIAN RETROSPECTIVE AUDIT

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**Introduction:** Functional endoscopic sinus surgery (FESS) is widely performed as a day-case procedure internationally, with low complication and readmission rates. In Australia, published evidence on discharge practices is limited, with variable approaches and no standardized guidelines for overnight admission versus same-day discharge.

**Methods:** We conducted a retrospective audit of FESS procedures performed at Flinders Medical Centre and Noarlunga Hospital in South Australia between 2019 –2023 to evaluate discharge patterns, including rates of same-day discharge, overnight admission, and unplanned conversions. Patient demographics, comorbidities, surgical factors, and outcomes were analysed to identify predictors of admission and postoperative complications.

**Results:** A total of 385 patients were included, with 232 (60.3%) discharged same day and 153 (39.7%) admitted overnight. Overnight admission was associated with older age, higher BMI and ASA scores, comorbidities (notably OSA, diabetes, hypertension), antiplatelet/anticoagulant therapy, and more complex procedures (frontal drill-out, bilateral full-house FESS, revisions). Thirty-eight patients (9.9%) intended for day stay converted to overnight admission. Multivariate analysis identified BMI as the strongest independent predictor of conversion (OR 1.12 per BMI unit). Surgery type also influenced outcomes, with frontal drill-out most likely and mini-FESS least likely to require overnight admission. Antiplatelet/anticoagulant use showed a borderline association after adjustment. Readmission was rare (12 patients, 3.1%), with no significant predictors identified.

**Conclusion:** Same-day discharge following FESS is safe and feasible in carefully selected patients. Higher BMI, anticoagulant/antiplatelet use, and complex surgery increase the likelihood of overnight admission. These findings provide local evidence to support development of standardized, evidence-based discharge guidelines in Australia



## OUTCOMES AND REOPERATION FOLLOWING MINIMALLY-INVASIVE LUMBAR DECOMPRESSION SURGERY

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**Introduction:** Minimally-invasive lumbar decompressions relieve stenosis whilst preserving tissue integrity. However, a proportion require reoperation, the rates and reasons for which are under-reported in the literature. This study investigates the incidence, timing, and risk factors for reoperation after tubular decompression, alongside predictors of poor outcomes.

**Methods:** A retrospective case-control study was conducted on all tubular decompressions at a single neurosurgical centre from 2011–2024. Reoperations were defined as further surgery at the same level. Matched controls were selected based on procedure type, timing, spinal level, and surgeon. Variables included demographics, comorbidities, frailty indices, funding status, and operative factors. Outcomes were assessed using the modified MacNab scale. Multivariate logistic regressions identified predictors of reoperation and poor outcome.

**Results:** A total of 10.6% of patients required reoperation, of which 22.9% were early (<30 days) and 19.1% required a further reoperation. Predominantly, reoperations were washouts for haematoma in the short-term and redo decompressions for residual compression in the long-term. After multivariate analysis, patients were more likely to require reoperations in the short-term if they had depression/anxiety, a higher mCCI, preoperative platelet level or hypercholesterolaemia. In the long-term this was linked with being privately funded or unilateral symptoms. Overall, worse MacNab outcomes were associated with younger age, depression/anxiety, and a higher MFI-5 comorbidity score.

**Conclusion:** Within this large case-control series, we describe the complication profile after tubular lumbar decompression surgery. The identification of risk factors for reoperation and worse outcomes in both the short- and long-term may help guide preoperative planning and assist patient counselling.



## USING DRAIN BIOMARKERS TO DETECT ANASTOMOTIC LEAKS FOLLOWING COLORECTAL SURGERY: A SYSTEMATIC REVIEW

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**Introduction:** Anastomotic leaks (AL) are a major complication following colorectal surgery, with an incidence of 2–10% and a mortality rate of 10–15%. Early detection of AL is difficult, and diagnosis is often delayed, leading to additional, avoidable harm. Several drain biomarkers have been investigated as early markers of AL, but their relative accuracy remains unclear. This review aimed to determine the diagnostic accuracy of drain fluid biomarkers for the early detection of colorectal AL.

**Methods:** A systematic review of the Scopus, Embase and Medline databases was performed from inception to July 2025. Articles including colorectal surgeries with anastomoses, with measurement of drain fluid biomarkers up to and including the seventh post-operative day, were included. Details on biomarkers, timing of measurement and diagnostic performance for AL detection were extracted. Metaanalyses were performed to generate pooled sensitivity and specificity using random effects models.

**Results:** Searches identified 2992 studies, of which 64 were included, representing 7538 patients. A range of luminal, inflammatory and metabolic biomarkers were studied. The most studied biomarkers were amylase, pH and C-reactive protein. The most accurate biomarkers were amylase (pooled sensitivity: 100%, specificity: 99.6%, area under the curve 0.93) and pH (pooled sensitivity: 88.1%, specificity: 94.1%, area under the curve 0.96). Inflammatory biomarkers and cytokines showed fair–moderate diagnostic performance.

**Conclusion:** Drain fluid biomarkers have the potential to detect AL earlier than current clinical methods following colorectal surgery. Further well-powered studies are needed to assess whether timely biomarker-guided intervention can improve the early identification and management of colorectal AL.



## IMPROVING CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY – UNDERSTANDING MOLECULAR MUTATIONS IN COLORECTAL PERITONEAL METASTASES

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**Introduction:** Cytoreductive surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC) can improve survival in patients with resectable colorectal peritoneal metastases (CPM). Given the significant morbidity of CRS–HIPEC, judicious patient selection is pertinent. This study assessed the influence of KRAS/BRAF mutation on prognosis in patients with CPM.

**Methods:** A retrospective analysis of 196 patients who underwent CRS–HIPEC for CPM at Sir Peter MacCallum Cancer Center (2014–2024) was performed.

**Results:** The median overall survival (OS) was 36 months (95%CI 31.56–40.44), and median disease-free survival (DFS) was 10 months (95% CI 8.16–11.8). 33 patients (17%) were BRAF-mutant, 87 (44%) were KRAS-mutant, 17 (8.7%) were mismatch repair deficient (MMRd), and 73 (37%) were pan-wild type (WT). 63% of BRAF patients had V600E variant, which conferred inferior OS to KRAS and pan-WT groups (3-year OS, 16.2%, 55%, and 52% respectively;  $p=0.029$ ). On KRAS subgroup analysis, G12V variant was associated with inferior OS to non-G12V KRAS variants and pan-WT patients ( $p=0.048$ ). We did not find any difference in survival relating to MMRd. Multivariate Cox regression confirmed BRAF V600E, peritoneal cancer index (PCI), and cytoreduction clearance (CC) score were negative predictors of OS.

**Conclusion:** The presence of a BRAF V600E mutation or a KRAS G12V mutation are negative predictive factors for patient OS, alongside PCI and CC score. For patients with CPM being considered for CRS–HIPEC, molecular features alongside clinical and pathological factors should guide patient selection in order to optimise outcomes.



## SYNERGISING IMMUNE ACTIVATION IN ANAL SQUAMOUS CELL CARCINOMA (ASCC) WITH PHOTO-IMMUNOTHERAPY (PIT): TRANSLATIONAL EVIDENCE FROM PRECLINICAL MODELS

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**Introduction:** Unresectable/metastatic ASCC patients represent a nihilistic cohort with dismal response rates (9–24%) from immune checkpoint blockade (ICB). Progress is hampered by tumour rarity, poor clinical trial accrual and scarcity of preclinical models. We established an integrated translational program incorporating patient-derived ASCC biopsies, immune characterisation, cell line/organoid derivation and novel therapeutic testing utilising next generation PIT with INV043 and anti PD-1.

**Methods:** ASCC biopsies underwent multiplex immune and transcriptomic profiling to analyse the tumour immune microenvironment (TIME). INV043 +/- anti PD-1 was evaluated across ASCC cell lines/organoids, both immunodeficient and competent murine models to assess for cytotoxicity. In vivo efficacy was assessed by tumour volume, histopathology and tumour infiltrating lymphocytes (TILs) density.

**Results:** Primary/p16 positive ASCC demonstrated CD4+/Treg+ enrichment predictive of improved survival. Corresponding cell lines/organoids were sensitive to INV043 (AUC 99–140). Contrary, human papillomavirus (HPV)-/p16- models showed relative resistance ( $p=0.046$ ). Tumour-TIL coculture exhibited intact PD-L1/PD-1 signalling and immune activation. When INV043 is used alone some tumour control is evident (33%) but when combined with anti-PD1, 80% of mice eliminate the tumour masses completely. Anti-PD1 alone cured only 12% of mice. Responders exhibited robust infiltration of CD8+, CD4+, B220+ B cells, and Treg+ cells paralleling human TIME data.

**Conclusion:** We report the first HPV+/- syngeneic ASCC murine model alongside a patient-derived translational pipeline demonstrating potent immune activation and tumour eradication with INV043 and ICB. This excellent preclinical efficacy of PIT addresses a critical gap in ASCC management and underpinning PHOTOCHECK, a Phase 1 first-in-human PIT trial in relapsed ASCC.



## LAPAROSCOPIC COMMON BILE DUCT EXPLORATION FOR THE NEXT GENERATION: A RATIONALE FOR JUNIOR SURGEONS TO OPERATE

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**Backgrounds:** Laparoscopic common bile duct exploration (LCBDE) offers a single-stage alternative to ERCP. However, concerns remain regarding the experience required to perform such procedure safely and effectively. This study aims to address the feasibility of involving junior surgeons in this procedure.

**Methods:** All adult patients that underwent LCBDE in Northern Health, Australia, from the 1st of January 2008 to 1st of January 2023 were retrospectively audited. Data including patient demographics, pre-operative, operative and post-operative details were collected.

**Results:** A total of 962 patients were identified over the 15-year period. Success rate based on operative report was 84.4%, and 6-month post-discharge common bile duct retained stones occurred in 3.6% of all cases. Junior surgeons (pre- and post-fellowship trainees) as independent primary operators demonstrated comparably high success rate (87.3%), short overall operative time (150.0 minutes,  $p<0.001$ ) and low bile leak rate (0.5%,  $p=0.29$ ). On multivariate analysis, junior surgeons as either independent or partial primary operators (Odds Ratio 1.8, 95% CI, 1.1 – 2.9,  $p=0.02$ ) were statistically correlated to a successful outcome without 6-month stone recurrence and not requiring perioperative ERCPs.

**Conclusion:** Junior surgeons should be actively encouraged to participate and undertake primary operator roles, as the clinical outcomes demonstrate safety and efficacy. As junior surgeons progressively develop competency, LCBDE has the potential to become a mainstream treatment option in appropriately selected patient cohorts, offering value to patients and ensuring the confident transfer of skills to younger surgeons.



## EARLY DRAIN COLOUR CHANGE FOR DETECTION OF CLINICALLY RELEVANT POSTOPERATIVE PANCREATIC FISTULA (CR-POPF)

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**Introduction:** Clinically relevant postoperative pancreatic fistula (CR-POPF) is the most significant complication of pancreatic resection. It is a challenging complication to manage and has potential to lead to mortality. This study aims to investigate the value of using drain fluid colour as an early indicator of CR-POPF.

**Methods:** All adult patients who underwent pancreatic resection at Northern Health, from 1 January 2010 to 31 December 2022 were retrospectively audited. Patient demographics, preoperative, operative and postoperative data were collected.

**Results:** A total of 169 patients were identified over the 13-year period. Soft pancreatic texture (Odds ratio 4.8, 1.9 – 12.1,  $p < 0.001$ ) and pancreatic ductal diameter less than 3 mm (OR 2.3, 1.04 – 5.1,  $p = 0.04$ ) were identified as risk factors. Abnormal drain colour (i.e. dark red, brown or port wine) in the first 5 days following surgery was successful in predicting CR-POPF with a sensitivity of 72.5% and specificity of 86.8%, and an odds ratio of 11.7 (4.7 – 29.2,  $p < 0.001$ ) on multivariate analysis.

**Conclusions:** Abnormal drain fluid colour offers clinical value for early detection of CR-POPF. Early detection may allow earlier management or prevention of secondary complications.



## VIDEO-BASED ASSESSMENT OF OPERATIVE COMPETENCY IN LAPAROSCOPIC CHOLECYSTECTOMY: A PROSPECTIVE STUDY TO INFORM RUBRIC DESIGN

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**Objective:** This pilot study aimed to assess the interrater reliability of quantitative measures derived from video-based evaluation of laparoscopic cholecystectomy performance, with the future aim of developing an objective assessment tool and use of artificial intelligence for this procedure.

**Methods:** This study was conducted at a single metropolitan training hospital in Australia. Quantitative metrics based on thirty randomly selected videos were evaluated by three surgeon assessors. Interrater reliability was measured using percent agreement (PA) for categorical items and intraclass correlation coefficient (ICC) models for numerical items.

**Results:** The study identified that majority of objective measures exhibited at least moderate interrater reliability (ICC, 0.4 – 0.6). Achievement of critical view of safety (PA, 0.71 – 0.87) and case complexity (PA 0.59 – 1.0) demonstrated the highest interrater reliability, however this declined as task complexity increased.

**Conclusions:** There is potential to develop an objective video-based evaluation tool for laparoscopic cholecystectomy based on more quantitative assessment items, as evidenced by the interrater reliability results in this pilot study. Further research on artificial intelligence and computer vision will be beneficial in establishing a reliable and valid scoring tool.





## INTENTIONAL PRE-OPERATIVE WEIGHT LOSS FOR OBESITY IN PATIENTS UNDERGOING GASTROINTESTINAL CANCER RESECTIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Obesity increases peri-operative risk in gastrointestinal (GI) cancer surgery. Preoperative weight loss could mitigate complications however evidence regarding its safety and efficacy remain unclear.

A systematic review of MEDLINE, PubMed, EMBASE, and Cochrane databases was conducted adhering to PRISMA 2020 guidelines. Studies included adults ( $\geq 18$  years) with obesity ( $\text{BMI} \geq 30 \text{ kg/m}^2$ ) undergoing GI cancer surgery who received structured preoperative weight loss interventions, including calorie restricted diet, exercise or bariatric surgery. Primary outcomes were feasibility and overall postoperative complications; secondary outcomes included anastomotic leak, operative time, and adverse events.

Eight retrospective cohort studies comprising of 532 patients (213 weight loss vs 319 control) were included. 96.9% of patients were successful in preoperative weight loss with no intervention-related harms or surgical delays reported. Analysis showed significant reduction in overall postoperative complications (OR 0.37,  $p = 0.02$ ) and anastomotic leak (OR 0.26,  $p = 0.002$ ) in the weight loss group.

Intentional preoperative weight loss is attainable, safe and may improve surgical outcomes in patients with obesity undergoing cancer surgery. Adoption of such strategies may provide a modifiable means to reduce surgical risk. Prospective trials are required to define optimal protocols, timing, and oncologic safety.



## PUSHING THE BOUNDARIES OF ORGAN PERFUSION - TRANSCRIPTOMIC PROFILING OF HUMAN LIVERS ON LONG-TERM NORMOTHERMIC MACHINE PERFUSION

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**Introduction:** Long term normothermic machine perfusion (LT-NMP) has emerged as a transformative platform for liver preservation, enabling graft assessment and reconditioning. Our group has demonstrated the possibility of perfusing human livers using LT-NMP for several weeks. However the molecular, cellular and structural changes occurring during LT-NMP remains unknown. This study presents the first transcriptomic characterisation of human livers surviving up to 3 weeks on LT-NMP, a global milestone in extended liver perfusion.

**Methods:** Donated human liver grafts were perfused using our custom LT-NMP system. Liver viability was determined through haemodynamic parameters, bile production, glucose metabolism and lactate clearance. Bulk and single-cell RNA sequencing was conducted to determine the transcriptomic profile during LT-NMP. Comparative analysis was done between short and long survival groups. A multiomic approach was used to understand the changes taking place in organs perfused for up to 3 weeks.

**Results:** All livers demonstrated functional recovery after the initial ischaemia reperfusion injury within 24-48 hours of LT-NMP. Histological markers of injury remained low. RNA sequencing revealed sustained hepatocellular metabolic activity during the maintenance phase. Comparative analysis identified novel gene expression and changes in the transcriptomic profile during LT-NMP.

**Conclusion:** This is the first study to demonstrate the possibility of extending LT-NMP of human livers to 3 weeks. It provides insight into the molecular drivers of ex-situ survival, paving way for advancements in graft preservation techniques and pushing the boundaries of LT-NMP. Understanding these mechanisms may unlock new therapeutic targets to improve outcomes in organ reconditioning and modification for transplantation.





## THE COST OF COMPLICATIONS: ECONOMIC BURDEN OF ADVERSE EVENTS FOLLOWING ERCP AND LAPAROSCOPIC CBD EXPLORATION

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**Background:** While it is expected that complications increase healthcare costs through longer admissions and additional interventions, the magnitude of this burden in biliary interventions is less well defined. This study quantifies the economic impact of complications following ERCP and laparoscopic common bile duct exploration (CBDE).

**Methods:** A retrospective cohort study of 317 patients managed for choledocholithiasis between 2014 and 2018 was performed. Patients underwent either CBDE at the time of laparoscopic cholecystectomy or ERCP in conjunction with cholecystectomy (pre-, intra-, or post-operative). Costs were assessed at the index admission as well as stone-related admission costs over five years.

**Results:** Bile leak occurred in 4.8% of CBDE and 2.1% of ERCP cases. In CBDE, bile leak increased median index admission cost by +\$4,600 ( $p=0.003$ ), five-year total cost by +\$4,350 ( $p=0.008$ ), and theatre expenditure by +\$1,420 ( $p=0.001$ ). In ERCP, bile leak was associated with larger increases (+\$9,800 index, +\$20,200 five-year), though significance was limited by sample size. Pancreatitis occurred in 1.5%, and was associated with increases of +\$4,900 at index and +\$8,600 at five years. Other complications were infrequent and underpowered for comparison. Among patients with complications, five-year costs trended higher following ERCP (\$20,800) compared with CBDE (\$15,200), though not significant ( $p=0.12$ ).

**Conclusion:** Complications predictably add cost through prolonged length of stay and further procedures, but this study demonstrates the scale of their economic impact. Bile leak and pancreatitis are the principal cost drivers, emphasising that preventing complications is critical not only for patient outcomes but also for reducing long-term healthcare expenditure.



## EFFECT OF TIMING AND MODALITY OF INTERVENTION ON JUXTA-ANASTOMOTIC ARTERIOVENOUS FISTULA STENOSIS: A RETROSPECTIVE COHORT STUDY

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**Introduction:** Juxta-anastomotic stenosis is a frequent cause of arteriovenous fistula (AVF) dysfunction. Management options include endovascular angioplasty or stenting, or open surgical revision. Open revision has been shown to be superior compared to endovascular intervention, but there is limited data comparing the specific endovascular strategies, including the impact of stent timing.

**Methods:** 246 radiocephalic AVFs with juxta-anastomotic stenoses were retrospectively analysed at our centre. Patients were categorised into balloon angioplasty only, stenting, or open surgical revision. Patients were further stratified into early stenting (during the first intervention), or late stenting (during subsequent interventions). The primary outcome was access failure (thrombosis), and time to failure was assessed using Kaplan-Meier survival curves. Logistic regression was used to adjust for patient demographics.

**Results:** Juxta-anastomotic stenting was shown to be non-inferior to open surgical revision in the management of juxta-anastomotic stenosis (18.8% vs 18.2%). Balloon angioplasty without stenting had the shortest access survival time on Kaplan-Meier analysis. Early stenting also demonstrated a trend to lower risk of overall access failure compared to late stenting (OR 0.27, 95% CI: 0.02 – 3.34;  $p = 0.31$ ), though not statistically significant.

**Conclusion:** Stenting and surgical revision have a lower thrombosis rate and longer access survival time compared to balloon angioplasty only. The timing of stent placement also influences long term outcomes. This may be due to stent placement being reserved for AVFs that have previously failed balloon dilatation. The findings highlight the importance of consideration of early stent placement in AVFs with juxta-anastomotic stenoses.



## DO PERIOPERATIVE SYNBIOTICS REDUCE TOTAL POSTOPERATIVE INFECTION RATES FOLLOWING ELECTIVE COLORECTAL RESECTION? A RANDOMIZED CONTROLLED TRIAL.

**Claudia Paterson** (presenter, 1), Helen Johnson (2), Charlotte Cahill (2), Zhenqiang Wu (3), Renato Pitesa (1), Siska Falconer (1), Melanie Flaherty (1), Simon Richards (2), Wal Baraza (1), Parry Singh (1), Andrew Hill (1)

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**Introduction:** Emerging evidence suggests that the gut microbiota may contribute to the development of postoperative infections following elective colorectal resection, and may serve as a target for intervention. This study aimed to investigate the efficacy of a perioperative synbiotic (probiotic + prebiotic) regimen on total postoperative infection rates within 30 days of surgery.

**Methods:** A double-blinded, superiority 1:1 randomized controlled trial (RCT) was conducted across three New Zealand public hospitals between June 2024 and July 2025. Eligible patients were adults undergoing elective colorectal resection for any indication, with an anastomosis and a portion of colon remaining insitu postoperatively. Exclusion criteria included acute surgery, probiotic intolerance, patient refusal, acute pancreatitis, and severe immunosuppression. Hospital sites were stratified to account for variations in mechanical bowel preparation and oral antibiotic protocols. Participants received either a synbiotic powder or maltodextrin placebo once daily for 7 days preoperatively and 14 days postoperatively. The primary outcome was total postoperative infection rates within 30 days of surgery.

**Results:** Of the 209 participants randomised, 165 remained in the study postoperatively. The median age of participants was 65 years, and 53.9% were male. Malignant indications for surgery were present in 73.9% of cases. All participants had undergone surgery by 31 July 2025, and all participants will have completed the 30-day follow period by 31 August 2025.

**Conclusion:** This is the first RCT in Australasia to assess the efficacy of a perioperative synbiotic regimen on postoperative infections following elective colorectal resection. Results will be available after 31 August 2025.



## SPINAL INFECTION: AN EVOLVING CLINICAL AND PUBLIC HEALTH CHALLENGE

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**Introduction:** Spinal infection is a complex disease for which there have been anecdotal and international reports of increasing incidence. Understanding of disease burden in Australia is limited.

**Methods:** Data spanning 2013 to 2022 was derived from patient records at The Royal Melbourne Hospital, a quaternary public hospital and one of five adult public neurosurgical units in the state of Victoria, Australia. Logistic and negative binomial regression was used to examine trends.

**Results:** Across the investigation period, 771 referrals for spinal infection were received, increasing by 13.2% per year ( $p < 0.001$ , 95% CI: 8.6 to 18.1), with the majority from areas of relative socioeconomic disadvantage. The incidence of spinal infection admissions per 10,000 hospital admissions rose by 4.7% per year ( $p = 0.004$ , 95% CI: 1.5 to 7.9). The annual mean number of risk factors per patient increased by 4.8% per year ( $p = 0.033$ , 95% CI: 0.4 to 9.5). Whilst Methicillin-sensitive *Staphylococcus aureus* (MSSA) was the most common causative organism cumulatively, the annual incidence of non-MSSA organisms increased by 13.1% per year ( $p = 0.015$ , 95% CI: 2.5 to 25.0). The annual mean duration of intravenous antibiotic treatment decreased by 11.5% per year ( $p < 0.001$ , 95% CI: 7.8 to 15.1). 341 surgeries were performed, and were positively correlated with the number of spinal infection admissions ( $p < 0.001$ ).

**Conclusion:** Our observations confirm a significant rise in the incidence of spinal infection over 10 years, coupled with a changing landscape in both patient profiles and treatment paradigms.



## APPENDICITIS SCORING SYSTEMS IN LOW- AND LOWER-MIDDLE-INCOME COUNTRIES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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**Introduction:** In many low- and lower-middle-income countries (LICs and LoMICs), limited access to imaging and laboratory tests makes clinical scores pivotal for diagnosing appendicitis. Multiple scores exist and may perform differently across populations. We evaluated which scores are most commonly used in LICs/LoMICs and which offer the best diagnostic accuracy.

**Methods:** Following PRISMA guidelines (PROSPERO CRD42024621767), we included studies from CENTRAL, MEDLINE, Embase, and Scopus from inception to December 2024. Diagnostic accuracy was synthesised using bivariate (HSROC) models, and likelihood ratios (LR<sup>+</sup>/LR<sup>-</sup>) and diagnostic odds ratios (DORs) were meta-analysed. Risk of bias was assessed using QUADAS-2 tool.

**Results:** Ninety studies (n=13,081; 87 LoMICs, 3 LICs) were included. The Alvarado (k=54) and Modified Alvarado (k=26) scores were the most commonly used. On HSROC, RIPASA (k=20) showed the highest sensitivity/specificity (0.95/0.80) and very low LR<sup>-</sup> (0.07). YASH also performed strongly (0.97/0.90; LR<sup>-</sup> 0.04), but had few studies (k=3). AIRS (0.86/0.75) and Tzanaki (0.86/0.79) offered balanced accuracy. Alvarado (0.77/0.77) and Modified Alvarado (0.75/0.79) provided moderate discrimination. Lintula was weakest (0.75/0.63) with wide confidence intervals.

**Conclusion:** Although the Alvarado score remains the most used and pragmatic, population-specific scores, such as RIPASA and YASH (pending larger validation), offer stronger rule-out performance, with AIRS and Tzanaki providing balanced alternatives. Larger prospective LIC-focused validation studies are a priority for optimising context-appropriate adoption.



## REVISITING DIET AND APPENDICITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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**Introduction:** Understanding of the aetiology of acute appendicitis (AA) has yet to converge on a single unifying theory. Low-fibre western dietary patterns (WDP) have long been thought to increase risk of AA, yet the strength and consistency of the evidence has not been quantified.

**Material & Methods:** A systematic review was conducted following PRISMA guidelines (PROSPERO CRD420251024372). All human studies published in CENTRAL, MEDLINE, Embase, and Scopus from inception to December 2024 were retrieved. The primary outcome investigated was incidence of AA, dietary patterns and the association between the two. Secondary outcomes included severity of AA and appendiceal microbiome changes. Risk of Bias was assessed using the ROBINS-E tool. Studies with insufficient standardised data for meta-analysis or regression were synthesised narratively.

**Results:** Twenty-one studies (eight case-control, eight epidemiological, four cross-sectional, one cohort) met the inclusion criteria. Most studies were deemed to have high risk of bias. A meta-analysis of four case-control studies showed lower fibre intake in AA patients (MD -4.53 g/day [95%CI -8.50; -0.56] p = 0.02). A meta-regression of epidemiological studies (15 subgroups, 3 variance-weighted studies) suggested each additional gram of fibre daily was associated with a 34% reduction in AA incidence. A narrative synthesis of the remaining studies consistently linked low-fibre, high-meat, or sugar-dense WDPs with higher AA risk.

**Conclusion:** The available evidence, although largely observational, supports an inverse association between dietary fibre and AA, while meat- and sugar-rich WDPs appear to increase AA risk.



## MODIFIED APPEND SCORE FOR THE DIAGNOSIS OF ACUTE APPENDICITIS IN A NEW ZEALAND PASIFIKA POPULATION

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**Introduction:** Diagnosing acute appendicitis often requires biochemical and imaging support which may not be feasible in low- and middle-income countries (LMICs). The APPEND score, developed in New Zealand, includes C-reactive protein (CRP) which in resource-limited settings, may be hindered by slow processing times. This study aims to evaluate a modified APPEND score (mAPPEND), excluding CRP for diagnosing appendicitis in a New Zealand Pasifika cohort.

**Methods:** This secondary analysis utilised data from two cohorts (2011 and 2017) from Middlemore Hospital, Auckland. Adults  $\geq 15$  years with  $< 7$  days of right iliac fossa pain were included; prior appendicectomy or generalised peritonitis were excluded. Sensitivity, specificity, positive/negative predictive values (PPV/NPV) were calculated, and area under the receiver-operating-characteristic curve (AUC) were calculated for both scores.

**Results:** Among 143 Pasifika patients, the AUC for the APPEND and mAPPEND scores were comparable (0.84 vs. 0.85 respectively,  $p = 0.41$ ). The mAPPEND score demonstrated high diagnostic accuracy with scores between 1 and 2 showing high sensitivity (100% and 97%) and NPV (90% and 92%), scores 4-5 showing high specificity (94% and 100%, respectively) and PPV (90% and 100%, respectively), and a score of 3 being the most efficient with a sensitivity of 82% and specificity of 71%.

**Conclusion:** The mAPPEND score, maintains high diagnostic accuracy for appendicitis in a New Zealand Pasifika population. This modified score is a simple and viable tool in settings where CRP testing is unfeasible, supporting its use in Pacific Island countries.



## FILTERED WATER IN COLONOSCOPY: A PROSPECTIVE SUSTAINABILITY PROJECT

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**Introduction:** Sustainable healthcare is an evolving paradigm of growing importance that focuses on reducing environmental impact whilst maintaining quality patient care. Quality evidence is lacking to support the use of sterile water in diagnostic endoscopy resulting in a growing shift towards use of tap water and appropriate recycling of bottles. This single centre interventional study assessed patient outcomes and quantitative water use and cost benefits during colonoscopy with the use of tap water for irrigation.

**Methods:** Local ethics approval was sort. All patients who underwent a colonoscopy at this single centre between 1st of February 2025 and 30th of April 2025 were recruited consecutively. Appropriately trained endoscopy nursing staff prepared filtered, room temperature water for all diagnostic endoscopic procedures during this time. Quantitative measurements of volumes of water were recorded electronically during procedure. Peri-procedural and post-procedural complications were retrospectively audited one month after the procedure.

**Results:** Complete patient data was collected on 133 patients. No infective presentations or complications were recorded. Five patient complications were noted; abdominal pain, intra-operative atrial fibrillation, perrectal bleeding and constipation. Mean water use per colonoscopy was 205mls. The estimated economic savings for the health service was over \$13 000 per annum.

**Conclusion:** Tap water use in endoscopy is a safe, simple, economic alternative which promotes sustainable healthcare for the future.



## COMPLIANCE AND TOXICITY OF TOTAL NEOADJUVANT THERAPY IN LOCALLY ADVANCED RECTAL CANCER: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS



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**Introduction:** The individual chemotherapy- and radiotherapy-related toxicities between induction (iTNT) and consolidation total neoadjuvant therapy (cTNT) remain unclear. This network meta-analysis (NMA) comparing iTNT, cTNT, and traditional neoadjuvant chemoradiation (nCRT) evaluated the comparative treatment-related toxicities and compliance of the TNT schemas.

**Methods:** A systematic review of randomized clinical trials and nonrandomized studies of interventions was performed as per Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)-NMA guidelines. A Bayesian NMA was conducted, and odds ratios (OR) with 95% credible intervals (CrI) are reported for all outcomes.

**Results:** Eighteen studies including 5730 patients were identified. iTNT ranked highest on rate of rectal bleeding (cTNT: OR 0.23 95% CrI 0.05–0.93; nCRT: OR 0.33, 95% CrI 0.09–0.96), proctitis (cTNT: OR 0.2, 95% CrI 0.06–0.55; nCRT: OR 0.2, 95% CrI 0.06–0.51), and postoperative diarrhea (cTNT: OR 0.37, 95% CrI 0.18–0.73; nCRT: OR 0.33, 95% CrI 0.15–0.71); cTNT ranked highest on rate of vomiting (iTNT: OR 0.24, 95% CrI 0.05–0.96; nCRT: OR 0.29, 95% CrI 0.06–0.89) and a higher rate of lymphopenia than iTNT (iTNT: OR 0.56, 95% CrI 0.34–0.99). Radiotherapy compliance was highest in cTNT (iTNT: OR 0.23, 95% CrI 0.05–0.72; nCRT: OR 0.18, 95% CrI 0.04–0.58). There was no difference in overall toxicity and mortality, chemotherapy compliance, and remaining individual system-based toxicities and postoperative complications.

**Conclusions:** Across all treatment strategies, iTNT had higher radiation-related gastrointestinal toxicities and postoperative diarrhea; cTNT had higher vomiting and lymphopenia rates. While no treatment strategy was superior in chemotherapy compliance, radiotherapy compliance was ranked highest in cTNT.



## RESTORING GASTRIC CONTRACTILE FUNCTION WITH NEURAL GASTRIC ELECTRICAL STIMULATION IN AN ACUTE PORCINE MODEL

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**Background:** Delayed gastric conduit emptying (DGCE) is a common complication following oesophagectomy, often resistant to conventional treatments. Neural gastric electrical stimulation (NGES) is a potential approach to managing DGCE by generating propulsive contractions through bursts of high-frequency, multi-site stimulation. This study evaluates the efficacy of NGES in enhancing gastric emptying in an acute porcine model of a vagally-denervated post-surgical conduit.

**Methods:** Six anaesthetised pigs underwent staged interventions to assess motility at/after: (1) baseline, (2) bilateral truncal vagotomy, (3) anterior-plus-posterior (A-plus-P) NGES, (4) anterior-only NGES, (5) gastric tubularisation, and (6) anterior NGES with tubularisation. NGES was delivered via multiple gastric serosal electrodes with sequential activation of electrode pairs to induce coordinated peristalsis. Liquid gastric emptying was measured by direct effluent collection, and myoelectrical activity was recorded from the same electrodes. Percentage gastric emptying was compared across conditions using repeated measures analysis.

**Results:** Vagotomy reduced gastric emptying from  $30.8 \pm 26.0\%$  to  $7.9 \pm 8.6\%$  ( $p < 0.01$ ). NGES restored emptying post-vagotomy to  $48.8 \pm 28.3\%$  with A-plus-P electrodes ( $p = 0.004$ ) and  $48.0 \pm 27.4\%$  with anterior-only electrodes ( $p = 0.003$ ). Gastric tubularisation independently improved emptying to  $70.0 \pm 21.5\%$  ( $p = 0.006$  vs Vagotomised whole stomach), with a peak of  $96.3 \pm 6.5\%$  when tubularisation was combined with anterior NGES.

**Conclusions:** NGES effectively restores gastric emptying after acute vagotomy, with anterior-only electrode stimulation achieving comparable efficacy to A-plus-P stimulation. These findings position NGES as a promising therapy for DGCE and other refractory gastric motility disorders, supporting progression to chronic animal studies to assess long-term efficacy and safety.





## HIGH-RESOLUTION BODY SURFACE GASTRIC MAPPING IN POST-OESOPHAGECTOMY PATIENTS: AN EVALUATION OF THE GASTRIC CONDUIT FUNCTION

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**Background:** Delayed gastric conduit emptying (DGCE) is a significant functional complication following oesophagectomy, that adversely impacts on patient quality of life and nutritional outcomes. The underlying pathophysiology remains poorly understood but is thought to be a result of surgical transection of vagus nerves, leading to abnormal gastric myoelectrical activity and impaired conduit motility. This study aimed to investigate symptom burden and gastric myoelectrical abnormalities using a non-invasive body surface gastric mapping (BSGM) device in post-oesophagectomy patients.

**Methods:** Patients who had previously undergone oesophagectomy with gastric conduit reconstruction were recruited. BSGM was performed using the Gastric Alimetry system, which comprises a high-resolution 64-channel electrode array, a wearable data reader, and a validated symptom-logging application. Patient-reported outcomes, including Konradsson's DGCE questionnaire, were recorded and analysed in conjunction with myoelectrical data.

**Results:** Nineteen patients were recruited, with a mean time of 45.4 months from oesophagectomy. Gastric Alimetry analysis identified four phenotypes: normal, dysrhythmic (low "rhythm index"), low frequency, and low amplitude. Patients in the dysrhythmic group exhibited a stronger association with DGCE, reflecting an underlying neuromuscular dysfunction characterised by unstable slow-waves. Interim results also revealed correlations between amplitude and symptom burden ( $r=0.47$ ;  $p=0.042$ ) and frequency and symptom burden ( $r=0.51$ ;  $p=0.032$ ).

**Conclusions:** This study demonstrates that Gastric Alimetry can stratify post-oesophagectomy patients into distinct gastric myoelectrical phenotypes, providing novel insights into the functional complications following surgery. These findings highlight the potential of non-invasive gastric mapping in the diagnosis and management of DGCE and other post-oesophagectomy disorders.



## ESTABLISHING EX VIVO NORMOTHERMIC MACHINE PERFUSION TO INCREASE USE OF MARGINAL DONOR KIDNEYS: A PILOT STUDY AND CLINICAL TRANSITION

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**Introduction:** To establish the technique of ex vivo normothermic machine perfusion (EV NMP) and create a platform for reconditioning and evaluating marginal donor kidneys, with the aim of increasing kidney utilization and improving transplant outcomes.

**Methodology:** A single-centre study was conducted using six non-utilized deceased donor kidneys. Three kidneys underwent EV NMP using a customized cardiopulmonary bypass machine, and three used the commercial Kidney Assist device. Perfusion quality was assessed by macroscopic inspection, urine output, renal blood flow. Biochemical markers were monitored throughout perfusion and histopathological analysis was also performed pre- and post-perfusion.

**Results:** All six kidneys demonstrated suitability for transplantation with good urine output, normal perfusion on macroscopic inspection and adequate blood flow. The perfusate creatinine levels also decreased significantly ( $p=0.02$ ). Following this pilot study, three marginal donor kidneys were evaluated on EV NMP for clinical transplantation. Two kidneys were ultimately utilized for clinical transplantation with satisfactory results, while one kidney was not utilized for clinical transplantation based on assessment while on EV NMP.

**Conclusion:** EV NMP is an emerging technology and provides a platform for further evaluation and reconditioning of marginal donor kidney to increase utilization. This pilot study has supported establishment of EV NMP at our centre, paving the way for further clinical trials and future research



## CLINICAL VERSUS PATHOLOGICAL STAGING OF RECTAL CANCER—THE CHALLENGES IN UNDERSTAGING RECTAL CANCER

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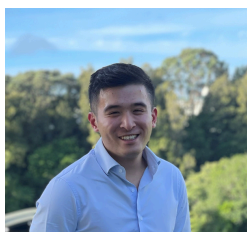
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**Introduction:** Neoadjuvant chemoradiotherapy (nCRT) followed by surgery is recommended for locally advanced rectal cancer, while total mesorectal excision (TME) alone is the standard care for early rectal cancers (T1,2N0). However, preoperative clinical staging has been found to understage tumour depth and nodal disease in up to 31% of cases. The present study aimed to evaluate the accuracy of preoperative staging with focus on understaging and its effects on receiving neoadjuvant chemotherapy and outcomes.

**Methods:** This is a retrospective cohort study of all rectal cancer patients who underwent surgical resection at two Western Australian hospitals between 2004 and 2023. Preoperative tumour staging and survival outcome were assessed and analysed using SPSSver.29.

**Results:** 180 patients (25%) underwent primary surgical resection with curative intent for early rectal cancer. Among these patients, 108 had correct preoperative staging (60%), while 72 were understaged (40%). 189 patients were appropriately staged for nCRT + TME. In comparison to appropriately staged TME only participants, the overall recurrence was higher in understaged patients (17.2% vs. 4.6%;  $p=0.053$ ), as was cancer-specific mortality (9.7% vs 0.9%;  $p=0.005$ ). A fifth of understaged patients did not complete adjuvant therapy. Compared to appropriately staged pathological stage III participants, understaged patients had no difference in cancer mortality (9.7% vs 10.1%;  $p=0.936$ ) and recurrence (12.5% vs. 19.0%,  $p=0.211$ ).

**Conclusion:** This is a cautionary tale on the shortfalls of clinical staging as greater than one-third of patients undergoing TME for rectal cancer had undetected T3/4 or nodal disease, potentially missing the benefits of upfront nCRT.



## AN INNOVATIVE PERIVASCULAR CUFF MODEL OF NEOINTIMAL HYPERPLASIA

**Aaron Tran** (presenter, 1), Johannes Bösch (2, 3), Angelo Milani (2), Sophie Armstrong (4), Kar Ying Thum (4), James Bott (5), Gabriella Abbate (2,3), Francesco Baccoli (2,3), Hideaki Nonaka (2,3), Nchafatso Obonyo (2,3), Rachana Panduru (2), Dana Lee (2), Sandra Parker (2), Margaret Passmore (2), John Fraser (2,3), Jacky Suen (2,3), Bruce Garlick (2), Gianluigi Li Bassi (2,3,6), Anthony Dear (1,7)

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7. Department of Vascular Surgery, Box Hill Hospital, Eastern Health, Melbourne, VIC, Australia

**Introduction:** Evaluating novel treatments for neointimal hyperplasia (NIH), the aetiology of post-angioplasty restenosis, requires reproducible large animal models. Previously, a non-standardised ligature-based model has been utilised (Liu H, et al., 2019). We aimed to establish an innovative ovine NIH model utilising 3D-printed perivascular cuffs.

**Methods:** Multicomponent cuffs, consisting of hard outer shells and internal silicone O-rings, were designed, 3Dprinted and assembled. Border Leicester Merino crossbreed ewes were anaesthetised and received antibiotic prophylaxis prior to surgery. 2x2.5mm (n=2), and 2x2mm (n=1) internal diameter (ID) cuffs were implanted 10mm apart around left common carotid arteries (LCA) in 3 animals under sterile conditions. Post-procedurally, animals were weaned, extubated and received heparin, aspirin, clopidogrel, and antibiotics. After 28-days, experimental (LCA) and control right carotid artery (RCA) were harvested and histological sections taken proximal to first cuff, at the first cuff, inter-cuff region, at the second cuff, and distal to second cuff. Verhoeff-Van Gieson stain was used to evaluate neointima.

**Results:** All animals completed 28-day follow-up without complications. 2.5mm ID cuffs produced a 50% diameter reduction, yielding trivial LCA flow restriction determined ultrasonographically and inconsistent neointima. Conversely, 2mm ID cuffs produced a 66% diameter reduction, yielding decreased flow, increased neointima proximal to cuffs (intima to media ratio (I:M) 0.175); while RCA control yielded no neointima (I:M 0.016).

**Conclusion:** Preliminary evaluation of a 3D-printed perivascular cuff ovine NIH model producing 66% carotid diameter restriction results in a tenfold I:M ratio compared to control. This innovative model will be instrumental in investigating novel interventions to prevent restenosis.



## AN INNOVATIVE PERIVASCULAR CUFF MODEL OF NEOINTIMAL HYPERPLASIA: ASSESSMENT OF PERIPROCEDURAL MORBIDITY AND MORTALITY

**Aaron Tran** (presenter, 1), Angelo Milani (2), Johannes Bösch (2, 3), Sophie Armstrong (4), Kar Ying Thum (4), James Bott (5), Gabriella Abbate (2, 3), Francesco Baccoli (2, 3), Hideaki Nonaka (2, 3), Nchafatso Obonyo (2, 3), Rachana Panduru (2), Dana Lee (2), Sandra Parker (2), Margaret Passmore (2), John Fraser (2, 3), Jacky Suen (2, 3), Bruce Garlick (2), Gianluigi Li Bassi (2, 3, 6), Anthony Dear (1, 7)

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2. Critical Care Research Group, The Prince Charles Hospital, Brisbane, QLD, Australia
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4. Cardio-Respiratory Engineering and Technology Laboratory, Victorian Heart Hospital, Melbourne, VIC, Australia
5. Monash FutureLab, Monash University, Melbourne, VIC, Australia
6. Queensland University of Technology, Brisbane, QLD, Australia
7. Department of Vascular Surgery, Box Hill Hospital, Eastern Health, Melbourne, VIC, Australia

**Introduction:** Our previously utilised, ligature-based, non-standardised large animal model of neointimal hyperplasia (NIH) was complicated by 13.9% total occlusion and 5.6% mortality rates (Liu H, et al., 2019). We have recently developed a refined model of carotid NIH using a 3D-printed perivascular cuff. In this preliminary evaluation, we appraise complete vascular occlusion incidence, periprocedural neurological complications, and mortality.

**Methods:** After general anaesthesia and antibiotic prophylaxis, multicomponent cuffs were implanted in the left common carotid arteries (LCA) of 5 Border Leicester Merino crossbreed ewes. Ultrasonography was performed in control right common carotid arteries and experimental LCA 1.0cm proximal to cuffs, intercuff region, and 1.0cm distal to cuffs; animals received 5000IU heparin subcutaneously twice-daily, and cefazolin 1g and gentamicin 80mg intravenously every 12-hours for 48-hours; and aspirin 100mg, clopidogrel 75mg orally daily until euthanasia. Neurological status was evaluated using modified Glasgow Coma Scale (mGCS) and ovine behavioural assessment score (Boltze J, et al., 2008) at 2-, 4-, and 8-hours post-surgery, and every 12-hours thereafter to 36-hours. Gross neurology was subsequently observed daily for 28-days.

**Results:** All five animals completed the 28-day follow-up period. Post-procedural B-mode ultrasonography confirmed the absence of LCA occlusion in all cases. Throughout follow-up, behavioural scores (0/36) and mGCS scores (18/18) remained unchanged, confirming intervention safety.

**Conclusion:** In contrast to our earlier ligature-based, flow-restriction model, preliminary results indicate that our innovative 3D-printed perivascular cuff model avoids occlusion and post-procedural neurological complications, and is associated with 100% survival up to 28-days, offering improved standardisation and reproducibility, thereby advancing the field.



## IS NEUROTRAUMA TRAINING IN RURAL NEW SOUTH WALES STILL REQUIRED FOLLOWING THE IMPLEMENTATION OF THE NEW SOUTH WALES STATE TRAUMA PLAN?

**Johan Yusof Vessey** (presenter 1), Ganeshwaran Shivapathasundram (1), Nevenka Francis (1, 2), Mark Sheridan (1, 2)

1. Liverpool Hospital, NSW, Australia
2. UNSW Sydney, NSW, Australia

**Purpose:** In New South Wales (NSW), Australia, trauma accounts for 6% of deaths. Trauma patients receiving definitive care in regional trauma centres are 34% more likely to have a fatal outcome compared to level 1 centres. Following the implementation of the NSW State Trauma Plan where patients with major trauma are fast tracked to regional trauma services, should NSW rural surgeons and retrieval doctors continue to receive surgical training in neurotrauma?

**Methodology:** The study's primary objective was to ascertain which NSW regional and rural hospitals have the equipment to perform neurotrauma and when it was last used. The study also examined the outcome of those patients who had undergone an emergency neurosurgical procedure.

**Results:** Of the 149 regional and rural hospitals in NSW, 16 stored a Hudson brace, perforator, burr and Gigli saw sterile and ready to use in the operating theatre. Only one hospital utilised the equipment in the last year and 11 in the last 10 years. Of those patients who had undergone an emergency neurosurgical procedure, two patients died prior to transfer and three were confirmed deceased after transfer to a tertiary centre.

**Conclusion:** The implementation of the NSW State Trauma Plan has streamlined the trauma triage process and transport of neurotrauma patients to regional and major trauma services. However, it is likely that knowledge of how to perform burr hole and craniectomy for the evacuation of extradural haematoma remains a useful skill for the rural surgeon and retrieval doctor if transport is delayed.



## SAFETY AND EFFICACY OF MANAGING URETERIC STRICTURES UTILISING LINGUAL MUCOSA GRAFT URETEROPLASTY: AN EARLY SYSTEMATIC REVIEW OF THE LITERATURE

**Benjamin Ngie Xiong Wong** (presenter, 1), Damien Bolton (1)

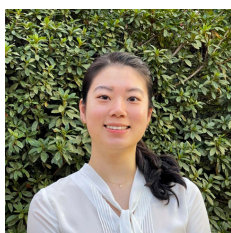
1. Austin Hospital, Melbourne, Vic, Australia

**Introduction:** The management of ureteric strictures remains a significant clinical challenge in urology. We aim to review the available literature on lingual mucosa graft (LMG) ureteroplasty and gain a better understanding of the safety, success rates and complications of LMG ureteroplasty for the management of ureteric strictures.

**Methods:** A systematic literature review was performed based on the protocol, utilising searches in PubMed, MEDLINE, and EMBASE databases. Our search strategy only included articles written in English. All results were screened in detail, and a comprehensive full-text review was carried out on all relevant articles.

**Results:** A total of 502 articles were identified and assessed for eligibility. All articles were screened thoroughly with 494 exclusions. 8 articles were included in our study, containing a total of 117 LMG ureteroplasties. 68 cases were carried out laparoscopically, and 49 cases were carried out using the robot-assisted approach. The overall successful outcome reported was 113 out of 117 (96.6%) cases, where 67 out of 68 (98.5%) and 46 out of 49 (93.9%) were performed via laparoscopic and robotic-assisted approaches, respectively. The complication rate was 23 out of 117 (19.7%) cases, with a less than 1% (1/117) rate of severe complications (Clavien-Dindo  $\geq$  III).

**Conclusion:** Lingual mucosa graft ureteroplasty demonstrated a high success rate for the management of ureteric strictures, with a high safety profile in both robotic and laparoscopic approaches. However, future prospective studies with a larger patient cohort, encompassing varying ureteric stricture lengths and extended follow-up periods are warranted to further validate these findings.



## POSTOPERATIVE METRONIDAZOLE FOR PREVENTING CROHN'S DISEASE RECURRENCE: A META-ANALYSIS OF EFFICACY AND SAFETY

**Caitlin Zhang** (presenter, 1), Marie Shella De Robles (1)

1. The Wollongong Hospital, Wollongong, New South Wales

**Introduction:** Postoperative recurrence of Crohn's disease (CD) is common after ileal resection, with endoscopic relapse rates reaching 90% within one year. Metronidazole, a nitroimidazole antibiotic with antimicrobial and immunomodulatory properties, has been proposed as a prophylactic agent. This meta-analysis evaluates the efficacy and safety of postoperative metronidazole, alone or in combination, for preventing CD recurrence.

**Methodology:** Following PRISMA guidelines, a comprehensive search of PubMed, Embase, and the Cochrane Library (1990–2025) identified randomized trials and observational studies reporting on postoperative metronidazole in CD. Primary outcomes were clinical and endoscopic recurrence. Secondary outcomes included adverse events and effect modification by dose, duration, or adjunctive therapies. Data were pooled using a random-effects model.

**Results:** Eleven studies (7 RCTs, 4 cohort studies; 1,352 patients) were included. Compared to placebo, metronidazole significantly reduced endoscopic recurrence (RR 0.44, 95% CI: 0.23–0.87) and clinical recurrence (RR 0.23, 95% CI: 0.12–0.46). Low-dose, 3-month regimens were most effective and well tolerated. Combination with azathioprine showed mixed results, with one RCT reporting benefit (44% vs 69% recurrence,  $p=0.048$ ). Colonoscopy-guided strategies using initial metronidazole reduced overtreatment and improved mucosal healing. Adverse effects—primarily neuropathy and gastrointestinal upset—were more frequent with long-term use (RR 2.39, 95% CI: 1.54–3.72).

**Conclusions:** Short-course metronidazole following ileal resection is an effective, low-cost strategy to reduce early CD recurrence. It is best used within colonoscopy-guided frameworks and may be selectively combined with immunosuppressants. Future research should focus on long-term outcomes and integration with biologics.

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# 2025 Quick Fire Presentations





## ANALYSIS OF TRENDS IN REGISTRATION OF RANDOMISED CLINICAL TRIALS OF SURGICAL INTERVENTIONS, 2013 TO 2022

**Suzen Agharia** (presenter, 1), Cade Shadbolt (2), Elise Naufal (2), Siddharth Rele (2), Yuxuan Zhou (2), Amanuiel Taddese (2), Daniel Gould (2), Sharmala Thuraisingam (2), Peter Choong (2), Chris Schilling (2), Michelle Tew (3), Phil Clarke (4), Michelle Dowsey (2)

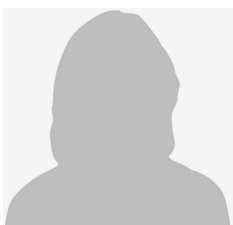
1. Department of Medicine, Nursing and Health Sciences, Monash University, Australia
2. Department of Surgery, University of Melbourne, Australia
3. Melbourne School of Population and Global Health, Centre for Health Policy, University of Melbourne, Melbourne, Australia
4. Health Economics Research Centre, Oxford University

**Introduction:** Selective or incomplete reporting of the results of randomised controlled trials (RCTs) can lead to substantial biases in the evidence available to clinicians. Prospective registration of key trial information– including clear reporting of the proposed primary outcomes of clinical trials– is an important bulwark against selective outcome reporting.

**Methods:** This was a cross-sectional study where the Cochrane Central Register of Controlled Trials was searched to identify RCTs assessing the safety or efficacy of at least one surgical intervention that were published between 2013 and 2022. From this broader sample, a team of reviewers manually screened a random sample of 10,000 potentially eligible references. The main outcome measured was the proportion of surgical studies that were prospectively registered with a clear primary outcome.

**Results:** Following preliminary screening, 268 trials were included for data extraction, among which 39.6% of trials provided evidence of registration in their published manuscript. Only 18.3% of these were prospectively registered and 22.4% were registered with a clear primary outcome, which had a negligible improvement over the decade. Ultimately, only 9.3% of published surgical RCTs were both prospectively registered and provided at least one clear primary outcome in their original registration. The quality of the reporting was not substantially different across the various surgical specialties. The data analysis is currently ongoing.

**Conclusion:** Compliance with recommended registration practices among published surgical RCTs remains low, which may result in unacceptably high rates of selective outcome reporting and other forms of publication bias, leading to distorted evidence of treatment efficacy



## ASCENDING AORTIC ENDOVASCULAR PROCEDURES AND STROKE RATES

Abhishekh Srinivas (1, 2), Abram Poznanski (2), **Hazera Akan** (presenter, 3), Chinmay Patil (3), Jessica Wang (3), Phil Lu (2), Thodur Vasudevan (1, 2)

1. Department of Surgery, School of Translational Medicine, Monash University
2. Department of Vascular Surgery, Alfred Health, Melbourne
3. School of Translational Medicine, Monash University

**Introduction:** The surgical intervention for ascending aortic pathologies has seen a marked evolution over the years, due to the combination of technological improvements in equipment and better understanding of its natural history. Anecdotal evidence at our centre has demonstrated a potentially increased stroke rate amongst patients who underwent complex ascending aortic endovascular surgery. The objective is to identify risk factors based on available preoperative and intra-operative clinical data that best predict postoperative stroke rates amongst these patients.

**Methods:** Deriving data from the Alfred aortic database, an observational study was conducted using a prospectively-maintained institutional dataset to identify patients who underwent aortic endovascular surgery involving either the ascending aorta and/or aortic arch. Following this, pre-operative patient characteristics, types of stents used, size and route of access sheaths and coverage were evaluated for all patients who underwent endovascular ascending/arch intervention between January 2020 to June 2025. Strokes were defined as radiological (either CT or MRI) evidence of infarcts on cross-sectional neuroimaging.

**Results:** We identified 118 ascending aortic and arch endovascular cases over a 5-year period. The overall stroke rate was 5.1%. Independent predictors of strokes included subclavian to carotid transposition (OR 5.2, pvalue 0.30), a Type II/III aortic arch (OR 10.1; p-value 0.54) and presence of aortic atheroma (OR 3.1, pvalue 0.04).

**Conclusions:** In our retrospective single-centre experience, ascending aortic and arch endovascular procedures were associated with a 5.1% stroke rate, with factors associated with stroke development including carotid transposition surgery to facilitate stent deployment, aortic arch anatomic anomalies and aortic atheroma.



## IMMUNOLOGICAL PROFILES IN PATIENTS UNDERGOING DISTAL PANCREATECTOMY WITH SPLENIC PRESERVATION VERSUS DISTAL PANCREATECTOMY WITH CONCURRENT SPLENECTOMY

**Prue Ashton** (presenter 1, 2), Lynn Chong (1, 2), Gabriela Khoury (3, 4), Ian Woolley (4), Brett Knowles (1, 5, 6), Lisa Brown (2, 5, 6), Benjamin Loveday (2, 5, 6)

1. St Vincent's Hospital Melbourne
2. The University of Melbourne
3. The Burnet Institute
4. Spleen Australia
5. The Royal Melbourne Hospital
6. Peter MacCallum Cancer Centre

Spleen-preserving distal pancreatectomy may offer safer, faster recovery — but does it truly protect immune function?

**Background & Aim:** Distal pancreatectomy (DP) can be performed with or without spleen preservation, yet comparative data on postoperative immunological outcomes remain limited. This study reviewed benchmarks for textbook outcomes after DP, assessed the immunological impact of splenectomy and splenic hypofunction, and compared outcomes across surgical techniques.

**Methods:** A literature search (Ovid Medline/PubMed, Embase, Cochrane Library) identified studies from 2010–March 2025. Studies were grouped as spleen-preserving DP (SPDP) vs. DP with splenectomy (DPS), and splenic vessel-preserving SPDP (SVP-SPDP) vs. splenic vessel-ligating SPDP (SVL-SPDP). The primary outcome was postoperative immunological function; secondary outcomes included operative time, blood loss, and complications. A combined prospective–retrospective cohort analysis is proposed to compare immunological outcomes across the three groups.

**Results:** Reporting of immunological outcomes, particularly infectious complications, was inconsistent. SPDP generally outperformed DPS, with shorter operative times, reduced blood loss, and fewer complications and readmissions. Comparisons between SVP-SPDP and SVL-SPDP were mixed: SVL-SPDP had shorter operative times but higher rates of splenic infarction and gastric varices.

**Conclusions:** Spleen preservation should be prioritised when feasible, though decisions must be individualised based on pathology and surgical expertise. SPDP appears to offer superior perioperative outcomes to DPS, but robust evidence on long-term immunological function remains lacking. This study aims to address this gap and clarify the immunological implications of differing DP techniques.



## DRUG-COATED BALLOONS IN INFRAPOPLITEAL ARTERIAL DISEASE: EVIDENCE, EFFICACY, AND FUTURE DIRECTIONS

**Calyb Austin** (presenter 1, 2)

1. University of Wollongong, Wollongong, NSW
2. Wollongong Hospital, Wollongong, NSW

**Background:** below-the-knee arterial disease in chronic limb-threatening ischemia (CLTI) poses high restenosis and reintervention rates following percutaneous transluminal angioplasty (PTA). Drug-coated balloons (DCBs), delivering antiproliferative agents like paclitaxel, aim to suppress neointimal hyperplasia without leaving a permanent scaffold. Efficacy and safety in this territory remain under investigation.

**Methods:** narrative and meta-analytic review from randomised trials and systematic analyses (2013– 2024) comparing DCB versus PTA for infrapopliteal disease. Outcomes included angiographic measures (late lumen loss, restenosis), clinical endpoints (target-lesion revascularisation, wound healing), and safety (amputation, mortality).

**Results:** A meta-analysis of 10 RCTs ( $n = 1,479$ ) found DCBs significantly decreased target-lesion revascularisation (OR 0.43;  $P < .01$ ), reduced restenosis (OR 0.42;  $P = .03$ ) and late lumen loss (mean difference  $-0.52$  mm;  $P < .01$ ), and improved wound healing (OR 2.12;  $P < .01$ ), without increase in mortality or major amputation. A recent European Heart Journal meta-analysis (2024) of 6 RCTs ( $n \approx 1,263$ ) showed that while clinically-driven target lesion revascularization (CD-TLR) wasn't significantly different (OR 0.79;  $P = .64$ ), limus-based drug devices notably reduced binary restenosis (OR 0.39;  $P < .01$ ), suggesting pharmacologic agent choice matters. Early pilot trials, such as IN.PACT BTK, demonstrated lower 9-month subsegmental late lumen loss with paclitaxel-DCB versus PTA in chronic total occlusions.

**Conclusions:** DCB therapy for infrapopliteal disease shows promise—offering better angiographic, wound healing, and reintervention outcomes with preserved safety. Yet, clinical benefit on hard endpoints remains equivocal. High-quality, comparative studies with longer follow-up and stratification by drug class are needed to optimise device selection and define clinical roles.



## HOW DOES TRANSPERINEAL ULTRASOUND COMPARE WITH DEFAECATION PROCTOGRAPHY FOR THE ASSESSMENT OF OBSTRUCTED DEFAECATION – A SYSTEMATIC REVIEW

**Lashnika Bandaranayake** (presenter, 1), Shella De Robles (1)

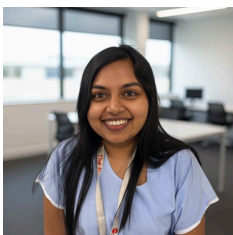
1. Wollongong Hospital, Wollongong, NSW, Australia

**Introduction:** To systematically review studies which compare transperineal ultrasound with defaecatory imaging.

**Methods:** The systematic review was performed in accordance with PRISMA guidelines. Pubmed, Medline and Cochrane databases were searched. 14 studies comparing transperineal, translabial or introital ultrasound with defaecatory imaging were included. One study that directly compared sonographic findings with defaecation MRI. The main measured outcomes were the accuracy and agreement for the detection of rectocele, enterocele, sigmoidocele, peritoneocele, intussusception, perineal descent and dyssynergy on transperineal ultrasound compared to defaecation proctography.

**Results:** Rectocele detection between transperineal ultrasound and proctography was poor to excellent, specificity 67 to 100% and sensitivity 29 to 88.9%. Enterocele (sigmoidocele or peritoneocele) detection was good to excellent, specificity 92 to 96% and sensitivity 64 to 80%. Intussusception/ rectal prolapse was poor to excellent, specificity 84 to 100% and sensitivity 22 to 100%. Accuracy of transperineal ultrasound is higher for larger rectoceles, and higher grades of enteroceles or intussusception. Three of the four studies which examined the anorectal angle found no significant difference in its measurement on both modalities.

**Conclusion:** Transperineal ultrasound is a suitable screening tool for obstructive defaecation so defaecatory imaging may be unnecessary in some. The technique and interpretation require refinement and standardisation. The true clinical relevance of findings on transperineal ultrasound will only be understood once sonographic findings are compared with clinical symptoms



## ROUTINE APPENDICECTOMY DURING ENDOMETRIOSIS SURGERY: A SYSTEMATIC REVIEW

**Lashnika Bandaranayake** (presenter, 1), Shella De Robles (1)

1. Wollongong Hospital, Wollongong, NSW, Australia

**Introduction:** Appendiceal endometriosis is an under-recognized entity with an estimated prevalence of 2.6% in the general population, but higher rates are reported during endometriosis surgery. This systematic review evaluates the prevalence, pathological findings, and safety of routine or opportunistic appendicectomy during laparoscopic surgery for endometriosis.

**Methods:** A systematic review was conducted in accordance with PRISMA guidelines. PubMed and Embase were searched from January 1960 to July 2025 for studies involving incidental or planned appendicectomy during endometriosis surgery. Primary outcomes included prevalence of appendiceal endometriosis and other histopathological findings, complication rates, and surgical impact and symptom management.

**Results:** Seventy-five studies, including prospective cohorts, retrospective series, and single randomized trial, were included. The prevalence of appendiceal endometriosis ranged from 0.3% to 23%. Conjunctive appendicectomy was associated with a low complication rate (4–6%) and no significant increase in major morbidity, mortality or length of stay. Notably, one study demonstrated resolution in chronic pelvic pain in 91% of patients undergoing routine appendicectomy. Long-term effects on fertility and adhesion formation remain insufficiently studied.

**Conclusion:** Routine or selective appendicectomy during endometriosis surgery is a safe procedure with substantial diagnostic yield – prophylactically and therapeutically. Given the frequency of occult pathology and potential symptom relief, routine appendicectomy should be considered particularly in cases of abnormal intraoperative findings, chronic right-sided pain, or extensive pelvic disease. Prospective studies are needed to clarify long-term outcomes and establish best practice guidelines

## CURRENT TRENDS OF BODY CONTOURING SURGERY AFTER MASSIVE WEIGHT LOSS IN AUSTRALIA



**Nathan Bui** (Presenter 1), Min Zhang (2), Sally Ng (2)

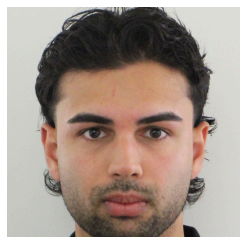
1. Grampians Health, Ballarat, Victoria
2. Austin Health, Heidelberg, Victoria

**Introduction:** Massive weight loss (MWL) often results in redundant skin, leading to significant physical and psychological sequelae. Body contouring surgery (BCS) is an effective treatment for redundant skin after MWL and is associated with improved body image, patient satisfaction and health-related quality of life (HRQoL). Despite its benefits, a disparity exists between those desiring BCS and those who undergo it. This study aims to explore current trends in BCS after MWL within Australia's hospital system and compare them to other developed countries to inform service provision.

**Method:** Surveys were distributed to online bariatric patient support groups and to bariatric surgeons via ANZMOSS, who forwarded the study to their patients. The questionnaire was developed in consultation with two experienced plastic and reconstructive surgeons who have extensive in BCS. Collected data included demographics, weight loss history, BCS procedures, motivations and barriers.

**Results:** Among 84 respondents, 37 had undergone BCS, with abdominoplasty being the most common procedure. The leading motivation was appearance and body image concerns. Of those who underwent BCS, 84% reported that their initial concerns were fully addressed and 95% experienced an improvement in HRQoL. Among those who had not undergone BCS, financial constraints were the most cited barrier.

**Conclusion:** This study highlights the positive impact of BCS post-MWL, with high satisfaction rates and HRQoL improvements. The findings highlight a significant unmet need, as many patients who could benefit from BCS lack access due to financial and complication concerns. Future strategies to improve accessibility should focus on addressing these barriers.



## PATIENTS' PERSPECTIVES ON THE ACCEPTABILITY OF ACUPUNCTURE AS TREATMENT FOR AROMATASE INHIBITOR-INDUCED ARTHRALGIA IN HORMONE-POSITIVE BREAST CANCER

**Isaac Buratto** (Presenter, 1), Caroline Younan (2), Corinne Ooi (3, 4) & Eugenia Ip (5)

1. Alfred Health, Melbourne, Victoria
2. Alfred Health, Melbourne, Victoria
3. Monash Health, Melbourne, Victoria
4. Monash University, Melbourne, Victoria
5. Monash Health, Melbourne, Victoria

**Introduction:** Aromatase inhibitors (AIs) reduce recurrence risk in hormone receptor-positive breast cancer but may cause AI-induced arthralgia (AIA). AIA may lead to premature discontinuation or poor treatment compliance. International guidelines recognise acupuncture as a supportive treatment, but its uptake remains limited. This study explores patient-reported experiences of AIA and their attitudes towards acupuncture as a management strategy.

**Methods:** This observational study recruited 80 participants (sex: female) with hormone receptor-positive breast cancer receiving AIs at an Australian metropolitan hospital. Participants completed a structured questionnaire (17 questions) assessing symptom burden, duration of endocrine therapy, perceptions of acupuncture, and potential barriers. Descriptive statistics were used to analyse the responses.

**Results:** Participants had a mean age of  $64.0 \pm 9.4$  years. The mean duration of AI therapy was 2.6 years. Prior to therapy, 30.4% reported joint pain; 57% developed new arthralgia after initiating treatment. Activity limitations were described as mild (38%), moderate (22.8%), or severe (6.3%). Hormone therapy was believed to worsen joint pain by 35.4% of participants. Regarding acupuncture, 54.4% were open to trying it, 38% perceived it as helpful, and 60.8% believed it was safe. Cost was a major concern, with 51.9% expressing moderate to significant financial worry.

**Conclusion:** Participants reported a considerable symptom burden from AIA and showed strong interest in acupuncture, particularly if financial barriers were addressed. These findings support further investigation into improving access to acupuncture as a supportive therapy in routine cancer care.





## OPTIMISATION OF DOSE AND TIMING OF INDOCYANINE GREEN IN LAPAROSCOPIC CHOLECYSTECTOMIES: RCT PROTOCOL DEVELOPMENT

**Harrison Chen** (presenter, 1), Lynn Chong (2), Eunice Lim (2), Steven McGuigan (3), Simon Banting (2), Brett Knowles (2)

1. St Vincent's Clinical School, University of Melbourne
2. Department of Upper Gastrointestinal and Hepatobiliary Surgery, St Vincent's Hospital Melbourne
3. Department of Anaesthesia and Pain Medicine, St Vincent's Hospital Melbourne

**Background:** Laparoscopic cholecystectomies are the gold standard definitive treatment option for benign gall stone conditions. The most serious complication associated with this operation is iatrogenic bile duct injury. Indocyanine green with near infrared fluorescence imaging has proven effective for reducing such complications by improving visualisation of extrahepatic biliary anatomy. Despite its well-documented benefits, early administration times and monitoring requirements prevent its routine use.

**Methods:** This is a double-blinded, randomised controlled trial with four arms at a single metropolitan centre. Adult patients with benign gall bladder conditions will be invited to participate in this clinical trial and randomised to one of four indocyanine green regimens with varying dose (1.25 mg or 2.5 mg) and time (30-60 mins or >120 minutes pre-operatively) of injection.

**Results:** Intraoperative photographs from two key stages of laparoscopic cholecystectomies will be analysed to compare the fluorescence intensity of the biliary system with the background liver, creating an objective metric – bile duct: liver ratio. Operating surgeon and anaesthetic experience surveys will evaluate perceived effectiveness and feasibility. Finally, a post-hoc survey will invite surgeons to identify specific structures within accumulated intraoperative photographs and provide a subjective rating on the visualisation quality.

**Conclusion:** This investigation will contribute to building evidence regarding the optimal dosing regimen of indocyanine green for use in laparoscopic cholecystectomies. If successful, results will support its routine implementation by circumventing traditional challenges of early administration, allowing widespread benefits in reducing intraoperative complications to improve health outcomes.



## FROM EVIDENCE TO ACTION: TACKLING GENDER DISPARITIES IN VASCULAR CARE

**Larissa Dearie** (presenter 1, 2), Stacey Telianidis (1), Sarah Aitken (3)

1. Department of Surgery, Austin Health, Victoria, Australia
2. College of Health Medicine and Wellbeing, University of Newcastle, NSW, Australia
3. Head of Specialty of Surgery, Sydney Medical School, Faculty of Medicine and Health

**Introduction:** Women living with vascular diseases experience higher morbidity and mortality than men. Yet, care remains male-centric in clinical trials, device design, and treatment thresholds. Structured methods to assess gender inequities in vascular surgery are lacking.

**Methods:** We applied a structured evidence synthesis approach using the WHO Gender Analysis Matrix (GAM) to analyse gender influences on vascular care. This conceptual framework classified findings from landmark vascular trials, systematic reviews, and guidelines documents to the GAM's six domains: risk and vulnerability, access to services, health-seeking behaviour treatment options, healthcare experiences, and outcomes.

**Results:** Most evidence focused on risk factors, treatment access, and outcomes, while health-seeking behaviour and healthcare experiences were underexplored. Women's biological risk is amplified by hormonal transitions, yet pregnancy and menopause were rarely mentioned into guidelines. Delayed diagnoses and low clinical trial representation amplified barriers, especially for rural, First Nations, and culturally diverse women. Treatment options aligned to male-derived thresholds and devices are not designed for female anatomy. In care settings, women report fragmented, dismissive, or inadequate interactions shaped by historical dismissal of symptoms as "atypical". These gaps contribute to observed outcome discrepancies, including higher perioperative mortality in AAA, more advanced PAD at presentation, and lack of standardised pathways in venous disease.

**Conclusions:** Applying the GAM framework to vascular surgery identified documented gender inequities and critical evidence gaps, particularly in behavioural and experiential domains. Addressing these requires targeted research and structural reform to ensure comprehensive, gender-responsive vascular care





## DEVELOPMENT OF A SCREENING TOOL TO PREDICT RISK OF PTSD IN PATIENTS WITH TRAUMATIC PHYSICAL INJURY – AN IMPLEMENTATION PROJECT

**Siska Falconer** (presenter, 1, 2), Andrew MacCormick (1)

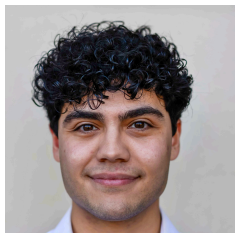
1. University of Auckland
2. Te Whatu Ora, Bay of Plenty DHB

**Introduction:** Major trauma is a growing health issue in Aotearoa New Zealand, with 2,661 cases recorded in 2022–2023. Despite evidence linking post-traumatic stress disorder (PTSD) to higher complication rates, prolonged hospital stays, and delayed return to work, no national screening strategy exists. This study explored the feasibility and acceptability of introducing a PTSD screening tool into trauma care, guided by the Consolidated Framework for Implementation Research (CFIR) and the Equity-based Framework for Implementation Research (EquiR).

**Methods:** A mixed-methods design was used. Thirty participants completed a Likert-scale questionnaire, and ten stakeholders participated in semi-structured interviews. Participants included doctors, nurses, psychiatrists, people with lived experience, and whānau. Data was thematically analysed.

**Results:** There was unanimous agreement that PTSD is relevant to trauma care, and 97% of respondents reported willingness to use the tool if appropriate training was provided. Qualitative findings highlighted five key themes: (1) language and cultural safety, (2) appropriateness and timing of screening, (3) training and role clarity, (4) integration into existing workflows, and (5) resourcing and follow-up pathways. Māori and Pasifika participants emphasised the need for culturally safe practice, Whānau Ora navigators, and codesign with communities. Integration into the tertiary survey and clinician-led administration were preferred. Concerns centred on limited resourcing and follow-up capacity.

**Conclusion:** Participants supported the introduction of a PTSD screening tool in trauma care, recognising its potential to improve patient and whānau outcomes. Successful implementation will require culturally safe delivery, multidisciplinary training, and strengthened resourcing for psychological follow-up.



## SUPRAMAXIMAL VERSUS GROSS-TOTAL RESECTION OF GLIOBLASTOMA: A SINGLE-CENTRE SURVIVAL ANALYSIS BASED ON RESIDUAL NON-CONTRAST ENHANCING TUMOUR VOLUME

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**Introduction:** Glioblastoma maintains poor prognosis and high rates of progression despite gross-total resection (GTR) of the contrast-enhancing tumour (CET) visualised on T1-weighted MRI. Supramaximal resection (SMR) involves resecting non-contrast enhancing tumour (nCET) visualised on T2-FLAIR, but there is currently no consensus on a defining threshold. Here we investigate whether SMR provides prognostic significance over GTR when RANO Resect categories, based upon residual volume of disease on MRI, are retrospectively applied to a homogenous cohort of adult glioblastoma patients using real world, single-institution data on BRAIN (Brain tumour Registry Australia INnovation and translation).

**Methods:** Records of glioblastoma patients at our centre (1/1/2012–1/7/2024) retrieved from BRAIN. Pre and postoperative MRIs of patients recorded as having underwent GTR were reviewed to re-classify them under RANO Resect subclasses. Kaplan–Meier method and multivariable Cox analysis used to analyse survival.

**Results:** Of 413 glioblastoma patients, 109 met inclusion criteria. PFS was significantly longer in “Class 1” (SMR: 0cm<sup>3</sup> CET, ≤5cm<sup>3</sup> nCET) (n = 55) compared to “Class 2” (GTR: 0 to <1cm<sup>3</sup> CET, >5 cm<sup>3</sup> nCET) (n = 54). OS was non-significantly longer for Class 1. On multivariate analysis, Class 1 was an independent marker for improved PFS (HR 0.32, [0.14–0.72], p=0.006).

**Conclusion:** SMR showed significantly longer PFS but not OS, suggesting potential delay of progression when additional cytoreduction beyond CET margins can be safely achieved. Our study shows applicability and prognostic significance of the RANO Resect denomination of SMR. Larger prospective multi-centre cohort studies and RCTs are required to validate the efficacy of SMR over GTR of glioblastoma.



## ILEOSTOMY REVERSAL RATES AND OUTCOMES IN A REGIONAL CENTRE: A FIVE-YEAR COHORT STUDY

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**Introduction:** Ileostomy reversal restores bowel continuity and quality of life. This is usually performed within 3 to 6 months following initial procedure but is often delayed in regional centres due to limited surgical capacity and resource constraints. This study evaluated outcomes and predictors of morbidity in ileostomy reversals at Grampians Health.

**Methods:** A retrospective review was conducted for 81 patients who underwent ileostomy reversal between April 2020 and April 2025. Primary outcome was 30-day complication rate; secondary outcomes included length of stay (LOS), 30-day all cause-mortality and readmission.

**Results:** The median age was 63 years; and 80.7% had loop ileostomies. Median interval from index operation to reversal was 292 days, with median time from booking date of 89 days. High stoma output was cited as the indication for reversal in 25% of cases. Complications occurred in 29.6% of patients, and these included ileus (14.8%), small bowel obstruction (3.7%), anastomotic leak (3.7%), anastomotic bleeding (1.2%). Anastomosis type was not associated with morbidity. On multivariable analysis, longer delay remained independently associated with complications (adjusted OR 32.0,  $p=0.011$ ); each additional day increased complication risk by 0.3% ( $p=0.005$ ). The median postoperative LOS was 4 days. Thirty-day readmission was significantly associated with prolonged LOS (OR 1.13 per day,  $p=0.006$ ). The 30-day mortality rate was 2.5%, with all experiencing post-operative complications.

**Conclusion:** This study highlights the safety and feasibility of ileostomy reversal in a regional setting, with delay from index operation emerging as a key modifiable predictor of morbidity.



## DETERMINANTS OF PATIENT EXPERIENCE IN TELEHEALTH BREAST CANCER SURVEILLANCE

**Tess Howard** (presenter, 1), Nelson Chen (1), Basilie Teoh (1), Rama Mikhail (1), Lily Owens (1), Su Wen Loh (1), Suat Ng (1), Wei Ming Ooi (1)

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**Introduction:** Telehealth follow-up (TF) for breast cancer (BC) surveillance was introduced widely in 2020 during the COVID-19 pandemic and has since demonstrated high satisfaction. However, the extent to which surgical or treatment factors influence patient experience is uncertain. We aimed to identify determinants of satisfaction and preferences for face-to-face (F2F) review in a single-centre metropolitan breast unit in Melbourne.

**Methods:** Consecutive patients undergoing TF for BC surveillance over a six-month period were identified. Seventy patients were eligible and followed up via TF, of whom 63 completed a survey. Survey responses were linked to clinical audit data. Associations between satisfaction, technical issues, surgical type, adjuvant therapies, and preferences for F2F review were explored.

**Results:** Seventy patients were followed up with TF, of whom 63 completed the survey (mean age 61.7 years, range 33–85). Satisfaction was high across all surgical subgroups, with no differences between mastectomy and breast-conserving surgery. Technical issues were rare across all ages. Preferences for F2F review did not differ according to receipt of radiotherapy, chemotherapy, endocrine therapy, or ovarian function suppression. No consistent demographic or treatment-related factors were associated with satisfaction or preference for F2F.

**Conclusion:** Satisfaction with TF was consistently high, irrespective of surgical type, treatment exposures, or age. Technical barriers were uncommon. These findings suggest TF is broadly acceptable across diverse patient subgroups. Larger-scale studies are needed to validate these results and ensure long-term effectiveness and acceptability.



## CONTRAST-ENHANCED MAMMOGRAPHY IN THE MANAGEMENT OF BREAST LESIONS: A SINGLE INSTITUTION EXPERIENCE

Huynh I (presenter, 1), Tan E (1), Issac M, Chew G (1)

1. Northern Health

**Introduction:** Investigation of breast lesions typically involve conventional mammography with further interrogation of dense breasts/lesions with Magnetic Resonance Imaging (MRI). Contrast-Enhanced Mammography (CEM) offers comparable sensitivity to MRI with advantages of lower cost and accessibility. However, MRI may still be required for indeterminate CEM findings. With recent adoption of CEM at our institution, this retrospective study evaluates its role alongside MRI.

**Method:** Patients who underwent CEM between 01/01/2024–31/05/2025 were identified from radiology records. Clinicopathological characteristics and outcomes were collected from electronic medical records. Patients imaged only with conventional mammography were excluded.

**Results:** A total of 659 patients (median age 57) underwent CEM, most for assessment of single lesions. MRI was required in 4.4% (n=29), while 5.2% (n=34) proceeded to surgical excision. On final histopathology, 64.7% (n=22) were malignant—predominantly invasive carcinoma 86.3% (n=19). 26.4% of the surgical cohort (n=9) underwent preoperative CEM and MRI. Dual modality assessment was largely concordant; MRI rarely altered management. Importantly, MRI performed after indeterminate CEM did not identify additional malignancies. Furthermore, subsequent CEM surveillance consistently showed benign results (Breast Imaging Reporting and Data System/BI-RADS 2).

**Conclusion:** MRI was required in a small minority of patients and did not alter oncological outcomes. CEM demonstrated robust diagnostic performance, supporting its utility as a frontline imaging modality in the surgical management pathway of breast lesions.



## A REGIONAL CENTRE'S EXPERIENCE WITH HOOKWIRE LOCALISATION IN BREAST CANCER MANAGEMENT

Isabelle Huynh (presenter, 1), Kerrilee Young (1,2), Paul Strauss (2)

1. Austin Health  
2. Central Gippsland Health Services

**Introduction:** Hookwire localisation is the most widely used technique to guide resection of non-palpable breast lesions. This study assesses its role in breast cancer surgery at a regional centre, focusing on intra-operative margin assessment, re-excision decisions, and histopathological outcomes.

**Methods:** Patients who underwent surgical resection of radiologically identified breast lesions between 2021–2025 were identified using Commonwealth Medicare Benefits Schedule (CMBS) codes. Only cases involving documented hookwire localisation were included. Operation notes were reviewed to determine if intraoperative re-excision occurred, based on either surgeon discretion or real-time radiologist input. Final histopathology was analysed to assess margin adequacy and the need for return to theatre (RTT).

**Results:** Of 157 patients, 15 patients (9.6%) required RTT due to inadequate margins. Three RTT cases (20%) had margins deemed adequate intra-operatively by a radiologist. Among 33 patients who underwent intraoperative re-excision, one required RTT, indicating a substantially lower rate (3.0%) compared to those with no re-excision (11.3%). Patients who had neither re-excision nor radiologist input had the highest RTT rate (12.1%), while surgeon-led re-excision alone was associated with the lowest RTT outcome.

**Conclusion:** Breast cancer poses significant health risks to our population. Margin clearance remains essential in surgical management of these cases. This study highlights the importance of surgeon judgment in ensuring optimal outcomes while using hookwire localisation as an adjunct to treatment. In regional centres, where access to subspecialty input may be limited, empowering general surgeons through education and experience-sharing is critical to improve patient care.



## A 22-YEAR EXPERIENCE WITH AORTIC ENDOGRAFT INFECTION: MANAGEMENT AND RESULTS USING UPDATED OUTCOME DEFINITIONS

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**Introduction:** Management of aortic vascular graft and endograft infection (VGEI) is complex and associated with high mortality. We aimed to compare the outcomes of VGEI managed conservatively or by explantation, using recently proposed definitions.

**Methods:** Patients with possible VGEI discharged 2011–2023 were identified using ICD-10 codes and database searches. VGEI was diagnosed by Management of Aortic Graft Infection Collaboration criteria. Patients were managed by a multidisciplinary team. The primary outcome was all-cause mortality (Cox regression model). Secondary outcomes were pre-defined clinical relapse and cure.

**Results:** Fifty-eight patients were included, 43 (74%) men, median age 74 (range 36–92). Median follow-up was 3.0 (IQR 4.5) years from presentation, with no loss of follow-up. 43 (74%) grafts were infrarenal, 1 (2%) was juxtarenal, 11 (19%) were descending thoracic, and 3 (5%) were ascending thoracic. 15 (26%) had an enteric fistula. 8 (14%) were completely explanted and 5 (9%) were partially explanted. There were no significant improvements in mortality, relapse, or cure, with explantation. Excluding patients with fistula, pre-defined 'cure' was achieved in 9/45 (20%) with conservative management, and 4/9 (31%) with explantation.

Explantation was not associated with improved survival in either an unadjusted cox model (HR 0.56, 95% CI 0.194–1.61) or after adjustment for age, COPD, CKD stage  $\geq 3$  (HR 0.61, 95% CI 0.21–1.8). Explantation was also not associated with cure or clinical relapse.

**Conclusion:** The outcomes of explantation were not significantly superior to those of conservative management. Some patients were cured with antibiotic therapy alone. No patient with a fistula was cured.



## EFFECTIVENESS OF USING A BIOABSORBABLE IMPLANT (LATERA) TO TREAT NASAL VALVE COLLAPSE IN PATIENTS WITH NASAL OBSTRUCTION

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**Introduction:** Nasal obstruction is a common clinical complaint. Structural causes may include septal deviation, turbinate hypertrophy, and lateral nasal wall (LNW) insufficiency or collapse. The LATERA® implant (LI), a bioabsorbable nasal implant, received regulatory approval in Australia (ATRG) in 2022 and offers a minimally invasive option for treating dynamic nasal valve collapse and lateral nasal wall insufficiency. The LI is absorbed over approximately 18–24 months provides internal structural support, improving nasal airflow. Despite its growing international use, Australian data remain limited.

**Method:** The retrospective clinical audit evaluated the short-term effectiveness and safety of LI's in treating nasal obstruction due to lateral wall insufficiency. Data was collected for patients who received LIs and have documented pre- and post-operative Nasal Obstruction Symptom Evaluation (NOSE) scores.

**Results:** Twenty patients were included, 6 received LI alone and 14 received LI with other nasal surgeries. There was a statistically and clinically significant reduction in NOSE scores post-operatively ( $p < 0.001$ , Cohen's  $d = 1.80$ ). Complications related to the LI were minor: implant trimming ( $n=1$ ), removal ( $n=2$ ), and extrusion through skin ( $n=1$ ).

**Conclusion:** The latera implant appears to be a safe procedure. Patients who had the LI implant had a substantial clinical improvement in nasal obstruction symptoms. This however cannot be attributed to the Latera implants alone as most patients ( $n=14$ ) had concomitant procedures aiming at addressing sinus and air flow issues.





## RISK FACTORS FOR REOPERATION AFTER MINIMALLY INVASIVE SPINAL FUSIONS

**Aaron Lerch** (presenter, 1,2), Anthony Chau (1), Amir Amiri (1), Martin Wood (1), Robert Campbell (1), Jason McMillen (1), Amelia Jardim (1), Jason Papacostas (1), Antonio Tsahtsarlis (1), Damian Amato (1)

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**Introduction:** To identify risk factors for minimally invasive spinal surgery we analysed our experience with acute reoperation (<30 days) for tubular lumbar discectomies, decompressions and TLIFs.

**Methodology:** All patients (2011-2024) at our single-centre of eight neurosurgeons were retrospectively reviewed. Two case-controls per reoperation were manually selected; matching the primary procedure type, the approximate time, levels, and surgeon. Parameters statistically assessed included age, sex, BMI, frailty (per the Modified Charlson Comorbidity and MFI-5 Frailty Indexes), comorbidities, private/public patient, workplace injury, preoperative anticoagulant use, preoperative blood results, symptomatic indications, prior spinal surgery, preoperative imaging findings, approach side, tube length, operative time, postoperative drains/antibiotics, length of stay, time to follow-up, and clinical outcome per the MacNab criteria.

**Results:** Of 4433 patients who underwent lumbar MISS, there was a 2.4% acute reoperation rate for paracentral discectomy (n=2444), 2.4% for decompression (n=1233) and 1.3% for TLIFs (n=756). Paracentral discectomy reoperation was predominantly for residual/recurrent disc fragments and was significantly associated with preoperative anticoagulants, hypertension, motor-changes, past procedures at the index level, and left-sided approaches. Decompression reoperation was predominantly for haematoma and was significantly associated with preoperative urinary symptoms and past procedures at the index level. TLIF reoperation was predominantly for cage migration and was significantly associated with diabetes and motor-changes before the primary procedure.

**Conclusion:** This retrospective case-control series reports our institution's complication profile and risk factors for acute reoperation for tubular lumbar surgery. The classic predictors of older age, higher BMI, and frailty indexes did not correlate with acute reoperation using these minimally-invasive techniques.



## PHASIX, ALTERNATIVE MESH, OR PRIMARY CLOSURE IN BILATERAL DIEP DONOR SITES: EARLY ABDOMINAL MORBIDITY AND PROMS

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1. The University of Sydney
2. Chris O'Brien Lifehouse
3. Fairfield Hospital, Southwest Sydney, Local Health District

**Introduction:** Abdominal free flap harvest for bilateral breast reconstruction remains an important concern for morbidity including hernia and bulge outcomes. Prophylactic reinforcement is advocated in selected cases, yet optimal mesh choice, particularly resorbable options such as P4HB (Phasix) is unsettled. We compared bulge risk across mesh strategies and explored anatomical and patient factors, with secondary analysis of BREAST-Q patient-reported outcomes (PROMs).

**Methods:** We conducted a single-centre registry review of consecutive DIEP reconstructions from 2023-2025 comparing donor site bulge outcomes across three regimens: Phasix, alternative mesh and primary closure, using multivariate regression to account for selected patient anatomical and intraoperative factors. Secondary outcomes include post operative changes in BREAST-Q PROMs in abdominal/donor site aesthetics with patient level adjustment.

**Results:** Of 226 reconstructive patients, 106 met bilateral DIEP criteria, a bulge occurred in 3/106 (2.8%). Mesh cohort distribution consisted of 52 patients in the Phasix, 6 in alternative mesh, 48 in the Primary closure group. Bulge rates were 1.9%, 16.7%, and 2.1%, respectively. After adjustment with patient, anatomical and intraoperative factors, estimated bulge risk was similarly low across cohorts. The Phasix cohort showed improvements in BREAST-Q over primary closure in 6 week, 3 month and 12 month followups.

**Conclusion:** In this cohort, bulges requiring reoperation were rare with Phasix showing no statistically significant association within limited and early follow-ups. However, secondary analyses demonstrated meaningful improvements in BREAST-Q PROMs after reconstruction. A larger number of longer follow-ups and enriched outcome capture are needed to clarify bulge predictors while maintaining the demonstrated PROM benefits.



## **SURGICAL PREDICTORS OF ABDOMINAL STRENGTH RECOVERY AFTER FLAP RECONSTRUCTION USING LUMBAR FLEXION MANOMETRY**

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**Background:** Lumbar flexion manometry (LFM) is a novel, clinically feasible tool for quantifying abdominal wall strength. While validated in healthy volunteers, its application in post-breast reconstruction patients has not been investigated. This study aims to evaluate the influence of pedicle dissection technique, flap type, and anatomical variables on abdominal wall strength recovery following abdominally-based breast reconstruction.

**Methods:** A retrospective cohort study was conducted using prospectively collected data from the Chris O'Brien Lifehouse surgical database. Bilateral reconstructions were analysed at the flap level. The primary outcome was change in LFM score at 6 weeks, 3 months, and 6 months. Predictors included pedicle dissection type (intramuscular split [IMS], medial paramuscular, robotic-assisted, superficial inferior epigastric artery [SIEA]), perforator branching pattern, rectus and pannus thickness, flap weight, and baseline LFM. One-way ANOVA and multivariate linear regression were performed.

**Results:** A total of 215 flaps were analysed (IMS n=82, medial paramuscular n=81, robotic-assisted n=21, SIEA n=30). In multivariate analysis, medial paramuscular dissection ( $-18.68$  mmHg; 95% CI  $-20.97$  to  $-16.39$ ;  $p<0.001$ ) and SIEA flaps ( $-5.95$  mmHg; 95% CI  $-9.49$  to  $-2.42$ ;  $p=0.001$ ) were associated with significantly less improvement compared with IMS. Rectus thickness was inversely correlated with recovery ( $-0.86$  mmHg per mm;  $p=0.023$ ).

**Conclusion:** Pedicle dissection technique and flap type significantly affect early postoperative abdominal wall recovery measured by LFM. IMS provided the greatest functional improvement, while medial paramuscular and SIEA flaps showed smaller gains. LFM is a sensitive, practical tool for detecting functional differences; ongoing evaluation will determine persistence at 3 months.



## **ADOPTING INTRAOPERATIVE RADIOTHERAPY (IORT) FOR WOMEN WITH EARLY BREAST CANCER: AUSTRALIAN EXPERIENCE AND OUR RESEARCH PROTOCOL**

**Lawrence Y. Lu** (Presenter, 1, 2, 3), Diana Tam (1, 4), Melinda M. Protani (5), Dan Lindsay (6, 7, 8), Robyn Cheuk (1, 9), Marina Reeves (10), Owen Ung (1, 3, 4)

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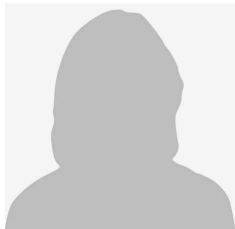
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10. Faculty of Health, Queensland University of Technology, Brisbane, Australia

**Introduction:** Intraoperative radiotherapy (IORT) delivers a single dose of radiation directly to the tumour bed during breast-conserving surgery, eliminating the need for several weeks of daily external beam radiotherapy (EBRT). This approach improves patient convenience, cosmetic outcomes, and overall quality of life, while maintaining comparable oncological outcomes in appropriately selected patients. We reviewed the contemporary Australian experience with IORT and present our institutional experience and research protocol.

**Methods:** A comprehensive literature search was conducted using PubMed MEDLINE, Scopus, and ClinicalTrials.gov, using a combination of controlled keywords. We also reported findings from our pilot study conducted in Brisbane, health economic analyses based on Australian cost data, and the design of a prospective multicentre cohort study.

**Results:** The literature review revealed limited adoption of single-dose IORT as an alternative to EBRT in Australia, with more frequent use observed in earlier studies involving upfront IORT boost. Our pilot study demonstrated favourable clinical outcomes and positive patient feedback. Economic analyses indicated that IORT is more cost-effective than EBRT, even when social costs to patients are excluded. A prospective cohort study is currently in preparation to further evaluate the benefits of IORT, including both qualitative and quantitative assessments of psychosocial outcomes and clinical efficacy.

**Conclusion:** The use of IORT for early breast cancer treatment in Australia remains limited. Nevertheless, it shows considerable promise in delivering psychosocial benefits to patients and reducing costs within the Australian public health system. Further research is warranted to monitor long-term outcomes, validate these findings, and support broader implementation.



## **SAFETY AND PATIENT-REPORTED OUTCOME MEASURES IN ELDERLY PATIENTS UNDERGOING TOTALLY EXTRAPERITONEAL (TEP) INGUINAL HERNIA REPAIR**

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**Introduction:** Laparoscopic inguinal hernia repair is increasingly used in elderly patients, offering less pain, faster recovery, and shorter hospital stay. However, evidence on its safety and efficacy in this high-risk group remains limited. Recent evidence suggests that laparoscopic approaches may yield equivalent or superior outcomes compared to traditional open surgery, presenting a promising option for hernia management in this population.

**Methods:** We conducted a retrospective cohort study of patients  $\geq 75$  years who underwent elective laparoscopic TEP inguinal hernia repair between 2005–2025. Data included pain and quality-of-life scores (Visual Analogue Scale [VAS], Modified Carolina's Comfort Scale [MCCS], postoperative CCS), complications, mesh fixation, and hernia characteristics per European Hernia Society classification.

**Results:** A total of 119 patients (mean age 79.5 years; 86.6% male) underwent repair of 158 defects, including 20 (12.7%) recurrent and 39 (49.3%) bilateral cases. Defects were 63.9% indirect, 13.9% direct, and 16.5% mixed. Incidental findings included 15 femoral and 11 obturator hernias, predominantly in females. Mean preoperative VAS pain score was 3.30, improving to 0.10 at 6 weeks. MCCS averaged 11.6/75 preoperatively, while postoperative CCS scores were 1/115 at 6 weeks. Minor complications occurred in 6.7% (urinary retention, seroma, rectus sheath hematoma, transient ischemic attack). No major complications were observed.

**Conclusion:** Elective TEP inguinal hernia repair in the elderly is associated with minimal morbidity and significant postoperative improvements in pain and functional scores. These findings support the safety and efficacy of laparoscopic repair and contribute to growing evidence favouring this approach in a high-risk population.



## **COMPARING THE EPIDEMIOLOGY AND RESOURCE UTILISATION OF BILIARY AND ALCOHOLIC PANCREATITIS OVER 15 YEARS**

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Pancreatitis is a major burden of cost for all healthcare services worldwide, encompassing a heterogeneous population with varying disease severity and recurrence. Alcoholic and biliary aetiologies represent the most common causes; each associated with distinct patterns of disease burden. This study aims to compare the epidemiological trends of pancreatitis, including total admissions, readmissions, length of stay and cost by aetiology.

A retrospective population-based analysis was conducted using administrative hospital data from 2008 to 2022. Patients admitted with a primary diagnosis of pancreatitis were stratified by aetiology (biliary or alcoholic) and number of admissions per patient per year. Outcomes examined included annual admission counts, proportion of readmissions, average length of stay, and estimated hospital costs.

There were 24380 admissions for pancreatitis between 2008 and 2022, the majority coded as "unspecified pancreatitis". There were 1638 admissions for biliary pancreatitis and 4059 admissions for alcoholic pancreatitis. The admission rate for biliary pancreatitis increased by 58.4% and the admission rate for alcoholic pancreatitis increased by 55.7%. The average readmission rate for biliary pancreatitis was 25% and the average readmission rate for alcoholic pancreatitis is 31.6%. The median length of stay for an admission was 3 days costing a median of 4000 dollars.

The hospital burden of pancreatitis has grown steadily, with readmissions comprising a substantial proportion of total admissions. These findings highlight the need for improved models of care targeting high-risk and frequently readmitted patients, and support the importance of continued surveillance of pancreatitis trends to inform policy, prevention, and clinical care strategies.



## TYPE I INTERFERON EXPRESSION IN PANCREATIC DUCTAL ADENOCARCINOMA

**Anna Mealy** (presenter 1), Alex McAllan (2), Nicole Campbell (2), Linden J. Gearing (2), Paul Hertzog (2), Daniel Croagh (1)

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Interferons are important effector cytokines of the immune system and can also play a role in both tumour protection and tumour development. It has recently been shown that a member of type I IFN, IFN $\lambda$ , is sufficient to suppress metastasis in pancreatic cancer. The same study has shown that co-deletion of type I IFN with tumour suppressor genes CDKN2A/B, genes that are located beside each other on chromosome 9, can occur in up to 60% of pancreatic ductal adenocarcinoma (PDAC) samples.

The objective of this study was to examine type I IFN expression in PDAC and examine correlation of expression between type I IFN and CDKN2A/B.

Using clinical and transcriptome profiling data of PDAC from the Cancer Genome Atlas Project (TCGA) database, differential expression and correlation of expression of type I IFN was examined. This study found that IFNE and CDKN2A are expressed at higher levels than IFNA1 and IFNB1 in PDAC. Correlation of expression between IFNE and CDKN2A and IFNE and IFNA1, genes that are beside each other on chromosome 9, was observed.

IFN $\lambda$  is known for its expression by mucosal epithelium but expression levels in the pancreas have not previously been described. Further study is required to examine the mechanism of expression and the role this cytokine plays in PDAC.



## DOES USE OF MECHANICAL BOWEL PREPARATION AND ORAL ANTIBIOTICS BEFORE ELECTIVE COLORECTAL RESECTION REDUCE TOTAL POSTOPERATIVE INFECTION RATES?

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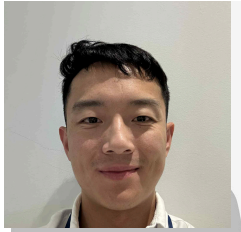
**Introduction:** Recent evidence suggests that mechanical bowel preparation (MBP) combined with oral antibiotics (OABs) reduces postoperative infections before elective colorectal resection (CR). Our institution has recently adopted routine use of MBP + OABs (ciprofloxacin and metronidazole). This study aimed to compare postoperative infection rates before and after implementation.

**Methods:** We conducted a single-site retrospective cohort study of adult patients undergoing elective CR with an anastomosis in 2018 (pre-implementation) and 2023 (post-implementation). Patients in 2018 who received MBP + OABs were excluded, and those in 2023 who did not were excluded. Demographics, perioperative data, and postoperative infection rates were extracted from electronic clinical records. The primary outcome was total postoperative infection rates within 30 days. Continuous variables were analysed using t-tests or Mann-Whitney U tests, and categorical variables using Fisher's exact test. Analyses were performed using R.

**Results:** Of 274 patients screened, 199 were included (2018: n=119; 2023: n=80). Total postoperative infection rates were 22.7% in 2018 and 16.3% in 2023 ( $p=0.29$ ). Urinary tract infections (UTIs) decreased from 10.9% to 2.5% ( $p=0.03$ ). No significant differences were observed in superficial or deep incisional surgical site infections, intra-abdominal abscesses, anastomotic leaks, lower respiratory tract infections, line infections, sepsis, or Clostridium difficile colitis.

**Conclusion:** Use of MBP + OABs was associated with a significant reduction in UTIs but not in total postoperative infection rates. Findings are limited by sample size and potential for type II error. Larger prospective studies are warranted to confirm efficacy and investigate optimal antibiotic combinations and resistance patterns.





## **LATERAL OPENING WEDGE DISTAL FEMORAL OSTEOTOMY FOR SYMPTOMATIC LATERAL COMPARTMENT OSTEOARTHRITIS: SURVIVORSHIP AND PREDICTIVE FACTORS AT MEAN 10-YEAR**

**Kevin Qian** (presenter, 1, 2), Fabio Mancino (1), Giacomo Dal Fabbro (1), David Parker (1)

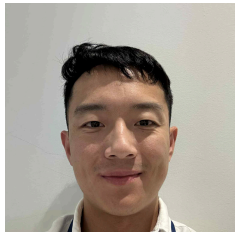
1. Sydney Orthopaedic Research Institute (SORI), Landmark Orthopaedics, St. Leonards, NSW, Australia
2. The University of Newcastle, Callaghan, NSW, Australia

**Introduction:** Lateral opening wedge distal femoral osteotomy (LOWDFO) is a reliable knee joint preserving surgery for isolated lateral compartment knee osteoarthritis (OA) and valgus overload. This study evaluated long-term survivorship and clinical outcomes of LOWDFO, and factors associated with conversion to total knee arthroplasty (TKA).

**Methods:** This was a retrospective study of patients who underwent LOWDFO for isolated lateral osteoarthritis between 2003 and 2023. Clinical outcomes included the Knee Injury and Osteoarthritis Outcome Score (KOOS), the Veterans RAND-12 (VR-12) Physical and Mental scores, and the International Knee Documentation Committee subjective evaluation form (IKDC). Radiographic parameters included hip-knee-ankle angle (HKA) and lateral distal femoral angle (LDFA). Post-operative complications, reoperations, and conversion to TKA were recorded. Survivorship was analysed using Kaplan–Meier methods, and logistic regression identified factors associated with conversion.

**Results:** Forty-eight patients were included with a mean follow-up of  $10.1 \pm 4.9$  years. The complication rate was 35.4%, and re-operation rate was 29.2%, most commonly hardware removal (20.8%). The cumulative conversion rate to TKA was 7.0% at 5 years, 15.0% at 10 years, and 29% at 15 years. Older age significantly increased risk of conversion (OR 1.16, 95% CI 1.03–1.30). Patients >45 years at index surgery had a hazard ratio of 5.16 (95% CI 1.32–10.10) for TKA conversion.

**Conclusion:** LOWDFO yields a 10-year survivorship of 85% in young patients with lateral compartment isolated knee OA and overload in valgus knees. Age at surgery is a strong predictor of conversion to TKA. Removal of hardware is performed for one in five patients.



## **SATISFACTORY 10-YEAR SURVIVORSHIP OF MEDIAL OPENING WEDGE HIGH TIBIAL OSTEOTOMY FOR ISOLATED MEDIAL COMPARTMENT OSTEOARTHRITIS AND VARUS ALIGNMENT: AN**

**Kevin Qian** (presenter, 1, 2), Cristian A. Brito. Ayet (1), Fabio Mancino (1), Yoong Ping Lim (1), George Jacob (1), David Parker (1).

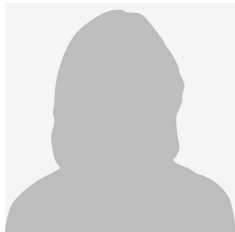
1. Sydney Orthopaedic Research Institute (SORI), Landmark Orthopaedics, St. Leonards, NSW, Australia
2. The University of Newcastle, Callaghan, NSW, Australia

**Introduction:** Medial opening wedge high tibial osteotomy (MOWHTO) is a joint-preserving procedure for isolated medial compartment knee osteoarthritis (OA) and overload. This study assessed long-term survivorship, clinical outcomes, and risk factors for failure following MOWHTO.

**Methods:** We retrospectively reviewed prospectively collected patients who underwent MOWHTO between 2002 and 2023. Clinical outcomes were measured using the Knee Injury and Osteoarthritis Outcome Score (KOOS) and Tegner activity score. Radiographic assessment included hip-knee-ankle (HKA) angle and medial proximal tibial angle (MPTA). Survivorship was defined as conversion to total knee arthroplasty (TKA). Logistic regression identified risk factors for failure ( $p < 0.05$ ).

**Results:** A total of 431 patients (82.5% male, mean age  $49.1 \pm 8.0$  years) were analyzed. At a mean  $5.7 \pm 4.5$  years follow-up, KOOS improved significantly across all subsections ( $p < 0.001$ ). The complication rate was 35.9%, and reoperations occurred in 25.5% at a mean 9.6 years. Hardware removal for pain/discomfort was the most frequent reoperation (22%). Cumulative TKA conversion rates were 2.2% at 5 years, 17.8% at 10 years, and 37.1% at 15 years. Risk factors for failure included older age (OR 1.05,  $p=0.017$ ), greater wedge thickness (OR 1.08,  $p=0.015$ ), medial femoral condyle OA (OR 3.41,  $p=0.029$ ), medial tibial plateau OA (OR 2.04,  $p=0.044$ ), postoperative HKA (OR 1.25,  $p=0.031$ ), and postoperative MPTA (OR 1.26,  $p=0.04$ ).

**Conclusion:** MOWHTO demonstrates satisfactory 10-year survivorship in patients with medial compartment OA and overload. Increased age, advanced OA, cartilage wear, and suboptimal postoperative alignment are significant predictors of reduced survivorship.



## SEAMGUARD REINFORCEMENT AND POST-OPERATIVE PANCREATIC FISTULA: AN EMPIRICAL STUDY OF A WESTERN AUSTRALIAN HOSPITAL

**Nazmus Sakib** (Presenter, 1), Mayank Bandhari (2), Joel D'Souza (3)

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2. Consultant Upper GI surgeon at Fiona Stanley Hospital
3. Upper General Surgical Fellow at Fiona Stanley Hospital

**Introduction:** Postoperative pancreatic fistula (POPF) remains the most significant complication following distal pancreatectomy. Various pancreatic stump reinforcement techniques have been described, but evidence on their efficacy is inconsistent. Consequently, there is a lack of regional evidence-based guidelines for patient-tailored management. This highlights the need for studies using local data to inform personalised treatment. This cohort study compares pancreatic stump management techniques to prevent POPF after distal pancreatectomy in Western Australia.

**Method:** A retrospective cohort study at Fiona Stanley Hospital (January 2015–March 2025) analysed patients after distal pancreatectomy, grouped by surgical technique. The primary outcome was clinically significant POPF (ISGPS criteria). Multivariable logistic regression was conducted controlling for patient related POPF risk factors and the different stump reinforcement techniques (patch, sealant, oversuturing).

**Results:** A total of 92 patients were analysed. The Seamguard reinforcement group (n=74) had lower POPF incidence (23%) than those without (n=18; 50%), this remained significant after adjusting for age, sex, BMI, diabetes, smoking status, and surgical approach (OR: 0.239; p=0.022). Patch reinforcement showed similar rates (50% vs 27.3%; p=0.76). Hand oversuturing increased POPF (66.7% vs 25.6%; p=0.051). Sealant use lowered POPF (20% vs 34.6%; p=0.162), although not significant. Additional reinforcement didn't affect Seamguard's protective effect (OR: 0.260; p=0.024).

**Conclusion:** This observational study suggests staple line reinforcement with Seamguard effectively manages pancreatic stumps and may be considered for routine use. Seamguard's protective effect is unaffected by adjuvant buttressing. Further investigations on individual characteristics and operative factors are needed to guide patient tailored reinforcement techniques to minimise the incidence of POPF



## QUANTIFYING GENERAL SURGERY TRAINEES' EXPERIENCE OF COLORECTAL ANASTOMOSIS IN AUSTRALIA

**Nishat Siddique** (presenter, 1), Bruce Wilkie (1, 2), Vinna An (2, 3)

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2. Faculty of Medicine, Dentistry & Health Sciences, The University of Melbourne, Parkville, Victoria
3. Department of Colorectal Surgery, Eastern Health, Box Hill, Victoria

**Introduction:** General Surgery trainees in the Surgical Education and Training (SET) program across Australia have varying experience in colorectal anastomosis throughout training. This study aims to quantify the exposure to colorectal anastomoses and assess whether it is sufficient for surgeons to execute them independently and safely by the completion of training.

**Methods:** Operative data was collected from the Morbidity Audit and Logbook Tool (MALT) including total number of cases, left or right-sided anastomosis and level of supervision. Results: Between 2018 and 2022, there were 17,016 right-sided resections with primary anastomoses, 895 left-sided procedures and 13,252 rectal procedures performed. There was no significant difference between male and female trainees' involvement (male 63.5–64.2%, p=0.895). The majority of exposure to resections with anastomosis was in the fourth and final year of training for right-sided (26.7%) and rectal procedures (29.4%) and in the second year for left-sided procedures (25%). NSW had the highest caseload (11,007) whilst NT had the lowest (664). Trainees were significantly more likely to demonstrate independence in performing right-sided anastomoses (30.0%) compared to left-sided (15.5%) and rectal procedures (11.9%).

**Conclusion:** Training opportunities in colorectal anastomosis are not impacted by gender but vary considerably across states. Exposure to these procedures is more common in the later years of training and is weighted towards right-sided procedures compared to left-sided. SET trainees operate more autonomously for right-sided procedures, indicating there may be a gap in training for left-sided and rectal anastomoses which necessitates subspecialty training.



## SURGICAL COMPLEXITY AND OUTCOMES OF COMPLETION CHOLECYSTECTOMY: A META-ANALYSIS

Nicolas Smith (presenter, 1), Simon Lai (1), Cameron Wells (1)

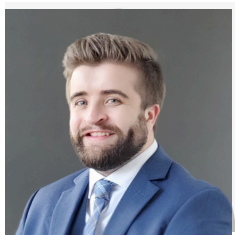
1. Department of Surgery, University of Auckland, Auckland, New Zealand

**Introduction:** Completion cholecystectomy (CC) is a surgically complex yet increasingly necessary procedure for patients with remnant gallbladder or cystic duct tissue after subtotal cholecystectomy. This is the first meta-analysis aiming to evaluate indications, techniques, and outcomes of CC.

**Methods:** A PRISMA-compliant systematic review of PubMed, MEDLINE, Embase, and CENTRAL (to May 2025) identified 50 studies (n=1,239 patients). Random-effects models generated pooled estimates. Outcomes included surgical indications, interval to CC, operative approach, complications, and symptom resolution. Subgroup analyses examined the impact of remnant type and surgical approach.

**Results:** Common indications were symptomatic cholelithiasis or biliary colic (55.0%, 95% CI: 41.9–67.4%) and cholecystitis (18.5%, 95% CI: 9.7–32.6%). The pooled interval from initial surgery to CC was 46.9 months (95% CI: 35.6–58.2). Laparoscopy was the commonest approach (74.4%), though the open approach was also frequent (15.4%). Mean operative time was 101.9 minutes (95% CI: 91.6–112.1), blood loss 99.5 mL (95% CI: 42.0–157.1), and hospital stay 2.76 days (95% CI: 2.15–3.37). Symptom resolution was achieved in 93% (95% CI: 87–96%). Overall complication rate was 14.1% (95% CI: 11.4–17.3%), with wound infection (9.0%), bile leak (4.3%), and incisional hernia (2.1%) most frequent. Bile duct injury rates were 2% (95% CI: 1–4%). No mortality was reported. Subgroup analyses found no differences based on remnant type and CC approach.

**Conclusion:** CC is a technically demanding but effective procedure. Minimally invasive approaches are often feasible, though complications, including bile duct injury, highlight the need for surgical expertise.



## USING MACHINE LEARNING TO CREATE MORE CLINICALLY TRANSLATABLE RISK PREDICTION SCORES FOR PAEDIATRIC APPENDICITIS

Antoinette Lam (2), Emily Squires (2), **Rylan Steinkey** (presenter, 3), Bhavesh Patel (4), Alexander Howes (1), Amit Kochar (1), Sanjeev Khurana (1)

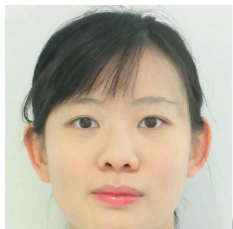
1. Women's and Children's Hospital, North Adelaide
2. Royal Adelaide Hospital
3. Redcliffe and Caboolture Hospitals, QLD
4. Queensland Children's Hospital

**Introduction:** The diagnosis of acute appendicitis in most paediatric centres is based on clinical examination, history, laboratory tests and radiological investigations. None of the current appendicitis risk prediction scores are robust enough for routine clinical use. Machine learning (ML) models were designed to predict the likelihood of an appendicectomy – as the first step towards creating a clinical decision support tool that enables safe reduction in the number of 'after-hours' ultrasounds and interhospital transfers.

**Methods:** The dataset used in this study was obtained from a previously published study designed to validate the 'paediatric appendicitis risk calculator' (pARC) score. The outcome label was whether the patient had an appendicectomy (rather than the diagnosis of appendicitis). Various ML models were trained in Python (v3.10.18). Models were evaluated using a 20-fold cross-validation.

**Results:** The best out-of-the-box model was XGBoost with a recall of 68.0% (+/- 1.7%), F1-Score of 70.2% (+/- 1.4%), AUC ROC of 84.5% (+/- 0.6%) and NNFN (number needed for a false negative) of 8.4 (+/- 0.5). Lowering the prediction threshold yielded a recall of 94.2% (+/- 1.1%), F1-Score of 63.6% (+/- 0.8%), AUC ROC of 84.6% (+/- 0.6%) and NNFN 47.4 (+/- 9.4).

**Conclusion:** This study demonstrates the process of leveraging ML for the creation of models that have the potential for 'meaningful' clinical translation. Models can be tuned to minimize false negatives at the expense of overall predictive accuracy, depending on site-specific resources and the acceptable risk of appendicitis.



## PRE-OPERATIVE PREDICTORS OF POST-HEPATECTOMY LIVER FAILURE: A SYSTEMATIC REVIEW

Stephanie Sum (presenter,1), Amy Hort (1), Christopher Nahm(1)

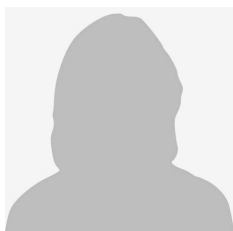
1. University of Sydney, Sydney, NSW

**Introduction:** The lack of standardised predictive methods for post-hepatectomy liver failure (PHLF) represents a gap in current surgical practice. This study aims to systematically evaluate the reliability of pre-operative factors to improve candidate selection, and enhance patient outcomes.

**Methodology:** A comprehensive search was completed on the Cochrane Library, PubMed and Medline databases using a variety of key terms. Two reviewers independently screened titles and abstracts, assessed full texts, and extracted data for all English articles addressing preoperative factors in predicting PHLF between 2014 to 2024. Data extraction was completed using a standardised form, and discrepancies were resolved by consensus. A narrative synthesis was performed due to heterogeneity.

**Results:** Traditional liver function scores had limited predictive value for PHLF, with the ALBI score performing better than the Child-Pugh or MELD scores in some studies. Dynamic liver function tests were significantly associated with PHLF risk, though further validation was needed for their use. Volumetric imaging of the future liver remnant (FLR) indicated that an inadequate FLR volume correlated with higher PHLF incidence. Functional imaging modalities enable the quantitative assessment of regional liver function and facilitate improved risk stratification. Composite models integrating clinical scores with functional and volumetric data achieved superior predictive performance over single measures, but heterogeneity and limited external validation were common limitations.

**Conclusion:** No single pre-operative measure reliably predicted PHLF. Integrated approaches combining clinical, functional, and imaging assessments were more effective in predicting PHLF risk. Further validation and standardisation of composite models were recommended to improve risk stratification and outcomes.



## SURVIVAL ANALYSIS AFTER SURGICAL RESECTION OF PANCREATIC NEUROENDOCRINE TUMOURS: A SINGLE CENTRE EXPERIENCE

Amalan Thuraisingam (presenter,1)

1. Monash Health

**Introduction:** Pancreatic neuroendocrine tumours (PNETs) are rare neoplasms with heterogeneous biological behaviour. Surgical resection remains the mainstay of treatment, but data on postoperative morbidity and survival outcomes remain variable.

**Methods:** We conducted a retrospective review of all consecutive surgical resections for PNET at our institution. Demographic, operative, and postoperative outcome data were collected from medical records. Morbidity was assessed using Clavien-Dindo classification, and survival outcomes were evaluated through the latest follow-up clinical and radiological assessments.

**Results:** A total of 50 patients (median age 54.9 years, range 27–79; 50% male) underwent surgical resection. Surgical procedures included pancreaticoduodenectomy (36%), spleen-preserving distal pancreatectomy (28%), distal pancreatectomy with splenectomy (22%), central pancreatectomy (4%), and enucleation (10%). Postoperative complications included pancreatic fistula in 60%, bleeding in 16%, and 30-day readmission in 34%. No 30-day mortality occurred. Morbidity rates were Grade I (42%), Grade II (28%), Grade III (10%), and Grade IV (20%). At a median follow-up of 2.5 years (range 1.15–10.12), overall mortality was 4% (n=2).

**Conclusions:** Surgical resection of PNET can be performed with no perioperative mortality, although morbidity remains high, particularly pancreatic fistula. Long-term survival outcomes are favourable, supporting resection as a safe and effective therapeutic option in appropriately selected patients.





## PATIENT FACTORS INFLUENCING WILLINGNESS TO PARTICIPATE IN ABDOMINAL AORTIC ANEURYSM TRIALS: A MIXED-METHODS STUDY

**Pokuan Tu** (presenter, 1, 2), Thomas Williams (1, 2), Ruth Benson (1, 2), Anantha Narayanan (3), Manar Khashram (3), Rachel Evley (4), Sue Crengle (5), Oliver Lyons (1, 2)

1. Department of Surgery & Critical Care, University of Otago Christchurch, New Zealand
2. Vascular Endovascular and Transplant Surgery, Health New Zealand Canterbury, New Zealand
3. Vascular Surgery, Health New Zealand, Waikato, New Zealand
4. Anesthesia & Critical Care, University of Nottingham, UK
5. Ngāi Tahu Māori Health Research Unit, University of Otago, New Zealand

**Introduction:** Women have been poorly recruited into cardiovascular trials. This is hypothesised to be due to caregiving responsibilities, travel difficulty, distrust of clinicians, and differing risk perception. We aimed to understand patient factors influencing willingness to participate in abdominal aortic aneurysm (AAA) trials.

**Methods:** People undergoing small AAA surveillance in two NZ regions were invited to a convergent parallel mixed-methods study via telephone interview. Participants completed validated questionnaires on quality of life, carer stress, distrust in healthcare and willingness to enrol in hypothetical trial scenarios. Open questions explored emotional responses to AAA diagnosis, and practical barriers to participation. Interviews were anonymised and analysed using SPSS29 and reflexive thematic analysis (NVivo) with inductive theme development reported using COREQ framework.

**Results:** Forty-nine patients (29 women, 36 Pākehā, 12 Māori) participated. Mean interview length was 47 minutes. Quality of life (SF-36), Carer stress, and distrust were similar for women and men ( $P=ns$ ). Both sexes showed moderate willingness to participate in hypothetical research scenarios,  $3.5 \pm 0.8$ , vs  $3.7 \pm 0.9$  for men ( $P=ns$ ). Willingness to participate in trials dropped with increasing age ( $P=0.025$ ). Three interrelated themes explained willingness to enrol in research. i) Trust as a relational foundation, older participants expressed fatalism, and limited trust; ii) Emotional adaptation was dynamic and shaped by care experiences; iii) Trial enrolment was negotiable rather than immediately decided. For some Māori, caregiving and transport influenced feasibility.

### Conclusions:

Women expressed similar willingness to men to be randomised into hypothetical trials; non-patient factors may explain poorer recruitment. Trial design should minimise logistical barriers.



## NOMOGRAM-GUIDED SENTINEL NODE STRATEGY IN EARLY BREAST CANCER: EVALUATION AND COMPARISON WITH CURRENT DEESCALATION APPROACHES

Justin James (1, 2), **Sumudu Welikumbura** (presenter, 1), Emily Shembri (1), Michael Law (1, 2), Shomik Sengupta (1, 2), Christobel Saunders (3)

1. Eastern Health, Melbourne, Australia
2. Monash University, Melbourne, Australia.
3. University of Melbourne, Melbourne, Australia.

**Introduction:** Omission of sentinel lymph node biopsy (SLNB) in selected early breast cancer (EBC) patients is supported by recent trials and guidelines, but eligibility criteria may not generalise across diverse populations. We externally validated the Memorial Sloan Kettering Cancer Center (MSKCC) sentinel node nomogram and compared its performance with that of the SOUND and INSEMA trials and the 2021 ASCO guidelines.

**Methods:** We analysed 1,080 women with clinically and sonographically node-negative EBC treated at our centre (2012–2020). Predicted nodal risk was estimated using the MSKCC calculator. Discrimination (AUC), calibration, and clinical utility were evaluated. Trial and guideline criteria were applied to the same cohort for comparison.

**Results:** Macrometastatic nodal disease was present in 187 patients (17.3%). The MSKCC nomogram showed moderate discrimination (AUC 0.77, 95% CI 0.73–0.80) and reasonable calibration. At a 23% cut-off, 308 women (29%) were eligible for omission, with the lowest false-negative rate (FNR, 5.8%) and the highest negative predictive value (NPV, 94.2%). SOUND spared 493 (46%) with FNR 11.2% and NPV 88.8%, while INSEMA spared 723 (67%) with FNR 13.8% and NPV 86.2%. The ASCO 2021 guideline was conservative, sparing 162 (15%) with FNR 8.0% and NPV 92.0%.

**Conclusions:** In this cohort, the MSKCC nomogram provided the most favourable balance between patient eligibility and diagnostic accuracy compared with trial- and guideline-based omission strategies. While SOUND and INSEMA spared more patients, they carried substantially higher false-negative rates. A nomogram-guided approach may therefore support flexible, risk-adapted SLNB de-escalation, although prospective validation and long-term follow-up remain essential.



## FACTORS INFLUENCING REOPERATION IN BISPHOSPHONATES ASSOCIATED ATYPICAL FEMORAL FRACTURES

**Zhaolong Xiang** (presenter, 1), Joe Lynch (1, 2), Wesley Son (3), Saqib Zafar (3), Tom Ward (3)

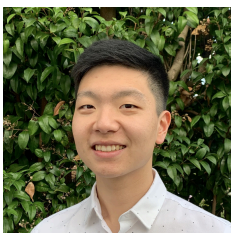
1. Australian National University
2. The Trauma and Orthopaedic Research Unit
3. Department of Orthopaedic Surgery

**Introduction:** Atypical femoral fractures (AFFs) are fractures that occur in the setting of prolonged use of anti-resorptive therapy for osteoporosis. These fractures are associated with high rates of problematic healing and reoperation. The factors that influence healing of AFFs are not well understood. The aim of this study was to investigate the effects of various factors, particularly modifiable surgical factors, on reoperation of AFFs.

**Methods:** All hip fractures operated on at the Canberra Hospital between 2010 and 2022 were assessed for evidence of an AFF based on the American Society for Bone and Mineral Research (ASBMR) criteria. Baseline demographics, fracture characteristics, surgery and radiographic parameters were collected. The modifiable surgical factors of interest include – residual gap to cortical thickness ratio, nail thickness to femoral canal diameter ratio and iatrogenic fracture intra-operatively. Univariate and multivariate analyses were performed to examine the association between these factors and reoperation.

**Results:** Fifty-two AFFs were identified (1.4%). Eight fractures underwent reoperation due to non-union (15.4%), two times the rate of typical femoral fractures. The reoperation group had a significantly larger gap to cortical thickness ratio compared to the successful healing group (0.33 vs 0.20,  $p = 0.037$ ). Multivariate analyses revealed no significant associations between the collected variables and reoperation.

**Conclusion:** The quality of reduction is critical in the management of AFFs. The aim is to minimise the lateral fracture gaps to promote healing and prevent the need for reoperation. Avoiding iatrogenic fracture and reducing the anterior fracture gaps may be conducive to healing.



## OBESITY SELECTIVELY INCREASES INTRAOPERATIVE RISK IN LEFT-SIDED COLON CANCER SURGERY: A RETROSPECTIVE COHORT STUDY

**Simon Xu** (presenter 1, 2), Rathin Gosavi (3), Yat Cheung Chung (2), William Teoh (1, 3), TC Nguyen (1,3), Geraldine Ooi (1), Vignesh Narasimhan (1, 2, 3)

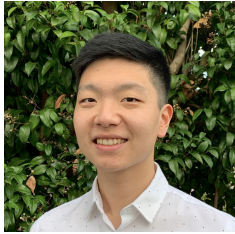
- 1 Department of Surgery (School of Clinical Sciences at Monash Health), Monash University, Melbourne, Australia.
- 2 Department of Colorectal Surgery, Monash Health, Melbourne, Australia
- 3 Department of Colorectal Surgery, Cabrini Hospital, Melbourne, Australia

**Introduction:** Obesity is traditionally viewed as a risk factor for adverse surgical outcomes. This study evaluated whether obesity independently affected intraoperative and postoperative outcomes following colon cancer resection, and whether these effects varied by anatomical site.

**Methods:** A retrospective cohort study was conducted of consecutive patients at a single institution from 2015 to 2022. Patients were stratified by BMI/obesity ( $\geq 30\text{kg/m}^2$  vs  $< 30\text{kg/m}^2$ ) and further grouped by urgency (elective/emergency) and anatomical subsite (right/left-sided). Primary outcomes were intraoperative complications, severe postoperative morbidity (Clavien–Dindo  $\geq$  III), conversion-to-open rate, ICU admission, and 30-day-mortality. Multivariate logistic regression was used to adjust for confounders.

**Results:** Among the 737 patients, 33.5% were obese. These patients were younger and had higher rates of hypertension, diabetes, and respiratory disease ( $p < 0.01$ ). In the overall cohort, obesity was not associated with increased rates of intraoperative complications, severe postoperative complications, conversion-to-open rate, or 30-day-mortality. In elective resections, obesity was independently associated with increased likelihood of ICU admission (aOR 1.82, 95%CI:1.08–3.09;  $p = 0.02$ ), while in emergent resections obesity was independently associated with higher intra-operative complications (aOR 2.18, 95%CI:1.19–3.97;  $p = 0.01$ ). Stratified analysis by resection site revealed that obesity was an independent risk factor associated with intraoperative complications (aOR 1.89, 95%CI:1.03–3.47;  $p = 0.04$ ) and ICU admission (aOR 3.17, 95%CI:1.61–6.23;  $p < 0.01$ ) following left-sided, not right-sided colectomy.

**Conclusions:** Obesity was not associated with adverse outcomes following colon cancer surgery overall. However, when stratified by anatomical subsite, obesity was independently associated with increased perioperative risk in left-sided resections. These findings support a more nuanced approach to operative planning and perioperative risk stratification.



## THE IMPACT OF OBESITY ON INTRAOPERATIVE COMPLICATIONS IN RECTAL CANCER

**Simon Xu** (presenter, 1, 2,) Rathin Gosavi (1, 3), Yigeng Li (1), James Lim (1, 4), T C Nguyen (1, 4), William Teoh (1, 4), Geraldine Ooi (2, 4), Vignesh Narasimhan (1, 3, 4)

- 1 Department of Colorectal Surgery, Monash Health, Melbourne, Australia.
- 2 Department of Upper GI Surgery, Monash Health, Melbourne, Australia.
- 3 Department of Colorectal Surgery, Cabrini Health, Melbourne, Australia.
- 4 Department of Surgery, School of Clinical Sciences at Monash Health, Monash University, Melbourne, Australia.

**Introduction:** Obesity is a growing global health concern and poses significant challenges in rectal cancer surgery, including obscuring surgical landmarks, complicate dissection, and increase the risk of intraoperative adverse events (iAEs). Despite so, there is limited objective data quantifying the impact of obesity on iAEs. This study utilizes the CLASSIntra classification system to assess the incidence and severity of iAEs in patients with obesity undergoing rectal cancer resection.

**Methods:** This retrospective cohort study reviewed patients between January, 2014 and December, 2023 who were stratified into groups: obese (BMI  $\geq 30$  kg/m<sup>2</sup>) versus non-obese (BMI  $< 30$  kg/m<sup>2</sup>). The primary outcome was the incidence and severity of iAEs, using the CLASSIntra grades. Secondary outcomes included conversion-to-open rate, postoperative complications, ICU admissions, and overall length-of-stay.

**Results:** There were 350 patients included (112 obese, 238 non-obese). There were significantly more iAEs in the obese group (40% vs 26%,  $p=0.010$ ). Obesity was an independent predictor of intraoperative complications (OR 1.92,  $p=0.010$ ). Conversion-to-open (27% vs 40%, OR 2.30,  $p=0.0100$ ) and ICU readmission (50% vs. 31%, OR 2.35,  $p=0.003$ ) were significantly more common in patients with obesity. There were no significant differences in postoperative complication rates and hospital length-of-stay between groups.

**Conclusion:** Obesity leads to a higher risk of iAEs in rectal cancer surgery, increased conversion-to-open and ICU resource utilisation. These findings highlight the technical challenges of rectal surgery in obese patients and emphasize the need for tailored preoperative planning/prehabilitation and intraoperative strategies. Further research should explore preoperative interventions, such as weight optimization programs, to improve surgical outcomes in this high-risk population.



## PREDICTORS OF INTERVENTION IN LOWER GASTROINTESTINAL BLEEDING

Kerrilee Young (presenter, 1, 2), Sheik Auckloo (1), Lily Owens (1), Rebecca Salter (3), Siri Uddandam (1), Maryum Qureshi (1), Russell Hodgson (1,4)

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4. Department of surgery, University of Melbourne, Victoria

\*\*\* This project was done as the final dissertation project for Master of Surgery by research component

**Introduction:** Lower gastrointestinal bleeding (LGIB) is a common general surgery presentation, encompassing a diverse spectrum of aetiologies, with variable clinical courses. Whilst the majority of cases self-resolve, this heterogeneity makes management decisions somewhat challenging. Despite many previous studies attempting to develop prognostic scoring systems for LGIB severity, their effectiveness remains dubious, and clinical guidelines do not endorse their use. No previous models have reliably predicted requirement for intervention.

**Methods:** A single-centre retrospective cohort study was performed, including adult patients admitted with LGIB between January 2020 and December 2022. Patients were categorized into interventional vs. conservative management cohorts, and potential predictive factors compared. Univariable and multivariable logistic regression analysis was performed.

**Results:** Out of 208 patients with LGIB, 28 required interventional management. Univariable analysis identified several independently significant predictors. Across all multivariable models tested, there were only a few variables that were consistently useful in predicting intervention, including positive Computed Tomography Angiogram (CTA), and blood transfusion requirement ( $>3$  units in 24 hours). Anticoagulation and dual antiplatelet therapy were associated with lower rates of intervention. Additionally, an identifiable bleeding source on direct proctoscopy was associated with higher likelihood of ward-based management. Further studies, particularly prospective are recommended.

**Conclusions:** LGIB encompasses a vast array of aetiologies, and locations of bleeding, and this heterogeneity makes it challenging to establish a model predictive of interventional outcomes. Positive CTA and transfusion requirement were the most likely positive predictors. Direct proctoscopy and early CTA in nonanticoagulated patients requiring blood transfusion may help stratify patients to earlier intervention.

**The Surgical Research Society of Australasia conference has multiple awards available to eligible presenters.**

These are:

**Young Investigator Award:** One AUD5,000 prize is awarded to a presenter 40 years or younger. The Young Investigator Award funds the attendance and presentation at the Academic Surgical Congress (ASC) in the USA in 2025.

**Travel Grants** Prizes (AUD500 each) are awarded to presenters who must be a SET Trainee, Pre-vocational Doctor or Medical Student. Each Travel Grant funds expenses towards travel, accommodation and conference/course registration.

**ANZ Chapter of the American College of Surgeons:** One AUD2,000 prize is awarded to a presenter who has been a Fellow not more than 5 years. The ANZ Chapter of the American College of Surgeons Award requires the Awardee to present their research at the ANZ Chapter Surgical Forum at the RACS Annual Scientific Congress the following year.

**Responsibilities for Winners:** All award and prize winners are to submit a 300-word report to the Academic Surgery Committee within 12 months detailing their learnings, and any resulting collaborations and/or publications/presentations.

**Aboriginal and Torres Strait Islander motif**

The Māori motif indicates RACS' commitment to address Māori health inequity to accept obligations inherent in the Tiriti o Waitangi.



**Aboriginal and Torres Strait Islander motif**

The Aboriginal and Torres Strait Islander motif indicates RACS' commitment to address Aboriginal and Torres Strait Islander health inequity.



# Section of Academic Surgery

Do you have an interest in academic surgery?

## Eligibility

Membership of the Section of Academic Surgery is open to Fellows, Trainees and International Medical Graduates (SIMGs) on a pathway to Fellowship who have an interest in academic surgery. The Executive Committee of the Section can also offer membership to individuals who are external to the College on recommendation from the Chair. Non College members may have to pay a membership fee but will not have voting rights and are not eligible to hold governance positions.

## Objectives of the Section

- To develop and monitor standards in academic surgical departments in Australia and Aotearoa New Zealand
- To enhance career pathways in academic surgery and to encourage younger surgeons to pursue opportunities in academic surgery
- To develop an Australasian curriculum for undergraduate surgery, to provide advice to Australian and Aotearoa New Zealand medical schools regarding appropriate surgical content, and which is appropriate for continuation to surgical education and training
- To advise RACS Council on professional and policy issues related to academic surgery, as well as issues of relevance to surgery in general
- To respond to requests from Council for consideration of relevant issues.
- To establish and maintain a registry of academically active members in order to support the Section's activities and plan appropriate workforce issues.

## Governance

The Section of Academic Surgery is governed by the Academic Surgery Committee reporting to the Research & Academic Surgery Committee (RASC) and the Professional Standards and Fellowship Services (PSFS) Committee.

### Submitting an application:

Do you have an interest in academic surgery? To join the community of academic surgeons today for free, simply complete this [application form](#). More information can be found [here](#)

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