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RACS Annual Research Conference 2026

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12 - 13 November 2026

Australian Hearing Hub

Macquarie University, Sydney

Welcome to the RACS Annual Research Conference 2026



Professor Payal Mukherjee
Chair, Academic Surgery Committee



Associate Professor Anthony Glover
ARC Convenor

Welcome

It is our great pleasure, on behalf of the Academic Surgery Committee and the Conference Organising Committee, to welcome you to Sydney and to the Australian Hearing Hub at Macquarie University.

Over the next two days, we will celebrate the breadth and impact of academic surgery, bringing together surgeons, researchers, educators and innovators from across Australia and internationally.

This year, we are particularly delighted to welcome guests and colleagues from the United States and South Africa, with this being the first time we have welcomed a South African delegation to the conference. Their participation provides a wonderful opportunity to strengthen international connections, share perspectives and foster new collaborations across the surgical research community.

Our program explores what it means to be a modern academic surgeon — from research and innovation to education, translation and collaboration. It also provides an important platform for emerging researchers to share their work, exchange ideas and build connections.

We encourage you to make the most of the conference: engage with our speakers and presenters, ask questions, share ideas and connect with colleagues from Australia and overseas.

Thank you to everyone who has contributed to bringing this conference together, and particularly to our international guests, speakers, presenters and organising committees.

We also gratefully acknowledge Medtronic as the major sponsor of the Annual Research Conference. Their support helps bring together Fellows, Trainees and researchers from across Australia, Aotearoa New Zealand and the world to share research, foster collaboration and advance surgical knowledge at this conference.

We hope you enjoy the program and leave inspired by the research, innovation and collaboration shaping the future of surgery.

Welcome, and we wish you an inspiring and rewarding two days.



Kind regards
Professor Payal Mukherjee
Chair Academic Surgery Committee



Associate Professor Anthony Glover
ARC Convenor

Organising Committee

Committee Members

Payal Mukherjee
Chair, Academic Surgery Committee

Matthew Read
Chair, Surgical Research Society

Anthony Glover
Deputy Chair, Academic Surgery Committee
Annual Research Conference Convenor

Siobhan McKay
Member, Academic Surgery Committee
Annual Research Conference

Craig McBride
Member, Academic Surgery Organising Committee
Co-Convenor, DCAS

Sarah Thompson
Member, Academic Surgery Organising Committee
Co-Convenor, DCAS

Guy Maddern
Surgical Director, Research & Evaluation

Wendy Babidge
General Manager, Research, Audit and Academic Surgery (RAAS)

General information

Intention to photograph

Please be advised that photographs may be taken during the conference and reproduced by the conference organiser.

These photographs may be used for the following purposes:

- projection onsite
- social media
- reporting on the course in online and hard copy publications
- marketing a future conference, including online and hard copy RACS publications.

If you do not wish to be included in a photograph, please advise the photographer.

Certificate of Attendance

Certificates of Attendance will be supplied upon completion of the Course Survey.

Details of the survey will be provided on the day.

CPD hours

CPD hours will be awarded for attendance at the course with hour allocation to be advised at a later date.

International speakers

Association for Academic Surgery and International Invited Speakers:

- Dr Danny Chu, USA
- Dr Jashodeep Datta, USA
- Professor John Devar, South Africa
- Professor Gifty Kwakye, USA
- Professor Brenessa Lindeman, USA
- Professor Thifhelimbilu Luvhengo, South Africa
- Dr Joseph Phillips, USA.

Australasian Faculty includes:

- Associate Professor Sarah Aitken, NSW
- Professor Zsolt Balogh, NSW
- Dr Nazim Bhimani, NSW
- Dr Quin Buchlak, Qld
- Associate Professor Oliver Fisher, NSW
- Professor Kerry Hitos, NSW
- Professor Jonathan Karpelowsky, NSW
- Professor Craig McBride, Qld
- Professor Matthew Read, Vic
- Associate Professor Michael Talbot, NSW

Hot topic speakers

Professor Zsolt Balogh, NSW
Becoming an Academic Surgeon and Avoiding Burnout

Associate Professor Michael Talbot, NSW
How to Combine Research and Innovation with Private Practice

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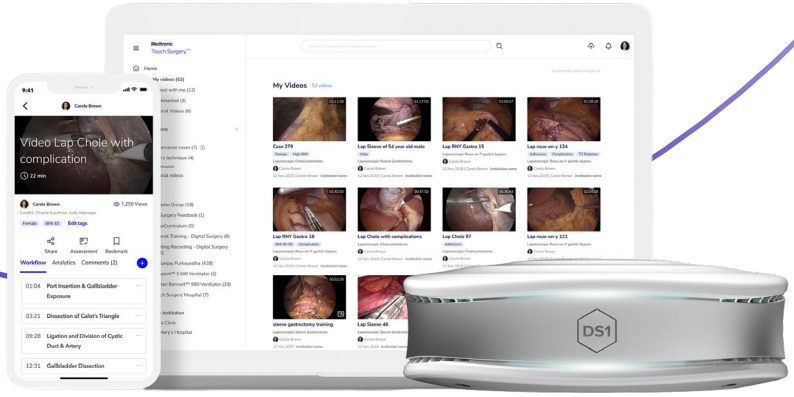
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Cochlear: From Research to Innovation

Jan Janssen | Chief Technology Officer, Cochlear Site Tour
4:45 pm | Two sessions of 25–30 minutes (tour and talk)
Thursday 12 November 2026

Discover how research, engineering and innovation are translated into life-changing hearing technology.

Jan Janssen will share insights from his experience leading the development and commercialisation of advanced implantable hearing technologies.

Since joining Cochlear in 2000, Jan has held senior leadership roles in Research & Development and, since 2017, has served as Chief Technology Officer. He leads a team of more than 600 engineers and scientists, overseeing research, technology development and commercialisation.

Jan holds 12 granted patents in implantable hearing technology.

Experience Cochlear Innovation First-Hand

Following the presentation, delegates will have the opportunity to go behind the scenes at Cochlear Headquarters on an exclusive manufacturing tour, exploring how research and innovative engineering are transformed into sophisticated medical devices.

Delegates will be divided into two groups, alternating between Jan's presentation and the manufacturing tour to ensure everyone experiences both sessions.



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Day one · Thursday 12 November

Time	Session/Content
09:00	Welcome | Acknowledgement of Country Introduction to ARC / DCAS — Co-Chairs
Session one | DCAS: What it Means to be an Academic Surgery ("The Multi-Threat Surgeon") - Chairs: Prof Payal Mukherjee and Prof Thifhelimbilu Luvhengo	
09:10	The Academic Surgeon Researcher — Professor Craig McBride
09:25	The Academic Surgeon Innovator — Professor Jonty Karpelowsky
09:40	The Academic Surgeon Translator — A/Professor Oliver Fisher
09:55	Creating a culture of surgical innovation and research — Professor John Devar
10:10	Morning tea and coffee break
Session two - Hot topic & SRS Presentations - Chairs: Prof Craig McBride and Dr Mona Jiang	
10:40	Hot topic: Becoming an Academic Surgeon and Avoiding Burnout - Professor Zsolt Balogh

Concurrent SRS Oral Presentations

Time	Room one Chairs: Prof Craig McBride & Dr Mona Jiang	Room two Chairs: Prof Kerry Hitos & Prof John Devar
11:18	Mucosal Microbiome Across the Spectrum of Diverticular Disease - Dr Jane Theodore	Neurological Rehabilitation Strategies Following ACL Reconstruction - Reena Wen
11:28	Cognitive load and decision fatigue of General Surgical Registrars in Australia - Dr Luke Fairweather	Long-term machine perfusion of cirrhotic human liver explants Dr Arsalan Bakhtiar
11:38	The current understanding of perioperative nutrition – a survey amongst colorectal surgeons in CSSANZ Dr Elizabeth Coren	Research productivity, barriers and enablers in surgical training Mr Sepehr Miran
11:48	Pulmonary thrombosis in trauma patients: risk factors and outcomes in an Australian major trauma centre Dr Natalie Guiney	The Clinical and Financial Burden of Ileostomy-Related Readmissions: A Retrospective Cohort Study - Dr Cindy Xu
11:58	Clinically Relevant Patient-Derived Organoids Identify Optimal HIPEC Drug Selection for Colorectal Peritoneal Metastases - Dr Amanda Liesegang	Implementation of a Protocol Driven Day-Case Haemorrhoidectomy Pathway in an Australian Public Hospital: Safety, Feasibility and Institutional Impact - Dr Brianna Twomey
12:08	Lunch break	

Session three - DCAS: Manuscripts &andJournals: Success and Rejection! - Chairs: Prof Danny Chu and Dr Jashodeep Data

13:08		How to get your work published in 2026 - Prof Gifty Kwakye
13:23		Pearls for a great PowerPoint presentation (and how to keep to time) - Prof Kerry Hitos
13:38		De-mystifying stats - Dr Nazim Bhimani
13:53		I was just rejected... what now? - Dr Joseph Phillips
14:08		Panel Discussion - Q & A

Session four: SRS Presentations and Quick Fires

		Room one: Oral Presentations Chairs: Dr Nazim Bhimani and Ms Manvek Jawanda		Room two: Quick Fire Presentations Chairs: Dr Nishka Tapaswi and A/Prof Anthony Glover
14:18				
14:23		Quality of Appendicectomy Operative Reports: A Baseline Audit Informing Synoptic Template Implementation in SDPR - Dr Raphael Figuiredo Dias	14:23	Early or mild appendicitis on imaging: concordance with histopathology following appendicectomy, a retrospective study - Dr Vanessa Di Tano
			14:28	Surgical drapes, perianal procedures and the environment: a systematic review - Dr Amirtha Priya Krishna
14:33		The Evolution of Trauma: Increasing Complexity and Resource Utilisation of Operative Orthopaedic Trauma at a Single Major New Zealand Trauma Centre - Dr Shadie Lupo	14:33	Starvation osteopathy - Dr George Weisz
			14:38	Code Brain: 5-year impact review of a paediatric traumatic brain injury protocol - Miss Catalina Fok
14:43		Surgical Ward Nurse Staffing and Postoperative Mortality: A National Population-Based Cohort Study - Dr Cameron Wells	14:43	Impact of Obesity in the Healthcare Utilisation of Elective Ventral Hernia Repairs - Miss Seung Yun Oh
			14:48	Incisional hernia and perioperative outcomes following laparoscopic right hemicolectomy for colon cancer - Xiaohui Lin
14:53		~~Clinical Characteristics, Outcomes, and Temporal Trends of Gallstone Pancreatitis in a Tertiary Care Hospital: A Five-Year Retrospective Cohort Study - Dr Aroob Farhan~~ Withdrawn	14:53	Scoping Review of the National Surgical Plans of Small Island Nations - Dr Michael Ntiamoah
			14:58	A pain in the butt: malignant transformation of a pilonidal sinus - Dr Natasha Patrick
15:03			15:03	Beyond the Child: A Systematic Review of Parental Wellbeing and Family Functioning in Paediatric Colorectal Conditions - Ms Caryn Koo
			15:08	Who operates after hours? An audit of the three highest volume intra-abdominal emergency procedures in a regional Australian Hospital - Dr Malcolm Zou

15:13	Afternoon tea and coffee break		
Session 4: SRS Presentations and Quick Fires (continuing)			
	Room one: SRS Presentations - Chairs: Dr Joseph Phillips and Dr Kai Sheng Saw		Room two: - Quick Fire Presentations Chairs: Dr Cameron Wells and Mr Leonard Lee
15:43	Maximising Impact in Surgical Education - Prof Brenessa Lindeman	15:43	Network meta-analysis of static cold storage versus dynamic organ preservation for liver transplantation - Dr Kevin Yi
		15:48	A systematic review of systemic inflammatory biomarkers in preoperative colon cancer patients and their association with overall survival - Dr Ngar Lok Joshua Wong
		15:53	Clinical tools for assessment of plaster cast quality in patients with limb fractures in the Emergency Department: a systematic review - Mr Jordan Lim
15:58	Does living donor liver transplantation displace deceased donor activity? An international longitudinal analysis from 2000 to 2024 - Mr Mukund Karthik	15:58	Out-of-Pocket Costs for the treatment of Colorectal Cancer: A Systematic Review - Miss Courtney Fyffe
		16:03	Efficacy and Safety of Combined Kinase Inhibitor Therapy and Immunotherapy in Advanced Thyroid Cancer: Systematic Review and Meta-analysis - Dr Nishka Tapaswi
16:08	Impacts of intracranial pressure monitoring on mortality and length of stay in severe traumatic brain injury: A systematic review and meta-analysis - Dr Nakhyun Kim	16:08	The utility of Braun Enteroenterostomy with Pancreaticoduodenectomy: preliminary results from an Australian randomised controlled trial - Dr Saksham Gupta
		16:13	Mycobacterium abscessus infection after cosmetic tourism: Australian review and case series - Hannah Devitt
16:18	Surgical treatment of Crohn's disease in New South Wales, 2002–2019 - Dr Phillip Yang	16:18	Evaluation of Remplir Nerve Wrap for Sensory Recovery Following Abdominally Based Autologous Breast Reconstruction - Maximilian Gerber
		16:23	National variations in ileostomy reversal in Aotearoa New Zealand - Dr Chen Liu
16:28	The Impact of the National Bowel Screening Programme on Colorectal Cancer Presentations and Outcomes in Southland, New Zealand - Ms Jiamin Li	16:28	Microbreaks for macro solutions: a scoping review of upper limb injuries in plastic surgeons and an evidence based ergonomic stretch framework - Dr Mahta Mohajeri
		16:33	The Axiomatic View of Scarcity in Liver Transplantation - Dr Charles Thomas
16:38	End of day one		
16:45	Cochlear Site Visit	18:00	Academic Surgery Committee Meeting (by invitation)

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Day two: Friday 13 November

Time	Session/Content - Chairs: Prof Guy Maddern and Ms Manvek Jawanda
08:30	Welcome | Acknowledgement of Country - Chair of Academic Surgery
08:35	Hot Topic: How to Combine Research & Innovation with Private Practice - A/Prof Michael Talbot
09:05	AAS Top Abstract Presentation - Dr Jashodeep Datta

Session 2 - Concurrent SRS Oral Presentations

Time	Room one: Invited Guest Speakers and SRS Presentations - Chairs: Prof Guy Maddern and Ms Manvek Jawanda		Room two: Quick Fire Presentations Chairs A/Prof Andrew Cochrane and Mr Nicolai Foenander
09:25	Estimating bilateral deep inferior epigastric perforator (DIEP)flap weight using computed tomography angiography (CTA):comparison with mastectomy - Mr Christopher Choy	09:25	The Effects of Mastectomy Type and Mastectomy Weight on Objective Sensory Recovery After Abdominal-Based Neurotised Autologous Breast Reconstruction - Mr George Banis
		09:30	~~Prognostic Value of Serum Uric Acid for Complications After Open Surgery or Minimally Invasive Interventions: A Systematic Review - Miss Chani-Brynn Leybourne~~ Withdrawn
09:35	Injectable microchanneled polyhipe scaffolds: a novel biomimetic approach to cranial defect reconstruction - Dr Stephen Goldie	09:35	Patient-Reported Outcome Measures Following Pancreatectomy for Pancreatic Cancer: A Scoping Review - Dr Patrick Reardon
		09:40	Current trends in perioperative analgesia for patients undergoing major colorectal resection at the Sunshine Coast University Hospital - Dr Huw Roberts
09:45	~~Standard CEA Immunohistochemistry Fails to Predict Liver Metastases in Appendiceal and Colorectal Adenocarcinoma - Dr Adam Cristaudo~~ Withdrawn	09:45	INTERCEPT Pancreatic Cancer - INtravasation Targets: Expression, Recurrence, Clinical Endpoints and Pathways to Treatment in Pancreatic Cancer - Dr Ramesh De Silva
		09:50	The Natural History of Common Bile Duct Stones Detected on Intra-operative Cholangiography: The Fate of the Stone - Miss Jessica Han
09:55	Cooling the Pain Away: Randomised Controlled Trial assessing a novel approach to reducing post Haemorrhoidectomy pain - Dr Christo Joseph	09:55	Artificial Intelligence in Surgery: From Algorithm to Operating Room - Dr Kate Lindley
		10:00	Impact of an Embedded Perioperative Older Persons Service on Outcomes Following Emergency Laparotomy - Dr Hannah Bascand
10:05	Clinical and Equity-Focused Predictors of Hartmann's Reversal: A 10 Year Retrospective Audit at a Culturally Diverse Australian Health Service - Dr Hui Li Yen Askvik	10:05	Immediate lymphovenous anastomosis during axillary dissection for breast cancer may reduce the lymphoedema risk - Mr Tyler Ye
		10:10	Risk Factors for Diabetic Foot Related Lower Extremity Amputation in Low and Middle Income Countries - Dr Jimmy Eteuati
		10:15	Orthopaedic Surgery Interest Compared to Other Surgical Subspecialties: A Cross-Sectional Cohort Study of Australian and New Zealand Medical Students - Dr Eric He

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Day two: Friday 13 November

Time	Session/Content
10:25	Morning tea and coffee break
10:50	**Jepson Lecture - Prof Ian Bissett**
ARC Presentations - Invited Speakers - Chairs: A/Prof Anthony Glover and Reena Wen	
11:33	Innovation in education & introduction of the Sydney part-time MD program - A/Prof Sarah Aitken
11:48	Innovation in surgical startups and how to succeed - Prof Matthew Read
12:03	From Idea to Impact: How Surgeons and Industry Advance Research Together - Dr Quin Buchlak
12:18	The Modern Academic Surgeon: Building an Academic Career with Purpose - Prof Gifty Kwakye
12:33	Lunch break
13:33	Trileaflet Aortic Valve Reconstruction (Ozaki Procedure) for Treatment of Aortic Valve Diseases - Prof Danny Chu

Concurrent SRS Quick Fire Presentations - Chair: A/Prof Andrew Cochrane

Time	Room one Chairs: A/Prof Sarah Aitken and Mr Harrison Drummer		Room two. Chairs: Prof Gifty Kwakye and Dr Cameron Wells
13:56	The emerging burden of e-bike-related intraabdominal trauma: injury patterns, risk factors and clinical outcomes - Dr Andrea Naim	13:56	Successful simultaneous reconstruction of multiple lower lip defects - Dr Gabrielle Fox
14:01	Intraperitoneal Local Anaesthetic in Colorectal Surgery: a systematic review and network meta-analysis - Mr Paul Teoh	14:01	"Seniors and the City": a review of trauma in the elderly at a metropolitan level II trauma centre - Dr Helen Boyd
14:06	The Influence of Gender on Publication Outcomes in Postgraduate Surgical Research: A 12-year Cohort Study - Dr Chan Ho Kim	14:06	Predicting textbook oncological outcomes with machine learning: A retrospective review of patients undergoing malignant liver resection over 21 years - Dr Arjun Fadia
14:11	Prospective diagnostic performance of appendicitis scoring systems in Samoan patients - Dr Renato Pitesa	14:11	Pre-operative Diagnosis of Intranodal Palisaded Myofibroblastoma by Ultrasound-Guided Core Biopsy: A Rare Benign Mimic of Malignancy - Dr Terence Wong
14:16	Worldwide Seasonal Variation in Hospital Admissions for Cholecystitis - A Systematic Review - Miss Chloe Lam	14:16	What Is a Good Outcome After Elective Aneurysm Treatment? Rationale and Design of the COA2T Study - Dr Jorn Van Der Veken
14:21	Predictors of Bowel Resection in Portomesenteric Venous Thrombosis Following Bariatric Surgery: A Systematic Review - Dr Wei Ren Ng	14:21	Retrospective review of ileocolic resections for Crohn's disease performed at a single centre and factors affecting recurrence - Dr Isabelle Huynh

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Day two: Friday 13 November

Concurrent SRS Quick Fire Presentations

Time	Room 1 - SRS Presentations		Room 2 - Quick FIre Presentations
14:26	Reliability and Quality of YouTube Videos on Robotic Radical Prostatectomy: A DISCERN-Based Analysis - Mr Kevin Rathore	14:26	Multimodal Spectroscopy in Fresh Colorectal Resection Specimens: A Pilot Study Evaluating Cancer and Non-Cancer Discrimination - Dr Tien Yew Chern
14:31	Mapping tumour response to neoadjuvant therapy in rectal cancer - Dr Mohammad Amer	14:31	Systematic Review of Local excision vs. Chemoradiation in Management of Early Squamous Cell Carcinoma - Dr Lashnika Bandaranayake
14:36	Difficulty Scoring Systems in Robotic Liver Resections - Systematic Review - Mr Ezekiel Xin An Tan	14:36	Barrier agents in enhancing post-haemorrhoidectomy recovery: a systematic review and network meta-analysis - Mr Nicolai Foenander
14:41	Tracheal cartilage fracture as a mechanical cause of late post-percutaneous tracheostomy stenosis - Dr Wiramon Chantima	14:41	Modified Classification of Postoperative Complications in Plastic and Reconstructive Surgery - Mr Yusef Hafez
14:46	Skin Cancer in Renal Transplant Recipients - Dynamic Risk Profiles - Dr Edmond Chang	14:46	The Efficacy of Preoperative and Intraoperative Interventions on R0 Surgical Margins in Colorectal Cancer: A Systematic Review and Meta-Analysis - Miss Paloma DiDia
14:51	Improving risk prediction in colorectal cancer Dr Alexander McCarthy	14:51	Spontaneous haemoperitoneum secondary to omental desmoplastic small round cell tumour (DSRCT): a case report and review of primary peritoneal tumours - Miss Sofia McClelland
14:56	Afternoon tea and coffee Break		

Concurrent SRS Quick Fire Presentations

Time	Room one: SRS Presentations Chairs: Prof Vincent Lam & Dr Xiaohui Lin		Room two: Quick Fire Presentations Chairs: Prof Brenessa Lindeman and Dr Michael Ntiamoah
15:26	Tcell Clonality in Tumor-Draining Lymph Nodes in NSCLC Dr Joseph Phillips	15:26	Same-Day Discharge After Appendicectomy: Safety, Age-Specific Outcomes and a Geographic Evidence Gap - Mr Harrison Drummer
		15:31	Bilateral Type I Deep Inferior Epigastric Artery Branching Pattern Predicts Abdominal Bulge after Autologous Breast Reconstruction - Mr Johnathan Lu
		15:36	Robotic Inguinal Hernia Repair: Longer-Term Patient-Reported Outcomes and Perspectives - Mr Aleksandar Strkalj
15:41	Hospital factors associated with failure to rescue after surgery: A meta-analysis - Dr Akash Boppana	15:41	Quality of life after head and neck free flap reconstruction: rural versus metropolitan outcomes - Mr Leonard Lee
		15:46	A Systematic Review of Genomic Biomarkers for General Surgical Precision - Dr Chathura Egoda Arachchilage

RACS Annual Research Conference 2026

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Day two: Friday 13 November

Concurrent SRS Quick Fire Presentations

Time	Room one: SRS Presentations		Room two: Quick Fire Presentations
15:51	Telephone follow up was safe and effective for selected general surgical operations- a retrospective cohort study in an Australian tertiary centre - Dr Genevieve Heath-Kalgutkar	15:51	Impact of post-graduate year (PGY) and other sociodemographic factors on surgical subspecialty preference among junior doctors and medical students - Dr Mona Jiang
		15:56	Pediatric Adrenalectomy: a national Analysis of Epidemiology and Surgical Approach using the kids' inpatient database, 2016–2022 - Miss Bhavaghna Sangars
16:01	Impact of a dedicated multi-disciplinary aortic pathway on survival after acute type B and non-A/non-B acute aortic syndrome - Dr Sameer Bhat	16:01	Emergency colorectal cancer during COVID-19: temporal trends in presentation, tumour characteristics and management in a regional Australian health - Dr Olivia McNeil
		16:06	Does formal research training lead to a career in academic surgery? - Mr Liam Fell
16:11	68Ga-FAPI-PET/CT to detect advanced neoplasia in pancreatic cystic neoplasm; a multi-centre, prospective study with genomic validation - Dr William McGahan		
16:21	Soft-tissue infections after CAR-T therapy: a sentinel case and systematic scoping review - Dr Jennifer Novo		

Closing speakers and Awards - Chairs: A/Prof Anthony Glover and Prof Matthew Read

16:39	Building and growing international partnerships: academic surgery and the AAS and RACS - Prof Brenessa Lindeman
16:54	Surgical research and international partnerships – the Surgical Research Society of Southern Africa and RACS - Prof Thifhelimbilu Luvhengo
17:09	★ Awards — Prize and award Presentations: Young Investigator Award | Travel Grants | ANZ Chapter ACS Award
17:24	Closing remarks
17:34	End of program

Jepson Lecturer



Ian Bissett
New Zealand

We are delighted to announce that Professor Ian Bissett will deliver the Jepson Lecture at the 2026 RACS Annual Research Conference.

Ian Bissett ONZM is a Professor in Surgery at the University of Auckland and Consultant Colorectal Surgeon at Auckland City Hospital.

He spent more than 10 years as a general surgeon working in Nepal from 1987-98, then gained an MD and completed his colorectal fellowship training in 1998-2001, before taking up his present position.

He is the past chair of the NZ National Bowel Cancer Working Group and past president of the Colorectal Surgical Society of Australia and NZ. He has now retired from clinical surgery but continues as the director of the National Intestinal Failure and Rehabilitation Service for Adults. His particular interests include intestinal failure, rectal cancer, gut motility, faecal incontinence and global surgery. He has 250 publications in peer reviewed journals. He and his wife, Jo, have three children and five grandchildren.

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Hot topic in Academic Surgery speakers



Zsolt Balogh
New South Wales

Professor Zsolt Balogh is an international leader in trauma care, research and education. He is directing the trauma services for John Hunter Hospital and Hunter New England (2005-), Professor of Surgery at the University of Newcastle 2008-), Convening the Master of Traumatology Program (2015-).

Chairing the ANZ Trauma Care Verification Program (2017-), leading the Injury and Trauma Research Program at Hunter Medical Research Institute (2021-) and the president of the ANZ Association for the Surgery of Trauma (2025-).

Professor Balogh is a busy practicing trauma and orthopaedic trauma surgeon with a major interest and expertise in complex polytrauma patient management, traumatic shock resuscitation, postinjury multiple organ failure and pelvic and acetabulum fracture patients.

Professor Balogh is the recipient of Australia's most prestigious surgical research award, the John Mitchell Crouch fellowship of the Royal Australasian College of Surgeons (2015) and one of the highest international recognitions in trauma surgery, the Robert Danis Prize (2026) by the International Surgical Society.

Zsolt was also the top researcher of Australia in the field of Emergency Medicine; 2020, 2021 and 2026 by The Australian – Report on Research.

With over 400 peer-reviewed publications, more than 37,000 citations, and a h-Index of 77, Professor Balogh's research covers many areas overlapping with his above clinical expertise.
Professor Balogh is dedicated to continuing his contribution to the scientific community via avenues such as Editor-in-Chief, Deputy Editor-in-Chief, Editor of leading trauma, surgical and critical care journals.



Michael Talbot
New South Wales

After graduating from the University of Otago in 1992, Dr. Talbot completed his Internship in Wellington, NZ before commencing residency and surgical training at Sydney's St Vincent's Hospital.

Graduating from Advanced Surgical Training in the Sydney Southeastern rotation in 2001, Dr. Talbot then underwent further subspecialty training as the Lister Lecturer in Surgery at the Glasgow Royal Infirmary, before commencing Consultant practice at St George in 2003. He is a Conjoint Associate Professor in Surgery at the University of New South Wales.

Throughout his career he has been immersed in bariatric, endoscopic and oesophago-gastric surgery. In his spare time, he looks for things to keep him busy, much to the disappointment of his wife and 3 children.

Positions:

- Head of the Department of Upper GI Surgery at St George Hospital
- Chairman of MAC and Dept. of Surgery St George Private Hospital
- President of ANZ Metabolic and Bariatric Surgery Society (ANZMOSS) 2019-20
- Treasurer/Co-chair of Sydney Upper GI Surgery Society (SUGSS) and board member since 2006

Areas of Speciality:

- Upper-Gastrointestinal Surgery
- Robotics
- Bariatrics, Therapeutic Endoscopy/ERCP/POEM
- Oesophageal Physiology and reflux
- Neoplasia in the oesophagus and stomach
- Abdominal wall reconstruction

Association for Academic Surgery Speakers and International Faculty



Danny Chu
USA

Dr. Chu received his degrees from California Institute of Technology and Tufts University School of Medicine. He completed residency training at UCSD Medical Center and Baylor College of Medicine with Dr. DeBakey and Dr. Cooley.

Dr. Chu has authored over 200 peer-reviewed articles, abstracts, book chapters, and invited editorials. He currently serves as the Editor-in-Chief of Vascular Medicine and Research and serves as an editorial board member of over 15 peer-review journals (including The American Journal of Cardiology, JAMA Surgery, The Annals of Thoracic Surgery, and World Journal of Surgery).

He has also been elected membership to the prestigious American Association for Thoracic Surgery (AATS), American Surgical Association (ASA), Association of VA Surgeons (AVAS), Society of Thoracic Surgeons (STS), and Society of University Surgeons (SUS). Dr. Chu served as the President of AVAS 2024-2025 and the President of SUS 2025-2026.

Dr. Chu is currently a Professor and Executive Vice Chair of Department of Cardiothoracic Surgery at University of Pittsburgh School of Medicine and the Director of Cardiac Surgery at VA Pittsburgh Healthcare System. He was the site Principal Investigator of a $15 million multi-center prospective randomized control trial sponsored by the VA Cooperative Study Program investigating the effect of open vs. endoscopic saphenous vein harvest techniques for patients undergoing CABG operations. As an internationally recognized expert, Dr. Chu has special clinical interest in the novel technique of aortic valve reconstruction using autologous pericardium (Ozaki procedure) for the treatment of aortic valve diseases.



Jashodeep Datta
AAS Best Overall Abstract Award
USA

Dr. Jash Datta holds the DiMare Family Endowed Chair in Immunotherapy and is an Associate Professor of Surgery at the University of Miami Miller School of Medicine, where he specializes in complex hepatobiliary and pancreatic surgical oncology.

At Sylvester, Dr. Datta leads a translational immuno-oncology research program funded by the National Cancer Institute of the National Institutes of Health and the Department of Defense, with a focus on myeloid immunobiology, tumor-stromal-immune crosstalk, and mechanisms of immunotherapy resistance in pancreatic cancer.

In addition, he serves as the Co-Leader of the Gastrointestinal Oncology Site Disease Group, as well as Assistant Director for Transdisciplinary Research, working with diverse stakeholders to foster collaborative cancer research across the broader University of Miami ecosystem.

Dr. Datta's work has received numerous recognitions including the Joan and Julius Jacobson Promising Investigator Award from the American College of Surgeons, and the American Society of Clinical Investigation Young Physician-Scientist Award.

Association for Academic Surgery Speakers and International Faculty



John Devar
South Africa

Professor Devar is a leading Hepato-Pancreatico-Biliary (HPB) Surgeon and Head of Gastroenterology at the University of the Witwatersrand (Wits), where he oversees the Colorectal and Hepatobiliary Fellowship training programs.

He also leads the Hepatobiliary Unit at Chris Hani Baragwanath Academic Hospital, where he is dedicated to delivering specialist surgical care and advancing complex HPB procedures.

A passionate clinician, researcher, and mentor, Prof. Devar is currently pursuing his PhD in gallbladder cancer and has built the largest gallbladder cancer patient database in South Africa, positioning him at the forefront of research and treatment in this field.

His contributions are driving improved outcomes and new treatment strategies for this aggressive disease. Beyond his clinical and research commitments, Prof. Devar is devoted to training and empowering the next generation of HPB surgeons, both locally and internationally. He plays a significant role in global surgical education, actively participating in the international training of HPB surgeons and advancing HPB surgical techniques through teaching and mentorship.

His expertise is recognized worldwide, serving on the executive boards of the Hepato-Pancreato-Biliary Association of Southern Africa (HPBSA), the International Hepato-Pancreato-Biliary Association (IHPBA), the European Hepato-Pancreato-Biliary Association (EHPBA), and the South African Society of Endoscopic Surgeons (SASES).Committed to surgical innovation, Prof. Devar is leading the pilot robotics program at Wits, bringing cutting-edge minimally invasive surgical techniques to South Africa.

His unwavering dedication to patientcare, research, training, and surgical advancement continues to shape the future of HPB and colorectals urgery, leaving a lasting impact on his field, his trainees, and the countless patients he serves.



Gifty Kwakye
USA

Gifty Kwakye, MD, MPH, is a Clinical Professor of Surgery and Assistant Dean for Clinical Medical Education at the University of Michigan Medical School.

She is a board-certified colorectal and general surgeon specializing in colorectal cancer, inflammatory bowel disease, and minimally invasive and robotic surgery.

Dr. Kwakye received her undergraduate and medical degrees from Yale University and an MPH and Master of Education in the Health Professions from Johns Hopkins University. She completed general surgery residency at Brigham and Women's Hospital/Harvard Medical School and colorectal surgery fellowship at the University of Minnesota.

An academic surgeon and surgical educator, Dr. Kwakye's work focuses on clinical education, assessment, mentorship, and faculty development. She is also deeply engaged in global surgery, helping develop colorectal surgery training programs and partnerships in Ghana and Rwanda.

She serves as a consultant to the Ghana College of Physicians and Surgeons, supporting surgical education, mentorship, research, and workforce development.

Association for Academic Surgery Speakers and International Faculty



Brenessa Lindeman
USA

Brenessa Lindeman, MD, MEHP, is Executive Dean of the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. An eastern Kentucky native, she graduated summa cum laude from the University of Louisville and was elected to Alpha Omega Alpha and named the Founder's Medalist at Vanderbilt University School of Medicine.

She completed her General Surgery residency and earned a Master of Education in the Health Professions at Johns Hopkins University, then completed simultaneous fellowships in Endocrine Surgery and Surgical Education at Harvard Medical School.

She previously served as Professor and Vice Chair of Education in the Department of Surgery, Assistant Dean for Graduate Medical Education, and Fellowship Director for Endocrine Surgery at the University of Alabama at Birmingham.

She is Council Recorder for the American Board of Surgery, Chair of the General Surgery Board, a member of the American College of Surgeons Academy of Master Surgeon Educators, and Immediate Past President of the Association for Academic Surgery.

Her research focuses on assessment of surgical trainee competency, including Entrustable Professional Activities.



Thifhelimbilu Luvhengo
South Africa

- President of the Surgical Research Society of Southern Africa.
- Chief Surgeon at Charlotte Maxeke Johannesburg Academic Hospital (CMJAH)
- Adjunct Professor in the Department of Surgery at University of South Africa.
- General surgeon with interest in Endocrine Surgery.
- Coordinator of Provincial Solid Organ Transplant Governance Team, lead clinician of the Treatment Time Guarantee Program and Member of Clinical Governance Advisory Team
- Member of Surgical Steering Committee of Gauteng Province
- Chair of Social and Ethics Committee of the Colleges of Medicine of South Africa, Member of Pan African Cancer Research Institute, and Moderator of FCS (SA) Part 2 Examination of the College of Surgeons in the Colleges of Medicine of South Africa (CMSA).
- Coordinates allocation of research funds from Cricket SA Pink Day ODI.

Previous roles include Vice President of Association of Surgeons of South Africa, Secretary of the College of Surgeons in the CMSA and Member of Prelim 1 Committee of the Medical and Dental Board of Health Professions Council of South Africa, previous Head of General Surgery Directorate at Chris Hani Baragwanath Academic Hospital (Wits) and Head of Department of Surgery at Kalafong Hospital (University of Pretoria).

Research interests include Paneth cells and gut immunity, artificial intelligence and precision oncology, endocrine surgery, quality improvement and patient safety.

Publications:
Journal articles 58, 14 book chapters.
Supervision to completion: 23 Masters, 1 PhD and 26 undergraduate students research.

Among the awards was for having examined in the 3rd most number of examinations (a total of 69 exams across surgical colleges) in the history of the CMSA in 2024 since 2008.

Association for Academic Surgery Speakers and International Faculty



Joseph Phillips
USA

Dr. Joseph D. Phillips, MD FACS is an Associate Professor of Surgery at Dartmouth Health and The Geisel School of Medicine at Dartmouth.

He is a general thoracic surgeon specializing in minimally invasive robotic oncologic surgery with research interests in tumor immunology in non-small cell lung cancer and health services research, including implementation of patient reported outcomes to improve care in the areas of smoking cessation, lung cancer and esophageal cancer.
He serves on the Executive Councils of the Association for Academic Surgery as the Chair of the Basic and Translational Science Committee and the Society of University Surgeons as the Society Editor to Surgery.

RACS Section of Academic Surgery Invited Speakers and local Faculty



Sarah Aitken
New South Wales

Sarah Aitken is an Associate Professor at the University of Sydney; Head of the Specialty of Surgery in the Sydney Medical School; and a vascular surgeon at Concord Repatriation General Hospital, Sydney Local Health District.

She has a broad range of research interests including health outcomes of patients with Peripheral Artery Disease (PAD), equity in surgical care, perioperative medicine, and medical education. She is also a Clinical Lead of HRI's Centre for PAD, that was established in 2024.

Qualifying with her medical degree (MBBS Hons) in 2006, she completed vascular surgical training (FRACS Vascular) in 2014 and was awarded her PhD in February 2021. She has extensive experience in research methodologies including analysis of routinely collected health data, prognostic factor research and synthesis, qualitative evaluation of patient and trainee experiences, health outcome measurement using patient surveys and risk tools, and disparities research.

Associate Professor Aitken's current leadership roles include Chair of the Sydney Health Partners Clinical Academic Group in Perioperative Medicine and Surgery, Co-Chair of the Concord Institute of Academic Surgery, Founder and Consultant Lead for the Australian and New Zealand Vascular Trials network, and deputy Chair of the Board of Vascular Training, providing a strong network for clinical and educational research support.
As a clinically active vascular surgeon and academic, Associate Professor Aitken has combined clinical training and practice with a strong research focus and development. Her clinical role allows her to incorporate emerging evidence into new models of care. She was awarded Australia's Commonwealth Fund Harkness Fellowship in 2024 to research surgical training and health equity, based at the University of California San Francisco.

RACS Section of Academic Surgery Invited Speakers and local Faculty



Nazim Bhimani
New South Wales

Nazim Bhimani is a Biostatistician and Research Officer at Royal North Shore Hospital and a Lecturer in Surgical Education at the University of Sydney. Over the past decade, he has worked extensively in medical and surgical research, providing statistical expertise across a broad range of clinical studies and supporting the design, analysis, and interpretation of health research.

After completing a Master of Biostatistics, Nazim undertook a part-time PhD at the University of Sydney while continuing his research and academic work. He has supervised and mentored researchers at all stages of their careers, including medical students, higher degree research candidates, surgical trainees, and consultant surgeons.

Nazim's research interests include clinical epidemiology, surgical outcomes research, health services research (cost of cancer treatment and quality of life), and applying advanced statistical methods in healthcare.

Outside his professional roles, Nazim is actively involved in community service and leadership. He previously served as a Board Member of the Aga Khan Education Board for Australia and New Zealand and currently serves as Honorary Secretary of the Aga Khan Youth and Sports Board for Australia and New Zealand. He also volunteers at the University of Sydney, providing one-on-one biostatistical support to Higher Degree by Research students.



Quinlan D Buchlak
Victoria

Dr Quin is a medical device industry executive, medical doctor and organizational strategy expert with 17 years of management consulting, leadership, research, and neurosurgical experience in the United States, Australia, Germany and New Zealand. He has worked across the healthcare, human services, deep technology and aerospace sectors. He holds a Medical Doctorate, a PhD (machine learning in neurosurgery), a Masters in Organizational Psychology, and a Masters in Information Systems.

His clinical research focuses on applying machine learning to patient safety improvement and outcome prediction in neurosurgery. His work has been published in The Lancet Digital Health, Artificial Intelligence in Medicine, Journal of Neurosurgery, PLOS One, Neurosurgical Review, BMJ Open, Journal of Clinical Neuroscience, the American Journal of Surgery, Neurosurgical Focus, Spine, JNS Spine and World Neurosurgery.

His career path to Medical Director demonstrates intentional development through accretive experiences across several geographies, organizations, industries, and the numerous facets of a global Medical Affairs / Medical Sciences function.

RACS Section of Academic Surgery Invited Speakers and local Faculty



Oliver Fisher
New South Wales

Oliver Fisher is an upper gastrointestinal, hepatopancreatobiliary and metabolic surgeon at St George Hospital in Sydney, and a clinical academic in the Discipline of Surgery at UNSW.

He holds the Swiss specialist qualification (FMH Surgery) alongside his FRACS in General Surgery. His MD, from the University of Zurich, was a basic science thesis on hepatocellular carcinoma in murine models, and his PhD, from UNSW, was in biomarker discovery and bioinformatics in Barrett's oesophagus and oesophageal adenocarcinoma.

He maintains a busy clinical practice in oesophagogastric, pancreatic, metabolic and complex hernia surgery, and leads surgical teaching and research at the St George and Sutherland Clinical Campus.



Kerry Hitos
New South Wales

Professor Kerry Hitos is the Executive Director of the Westmead Research Centre for Evaluation of Surgical Outcomes at Westmead Hospital and serves as Vice President of the International Union of Angiology for Australia and New Zealand.

She provides clinical academic leadership through Sydney Health Partners' Perioperative Care of Surgical Patients Clinical Academic Group and serves on the Centre of Excellence Commission Anticoagulation Safety Expert Advisory Committee.

Previously she contributed to the Venous Thromboembolism Prevention Expert Advisory Group and co-chaired the NSW Design Working Group for Venous Thromboembolism Prevention. Professor Hitos holds qualifications in physiology and pharmacology from UNSW, a PhD in Medicine (Discipline of Surgery) from the University of Sydney and postgraduate qualifications in clinical epidemiology and biostatistics. Her multidisciplinary research spans across cardiovascular disease, diabetes, surgery, emergency medicine, trauma, transplantation, oncology and translational science.

She is nationally and internationally recognised for her expertise in thrombosis and haemostasis, particularly in trauma and orthopaedics. At the University of Sydney, Professor Hitos designed, developed and coordinated three units of the Master of Surgery Program in surgical innovation, research and evaluation and scientific communication. She holds editorial board appointments, reviews for scholarly journals and has received multiple awards for research quality and impact.

She is a frequent invited speaker and chair at national and international forums and has authored more than 150 peer-reviewed studies, articles, letters, abstracts and editorials. Her leadership advances rigorous evaluation, evidence-based surgical care, innovation and improved patient outcomes.

RACS Section of Academic Surgery Invited Speakers and local Faculty



Johnathan Karpelowsky
New South Wales

Professor Jonathan Karpelowsky is an internationally recognised Paediatric Surgical Oncologist and leading clinician-scientist with over 20 years of experience managing complex and rare paediatric cancers, including sarcomas, liver tumours, thoracic tumours, germ cell tumours, and metastatic solid tumours. He holds a Chair in Paediatric Surgery at the University of Sydney and serves as Senior Surgical Oncologist at The Children's Hospital at Westmead (CHW), where he also co-leads the Advanced Molecular Diagnostics Laboratory (AMDL) at the Children's Cancer Research Unit.

One of Australia's most published paediatric surgeons, Professor Karpelowsky has authored over 100 peer-reviewed publications, multiple book chapters, and invited reviews in leading oncology, surgical, and translational research journals. His translational research focuses on liquid biopsy technologies (ctDNA, CTCs), sarcoma molecular monitoring, and precision diagnostics, establishing his institution as a national hub for paediatric oncology biomarker development. He has secured several million dollars in competitive research funding from bodies including the Medical Research Future Fund (MRFF), Cancer Institute NSW, Tour de Cure, and the RACS Foundation for Surgery.

In 2022, Professor Karpelowsky was awarded the John Mitchell Crouch Fellowship — the highest research honour of the Royal Australasian College of Surgeons — in recognition of his pioneering work in liquid biopsy and sarcoma molecular diagnostics.

A respected global leader in paediatric oncology, he holds active roles in the Children's Oncology Group (COG) Liver Tumour Committee, the International Society of Paediatric Oncology (SIOP) Steering Committee for Oceania, the International Pediatric Surgical Oncology Group (IPSO), and contributes as a surgical expert to the WHO Global Initiative for Childhood Cancer. He has contributed to international clinical guidelines for rhabdomyosarcoma, Wilms tumour, and liver tumours, and is a frequent keynote and plenary speaker at major international oncology meetings.

Professor Karpelowsky is deeply committed to surgical education and mentorship, supervising PhD, MPhil, Masters, and Honours candidates, and has served as Chair of the RACS Board of Paediatric Surgery and Chair of the Section of Academic Surgery.

RACS Section of Academic Surgery Invited Speakers and local Faculty



Craig McBride
Queensland

Professor Craig McBride is a Senior Staff Specialist in Paediatric Surgery at the Queensland Children's Hospital; with a focus on HPB and thoracic surgery, and a developing side-hustle in supervising colleague consultants doing PhDs. Brisbane wasn't part of any master plan - it was simply the only job vacancy in Australasia for a Paediatric Surgical Consultant in 2008.

This year, 2026, he's been a doctor for longer than he hasn't been one, and the first patients he treated as a consultant are now turning 18 and transitioning to adult care. He'll attend two graduations for his sons in the next few weeks; one at high school and one at University. They are both far better students than their father.

As a medical student, Craig nearly failed two subjects; paediatrics, and surgery. He did fail the surgical primary - twice. He redeemed himself somewhat with the highest mark in the Paediatric Surgical Fellowship Examination in May 2007, but he was the only candidate at that sitting - so that doesn't really count.

Craig has taken a similarly measured approach to research. After publishing his first paper in the BMJ as a medical student in 1993, he paused for a casual 12 years before publishing his second.. The pace has picked up a little since then, spurred on during his PhD which he completed in 2021 while continuing to work as a fulltime surgeon.

He's on faculty at five universities, four in Brisbane and one in London. He's an author, a reviewer, and an editor. These days he's less interested in publishing in medical journals, and more interested in communicating to the public as well as to colleagues. Beyond the operating theatre, Craig is a Member of the Science Journalists Association of Australia, a TEDx speaker, and a presenter at the Pint of Science festival. He's not after h-indices and high scores in numbers of papers published. He's more interested in satisfying his curiosity, and inspiring curiosity in others.



Matthew Read
Victoria

Prof Matthew Read is a general and upper gastrointestinal surgeon with a special interest in minimally-invasive surgery.

After completing his general surgical fellowship in 2016, Prof Read was accepted by the Australian and New Zealand Gastro Oesophageal Surgery Association for subspecialty training in the field of upper gastrointestinal surgery. This was undertaken at both St Vincent's and the Alfred Hospitals in Melbourne. Following this, Matthew undertook a surgical oncology fellowship with a special focus on robot-assisted surgery at the University Medical Center in Utrecht, the Netherlands.

Matthew has also recently completed a PhD through the University of Melbourne and the Peter MacCallum Cancer Centre, which focused on the development of preclinical models to better understand oesophageal cancer and its precursor, Barrett's oesophagus. This work has led to numerous publications, awards and international collaborations. Most recently, Matthew was awarded the senior lecturer fellowship from the Royal Australasian College of Surgeons.

ORAL PRESENTATIONS



Standard CEA Immunohistochemistry Fails to Predict Liver Metastases in Appendiceal and Colorectal Adenocarcinoma

Adam Cristaudo (presenter, 1), Jasmine Siaw (2), David Morris (1, 3)

1. Liver and Peritonectomy Unit, Department of Surgery, St George Hospital, Kogarah, New South Wales
2. NSW Health Pathology, Department of Anatomical Pathology, St George Hospital, Kogarah, New South Wales
3. School of Clinical Medicine, University of New South Wales, Sydney, New South Wales

Introduction: Carcinoembryonic antigen (CEA) is widely used in colorectal cancer surveillance and may contribute biologically to hepatic metastasis. However, whether standard tumour CEA immunohistochemistry (IHC) predicts liver metastasis in lower gastrointestinal adenocarcinoma remains unclear. This study evaluated whether CEA IHC intensity and staining pattern predict liver involvement in appendiceal and colorectal adenocarcinoma.
Methods: Tumour tissue from 27 patients undergoing cytoreductive surgery with or without HIPEC was re-evaluated for CEA IHC as part of the COPPER trial. The cohort included 18 patients with appendiceal adenocarcinoma and 9 with colorectal adenocarcinoma. CEA IHC was assessed using cytoplasmic focused intensity and pattern scoring. IHC findings were correlated with intraoperative portal and peripheral CEA levels, peritoneal cancer index and liver metastases confirmed by imaging and histopathology. Logistic regression assessed associations between IHC metrics and liver involvement.
Results: Diffuse cytoplasmic CEA IHC positivity was common, occurring in more than 80% of cases, particularly in mucinous appendiceal adenocarcinoma. Standard CEA IHC intensity and pattern scoring showed no significant association with liver metastases on univariate or multivariable analysis (p=0.73). No appendiceal adenocarcinoma patients developed liver metastases, compared with 56% of colorectal adenocarcinoma patients.
Conclusion: Standard CEA IHC intensity and pattern scoring does not predict liver metastases in appendiceal or colorectal adenocarcinoma. These findings suggest conventional CEA IHC is insufficient for liver metastasis risk stratification and support development of PELPK-region targeted IHC to better assess biologically relevant CEA-mediated metastatic potential.

Withdrawn



Clinically Relevant Patient-Derived Organoids Identify Optimal HIPEC Drug Selection for Colorectal Peritoneal Metastases

Amanda Liesegang (presenter, 1, 2), N Clemons (1, 2), M Michael (1, 2), G Guerra (1, 2), A Heriot (1, 2)

1. University of Melbourne (Sir Peter MacCallum Department of Oncology), Melbourne, Victoria
2. Peter MacCallum Cancer Center, Melbourne, Victoria

Introduction: Colorectal peritoneal metastases (CPM) are associated with poor survival despite treatment with cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC). Following recently published literature challenging the efficacy of oxaliplatin-based HIPEC, the most efficacious HIPEC agent remains uncertain. Patient-derived organoids (PDOs) provide a clinically relevant pre-clinical model to evaluate treatment response. This study compared the efficacy of commonly used HIPEC agents in PDOs derived from patients with CPM.
Methods: Thirteen PDO lines established from peritoneal tumour tissue in 13 distinct patients with CPM were exposed to mitomycin C (MMC), oxaliplatin, and SN-38 (the active metabolite of irinotecan) at concentrations reflecting those achieved during clinical HIPEC delivery. Treatment response was assessed using a luminescent cell viability assay and a novel machine learning analysis. The primary endpoint was treatment efficacy at clinically achievable HIPEC concentrations.
Results: At clinically achievable HIPEC concentrations, MMC demonstrated the greatest anti-tumour activity, with a median PDO viability after treatment of 21%, compared with 39% for oxaliplatin and 81% for SN-38. Based on drug response at clinically achievable HIPEC concentrations, MMC would have been selected as the preferred HIPEC agent for 12 of 13 patients in a personalised PDO-guided treatment strategy, while one PDO demonstrated pan-resistance to all three agents.
Conclusion: Using clinically achievable HIPEC drug concentrations, CPM PDOs demonstrated superior intrinsic anti-tumour activity with MMC compared with oxaliplatin and SN-38. These findings provide biological support for the recent transition towards MMC-based HIPEC for CPM and establish a clinically relevant platform for future organoid-guided personalisation of intraperitoneal chemotherapy.



Long-term machine perfusion of cirrhotic human liver explants: development of a pre-clinical research model

Arsalan Bakhtiar (presenter, 1, 2, 3), Hayden Ly (2), Anita Niu (1, 2), Daniel Babekuhl (1, 2), Paul Yousif (2,4), K Liu (1,4), S Strasser (4), Michael Crawford (1, 2, 3), Carlo Pulitano (1, 2, 3)

1. Faculty of Medicine and Health, University of Sydney, NSW, Australia
2. Centre of Organ Assessment, Repair and Optimisation (COARO), Royal Prince Alfred Hospital, NSW, Australia
3. Department of Liver Transplant Surgery, Royal Prince Alfred Hospital, NSW, Australia
4. Australian National Liver Transplant Unit (ANLTU), Royal Prince Alfred Hospital, NSW, Australia

Introduction: Translational research in liver disease is limited by lack of clinically relevant pre-clinical models. Animal and in-vitro models cannot fully replicate the vascular, metabolic and microenvironmental characteristics of diseased human livers. We aimed to develop an ex-vivo machine perfusion model using cirrhotic human liver explants for pre-clinical research.
Methods: Patients undergoing liver transplantation at Royal Prince Alfred Hospital were recruited with informed consent. Liver explants removed at transplantation were prepared and cannulated on the back table. Explants underwent one hour of hypothermic oxygenated machine perfusion (HOPE), followed by long-term normothermic machine perfusion (LT-NMP). NMP used a blood-based perfusate with automated oxygenation and acid-base regulation. Parenteral nutrition, antibiotics, haemodialysis and intermittent plasmapheresis were used to support extended perfusion. Perfusion parameters, blood gases and serial biopsies were obtained to assess physiological stability and tissue viability.
Results: Five cirrhotic liver explants underwent machine perfusion. One underwent HOPE alone, while four underwent HOPE followed by LT-NMP. All livers were successfully cannulated and maintained stable perfusion during HOPE. Three LT-NMP livers remained physiologically stable and cleared lactate for at least four days. One cirrhotic liver was maintained on LT-NMP for 11 days. Histopathological assessment following perfusion demonstrated viable tissue with interpretable underlying cirrhotic pathology.
Conclusion: To our knowledge, this is the first study to demonstrate maintenance of a cirrhotic human liver explant on normothermic machine perfusion for 11 days. These findings establish a promising platform for pre-clinical research and therapeutic testing in diseased human livers without the systemic risks associated with in vivo experimentation.



Implementation of a Protocol Driven Day-Case Haemorrhoidectomy Pathway in an Australian Public Hospital: Safety, Feasibility and Institutional Impact

Brianna Twomey (presenter, 1), Vladimir Bolshinsky (1), Zoe Shin Yee Lok (1)

1. Peninsula University Hospital

Background Haemorrhoidectomy is one of the most commonly performed colorectal procedures in Australia. In 2023, Peninsula University Hospital introduced a protocol-driven day-case haemorrhoidectomy pathway incorporating standardised patient selection, perioperative management and postoperative follow-up. This study evaluated whether implementation of the pathway improved same-day discharge, reduced hospital length of stay and institutional costs, without compromising patient safety.
Method A retrospective single-centre cohort study compared consecutive patients undergoing haemorrhoidectomy during the 24 months before and after implementation of a protocol-driven day-case pathway at Peninsula University Hospital. Primary outcomes included same-day discharge, hospital length of stay and institutional costs. Safety outcomes included post-discharge emergency department presentation or hospital readmission. Exploratory analysis was used to identify predictors of failed planned same-day discharge.
Results A total of 188 patients underwent haemorrhoidectomy (76 pre-implementation; 112 post implementation). Baseline characteristics were broadly comparable between groups. Implementation of the protocol-driven pathway increased same-day discharge from 7.9% to 59.8% ($p \leftarrow 0.001$) and significantly reduced hospital length of stay ($p \leftarrow 0.001$), without increasing post- discharge emergency department presentation or hospital readmission. Among 77 patients selected for planned day-case management, 62 (80.5%) achieved successful same-day discharge. Exploratory univariable analysis identified ASA grade ≥3 as a predictor of failed planned same-day discharge, while obesity (BMI ≥30 kg/m²) showed a borderline association. Mean index admission cost decreased by 39.8%, from AU$7,458 to AU$4,487 following pathway implementation.
Conclusion Implementation of a protocol-driven day-case haemorrhoidectomy pathway significantly increased same day discharge, reduced hospital length of stay and reduced institutional costs, without increasing post discharge emergency department presentations or hospital readmissions.



Surgical Ward Nurse Staffing and Postoperative Mortality: A National Population-Based Cohort Study

Cameron Wells (presenter, 1, 2), Kate Henderson (3), Chris Varghese (1, 4), Greg O'Grady (1), Luke Boyle (5), Ian Bissett (1), Doug Campbell (5)

1. Department of Surgery, University of Auckland, Auckland, New Zealand
2. Department of Surgery, Wellington Regional Hospital, Wellington, New Zealand
3. Department of Surgery, Middlemore Hospital, Auckland, New Zealand
4. Department of Surgery, Mayo Clinic, Rochester, Minnesota, United States
5. Department of Anaesthesia and Perioperative Medicine, Auckland City Hospital, Auckland, New Zealand

Introduction: Postoperative mortality commonly follows complications that are not prevented, recognised, or managed effectively. Ward-based nursing care is central to surveillance, escalation, and rescue, but evidence using shift-level staffing data is limited. This national cohort study examined the association between surgical ward nurse staffing and postoperative outcomes.
Methods: Adults aged 18 years or older undergoing inpatient surgery under general or neuraxial anaesthesia in public hospitals in New Zealand between 2022 and 2024 were included. Prospectively recorded staffing data were linked to administrative datasets. The exposure was shift-level staffing variance, defined as the difference between required and available nursing care hours on surgical wards in the treating hospital during admission. The primary outcome was 90-day postoperative mortality. Secondary outcomes were postoperative complications and failure to rescue.
Results: The cohort included 202,428 patients undergoing 223,415 surgical admissions. Within 90 days, 6,296 admissions resulted in death (2.8%). Complications occurred in 41,722 admissions (18.7%), with failure to rescue in 15.1%. Of 281,147 surgical ward shifts, 122,186 (43.5%) were understaffed. After adjustment, each one-nurse reduction in staffing per shift was associated with higher odds of mortality (aOR 1.13, 95% CI 1.07-1.18), complications (aOR 1.07, 95% CI 1.05-1.10), and failure to rescue (aOR 1.07, 95% CI 1.00-1.14). Modelling estimated that correcting observed staffing deficits was associated with 182 fewer deaths annually.
Conclusion: Lower surgical ward nurse staffing was associated with increased postoperative mortality, complications, and failure to rescue. Nurse staffing is a modifiable system factor associated with postoperative safety, and should be prioritised to improve outcomes.



Cooling the Pain Away: Randomised Controlled Trial assessing a novel approach to reducing post Haemorrhoidectomy pain.

Dr Christo Joseph (presenter, 2), Dr Ernest Cheng (2), Dr Michelle Smigielski (2), Dr Dean Yeh (1, 2), Dr Ricardo Hamilton (2), Dr Assad Zahid (1, 2), Dr Mina Sarofim (1)

1. Department of Colorectal Surgery, Liverpool Hospital, New South Wales, Australia
2. Department of Colorectal Surgery, Campbelltown Hospital, New South Wales, Australia

Purpose The challenge for clinicians and patients after an Open Haemorrhoidectomy is post-operative pain leading to readmission to hospital, time off work for patient / carer and excessive opioid use. The aim of this study was to assess if application of cooled sterile water during an open haemorrhoidectomy (Milligan-Morgan) reduces postoperative pain by decreasing local inflammation by minimising inadvertent burn injury to anal mucosa.
Methodology All patients undergoing Open Haemorrhoidectomy at Campbelltown Public Hospital were randomised to either standard technique of Milligan-Morgan haemorrhoidectomy or with intra-op mucosal cooling. Mucosal cooling involved instillation of cooled sterile water to mucosa via Toumey syringe in between ligasure application. The patients were then seen in recovery and shown the visual analogue pain scale and their pain was assessed on Day 1 and Day 7 post-op.
Results 30 participants were eligible to be included in the study with 13 participants with a median age of 56 years in the control group and 17 participants with median age of 49 years in the treatment group. Pain scores were much lower in treatment group with post-op day 1 mean score of 5.7 versus a mean pain score of 8 in the control group ($p \leftarrow 0.001$) and on Day 7 post op, mean pain score in the treatment group was 2.7 versus mean pain score of 5.2 in the control group ($p \leftarrow 0.001$)
Conclusion Our study has shown that intra-op mucosal cooling during open haemorrhoidectomy is easy to apply, cost efficient and an effective way to reduce post op haemorrhoidectomy pain.



The Clinical and Financial Burden of Ileostomy-Related Readmissions: A Retrospective Cohort Study

Cindy Xu (presenter, 1, 2), Ngar Lok Wong (1, 2), Shanmugam Somasundaram (1), Ritesh Chimoriya (1), Ian Whiteley (1), Chen Liu (1), Kheng-Seong Ng (1)

1. Department of Colorectal Surgery, Concord Repatriation General Hospital, NSW, Australia
2. Faculty of Medicine and Health, University of Sydney, Australia

Introduction Readmission following ileostomy formation contributes to morbidity and healthcare burden. Australian data regarding readmission rates, contributing factors and costs remain limited. This study evaluated the incidence, clinical factors and healthcare costs of ileostomy-related readmission at an Australian colorectal centre.
Methods Adult patients undergoing ileostomy formation at Concord Repatriation General Hospital between May 2019 and December 2024 were identified from a prospectively-maintained database. Patient-related, operative, and postoperative data were obtained from electronic medical records. Patients were compared by ileostomy-related readmission within 12 months of discharge. Index admission, readmission and outpatient costs were obtained from the Hospital Performance Unit. Mann-Whitney U or Student's t-tests were used to compare continuous outcomes, and chi-squared or Fisher's exact tests compared categorical outcomes.
Results A total of 183 patients (114 male, median age 64 (IQR 51–76)) were included. Forty (21.9%) experienced at least one readmission, with a median time to first readmission of 20 days. The most common indications for readmission were acute kidney injury (48.3%), high stoma output (38.3%) and dehydration (31.7%). Preoperative corticosteroid therapy use was significantly associated with readmission (22.5% vs 9.8%, p=0.032) and ClassIntra grade differed between groups (p=0.010). Across the cohort, total episode of-care costs were approximately AUD$14.0 million. Median post-discharge costs (AUD$15,467.55 vs $1,562.83, p←0.001) and total episode-of-care costs (AUD$55,066.13 vs $47,282.75, p=0.013) were significantly higher among the readmission group.
Conclusion One in five patients experienced ileostomy-related readmission, resulting in significant additional healthcare expenditure. Identification of high-risk patients may facilitate targeted perioperative interventions to reduce preventable readmissions and costs.



The current understanding of perioperative nutrition – a survey amongst colorectal surgeons in CSSANZ

Elizabeth Coren (presenter, 1, 2), Jeanette Lim (2)

1. John Hunter Hospital, New South Wales Australia
2. Calvary Mater Newcastle Hospital, New South Wales Australia

Introduction: Colorectal surgery carries risk of significant complications. These can be exacerbated in populations such as colorectal cancer patients, who are immunologically and metabolically vulnerable. This study aims to quantify the current understanding and attitude towards perioperative immunonutrition amongst colorectal surgeons in CSSANZ.
Methods: An email survey was sent to 382 CSSANZ members, and the study conducted from 43 responders over 2 months. Each received an anonymous survey number. Quantitative and qualitative data was tallied.
Results: Most were somewhat familiar with immunonutrition in the perioperative period, but 63.4% never utilise it, expressing concerns over cost, logistics, and patient benefit. 74.4% use ERAS (enhanced recovery after surgery) protocols. 46.5% always use mechanical bowel prep prior to elective bowel resections. 41.5% always incorporate carb loading, usually pre-operatively. Attitudes were neutral towards carb loading reducing time to flatus, length of hospital stay, and insulin resistance post-operatively. 58-95% never utilise chewing gum, nutritional gummies, caffeine tablets or drinks, or arginine/immune enhancing oral nutrition supplements. 44-65% believed neutrally in their effectiveness, with chewing gum being the least unpopular. Post-operative diet progression was considered mostly determined by nutritional status. The largest barrier to post-operative nutrition was ileus or patient tolerance.
Conclusion: Perioperative immunonutrition is underutilised in colorectal surgery. Participant concerns included true effectiveness and logistics. Carb loading bests supplements in popularity, though attitudes towards advantageousness remained neutral. Emerging evidence supports perioperative immunonutrition strategies which are uncommonly implemented. This raises an exciting opportunity for discussion and further research into perioperative immunonutrition and its implementation in colorectal cancer patients.



Clinical Characteristics, Outcomes, and Temporal Trends of Gallstone Pancreatitis in a Tertiary Care Hospital: A Five-Year Retrospective Cohort Study

Faaiz Rasheed (1), Aroob Farhan (presenter, 1), Aliza Abidi (1), Jabeen Zehra (1)

1. Memon Medical Institute Hospital, Karachi, Pakistan

Introduction: Gallstone pancreatitis is a common acute GI emergency, but local data on its severity profile and seasonal patterns are limited. BISAP allows early risk stratification, though its performance in gallstone-specific cohorts is under-studied. This study assessed BISAP-based severity and seasonal incidence trends.
Methods: Retrospective cohort study at Memon Medical Institute Hospital's General Surgery department, reviewing gallstone pancreatitis admissions from Aug 2020–Jul 2025. Diagnosis relied on clinical, laboratory, and imaging criteria. Demographics, labs, length of stay, ICU admission, and mortality were collected via Google Forms, with BISAP scores calculated and seasonal analysis using Pakistan's climate calendar.
Results: Of 126 records screened, 105 patients were included after excluding 21 (non-gallstone or incomplete data). Mean age was 52.2±15.7 years (61.9% female). BISAP classified 91.4% as low-risk, 8.6% as high risk. ICU admission occurred in 16.2%, mortality in 3.8%; ERCP in 25.7%, same-admission cholecystectomy in 20.0%. Mean LOS was 5.7±4.6 days. High-risk BISAP significantly predicted ICU admission (55.6% vs 12.5%, p=0.005), mortality (33.3% vs 1.0%, p=0.002), and longer LOS (p=0.018). Admissions rose from 11 (2020) to 29 (2023), with winter carrying the highest burden (33.3%) and January the peak month.
Conclusion: BISAP effectively stratified severity, with high-risk classification correlating with adverse outcomes. The winter peak and rising admission trend support seasonally-targeted resource planning to reduce morbidity and mortality.

Withdrawn



Telephone follow up was safe and effective for selected general surgical operations- a retrospective cohort study in an Australian tertiary centre

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Introduction: The COVID 19 pandemic challenged the paradigm of post-operative follow-up. As previous smaller randomised controlled trials had demonstrated that telephone follow-up was safe and effective for selected general surgical interventions, a post-operative telephone clinic was adopted at our institution to minimise in-person contact during the pandemic. In this retrospective cohort study, we compared patient outcomes before and after the introduction of post-operative telephone reviews to confirm its safety and effectiveness.
Methods: Patients who had selected elective and emergency general surgical operations, including laparoscopic cholecystectomy, laparoscopic appendicectomy, simple hernia repair and minor skin procedures, between 2018 and 2021 across two metropolitan tertiary hospitals were identified. They were allocated to either face-to-face (2018-19, pre-pandemic) or telephone (2020-21, pandemic) cohorts. Demographic and clinical outcomes of study participants, including missed complications, histology documentation, clinic attendance and clinic outcome, were retrospectively reviewed and compared.
Results: In the selected time frames, 3452 patients met the criteria for telephone review (face-to-face= 1894, telephone= 1558). There was no significant difference in the comparative rates of missed complications at initial follow-up. Discussion of histology results (where relevant) was more often documented in the telephone group (97.7% vs 95.3%, p=0.004). Overall failure to attend initial post-operative review was lower in the telephone group (11.8 vs 17.3%, p←0.001), as was the loss to follow-up rate (6.1% vs 13.6%, p←0.001).
Conclusion: The use of post-operative telephone follow-up for selected general surgical procedures was safe and effective across primary outcomes, resulting in less non-attendance and loss to follow-up, and improved histology documentation.



Clinical and Equity-Focused Predictors of Hartmann's Reversal: A 10 Year Retrospective Aidot at a Culturally Diverse Australian Health Service

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Hartmann's procedure is a life-saving operation performed in both emergency and elective settings, with reversal rates influenced by patient comorbidity, disease indication and system level factors. This study aimed to assess clinical and equity-focused predictors of Hartmann's reversal over a ten-year period at a culturally diverse tertiary centre in Melbourne, Victoria.
A retrospective cohort study of patients who underwent Hartmann's procedure between January 2013 and December 2022, with follow-up to December 2024. Data was extracted from electronic health records, descriptive statistics and multivariable logistic regression were used to identify significant predictors of reversal within 24 months.
146 patients underwent Hartmann's procedure (88.4% Emergency; Mean Age 68.5 years). Diverticular disease was the most common indication (n=73), followed by malignancy (36.7%). Reversal was performed in 45 patients. Median time to reversal was 362 days. Non-reversal was due to death (n=26) or palliation (n=21). Majority of patients resided in lower socioeconomic quintiles (SEIFA 1-3), and 15.1% required an interpreter, with no significant difference in outcomes between ESB and NESB patients. On multivariable analysis, ASA grade ≥3, active smoking, and higher Charlson Comorbidity Index were independent predictors of non-reversal (p←0.01, 0.02, and ←0.01).
Reversal was achieved in 30% of patients, with non-reversal reflecting disease related mortality or palliation over equity-based disparity. Comorbidity burden and disease severity were principal determinants of reversal, supporting existing evidence that early assessment of reversal candidacy, rehabilitation, standardised pathways to ensure medically suitable patients are reconsidered for reversal.
Further evaluation should delineate unavoidable non-reversal from modifiable clinical and health-system barriers.



Mucosal Microbiome Across the Spectrum of Diverticular Disease

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Introduction: Diverticular disease affects over 50% of individuals aged over 60 years and is a significant burden on Australian healthcare. Gut microbial dysbiosis has been implicated in progression from asymptomatic diverticulosis to diverticulitis, but evidence is largely faecal, and mucosal biopsy-based data from an Australian cohort are lacking.
Methods: This cross-sectional study used prospectively collected mucosal biopsies from the Integrated Molecular Analysis of Polyps cohort at Royal North Shore Hospital (ethics approval 2019/ETH00301). Following frequency matching for age, sex and body mass index (BMI), 66 participants (27 controls, 27 asymptomatic diverticulosis, 12 post-diverticulitis) contributed 31 proximal and 39 distal biopsies. Biopsies underwent V3–V4 16S rRNA gene sequencing. Alpha (Shannon) and beta (Bray–Curtis) diversity and differential abundance (Analysis of Compositions of Microbiomes with Bias Correction 2 [ANCOM-BC2], adjusted for age, sex and BMI) were assessed by region.
Results: Alpha diversity did not differ between groups in the proximal (p=0.75) or distal colon (p=0.50), and beta diversity showed no clustering by clinical group (p=0.44 and p=0.84). Firmicutes predominated in all groups, with subtle, region-dependent compositional differences. ANCOM-BC2 identified several nominal taxon-level differences, most between post-diverticulitis and diverticulosis, but none remained significant after false discovery rate correction; the strongest was lower Mediterraneibacter torques in proximal diverticulosis (q=0.082).
Conclusion: Mucosal microbial diversity is preserved across the spectrum of diverticular disease, with subtle anatomical and taxon-specific differences. The post-diverticulitis microbiome may reflect prior inflammation, antibiotic exposure or recovery. Prospective longitudinal sampling before and after diverticulitis and antibiotic exposure is needed to clarify causality.



Soft-tissue infections after CAR-T therapy: a sentinel case and systematic scoping review

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Introduction: Soft-tissue infections (STIs) following chimeric antigen receptor T-cell (CAR-T) therapy are poorly defined, despite the potential for rapid progression in immunocompromised patients. Following a fatal case of fulminant soft-tissue infection after CAR-T therapy, we reviewed the literature to characterise reported infection types, timing, management and outcomes.
Methods: We conducted a systematic scoping review using JBI methodology and PRISMA-ScR reporting. MEDLINE, Embase, CENTRAL and Web of Science were searched for primary studies reporting STIs in patients with haematological malignancy treated with CAR-T therapy. Two reviewers independently screened studies and extracted data on infection phenotype, timing, microbiology, immune and treatment context, management and outcomes.
Results: Forty-two studies were included, predominantly retrospective cohorts. Most reported STIs only in broad terms, with limited detail on microbiology, immune status, source control and infection-specific outcomes. Reported infections ranged from cellulitis and abscess to invasive fungal and necrotising soft tissue infections, and occurred both early and late after CAR-T therapy. Severe cases required operative source control or intensive care and were occasionally fatal. Our sentinel case involved fatal disseminated Stenotrophomonas maltophilia infection with extensive forearm muscle and soft-tissue necrosis despite an atypical intraoperative appearance. Across the literature, inconsistent reporting prevented meaningful assessment of factors associated with severe infection or need for surgery.
Conclusion: STIs after CAR-T therapy span a clinically important spectrum, but current evidence is insufficient to define risk profiles or guide surgical management. More consistent reporting of immune status, treatment exposures, microbiology, source control and outcomes is needed.



Cognitive load and decision fatigue of General Surgical Registrars in Australia

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Introduction: Surgical education predominantly occurs in the workplace, where general surgical registrars balance service delivery with apprenticeship-style learning. Registrars make frequent, high-stakes decisions across operative and non-operative care. Decision fatigue may impair decision quality, yet its impact on surgical trainees and workplace learning remains underexplored.
Methods: Individual semi-structured interviews were conducted with general surgical trainees, including those on and not yet on the formal training pathway. Interviews were recorded, transcribed using Zoom, checked for accuracy, and de-identified. Transcripts were analysed thematically.
Results: General surgical registrars described decision fatigue as a dynamic loss of cognitive space rather than simply tiredness or cumulative decision volume. Experience reduced the effort required for familiar decisions through pattern recognition and confidence; however, seniority introduced expanding autonomy and coordination responsibilities. Unpredictable workload, interruptions, and task-switching disrupted attention and limited sustained complex reasoning. Participants attributed overload to systemic factors including rostering, workflow, administrative burden, and staffing, but described a surgical culture that framed these consequences as an individual test of endurance, competence, and commitment. Meaningful clinical volume, case variety, and graduated responsibility supported development, whereas excessive service and administrative burden displaced reflection, debriefing, and deliberate learning.
Conclusion: Decision fatigue in general surgical registrars is shaped by interactions between experience, workplace demands, and surgical culture. Interventions should move beyond individual resilience and target modifiable system factors, including workload design, interruption management, administrative burden, and protected opportunities for reflection and debriefing within surgical training.



Impacts of intracranial pressure monitoring on mortality and length of stay in severe traumatic brain injury: A systematic review and meta-analysis

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Purpose This systematic review and meta-analysis examined the association between intracranial pressure monitoring (ICPm) and mortality in patients with severe traumatic brain injury (sTBI), with additional focus on functional neurological outcomes and intensive care unit (ICU) and hospital length of stay (LOS).
Methods This review followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and was registered with PROSPERO (CRD42025643607). MEDLINE, Embase, and the Cochrane Central Register of Controlled Trials were searched through August 1, 2025, for studies comparing ICP monitored and non-ICP-monitored patients with traumatic brain injury. Eligible study designs included randomized controlled trials, prospective observational cohort studies, retrospective observational cohort studies, registry-based cohort studies, and case-control studies.
Results Thirty-one studies met inclusion criteria. The mortality meta-analysis included 121,799 patients. Pooled crude analysis showed lower mortality in ICP-monitored patients than in non-monitored patients (OR 0.79, 95% CI 0.68–0.91, p=0.002), with high heterogeneity (I^2=92%). Across studies with extractable group-level mortality percentages, median mortality was 28.6% in ICP-monitored patients and 33.2% in non-monitored patients. Functional neurological outcomes were inconsistently reported and did not show a consistent benefit with ICPm. ICU and hospital LOS were generally longer in ICP-monitored patients.
Conclusions ICPm was associated with lower crude mortality in sTBI; however, substantial heterogeneity and residual confounding limit causal interpretation. Functional outcomes did not show consistent benefit. Complication reporting was inconsistent, but reported events included infection, hemorrhage, and device related complications. Future studies should standardize functional outcome reporting and adjust for key confounders.
Level of Evidence Systematic review and meta-analysis; Level III.



Pulmonary thrombosis in trauma patients: risk factors and outcomes in an Australian major trauma centre

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Introduction: When pulmonary thrombotic events occur early after trauma, it has been postulated that these represent de novo thrombosis (pulmonary thrombosis (PT)), distinct from pulmonary embolism (PE) arising from deep vein thrombosis. This study aimed to determine the incidence and risk factors for PT in trauma patients in Australia.
Methods: A prospectively-collated database was interrogated for all patients diagnosed with pulmonary thrombo embolic (PTE) events from 2014-2023. Events were categorised as PT (diagnosed ←24 hours from injury) and PE (diagnosed →72 hours from injury). Analyses involved comparison of covariables between PT and PE patients, assessment of the association between thoracic injury and PT and a case-control study comparing the PT group with a matched non-PTE events control group.
Results: The PT and PE groups included 35 and 129 patients respectively. There were more females in the PT group (37.1% vs 19.4%, p = 0.027). There was no evidence that the odds of PT versus PE were increased in those with thoracic Abbreviated Injury Scale →3 (OR = 1.61; 95%CI: 0.53 – 4.90; p = 0.389). When compared to matched non-PTE events controls, the PT group were more likely to be smokers (OR 6.91; 95% CI;1.63 33.65; p = 0.001) and had a longer length of stay (9.93 days vs 4.93 days, p=0.001).
Conclusion: PT accounted for ~20% of PTE events. These patients were more likely to be female compared with PE patients and smokers compared with controls. There was no evidence that the association between thoracic trauma and PT was different to the association with PE.



Hospital-level factors and outcomes following Crohn's disease surgery in New South Wales: a population-based study

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Background: Hospital surgical volume has been associated with improved outcomes for several complex surgical procedures, but its influence on Crohn's disease surgery remains uncertain. This study evaluated relationships between hospital-level factors and outcomes following Crohn's disease surgery in New South Wales (NSW), Australia.
Methods: A population-based cohort study was conducted using administrative data for adults undergoing intestinal resection for Crohn's disease within NSW public hospitals between 2002 and 2019. The primary exposure was annual hospital inflammatory bowel disease (IBD) surgical volume. Additional hospital-level factors included tertiary referral status, colorectal training accreditation, and the presence of a multidisciplinary IBD service. Multilevel regression models examined associations with clinical and process outcomes.
Results: A total of 2,107 patients underwent index intestinal resection. Major postoperative complications occurred in 25.4% of patients, while the 90-day mortality rate was 1.5%. Hospital surgical volume was not associated with reduced major complications (adjusted odds ratio [aOR] 1.1 per 10-procedure increase; 95% CI 0.9–1.3), mortality, length of stay, readmission, or surgical recurrence. Patients treated at lower volume centres were more likely to undergo non-elective surgery despite similar measured comorbidity and disease complexity. Non-elective admission was associated with increased complications (aOR 1.6; 95% CI 1.3–2.0), 90-day mortality (aOR 5.9; 95% CI 1.9–17.9), prolonged length of stay (adjusted mean ratio 2.0; 95% CI 1.9–2.1), and stoma formation (aOR 2.0; 95% CI 1.6–2.5).
Conclusion: Hospital surgical volume was not associated with most postoperative outcomes following Crohn's disease surgery in NSW. Instead, non-elective surgery emerged as an important determinant of adverse outcomes.



Quality of Appendicectomy Operative Reports: A Baseline Audit Informing Synoptic Template Implementation in SDPR

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Introduction: Operative reports are the primary record of intraoperative findings and post-operative care planning, yet free-text reporting is known to be variable and incomplete among different surgeons. RACS Best Practice Guidelines and ACSQHC operative documentation standards recommend structured capture of key clinical elements. This audit established baseline documentation quality to inform synoptic template design.
Methods: A retrospective audit of consecutive appendicectomy operative reports at a Hunter New England tertiary hospital (September 2025–January 2026, n=123). Each report was scored against the main RACS/ACSQHC-derived criteria spanning pre-operative, operative, and post-operative domains using a REDCap database, including antibiotic regimen, VTE prophylaxis, appendix appearance terminology, main surgical steps and follow-up planning. Overall completeness and terminology variability were calculated.
Results: Mean documentation completeness was 61.5%. No report documented antibiotic agent, dose, route, and duration together, and no report documented VTE prophylaxis agent and duration. Follow-up planning was absent in one-third of perforated appendicitis cases. Appendix appearance was described using almost 100 unique free-text descriptors across the cohort, precluding meaningful terminology standardisation.
Conclusion: Free-text appendicectomy operative reporting at our institution falls well short of RACS and ACSQHC standards, with critical gaps in antibiotic and VTE documentation and marked terminology variability. These findings provided the evidence base for a synoptic Epic/SDPR SmartPhrase template to standardise reporting and support patient safety.



Impact of a dedicated multi-disciplinary aortic pathway on survival after acute type B and non-A/non-B acute aortic syndrome

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Introduction: While contemporary evidence suggests improved outcomes among patients with Stanford type A acute aortic syndrome (AAS) managed through a multidisciplinary approach within specialised aortic teams, it is unclear whether a similar association exists for patients with aortic arch pathology (non-A/non-B) and type B AAS. This study evaluated the impact of a multidisciplinary aortic pathway on survival after acute type B and non-A/non-B AAS.
Methods: This prospective cohort study included all consecutive adult patients with a new diagnosis of acute type B and non-A/non-B AAS presenting to Waikato Hospital (Aotearoa New Zealand). The primary outcome was all-cause mortality at 30-days and 1-year after presentation. Long-term survival were evaluated with Kaplan-Meier curves. Subgroup analyses based on management approach (operative vs. non-operative) were also assessed. Comparisons were made between patients presenting prior to (phase 1: 1 August 2012 until 31 May 2020) and following the introduction of a multidisciplinary aortic pathway in our institution (phase 2: 1 June 2020 until 31 January 2024).
Results: In total, 134 patients were included (phase 1, n=79 and phase 2, n=55; mean 67.9 years; 42.5% female). Demographic characteristics and comorbidity profiles were similar between cohorts. After introduction of a multidisciplinary aortic pathway, 30-day mortality improved significantly (16.5% vs. 3.6%; p=0.025), including among patients managed non-operatively (16.7% vs. 2.6%; p=0.047). Longer-term mortality were also significantly improved (1-year: 25.3% vs. 7.3%, p=0.011; 4-year: p=0.039).
Conclusion: Patients with isolated aortic arch pathology and type B AAS managed through a multidisciplinary aortic pathway demonstrated significantly greater short and long-term survival.



The Evolution of Trauma: Increasing Complexity and Resource Utilisation of Operative Orthopaedic Trauma at a Single Major New Zealand Trauma Centre

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Background: Orthopaedic Trauma complexity is anecdotally perceived to have increased over time, although corresponding changes in operative volume and resource requirements remain unclear. Literature demonstrates variable evolving trauma volume trends but generally supports increasing complexity. New Zealand data evaluating these trends are limited. This study reviews changes in operative orthopaedic trauma workload at Middlemore Hospital over 20 years.
Aim: To evaluate changes in operative orthopaedic trauma volume, complexity, and therefore resource utilisation across three time points (in 2003, 2013, and 2023) providing a snapshot analysis across a 20 year timeframe.
Methods: A retrospective review of operative orthopaedic trauma cases at Middlemore Hospital using the Patient Information Management System (PIMS). Data collected for three one-month periods in 2003, 2013, and 2023 were analysed for operative volume and minutes, clinical complexity, multi-specialty involvement and surgeon seniority.
Results: Whilst operative case numbers remained relatively stable, (258 cases in 2003, 203 in 2013 before increasing again to 226 in 2023), median theatre time increased significantly (60 minutes in 2003 through to 82.5 in 2023 ($p \leftarrow 0.001$). Markers of complexity increased significantly. Multi-specialty involvement increased from 3.1% to 17.7% ($p \leftarrow 0.001$), and cases demonstrating greater clinical complexity increased from 22.8% to 36.1% (p=0.001). Surgeon seniority distribution changed significantly, with increased consultant involvement over the 20 years(p=0.001).
Conclusion: Operative orthopaedic trauma has evolved towards slightly fewer but significantly more complex cases, requiring greater operative resources and senior surgical input. These findings highlight the need for ongoing consideration of theatre capacity, workforce planning, and trauma service delivery.



Injectable microchanneled polyhipe scaffolds: a novel biomimetic approach to cranial defect reconstruction

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Introduction: Traditional bone grafting and rigid implants are often limited by donor site morbidity, poor contour integration, and mechanical failure in complex segmental defects. There is a critical need for an "off-the-shelf," injectable solution that provides both immediate structural support and long-term osteoinduction.
Objectives: This study evaluates a novel, 3D-printed, microchanneled polyHIPE (polymerized high internal phase emulsion) scaffold designed to facilitate rapid bone regeneration in critical-sized cranial defects.
Methods: Microchanneled dipentaerythritol penta/hexa-acrylate (DPEHA) polyHIPE scaffolds were engineered with interconnected open-cell porosity. These scaffolds were processed into injectable particles and suspended in a fibrin gel carrier. In vitro performance was assessed via mesenchymal stromal cell (MSC) proliferation and differentiation. In vivo efficacy was validated using a murine critical sized cranial defect model.
Findings: In vitro analysis demonstrated superior MSC viability and deep cellular infiltration. Notably, MSCs showed a spatial preference for differentiation along the microchannel curvatures, confirmed by alkaline phosphatase (ALP) staining and mineralization assays. Quantitative gene expression profiles confirmed robust osteogenic lineage commitment. In vivo application of the injectable polyHIPE-fibrin composite resulted in significant bone volume recovery within the host cranium.
Conclusions: These injectable polyHIPE scaffolds represent a versatile advancement in craniofacial and orthoplastic reconstructive surgery. By combining the precision of 3D printing with the ease of an injectable delivery system, this technology offers a promising, minimally invasive alternative for reconstructing complex bone voids and non-union fractures.



Hospital factors associated with failure to rescue after surgery: A meta-analysis

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Introduction: Failure to rescue (FTR), the mortality rate amongst patients with post-operative complications, reflects a hospital's ability to recognise, escalate, and treat complications. Although FTR varies substantially across hospitals, the hospital characteristics underpinning this variation are inconsistently described without a comprehensive synthesis. This systematic review and regression analysis aims to identify the association between hospital characteristics and their impact on FTR.
Methods: A systematic review was conducted using MEDLINE, EMBASE, and Scopus, with searches updated to December 2025. Observational studies evaluating associations between hospital-level characteristics and FTR were included without restriction to surgical specialty or procedure. Hospital factors were classified into structural, staffing, and system domains. Where three or more non-overlapping studies reported adjusted estimates in comparable formats, random-effects meta-analyses were performed; otherwise, findings were summarised narratively.
Results: 111 studies encompassing over 137 million patients and 301 hospital factors were included. Meta-analyses demonstrated lower FTR rates in larger hospitals (OR 0.85, 0.74-0.97), hospitals with greater ICU capacity (OR 0.80, 0.710.90), and teaching hospitals (OR 0.88, 0.83-0.93). Better nursing resources were consistently associated with lower FTR, including patient-to-nurse ratios (OR 1.07, 1.03 1.10), higher nurse education (OR 0.95, 0.91-0.99), and more favourable work environments (OR 0.93, 0.90 0.95). Safety-net hospital status was associated with higher FTR (OR 1.22, 1.03-1.45).
Conclusion: Hospital-level structural, staffing, and system characteristics are strongly associated with variation in FTR. These findings highlight that postoperative mortality is closely linked to institutional capacity to detect and manage complications, underscoring the importance of adequate resourcing and system organisation to improve surgical outcomes.



68Ga-FAPI-PET/CT to detect advanced neoplasia in pancreatic cystic neoplasm; a multi-centre, prospective study with genomic validation

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Introduction: Fibroblast activation protein is overexpressed in pancreatic cystic neoplasm (PCN) containing high-grade dysplasia (HGD) or invasive adenocarcinoma (PDAC). Gallium-68-labelled fibroblast activation protein inhibitor (68Ga-FAPI) detects this expression on PET/CT. This study evaluated 68Ga-FAPI-PET/CT for diagnosing advanced neoplasia within PCN.
Methods: Consecutive patients with PCN and at least one worrisome-feature or high-risk-stigmata per Fukuoka criteria were prospectively offered inclusion in this multi-center study. Participants underwent pre treatment 68Ga-FAPI-PET/CT and were followed for 18 months. PCN diagnosed with HGD or PDAC during follow-up were considered advanced. Maximum standardized uptake value (SUVmax) was compared between advanced and indolent PCN using Mann-Whitney U-test. Diagnostic performance was evaluated across multiple thresholds of SUVmax, as well as for high-risk-stigmata on conventional evaluation. Surgical specimens underwent whole exome sequencing (WES) using Illuma-NovaSeq (200x depth).
Results: Among 48 participants, six were diagnosed with HGD or PDAC within 18 months of 68Ga-FAPI-PET/CT. These lesions demonstrated higher SUVmax compared with indolent pathology (median 10.0 [IQR 7.9 13.8] vs 3.2 [2.3-5.0]; p=0.002). The optimal SUVmax cut point was 7.5 (Youden index 0.76), yielding sensitivity, specificity, PPV, and NPV of 83.3%, 92.9%, 62.5% and 97.5% respectively. Traditional high-risk stigmata demonstrated sensitivity, specificity, PPV, and NPV of 66.7%, 83.3%, 36.4%, and 94.4% (Youden index 0.50). Among 9 lesions that underwent WES, high SUVmax demonstrated a pattern toward higher mutational burden and alterations in key driver genes for PDAC.
Conclusion: SUVmax on 68Ga-FAPI-PET/CT is a promising non-invasive biomarker to refine surgical selection in PCN by identifying histologically advanced neoplasia and advanced genomic features.



Estimating bilateral deep inferior epigastric perforator (DIEP) flap weight using computed tomography angiography (CTA) : comparison with mastectomy weight across body mass index (BMI) categories

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Aim: This studied aimed to develop a formula predicting total DIEP flap weight through CTA parameters. Background: The DIEP flap is an autologous breast reconstructive option for patients who have underwent mastectomy. Adequate preoperative planning for this procedure is assessed through abdominal CTA and provides insight into the vascular anatomy of the donor site. This study aimed to develop a CTA model estimating total flap weight and evaluate flap-to-mastectomy weight matching across BMI categories.
Methods: This was a single-surgeon, single institution retrospective study that included 140 total patients who had undergone bilateral DIEP reconstruction with CTA performed within 90 days of surgery. A prediction formula for flap weight was derived from a multivariable regression model utilising two points of measurement from the CTA. Statistical analysis was performed and mastectomy-to-flap weight ratios were compared across BMI categories.
Results: The two-variable model demonstrated an R^2 of 0.84, with a median absolute error of 139.4 g and median absolute percentage error of 13.1%. Mastectomy-to-flap weight ratios were 0.84, 0.83, 0.73 and 0.79 for normal BMI, overweight, class I obesity and class II obesity, respectively. At the group level, total flap weight exceeded total mastectomy weight in every BMI category, without statistically significant differences between categories.
Conclusion: Two CTA parameters demonstrated promise for estimating total bilateral DIEP flap weight. This model may support preoperative reconstruction planning and patient counselling. Further validation of this model is required however.



Does living donor liver transplantation displace deceased donor activity? An international longitudinal analysis from 2000 to 2024

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Introduction: We hypothesise that liver transplantation is supply-driven rather than demand-driven, and waitlist metrics understate demand because listing behaviour is directly influenced by expected supply. In a demand-led organ donation system, a fixed demand should be satisfiable by either living or deceased-donors, such that adding one stream should reduce strain on the other. However, in a supply-constrained system, we should not see this substitution effect. To better understand this supply/demand dynamic, we examined whether living and deceased-donation move independently within countries over time.

Methods: We analysed liver transplant activity across a panel of 28 countries from 2000 to 2024, using transplant activity data from the International Registry in Organ Donation and Transplantation combined with cirrhosis epidemiology data - a proxy for demand - from the Global Burden of Disease study. Fixed-effects regression was used to assess whether changes in deceased-donor liver transplantation (DDLT) year-to year were associated with changes in live-donor liver transplantation (LDLT) year-to-year, accounting for country-effects and year-effects. We also checked for delayed effects over a five-year horizon. A negative fixed-effects association would suggest substitution.

Results: Across countries, transplantation covered only a small fraction (~10%) of cirrhosis mortality suggesting unmet demand. Within countries, changes in LDLT were not associated with changes in DDLT (first difference beta = +0.07; p = 0.16), and this remained the case across five-years with no observable substitution effect.

Conclusions: Living and deceased-donation seem to behave as independent, additive supply streams over time. In supply-constrained systems, introducing living-donor programmes may expand the donor pool, addressing demand without cannibalising deceased-donor activity.



The Impact of the National Bowel Screening Programme on Colorectal Cancer Presentations and Outcomes in Southland, New Zealand

Jiamin Li (presenter, 1), Jethro Palmer (2), Dug Yeo Han (3), Mohammad Amer (4, 5)

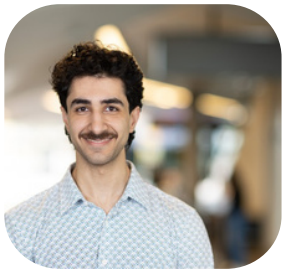
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Introduction: Colorectal cancer (CRC) is a leading cause of cancer-related morbidity and mortality in New Zealand, with the Southland region having the second highest incidence nationally. The National Bowel Screening Programme (NBSP) was rolled out in April 2018, aiming to improve outcomes through early detection. This study evaluates the impact of the NBSP on CRC presentation patterns, staging, and surgical outcomes at Southland Hospital.

Methods: We conducted a retrospective cohort study of patients diagnosed with CRC between April 2013 and March 2024, comparing pre-NBSP (April 2013 – March 2018) and post-NBSP (April 2018 – March 2024) cohorts. The primary outcome was mode of presentation, defined as diagnosis through emergency department (ED) attendance versus non-acute routes. Secondary outcomes included acute versus elective surgical management, cancer stage, post-operative complications, length of hospital stay, and overall survival.

Results: A total of 634 patients were included (241 pre-NBSP; 393 post-NBSP). Acute ED presentations decreased from 25.2% (pre-NBSP) to 13.2% (p←0.001), and acute surgical management from 28.4% (pre-NBSP) to 20.1% (p=0.030). Early-stage (I–II) disease was similar (55.6% vs 60.5%; p=0.854). Thirty-day readmissions fell from 26.5% (pre-NBSP) to 18.2% (p=0.035). NBSP-detected patients had a shorter median hospital stay (5 vs 7 days, p←0.001). There were no significant differences in other outcomes.

Conclusion: This study provides real-world evidence of the early effectiveness of population-based CRC screening in a regional setting. Our findings support the recent decision to lower the NBSP screening age, and suggest further reduction should be considered.



Research productivity, barriers, and enablers in Australasian speciality surgical training

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Background: The role of scholarship in surgical education remains unresolved, particularly regarding minimum competency. It is unclear whether research requirements foster skill acquisition or act as summative hurdles. We aimed to evaluate research productivity and the systemic factors shaping trainee scholarship within Australia and Aotearoa New Zealand speciality surgical training, utilising paediatric surgery as an index specialty.

Methods: A cross-sectional survey was distributed to all current paediatric surgery Surgical Education and Training (SET) trainees in Australia and New Zealand (n=28). The anonymous online instrument captured trainee characteristics, research engagement, scholarly productivity, attitudes, perceived barriers and enablers, and perspectives on research infrastructure.

Results: The response rate was 68% (19/28). Research engagement during SET was common: nearly all respondents (94%) were actively involved in at least one project, and 65% had published at least once since commencing SET. However, 82% reported no protected research time during their current rotation, and 47% had discontinued a project, citing time constraints or rotation changes. Clinical workload was unanimously classified as a barrier and received the highest mean strength score (9/10). The strongest enablers were mentorship and personal academic interest (both 9/10). Protected research time was the most selected priority intervention (57%).

Conclusion: Paediatric surgery SET trainees demonstrate substantial research engagement and scholarly output, but academic participation is constrained by clinical workload and rotation-driven project discontinuity. Optimising trainee scholarship requires a transition from isolated institutional models to program-wide research infrastructure, in-built research mentorship, protected research time, reduced trainee movement, predictable rotational pathways, and portfolio-based competency assessment.



Neurological Rehabilitation Strategies Following ACL Reconstruction: A Systematic Review of Postoperative Interventions and Patient Outcomes

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Introduction: Anterior cruciate ligament (ACL) reconstruction is associated with persistent quadriceps weakness, poor functional outcomes, and re-injury rates exceeding 20%, despite standard musculoskeletal rehabilitation. Growing evidence implicates unresolved neurophysiological impairment after surgery. To our knowledge, this is the first systematic review to characterise and evaluate neurological-focused postoperative rehabilitation strategies in adult ACL reconstruction populations.

Methods: This review was conducted per PRISMA 2020 guidelines (PROSPERO CRD420251236287). PubMed, CINAHL, Embase and Scopus were searched for randomised controlled trials of postoperative neurological-focused interventions in adults following ACL reconstruction. Risk of bias was assessed using Cochrane RoB2. Given intervention and outcome heterogeneity, findings were synthesised narratively by intervention category without meta-analysis.

Results: Forty-five RCTs (n=1619; 1988-2025) met inclusion criteria across five categories: peripheral electrical stimulation (NMES/FES/TENS/PENS/electroacupuncture; 18 studies), proprioceptive/neuromuscular/balance training (10), whole-body/local vibration (9), cross-education (6), and non-invasive brain stimulation (2). Electrical stimulation showed the most consistent benefit (15/18 studies), primarily for strength and functional recovery. Proprioceptive/neuromuscular training and cross education showed predominantly positive but less consistent effects. Vibration and brain stimulation findings were mixed. Despite a neurological rationale underpinning all interventions, neurophysiological outcomes were directly measured in only a minority of studies, limiting mechanistic interpretation of observed benefits.

Conclusion: Neurological-focused rehabilitation, particularly electrical stimulation, shows clinical promise as an adjunct to standard ACL rehabilitation. However, protocol heterogeneity and scarce neurophysiological outcome reporting preclude definitive recommendations. Standardised, mechanism informed trials linking neural adaptation to functional recovery are needed to translate this promise into practice

QUICK FIRE PRESENTATIONS



Improving risk prediction in colorectal cancer.

Alexander McCarthy (presenter, 1, 2, 3, 5, 6), Kheng-Seong Ng (2, 4, 5, 6), Kevin Spring (2, 5, 6, 7, 8)

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Introduction: Circulating tumour DNA (ctDNA) extracted from peripheral blood is a promising biomarker in colorectal cancer (CRC). We report initial results from a larger prospective study assessing the Agilent AVIDA Duo workflow and its utility in improving risk stratification in post-resection CRC patients. This novel workflow combines somatic mutation and methylation profiling from a single ctDNA sample and enables local processing.
Methods: This single-centre prospective study (ANZAC Institute/Concord Repatriation General Hospital) includes all consenting patients undergoing CRC resection. Blood is collected at surgery (T0), 4–6 weeks (T1) and 6 months (T2) post-resection. The total planned cohort is 20 patients across three timepoints totalling 60 samples. Sample collection and processing occur onsite prior to being sent for NGS sequencing. Plasma ctDNA is analysed using the AVIDA Duo workflow (AVIDA DNA Expanded Cancer Panel and AVIDA Methyl 3400 DMR Cancer Panel) for somatic mutations and methylation analysis.
Results: To date, 4 samples from 2 patients (T0, T1) have been analysed, along with 4 controls. Genetic alterations were detected in all patient samples. Patient 1 (stage II) showed both falling mutation count and variant allele frequencies (VAF) alongside a falling methylation index (0.35 from 0.85) across timepoints, consistent with a ctDNA decline. Patient 2 (stage IV) showed a rising mutation count and VAFs along with a methylation index increase (46.7 from 29.3).
Conclusion: These preliminary results demonstrate feasibility of combined mutation and methylation ctDNA profiling using AVIDA Duo. Divergent trajectories were appropriately concordant with clinical stage. Analysis of the full cohort is ongoing.



Surgical drapes, perianal procedures and the environment: a systematic review

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Introduction Reducing unnecessary equipment use is an important strategy that surgical institutions are implementing for more sustainable surgical practice. Perianal procedures are considered contaminated but are commonly conducted under sterile conditions using sterile drapes, gowns and gloves. This systematic review aimed to synthesize the current evidence for taking a clean approach in perianal procedures, focusing on omission of sterile drapes and environmental outcomes.
Methods A systematic review was conducted in accordance with PRISMA guidance. Embase, Medline and Cochrane databases were searched for English-language studies published from 2016 and onwards comparing sterile and non-sterile approaches for perianal procedures. Outcomes were surgical site infection (SSI) rates as well as environmental and resource-use impact. After duplicate removal, 285 studies were screened.
Results Two studies met the inclusion criteria. One single-center cohort study demonstrated no significant difference in SSI rates between a sterile and non-sterile approach to perianal procedures, and that only 9.5% of surgeons considered a sterile approach useful. However, it did not directly demonstrate the effect of solely removing surgical drapes nor gather evidence to support any positive impact on the environment. The second study showed that, in 2 centers, 28% of the carbon footprint in LIFT procedures for Crohn's patients was from standard surgery items.
Conclusion Current evidence supporting sterile draping to reduce SSIs is limited. Despite a move to reusable drapes, there is a significant gap in research around removing drapes from perianal procedures altogether. Future prospective research is required to evaluate SSI outcomes, cost reduction and environmental.



The emerging burden of e-bike-related intraabdominal trauma: injury patterns, risk factors and clinical outcomes

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Introduction: Electric bikes (e-bikes) have seen an exponential surge in popularity in the last decade. While this emerging transport modality has many benefits, it has also heralded unforeseen and, as yet, incompletely characterised impacts on our healthcare system.
Methods: This is a retrospective observational study of patients that presented to the Emergency Department of St. Vincent's Hospital Sydney between January 2023 and May 2026 following e-bikes accidents and were subsequently found to have sustained intraabdominal injuries as a result of this mechanism. Cases were identified as related to e-bikes via keyword searches in the Emergency Department Information System (EDIS) followed by confirmation of intraabdominal injuries through patient record reviews. Further key parameters will be collected to create a detailed profile of injury patterns/severities, their interplay with factors such as age, sex, speed, helmet usage, and intoxication, the nature of interventions necessitated by these injuries, and relevant patient outcomes such as ICU admission rates, length of stay, complications and mortality. Descriptive and multivariate analyses will be performed.
Results: Preliminary search has identified 1,190 patients that presented following e-bike-related accidents within the study period, and we anticipate a final cohort of 50–100 patients with intraabdominal injuries. Data collection is nearing completion and results will then be analysed.
Conclusion: This study strives to provide timely insight into the clinical burden of e-bike-related trauma at a major metropolitan trauma centre, particularly as it pertains to intraabdominal injuries. We hope this work will serve to inform future policies, resource allocation and injury prevention strategies.



Predicting textbook oncological outcomes with machine learning: A retrospective review of patients undergoing malignant liver resection over 21 years

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Introduction: Textbook oncological outcomes (TOO) are a composite measure used to assess the quality of care in surgical oncology. The aim of this study is to predict TOOs using machine learning (ML) models for patients undergoing liver resection (LR) for malignant tumours.
Methods:A retrospective cohort study of patients undergoing LR for malignant tumours was undertaken between 1999 and 2023 from a prospectively collected database. ML models were developed using preoperative variables as predictors of TOO. Model performance was evaluated using discrimination and calibration metrics. Model interpretability was assessed using SHapley Additive exPlanations. Predicted probabilities were stratified into tertiles to form risk groups (low, moderate, high).
Results: From the training cohort (n=583), the RF model demonstrated the highest discrimination (AUROC=0.813, 95% confidence interval [CI]= 0.731-0.877) for predicting TOO in the test cohort (n=146). Post-recalibration, the Brier score was 0.162, calibration intercept was 0.06 and calibration slope was 0.92. The top three features were the extent of the resection, site of tumour, and size of the largest tumour. TOO rates decreased from low- (90%), moderate- (80%), and high- (38%) risk groups (p ←0.001). Decision curve analysis showed a net benefit across a range of threshold probabilities.
Conclusion: This project developed a ML-based risk estimator of TOO following LR with good discrimination and calibration metrics. Risk tertiles demonstrated a clear gradient in achieving TOO, highlighting the potential usefulness of this tool in preoperative shared decision-making if these results are validated in prospective series.



Influence of Gender on Publication Outcomes in Postgraduate Surgical Research: A 12-year Cohort Study Au

Chan Ho Kim (presenter, 1), Nazim Bhimani (1), Anthony R Glover (1), May Thwin (1), Chaiwei Tonga (1), Cindy Xu (1), Meet Patel (1)

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Historically, systemic barriers have limited women's participation in surgical training and academia. Whilst women representation among surgical trainees has increased globally, continued examination of gender inequality within surgical academia is necessary to ensure holistic and sustainable diversity. This study explored associations between student and supervisor gender and research outcomes and assessed temporal trends in gender representation within a postgraduate surgery coursework degree.

A retrospective cohort study was conducted of students who completed the Master of Surgery dissertation subject at The University of Sydney between 2010 and 2021. Data included dissertation mark, publication rate, time to publication, citation count, journal impact factor and total publications within two years. Outcomes were compared by student and supervisor gender, and student-supervisor dyads. Temporal trends were analysed.

Dissertation mark and short-term research outcomes did not differ by student gender (305 men, 119 women). Students supervised by men had higher dissertation publication rates (56% vs 30%, p←0.001) and more publications within two years (median 1 vs 0, p=0.009) than those supervised by women. Woman woman student-supervisor dyads were less likely to publish their dissertation (29%) than man-man (57%) and woman-man dyads (53%) (p=0.006). Proportional representation of women students and supervisors have remained unchanged overtime.

Research outcomes were similar by student gender, suggesting disparities in surgical training and academia are unlikely to be explained by differences early research productivity. Differences associated with supervisor gender and persistent under-representation highlight ongoing structural influences on academic productivity, and the need for sustained, system-level equity initiatives across the surgical pipeline.



The Axiomatic View of Scarcity in Liver Transplantation

Charles Thomas (presenter, 2), Patrick O'Regan (2), Sara Shahrestani (2, 3), Ken Liu (1, 2), Simone Strasser (1, 2), Henry C Pleass (1, 2, 3), Michael D Crawford (1, 3, 4), Carlo Pulitano (1, 3, 4), Jerome M Laurence (1, 3, 4)

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Introduction: Liver transplantation (LT) significantly improves survival and quality of life for patients with end-stage liver disease. Whilst it is believed that need for LT vastly exceeds organ supply, quantifying the demand accurately is challenging. The performance metrics of the transplant system, such as waitlist mortality, may be misleading as they capture only patients who are referred, evaluated and listed for LT. Although means of increasing organ availability are available, they have financial costs and may be technically and ethically challenging (such as live donation and normothermic regional perfusion). The imperative to embrace these techniques can be obscured if the waitlist is assumed to be representative of the actual demand for transplantation.
Methods: An international comparative analysis of transplantation, donation and waitlist outcomes versus measures of demand for LT was performed using publicly available data.
Results: The comparative analysis revealed no correlation between disease prevalence and waitlist metrics across jurisdictions internationally, suggesting that waitlisting practices are largely independent of actual LT demand and are constrained by other factors.
Conclusion: Adult LT systems globally are supply driven and uncorrelated to demand, implying that all jurisdictions are unable to meet the demand of their community and are limited by the supply of viable organs. The study underscores the inadequacy of waitlist data in representing true demand and highlights the need for improved data to inform LT policy and practice to improve access to this life-enhancing and life-saving treatment.



A Systematic Review of Genomic Biomarkers for General Surgical Precision

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Background: Surgical resection is the principal curative treatment for many solid tumours, but outcomes vary considerably among patients with similar clinical stages. PCR-based genomic biomarkers may enable more personalised surgical decision-making, although clinical adoption remains inconsistent.
Objective: To synthesise recent evidence on PCR-based genomic biomarkers informing surgical decision making in breast, colorectal, hepatocellular, gastric, pancreatic, and thyroid cancers relevant to general surgical practice.
Methods: This systematic review followed PRISMA 2020. PubMed/MEDLINE and the Cochrane Library were searched on 15 August 2026 using a four-block Boolean strategy combining biomarker, PCR-method, surgical, and tumour-type terms. Studies published from January 2020 to June 2025 in English were eligible. Records were screened against predefined criteria.
Results: Ninety-three unique records were identified (PubMed, n=69; Cochrane, n=24), of which 20 met the inclusion criteria: breast (n=5), colorectal (n=6), hepatocellular (n=3), gastric (n=2), pancreatic (n=3), and thyroid (n=1). BRCA1/2 status and homologous recombination deficiency influenced treatment response and surgical planning in breast cancer. KRAS, BRAF, and other genomic alterations predicted recurrence in colorectal cancer. Genomic alterations and chromosomal instability predicted recurrence following hepatocellular carcinoma resection. DNA methylation markers were associated with postoperative chemotherapy efficacy in gastric cancer. KRAS variant allele frequency and driver-gene expression predicted survival after pancreatic resection. Preoperative RAS testing informed thyroid nodule surgery.
Conclusion: PCR-based genomic biomarkers show potential to refine surgical planning and postoperative risk stratification across major solid tumours. Wider implementation requires standardised panels, rapid turnaround, prospective validation, and improved accessibility.



National variations in ileostomy reversal in Aotearoa New Zealand

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Introduction: Loop ileostomy formation is a commonly performed colorectal surgery procedure, especially in rectal cancer management. The associated morbidity risks are high and timely reversal is essential. No studies have examined on a national level the variations in the reversal rates and time interval to stoma reversal in Aotearoa New Zealand (NZ).
Methods: This was a population-based, retrospective cohort study of all adult patients undergoing major colorectal resection for rectal cancer with a defunctioning ileostomy in public hospitals in Aotearoa NZ from 2013 to 2023 utilising the NZ Ministry of Health National Minimum Dataset and the NZ Cancer Registry. The primary outcome was the time interval between ileostomy formation and reversal. Secondary outcomes included rate of reversal at 1-year and 2-years post-stoma formation and evaluation of differences across district health board regions (DHB), socioeconomic, ethnicity and gender groups.
Results: 3049 patients were included and the overall median time to reversal was 231 days and the reversal rate at 1-year and 2-years post-stoma formation were 72.1% and 86.8%, respectively. Significant differences existed across the DHBs with the median time to reversal ranging from 77 to 266 days, and the rate of reversal at 2-years ranging from 66% to 92%. Asian patients had a significantly higher reversal rate at 1-year post-operatively (82%) compared to European (71%) and Māori (70%). No significant differences were found across socioeconomic and gender groups.
Conclusion: Significant variations exist in the timing and rate of ileostomy reversal across the geographic regions of Aotearoa NZ and across ethnicity groups.

Skin Cancer in Renal Transplant Recipients – Dynamic Risk Profiles



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Introduction: Skin cancer incidence is markedly elevated in renal transplant recipients (RTRs) and represents a growing proportion of post-transplant disease burden. There is increasing interest in risk stratification of RTRs to guide skin cancer surveillance, but current literature is limited in its characterisation of risk profiles over time.
Methods: A retrospective cohort study was conducted for all RTRs between 2004 and 2024 at a single transplant centre. Data linkage was performed across the Australia and New Zealand Dialysis and Transplant Registry, electronic medical records, and patient interviews. Risk factors for skin cancer was analysed with multivariate Cox regression. Instantaneous skin cancer incidence rate over time was characterised with the Andersen-Gill model.
Results: Of 464 RTRs over a mean follow-up duration of 6.5 years, 105 RTRs developed a total of 570 skin cancers (49% BCC, 48% SCC). Burden of disease was highly skewed with 40% of skin cancers arising in 2% of RTRs. Risk factors significantly correlated with post-renal-transplant skin cancer on multivariate Cox regression included age at transplantation (HR 1.04, p←0.01), male sex (HR 1.66, p←0.05), and Mediterranean or Northern European ancestry (HR 0.08, p←0.05; HR 9.9, p←0.05). Andersen-Gill model found skin cancer incidence rate increased significantly over time and in association with cumulative immunosuppression dose and post-transplant skin cancer.
Conclusion: Post-renal-transplant skin cancer burden is significantly over-represented in specific high risk individuals with risk factor profiles that vary over time. Methods that can capture this dynamic risk profile may help better address skin cancer disease burden in RTRs.

Orthopaedic Surgery Interest Compared to Other Surgical Subspecialties: A Cross-Sectional Cohort Study of Australian and New Zealand Medical Students.



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Introduction: This study aims to identify barriers and motivators which determine medical students' early interest in pursuing Orthopaedic Surgery compared to other surgical subspecialties.
Methods: A cross sectional anonymous survey of Australian and New Zealand medical students consisting of 42 questions was disseminated across the Australasian Students Surgical Association (ASSA). There were 130 respondents, 100 responses were deemed eligible whereby 16 responses identified "Orthopaedic Surgery" as their top preference. Independent samples t-test and chi-square tests were utilised for statistics. A statistically significant result was defined as a p-value ← 0.05.
Results: Orthopaedics interested students, perceived Orthopaedics as less demanding (p=0.007) and less stressful (p=0.005) however were less likely involved in surgical interest groups (p=0.039). There appeared to be a trend towards a perception of better mentorship within Orthopaedics (p=0.078). Across all other domains there appeared to be no statistically significant differences between groups' demographics (age, sex, year level, undergraduate/postgraduate, rural/metropolitan), personal factors (doctors in family, interest before/after medical school, pre-clinical exposure, surgical mentor, feeling supported, unaccredited years, belief in acceptance, research participation, conference attendance), barriers (lifestyle concerns, gender biases, financial burden, training duration, relocation, diversity, competitiveness) and motivators (hands on work, prestige, financial reward, role models, work-life balance, gender equality, research, placement experiences, intellectual challenge, patient interaction).



Successful simultaneous reconstruction of multiple lower lip defects

Gabrielle Fox (presenter, 1) and Juanita Ling (1)

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Introduction: Lower lip defects present a significant reconstructive challenge. While reconstructive approaches to unilateral lower lip defects are well-described, multiple simultaneous defects are rarely reported and conventional practice typically addresses multiple defects sequentially rather than simultaneously. We present a case of a 60-year-old male with right central lower lip squamous cell carcinoma (SCC) and a pre-existing large left lower lip full-thickness defect who underwent simultaneous reconstruction of both defects.
Methods: Retrospective case review was conducted using electronic medical records, imaging, histopathology, operative reports, and clinical photography. PubMed search was performed for literature on bilateral lower lip reconstruction.
Results: Punch biopsy confirmed central right lower lip SCC. A stepwise reconstructive approach was planned incorporating oncological requirements and patient factors. The patient underwent simultaneous central wedge excision with primary closure, and Abbe flap reconstruction of the pre-existing large left lower lip defect. Flap division took place 3 weeks later. Pathology demonstrated clear margins and post operative review demonstrated excellent cosmetic and functional outcomes.
Conclusion: Bilateral lower lip defects require individualized reconstruction balancing oncological management, defect characteristics, and patient factors. This case demonstrates successful simultaneous reconstruction of bilateral defects using combined techniques, which should be considered in appropriately selected cases.



Starvation osteopathy

George Weisz (presenter)

Introduction: The effects of starvation on bone mineral metabolism were recognized relatively late in studies of famine survivors. Investigations into the condition among their descendants emerged even later. This review aims to consolidate findings from multiple global studies of survivors and their families, classify the disease, and highlight intergenerational impacts.
Methods: The author examined bone pathology among World War II survivors and their families, encompassing cases from Australia, North and South America, Europe, and Israel. Of 132 cases assessed, 85 were included based on the availability of well-documented data; anecdotal or incomplete records were excluded. Over nearly a decade, extensive personal assessments and interviews were conducted in Sydney, Melbourne, and the Gold Coast. Additional data were gathered through online interviews, phone and Skype discussions, correspondence with dispersed families, and records from former German camps, including Dachau, Buchenwald, Theresienstadt, Auschwitz, Bergen-Belsen, and Ravensbrück.
Results: The results were common to all dispersed people, suggesting the effect of nutritional deprivation being persistent despite re-nutrition of survivors and despite normal nutrition within the following generations.
Conclusions: Tendency to premature osteoporosis in both genders, with daughters and granddaughters in premenopausal state. The mechanism suggested is from mesenchymal cells via epigenetics toward osteoporosis.



Mycobacterium abscessus infection after cosmetic tourism: Australian review and case series

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2. FRACS

Introduction: Mycobacterium abscessus, a rapidly growing, multidrug-resistant nontuberculous mycobacterium, is an increasingly recognised pathogen in postoperative wound infection following cosmetic medical tourism.
Methods: A narrative review of published Australian experience was performed to identify Australian reports of M. abscessus infection following cosmetic procedures, supplemented by two index cases following overseas cosmetic surgery that illustrate these complexities. Demographic, procedural, microbiological and management variables were extracted for qualitative synthesis.
Results: Six Australian cases were identified, most following procedures in Southeast Asia. Published cases demonstrate recurrent postoperative nodules or abscesses, frequent initial treatment with conventional antibiotics, delayed diagnosis and heterogeneous surgical and antimicrobial management. Subspecies identification, M. abscessus subsp. massiliense and subsp. abscessus in the present cases, is inconsistently reported despite its therapeutic relevance. Our cases further illustrate two key surgical dilemmas: balancing adequate source control against unnecessary tissue sacrifice, and distinguishing persistent infection from paradoxical inflammatory deterioration.
Conclusion: Cosmetic tourism-associated M. abscessus infection demonstrates a consistent clinicopathological pattern of diagnostic delay and antimicrobial resistance. Surgical source control should be individualised according to clinical and radiological disease extent rather than a predetermined resection margin, and clinicians should remain alert to paradoxical inflammatory deterioration, which may mimic persistent infection and provoke unwarranted surgical morbidity.



Impact of an Embedded Perioperative Older Persons Service on Outcomes Following Emergency Laparotomy

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Introduction: Frailty predicts morbidity, mortality and loss of independence following emergency laparotomy, but evidence for embedded geriatric co-management in this population is limited. Days alive and out of hospital (DAOH) combines survival and time outside hospital, providing a patient-centred measure of recovery particularly relevant to older adults. We assessed outcomes following implementation of a Perioperative Older Persons Service (POPS).
Methods: Patients meeting National Emergency Laparotomy Audit criteria were included if aged ≥65 years, or ≥55 years for Māori. Patients treated pre-POPS (February–September 2025) were compared with those treated after implementation (October 2025–June 2026). Primary outcome was DAOH at 90 days (DAOH90). Secondary outcomes included mortality, readmission, delirium and discharge destination. Continuous/ordinal data were compared using non-parametric testing and categorical outcomes using Fisher's exact test. Multivariable regression adjusted DAOH90 for age, Clinical Frailty Scale (CFS) and ASA grade.
Results: Eighty-four patients were included (46 POPS; 38 pre-POPS). The POPS cohort had greater baseline frailty and ASA burden. Median DAOH90 was 74 versus 76.5 days (p=0.039); this difference was no longer significant after adjustment for baseline risk. Thirty-day mortality was 10.9% versus 5.3% (p=0.45), and readmission 12.8% versus 13.2%. Documented delirium increased from 13.2% to 23.9% (p=0.27), and discharge to respite/rehabilitation from 10.5% to 26.1% (p=0.096).
Conclusion: Despite greater frailty in the POPS cohort, adjusted DAOH90, mortality and readmission were similar. Increased delirium documentation and respite/rehabilitation discharge may reflect improved recognition of geriatric needs and more appropriate discharge planning.



"Seniors and the City": a review of trauma in the elderly at a metropolitan level II trauma centre

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Introduction: Evidence shows that elderly trauma patients are at higher risk for morbidity and mortality after trauma due to the complex interplay between aged physiology, frailty, pre-existing co-morbidities, medications and the injuries themselves. With a rapidly ageing population, the burden of geriatric trauma is increasingly being highlighted as a priority issue in trauma systems and healthcare resourcing.
Methods: This retrospective observational study will investigate the incidence of geriatric trauma at St Vincent's Hospital Sydney across 2025. The patient cohort will include all patients aged 65 years or older who qualified for activation of a trauma page at time of emergency department presentation. Retrospective medical record review will then collect data on key parameters of interest and results will undergo appropriate statistical analysis.
Results:Of 1455 trauma page activations in 2025, 319 were aged 65 years or over (22%). The predominant trauma mechanisms were fall from standing height (37%), fall down stairs (20%) and MVA (13%). 235 patients required admission (74%) with an average LOS of approximately 8 days (range 1-108). 10% of admissions involved intensive care. Overall in-hospital mortality rate was 6%. Data collection is ongoing with respect to injury profile, ISS, outcomes, geriatrician involvement, and various trauma scoring systems.
Conclusion: Trauma in the elderly represents a significant issue at our facility. Identification of high-risk patients that would benefit from early gerontology input and increased understanding of both the clinical and resource burden is vital to optimise the care of this increasing and vulnerable trauma population.



Current trends in perioperative analgesia for patients undergoing major colorectal resection at the Sunshine Coast University Hospital

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Introduction Major colorectal surgery analgesia is focused on multimodal, opioid-sparing approaches to support enhanced recovery. Our paper is designed to identify trends in perioperative analgesia and surgical outcomes for patients who have undergone colorectal resections at Sunshine Coast University Hospital (SCUH), with particular focus on the use of neuraxial techniques compared with systemic opioids and postoperative opioid requirements. The aim is to guide current and future multimodal analgesia recommendations to assist early recovery after surgery.
Methods This is a retrospective audit of adults (→18 years) undergoing major colorectal resection at SCUH between 1 July 2019 and 30 June 2026. Anaesthetic and medical records will be reviewed to record patient demographics and describe trends in postoperative analgesia, including patient-controlled analgesia, spinal and epidural techniques. We will also record surgical outcomes, with length of stay (LOS) as the primary outcome and surgical complications as secondary outcomes.
Results Data collection is nearly complete but not finalised, and formal analysis has not yet been completed. Recent findings from the IMPAKT ERAS trial provide relevant context for this audit. In that study, perioperative ketamine added to an enhanced recovery pathway for abdominal surgery did not reduce length of stay or opioid consumption and was associated with more ICU transfers, failure to meet early discharge milestones, and severe adverse effects, including dizziness and hallucinations.
Conclusions Our audit will describe local trends in analgesia at SCUH and attempt to compare analgesic agents in terms of surgical outcomes. The results will help guide current practice at SCUH.



Retrospective review of ileocolic resections for Crohn's disease performed at a single centre and factors affecting recurrence

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Background: Crohn's disease commonly recurs after ileocolic resection. Recurrence may range from asymptomatic endoscopically detectable disease to anastomotic stricturing requiring further surgery. This study examined the frequency of redo ileocolic resection and potential factors associated with surgical recurrence.
Methods: We retrospectively reviewed patients who underwent ileocolic resection for Crohn's disease at a single centre between January 2014 and December 2024. Patients were followed for up to 10 years. Patients who subsequently required redo resection were compared with those who did not, with potential associated factors assessed individually.
Results: Of 79 patients, 68 underwent primary ileocolic resection at the study centre and 11 at external hospitals. Nineteen patients (24.1%) had a recorded redo ileocolic resection, including 8/68 (11.8%) whose primary resection was performed at the study centre. Current smoking was more common in the redo group (65% versus 31%; p = 0.022), while mean age at primary surgery was similar between groups (35.5 versus 37.2 years; p = 0.643). Among patients with available index-operation details, redo patients more commonly had documented stricturing disease (62.5% [5/8] versus 59.3% [35/59]; p = 1.000), a stapled anastomosis (87.5%
[7/8] versus 55.8% [29/52]; p = 0.128) and a side-to-side configuration (87.5% [7/8] versus 57.4% [31/54]; p = 0.136), although none of these differences reached statistical significance. Sex, preoperative colonoscopy, 30-day readmission, postoperative complications and postoperative biologic therapy did not differ significantly between groups.
Conclusion: Overall, 19/79 patients (24.1%) had a recorded redo ileocolic resection, including 8/68 patients (11.8%) whose primary resection was performed at the study centre. Current smoking was associated with redo surgery on univariable analysis. Age, documented stricturing disease and anastomotic technique or configuration were not significantly associated with redo surgery. Incomplete index-operation records and the small number of evaluable redo patients limit interpretation.



Risk Factors for Diabetic Foot Related Lower Extremity Amputation in Low and Middle Income Countries

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Background: Diabetic foot disease is a leading cause of lower limb amputation (LLA) in low- and middle income countries (LMICs), where adjusted risk factor evidence is sparse. This review evaluated risk factors for LLA in these settings.
Methods: PubMed, Scopus, Embase, MEDLINE (Ovid) and CENTRAL were searched from inception to March 2026. Eligible studies reported LLA with adjusted effect estimates in LMIC adults with diabetes. Pooling required three comparable studies per domain. Risk of bias used the Newcastle-Ottawa Scale or AXIS.
Results: Sixteen studies (19,529 participants; 1,604 amputations) provided usable estimates, 12 adjusted. No domain met the pooling threshold. Osteomyelitis was associated with amputation in both studies assessing it (aOR 5.60, 95% CI 2.93–10.78; aOR 11.8), and peripheral arterial disease in two of three using objective vascular assessment (aOR 2.80, 95% CI 1.52–5.11; aOR 3.23 per grade). Prior amputation was associated with LLA in two DFU cohorts (aOR 2.86, 3.08) and ulcer severity in all studies assessing it, across five classification systems. Prolonged ulcer duration gave aOR 10.3 (95% CI 4.06–26.13), and each preoperative day a 9.3% increase in major amputation odds. Neuropathy was not independently associated in any adjusted analysis, nor was HbA1c in the largest adjusted DFU cohort, although a smaller 10-event study reported a positive association.
Conclusion: Peripheral arterial disease, ulcer severity, osteomyelitis, prior amputation and delayed care were associated with LLA in LMICs; neuropathy and HbA1c were not. Heterogeneous exposure measurement, not a shortage of studies, prevented synthesis. Prospective LMIC cohorts with standardised definitions are needed.



What Is a Good Outcome After Elective Aneurysm Treatment? Rationale and Design of the COA2T Study.

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Introduction: The most commonly used outcome scales following intracranial aneurysm treatment, the modified Rankin Scale (mRS) and Glasgow Outcome Scale (GOS), were not designed to detect subtle neurocognitive deficits resulting from treatment-related brain injury. This is particularly relevant for elective treatment, where patients are generally neurologically intact and the acceptable threshold for morbidity is low. The COA2T study aims to better define the neurological cost of treating unruptured anterior communicating artery (ACom) aneurysms.
Methods: COA2T is a prospective longitudinal study of 30 participants: 10 undergoing microsurgical clipping of an unruptured ACom aneurysm, 10 undergoing endovascular treatment, and 10 spinal surgery controls. Neuropsychological assessment is performed pre-treatment, at 6 weeks and 6 months. ACom cohorts undergo serial multimodal 3T MRI incorporating structural imaging, high-angular-resolution diffusion imaging, resting-state functional MRI and arterial spin-labelling perfusion. Serial blood sampling enables proteomic analysis.
Results: Longitudinal changes in memory, attention, processing speed and executive function will be assessed. Imaging and proteomic analyses will investigate objective correlates and potential predictors of neurocognitive change. The control cohort will help distinguish treatment-related cerebral injury from the effects of general anaesthesia and surgery.
Conclusion: A technically successful aneurysm treatment with a favourable mRS or GOS does not necessarily represent an uncomplicated outcome. By integrating neuropsychological, imaging and biological measures, COA2T aims to provide a more sensitive and clinically meaningful assessment of morbidity following elective aneurysm treatment.



Difficulty Scoring Systems in Robotic Liver Resections Systematic Review

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Introduction Difficulty scoring systems (DSS) have been shown to discriminate procedure difficulty by perioperative outcomes in laparoscopic liver resection (LLR). Some researchers have attempted to apply existing LLR DSS to robotic liver resection (RLR) while others have formulated new DSS tailored to RLR. This review aims to synthesize the current evidence for DSS in RLR, particularly comparing the Iwate and Tampa systems.
Methods All formulation, comparison, and validation studies of DSS in RLR were included, compiling which DSS have been validated in RLR and pooling data on perioperative outcomes. Discriminatory ability for each DSS was assessed and considered consistent if 1. Pooled perioperative outcomes data showed a monotonic trend and significant differences ($p \leftarrow 0.05$) across difficulty levels and 2. →50% independent study-level findings met the same criteria. Heterogeneity was assessed using I^2.
Results Across 7 DSS identified, Iwate and Tampa were the most studied. Iwate showed consistent discrimination for the most outcomes while Tampa showed the least (5 and 1 respectively). Tampa was only consistent for operative time (OT), one of its two formulation reference outcomes. 2 of 3 comparison studies also show Tampa performing worse than Iwate. Estimated blood loss (EBL), OT, and length of stay (LOS) showed the strongest evidence for consistent discrimination across DSS. Most outcomes showed high heterogeneity (I^2→50%).
Conclusion Despite being RLR-specific, Tampa demonstrated limited discriminatory ability compared to Iwate. Existing LLR-derived DSS show consistent evidence in RLR but heterogeneity suggests usage is limited to stratifying relative difficulty not predicting absolute outcomes.



Artificial Intelligence in Surgery: From Algorithm to Operating Room

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Background: Artificial intelligence (AI) is rapidly entering modern healthcare, with implications across the surgical specialties. Plastic surgery, with its reliance on visual assessment, surgical planning and outcome prediction, provides a useful lens through which to examine both the opportunities and challenges of AI assisted surgery.
Methods: A narrative review of contemporary literature was performed to examine current applications of AI in plastic surgery, their limitations, and potential directions for future clinical integration.
Results: Current applications include diagnosis, aesthetic surgery, research and workflow. Image classification algorithms have demonstrated performance comparable or superior to clinicians in selected skin lesion assessment tasks. Predictive imaging has been explored in breast augmentation and rhinoplasty to simulate postoperative outcomes. AI can process large datasets, support research and reduce administrative burden through automated documentation. Emerging applications include personalised risk prediction, postoperative monitoring, and integration with virtual reality. However, clinical implementation remains limited by dependence on the quality and diversity of training data, poor transparency, cost and accessibility. Patient privacy, data security, accountability and potential clinician deskilling present additional concerns. Many of these challenges are not unique to plastic surgery and will become increasingly relevant as AI is incorporated into surgical decision-making, training and perioperative care across specialties.
Conclusion: AI has the potential to reshape surgical practice, but its greatest value is likely to lie in augmenting rather than replacing surgical expertise. Plastic surgeons, alongside the broader surgical community, must remain actively involved in its development and implementation to ensure innovation translates into safe, ethical and clinically meaningful patient benefit.



Network meta-analysis of static cold storage versus dynamic organ preservation for liver transplantation

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Background: Donor organ scarcity and increasing use of extended-criteria donors have driven the development of dynamic preservation methods to improve outcomes following liver transplantation. Hypothermic (HMP) and normothermic machine perfusion (NMP), controlled oxygenated rewarming (COR), and ischaemia free liver transplantation (IFLT) are dynamic preservation methods which have been compared to traditional static cold storage (SCS). The aim of this present study is to conduct a network meta-analysis (NMA) of RCTs to compare the effects of available dynamic preservation strategies on clinical outcomes.
Methods: Electronic databases were systematically searched for RCTs evaluating dynamic preservation methods in human liver transplantation. Eligibility criteria included reporting of at least one of the following primary outcome measures; early allograft dysfunction (EAD), biliary complications, and graft survival. A random effects Bayesian NMA with a non-informative prior was conducted.
Results: Thirteen RCTs were included with a total of 1888 recipients assessing 5 interventions. IFLT had the highest probability of being the best-ranked treatment for EAD and biliary complications, but these findings were based on a single RCT. HMP (7 RCTs) ranked higher than NMP (4 RCTs) across all primary outcomes, whereas NMP ranked higher than SCS for EAD and biliary complications. Subgroup analysis of extended criteria brain dead donors was consistent with overall findings.
Conclusions: Dynamic preservation modalities were associated with improved outcomes compared to SCS. HMP ranked higher than NMP across the primary outcomes. However, these comparisons were predominantly indirect and do not establish superiority of HMP over NMP.



Systematic Review of Local excision vs. Chemoradiation in Management of Early Squamous Cell Carcinoma

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Introduction Early Anal Squamous cell Carcinoma is an increasingly prevalent disorder managed with definitive chemoradiotherapy as the established standard of care. This carries the risks of significant long term morbidity from bowel, urinary, and sexual dysfunction. Sphincter sparing local excision alone in treatment of early stage SCC is performed as an alternative. This study is a systematic review of the established evidence comparing these two modalities and their respective survival outcomes.
Methods A systematic literature review was performed across MEDLINE/PubMed, Embase, Cochrane and SCOPUS from 2000-2026 with strict adherence to PRISMA guidelines. The parameters to be assessed are overall survival, cancer specific survival, progression free survival and post treatment morbidity/complications.
Results Four retrospective studies were reviewed. The findings demonstrated the following - Overall survival between the two groups was comparable with reported 5 year survival in local excision population of 85.3%-100% and 85-91.6% in Chemoradiotherapy patients. -There was no statistically significant difference in cancer specific survival, nor progression free survival, or requirement for salvage surgery-There was insufficient data regarding a comparison of treatment related morbidity
Conclusion Local excision of early stage anal SCC is an increasingly utilised treatment modality, without any evidence to demonstrate inferiority to the current mainstay of management. Further studies in relation to morbidity comparison, and randomised control trials comparing the two are required to establish more definitive outcomes and long term efficacy. Encouraging this research is further pertinent as a previous systematic reviews has demonstrated cost benefit of pursuing local excision.



MICROBREAKS FOR MACRO SOLUTIONS: A SCOPING REVIEW OF UPPER LIMB INJURIES IN PLASTIC SURGEONS AND AN EVIDENCE BASED ERGONOMIC STRETCH FRAMEWORK

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Background Work-related musculoskeletal disorders (WRMDs) are common among plastic surgeons. This may be due to sustained static posture, repetitive movement and use of magnification devices. These injuries may impact work performance, career duration and their health. Implementing stretching exercises during intraoperative microbreaks may be beneficial to reduce the occurrence of WRMDs.
Methods A scoping review based on PRISMA-ScR guidelines was conducted through MEDLINE, PubMed, and ScienceDirect. Articles from 2000-2025, focusing on the effect of microbreaks in upper limb musculoskeletal injuries among plastic surgery practice, were examined. Using the literature and Northern Health guidelines, suitable microbreak exercises were illustrated.
Results Seventeen studies, including 11,998 surgeons (5,891 plastic surgeons), were included. Upper limb musculoskeletal symptoms were frequently reported, with shoulder, hand, wrist, and carpal tunnel symptoms among the most commonly described complaints. Reported prevalence varied substantially between studies. Common occupational risk factors included prolonged static posture, use of magnification devices, use of a hand table, and long operative hours. Interventional studies demonstrated that microbreaks incorporating brief stretching exercises did not increase operative time and were associated with improvements in physical comfort, perceived performance, and quality of life. However, there was limited guidance regarding exercise selection or specialty-specific implementation.
Conclusions WRMDs are an occupational burden for plastic surgeons. Microbreaks with targeted stretching appear to be a possible preventive strategy. Further prospective studies are needed to evaluate the effect of targeted microbreak stretches in plastic surgeons.



Who operates after hours? An audit of the three highest volume intra-abdominal emergency procedures in a regional Australian Hospital.

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Introduction: Emergency operating patterns affect theatre access, staffing, and resource allocation, particularly in regional centres. We audited the three highest volume intra-abdominal emergency procedures at Rockhampton Hospital to describe timing and assess whether after-hours cases differed in duration or urgency.
Methods: A retrospective audit was performed of all emergency operations at Rockhampton Hospital from 1/11/24 to 1/11/25. The three highest volume intra-abdominal emergency procedures were caesarean section (n=259), appendicectomy (n=233), and cholecystectomy (n=115). Multivariate linear regression assessed associations between after-hours status (6 pm to 8 am) and procedure duration, adjusted for age and priority category. Logistic regression assessed whether after-hours cases were assigned more urgent priority categories.
Results: The frequencies of caesarean sections, appendicectomies, and cholecystectomies occurring after-hours were 65%, 29%, and 17% respectively. Caesarean sections showed the greatest after-hours burden, with 36% commencing between 6 pm and midnight. Appendicectomies and cholecystectomies were concentrated in daytime hours, both peaking between 9 am and midday (27% each). After-hours caesarean sections were shorter than in-hours cases by 7.19 minutes (95% CI 2.25-12.13, p=0.004) and were more likely to receive a more urgent priority category (OR 2.66, 95% CI 1.55-4.62, p←0.001). After hours appendicectomies were also shorter by 14.12 minutes (95% CI 6.55-21.69, p←0.001). No significant duration difference was seen for cholecystectomies (p=0.105).
Conclusion: Caesarean section imposes the greatest after-hours theatre demand among the commonest intra abdominal emergency procedures in our regional centre, whereas appendicectomy and cholecystectomy are predominantly daytime operations. These findings may inform theatre planning, rostering and prioritisation.



Scoping Review of the National Surgical Plans of Small Island Nations

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Background: The 2015 Lancet Commission on Global Surgery (LCoGS) report established surgical care as an integral part of public health and essential for universal health coverage. This review aims to assess the gap in Small Island Development States (SIDS) by evaluating the presence of formal surgical plans and integration of global surgical indicators into national health frameworks.
Methods: This scoping review employed the Joanna Briggs Institute (JBI) framework. A targeted search of published and grey literature for national health policy documents from the 39 SIDS was performed. Titles, executive summaries, and full document reviews were searched for surgical components and reporting of the six LCoGS indicators. 28 documents met inclusion criteria.
Results: Of the 28 national plans, 11 were from the Caribbean, 13 from the Pacific and 4 from the Atlantic, Indian Ocean and the South China Sea (AIS). Median publication date was 2019 (2010-2026). Only three countries had National Surgical Obstetric and Anaesthesia Plans (NSOAPs), all from the Pacific region. 23 were general National Strategic Plans, one National Development Plan and one other plan. 64% (Caribbean 7/11, Pacific 9/13 and AIS 2/4) reported inclusion of surgical components. 20 (71%) reported at least one LCoGS indicator.
Conclusion: Planning for safe and affordable surgical, obstetric and anaesthesia care remains poorly developed with only 3 countries having NSOAPs. Bridging this gap requires context specific plans applying WHO's 6 health system building blocks, expanded universal health coverage for surgical and anaesthesia services, formalized referral partnerships, and greater recognition of allied health workers.



Mapping tumour response to neoadjuvant therapy in rectal cancer

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Introduction: The oncological benefits of neoadjuvant chemoradiotherapy (nCRT) for low and locally advanced rectal cancer are well established, but a third of tumours will not respond to nCRT. This study explores the potential of B-cell lymphocytes and Tertiary Lymphoid Structures (TLS) as predictive biomarkers of tumour response, which could help optimise treatment plans and avoid unnecessary morbidity.
Methods: Twenty pre-treatment rectal cancer biopsies were used, from patients with known differential responses to nCRT. Regions of interest (ROI) were selected after immunohistological review of prepared slides for TLS and B-cells. Targeted proteomic profiling of 87 immuno-oncology proteins was performed using the Nanostring GeoMx Digital Spatial Profiler to quantify protein expression with spatial resolution within ROIs, including TLSs, in the tumour microenvironment.
Results: Unsupervised analyses revealed distinct molecular and spatial patterns associated with subsequent treatment response, with separation between complete responders (CR) and all others (intermediate and non-responders). CRs showed decreased immune checkpoint inhibitor expression and increased cell death protein expression. They also had higher TLS numbers with decreased natural killer cell marker (CD56) and increased endothelial cell adhesion molecule (EpCAM) marker. Increased expression of stimulator of interferon gene (STING) protein was also noted in TLS-negative tumour regions in CRs. All differences were statistically significant.
Conclusion: Distinct molecular and spatial profiles underpin the differential response to nCRT in rectal cancer, with CR exhibiting a unique tumour microenvironment that is more favourable for immune-mediated tumour clearance. Integrating spatial profiling techniques with traditional analysis can help identify key biomarkers and potentially guide personalised treatment.



Impact of post-graduate year (PGY) and other sociodemographic factors on surgical subspecialty preference among junior doctors and medical students

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Introduction The postgraduate year at which Australian candidates enter surgical training is increasing. Australian graduates typically begin specialty training later than international counterparts, due to the number of years spent as an unaccredited surgical trainee. Delayed entry may discourage candidates, particularly amid declining medical student interest in surgical careers. This study assessed whether more unaccredited years deter individuals interested in surgery from pursuing surgical training.
Methods An anonymous cross-sectional survey was distributed through researchers' professional networks. Associations between the preferred number of unaccredited years and sociodemographic variables were assessed using Fisher's Exact test.
Results Of the 33 responses, 24 were eligible for analysis, with recruitment ongoing. Respondents were a median age of 26 (range: 20 – 44), mostly worked in major cities (87%), and were primarily medical students (50%). Overall, 67% reported that the number of unaccredited years influenced specialty choice, with a median preferred commencement of PGY 3 (range: 1 – 5). The number of unaccredited years was more of an influential factor in specialty choice for female respondents (77% vs 55%, p = 0.39), and doctors versus medical students (77% vs 55%, p = 0.39), however these results did not reach statistical significance. No differences were observed among respondents aged under 30 years versus older, and those who were unmarried versus those married or de facto.
Conclusion Delayed entry into surgical training influenced choice of training for most respondents. Further recruitment is ongoing, which will improve statistical power and establish whether these initial trends are significant in a larger sample.



A pain in the butt: malignant transformation of a pilonidal sinus

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Introduction: Malignant transformation of chronic pilonidal disease is rare, occurring in approximately 0.1% of cases. Squamous cell carcinoma (SCC) is the most commonly reported histological subtype and is often diagnosed late following decades of chronic disease. We present a case of SCC arising from longstanding pilonidal disease in a patient from a remote community.
Methods: A case report was prepared describing the clinical presentation, investigation, surgical management, reconstruction and follow-up of a patient with SCC arising from chronic pilonidal disease.
Results: A 55-year-old man from a remote Tasmanian community presented with a two-month history of a rapidly enlarging fungating natal cleft mass associated with pain, foul-smelling discharge and intermittent bleeding. He had a 20-year history of untreated pilonidal disease and was an active smoker. Excisional biopsy and debridement confirmed SCC with positive margins. Wide local re-excision achieved clear margins. The extensive defect required prolonged negative pressure wound therapy before delayed reconstruction with quadruple perforator flaps undertaken by the plastic surgeons. The patient has achieved excellent wound healing and functional recovery.
Conclusion: Malignant transformation of pilonidal disease should be considered in longstanding pilonidal disease with rapid enlargement, bleeding or increasing pain. Prompt biopsy and complete excision with clear margins are essential. Extensive defects may require staged reconstruction and multidisciplinary care. This case highlights the challenges of managing complex surgical oncology patients in rural and remote communities and the importance of timely access to specialist services



A systematic review of systemic inflammatory biomarkers in preoperative colon cancer patients and their association with overall survival

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Introduction: Preoperative systemic inflammatory biomarkers are known to affect prognosis following colon cancer surgery, but no study has systematically reviewed the associations of such biomarkers, with respect to colon cancers only, with overall survival (OS). This systematic review aimed to identify biomarkers associated with OS in colon cancer patients undergoing potentially curative surgery.
Methods: PubMed, OVID Embase Medline, and Cochrane Central Register of Controlled Trials (CENTRAL) were utilised to identify relevant studies (start of inception to 2026). Publications included those which investigated adult colon cancer patients undergoing surgery with curative intent, and which documented the association(s) between preoperative inflammatory blood tests retrieved and OS.
Results: 19 publications from a total of 1957 were included for analysis. 9881 patients underwent curative-intent colonic resection during this time. 25 markers were identified, and the most investigated markers were neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), and modified Glasgow Prognostic Score (mGPS). Elevated NLR (cut-off values 3-5, HR 0.57-2.05) was significantly associated with decreased OS in eight of nine studies. Raised PLR (cutoff values 150-300, HR 0.96-1.54), significantly predicted worse OS in two of seven studies, while mGPS scores above 0 were significant for worse OS in all six studies.
Conclusion: 25 markers were identified that examined the relationship between preoperative colon cancer inflammatory biomarkers and OS. Many demonstrated significant results, but further research is required to identify appropriate cutoff values and compare predictive performance.



Efficacy and Safety of Combined Kinase Inhibitor Therapy and Immunotherapy in Advanced Thyroid Cancer: Systematic Review and Meta-analysis

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Introduction: Advanced thyroid cancer, including anaplastic thyroid cancer (ATC), poorly differentiated thyroid cancer (PDTC), and radioiodine-refractory differentiated thyroid cancer (RAIR-DTC) carry dismal prognoses, necessitating novel therapeutic avenues. Molecular targeted therapy and multi-kinase inhibitors demonstrate antitumour activity, however, combination therapy with immune checkpoint inhibitors remains under investigation. This systematic review and meta-analysis evaluates: (1) efficacy, toxicity, and neoadjuvant use of combined kinase inhibitor and immuno-therapy in adults with ATC, PDTC, and RAIR-DTC; and (2) oncological outcomes and toxicity profile of this combination therapy in this population.
Methods: PubMed, Embase, Scopus, Cochrane were systematically searched from database inception to June 2026, assessing adults with ATC, PDTC, or RAIR-DTC receiving molecular targeted or multi-kinase inhibitor therapy with immunotherapy. Meta-analysis using a random-effects model calculated pooled objective response rate (ORR), conversion to surgery, and pathological complete response (pCR) in the neoadjuvant setting.
Results: Pooled ORR in the non-surgical cohort, previously naïve to either therapy was 55% (95% CI 47%-63%). Progression to surgery was 60% (95% CI 37%-79%) with 61% pCR (95% CI 50%-71%). Median overall survival was higher in PDTC, kinase inhibitor naïve patients, and genetically matched combination therapy for BRAF-V600E mutated ATC. The most common adverse events were hypertension, fatigue, and oral mucositis.
Conclusion: Combined molecular targeted or multi-kinase inhibitor therapy and immunotherapy remain promising treatment avenues, particularly the addition of pembrolizumab to dabrafenib and trametinib in BRAF-V600E mutated ATC. Despite lower rates of conversion to surgery than in other neoadjuvant regimens, surgical outcomes remain favourable. Randomised clinical trials are emerging and warranted.



Emergency colorectal cancer during COVID-19: temporal trends in presentation, tumour characteristics and management in a regional Australian health se

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Introduction COVID-19 disrupted colorectal cancer (CRC) screening and diagnostic services, raising concerns that delayed diagnosis would increase emergency presentations and advanced disease. This study evaluated temporal changes in emergency CRC presentation, tumour characteristics and management within a regional Australian health service.
Methods A retrospective cohort study included adults presenting emergently with newly diagnosed CRC between January 2019 and July 2023. Emergency presentations were compared with elective CRC resections before and during COVID-19 restrictions. Temporal trends in tumour characteristics and management were assessed using logistic regression, with secondary analyses adjusted for age and sex.
Results A total of 149 patients presented emergently with CRC. Emergency presentations remained stable relative to elective CRC resections, accounting for 15.3% of colorectal cancer surgical activity in 2019 compared with 15.2% during the COVID-19 restriction period (2020–2022; OR 0.99, 95% CI 0.63–1.55; p=0.970). Despite this stability, increasing calendar year was independently associated with greater odds of high grade disease (aOR 1.39 per year, 95% CI 1.07–1.82; p=0.015) and stoma formation at index presentation (aOR 1.37 per year, 95% CI 1.04–1.80; p=0.026). Stage IV and metastatic disease were more frequent in later years, although these trends were not statistically significant.
Conclusion COVID-19 restrictions were not associated with increased emergency CRC presentation relative to elective surgical activity. However, significant temporal increases in high-grade disease and stoma formation suggest that presentation frequency alone may not capture changes in the oncological burden and management complexity of emergency CRC during healthcare disruption.



Patient-Reported Outcome Measures Following Pancreatectomy for Pancreatic Cancer: A Scoping Review

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Introduction: Patient-reported outcome measures (PROMs) are essential for evaluating quality of life in patients undergoing pancreatectomy for pancreatic ductal adenocarcinoma (PDAC). This scoping review synthesises evidence on PROMs used in this population to guide future research.
Methods: A comprehensive literature search was conducted in accordance with PRISMA-ScR reporting standards in March 2025 using PubMed, Embase, Medline, and the Cochrane Library from 2014 onwards, focusing on studies evaluating quality of life in patients post-pancreatectomy for PDAC. Studies reporting patient-reported outcomes in adults post-pancreatectomy for pancreatic ductal adenocarcinoma were included. Two independent reviewers screened studies, with disagreements resolved by discussion and consensus with a third reviewer. We summarised key methodological characteristics of included studies to provide context for the reported findings, consistent with scoping review methodology.
Results: From 639 articles identified, 24 met the inclusion criteria: five RCTs, nine prospective and 10 retrospective cohort studies. The most frequently used QoL instruments were the EORTC QLQ-C30 (13 studies) and QLQ-PAN26 (six studies). Generic tools captured broad health domains but lacked disease specificity, while PDAC-specific instruments provided targeted symptom assessment but varied in psychometric robustness. Fatigue and psychological burden were commonly reported. Barriers to PROM integration include time constraints, lack of standardisation, and limited electronic health record flexibility. Combining generic and disease-specific instruments improves comprehensiveness but increases respondent burden.
Conclusion: PROMs are vital in quantifying QoL post-pancreatectomy for PDAC. Future research should prioritise developing abridged, disease-specific PROMs that are concise and compatible with routine clinical practice.



Surgical treatment of Crohn's disease in New South Wales, 2002–2019

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Aim: Biologic therapies have transformed the management of Crohn's disease, yet their population-level impact on surgical outcomes in Australia remains unclear. This study examined longitudinal trends in Crohn's disease surgery in New South Wales (NSW).
Method: A population-based study was conducted using administrative data for adults undergoing intestinal surgery for Crohn's disease in NSW between 2002 and 2019. Temporal trends in age standardised surgery rates, patient characteristics, and perioperative outcomes were assessed. Interrupted time-series analyses evaluated changes associated with Pharmaceutical Benefits Scheme (PBS) listing of biologic therapies starting from 2007.
Results: A total of 3,189 patients underwent intestinal surgery. Surgery rates declined from 4.87 to 2.74 per 100,000 population ($p = 0.02$). Interrupted time-series analysis demonstrated no significant change in the pre-existing downward trend following PBS listing of biologic therapies. Patients became increasingly complex over time, with rates of prior fistulising/stricturing/perianal disease rising from 57.2% to 71.7%, and extraintestinal manifestations from 4.9% to 11.4% (both $p \leftarrow 0.01$). Major postoperative complications increased from 16.9% to 31.3% ($p \leftarrow 0.001$), including higher rates of anastomotic complications and sepsis, though without a significant association with the PBS listing. Laparoscopic surgery increased while stoma formation became more frequent. Ten-year surgical recurrence was lower in the post-biologic era (12.0% vs 15.1%, $p = 0.04$).
Conclusion: Crohn's disease surgery in NSW has become less common but increasingly complex. Although PBS listing of biologic therapy was not associated with a measurable change in surgery rates, patients requiring surgery appeared to have greater disease complexity and postoperative morbidity.



INTERCEPT Pancreatic Cancer - INtravasation Targets: Expression, Recurrence, Clinical Endpoints and Pathways to Treatment in Pancreatic Cancer

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Introduction: Disease recurrence is common in patients who undergo curative-intent treatment for Pancreatic Cancer (PC).Intravasation, the mechanism by which a cell enters the bloodstream to micrometastasise is poorly described. The 'Tumour Microenvironment of Metastasis' (TMEM), described in breast cancer, suggests transient tri-cellular doorways are created by the tumour microenvironment through which tumours intravasate, and which can be targeted to reduce circulating tumour burden.
Methods: We build on pre-existing early evidence to demonstrate a novel immunofluorescence protocol quantify TMEM Doorways in human PC. We will map pro-invasive niches within the PC microenvironment, containing potential TMEM doorways, through spatial transcriptomic analysis of a PC orthotopic mouse model sampled across a tumour-progression series.
Results: Our protocol demonstrates TMEM doorways in archival human PC sections. A 3-patient pilot series can assign a TMEM density score: 0.63/mm2 in a patient with early recurrence; 0.13/mm2 in a patient treated with neoadjuvant therapy (suspected to reduce TMEM density) but who recurred at nine months; and 0.12/mm2 in a patient alive without recurrence beyond 38 months. Spatial analysis demonstrates putative TMEM doorway can be identified in a PC mouse model, and their density increases with tumour progression.
Conclusions: TMEM doorways exist in PC and their density may vary with disease biology, progression and treatment regimen. Further investigation is planned in (1) the use of TMEM doorways as a prognosticator through immunofluorescence density assessment in an 80-patient outcome-defined series and (2) a mechanistic description of the pro-invasive microvascular niche within the human PC microenvironment with Xenium Spatial Transcriptomics.



Prospective diagnostic performance of appendicitis scoring systems in Samoan patients

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Introduction: Pacific peoples experience disproportionately high rates of complicated appendicitis (CA). Scoring systems offer pragmatic risk-stratification without advanced investigations. The modified APPEND (mAPPEND) score, omitting C-reactive protein, and the modified Alvarado score (MAS), omitting leukocyte left-shift, have been proposed as resource-independent tools, but their prospective performance in Samoan patients is unknown. We evaluated both scores for confirming appendicitis and predicting CA in Samoan patients presenting in Aotearoa New Zealand (AoNZ) and Samoa.
Methods: In this prospective multicentre cross-sectional study, consecutive self-identified Samoan patients aged ≥15 years with confirmed appendicitis were enrolled at Middlemore Hospital (AoNZ) and Tupua Tamasese Meaole Hospital (Samoa) between April and December 2025. Discrimination was assessed by area under the receiver operating characteristic curve (AUC) with 95% bootstrap confidence intervals. The association between pre-hospital delay and CA was evaluated by logistic regression.
Results: Among 106 patients (median age 32 years; 51% female), 61% had CA, with similar rates between sites (64% vs 59%, p=0.6). The mAPPEND AUC was 0.67 (95% CI 0.48–0.85) for confirmed appendicitis and 0.69 (0.59–0.78) for CA; MAS AUCs were 0.53 and 0.64, respectively. Pre-hospital symptom duration →48 h was associated with CA (OR 3.32, 95% CI 1.40–8.37, p=0.007).
Conclusion: Both scores showed only moderate discrimination, well below prior estimates. Prolonged pre hospital delay was strongly associated with CA across both settings. These findings caution against transferring prediction rules between populations and highlight pre-hospital delay as a target for intervention.



The utility of Braun Enteroenterostomy with Pancreaticoduodenectomy: preliminary results from an Australian randomised controlled trial

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Introduction: Delayed gastric emptying (DGE) occurs in approximately 30% of patients following pancreaticoduodenectomy (PD), delaying oral intake, prolonging hospitalisation and postponing adjuvant treatment. Braun enteroenterostomy (BE) has been proposed to reduce DGE, although evidence remains inconclusive.
Methods: We conducted a prospective, multicentre randomised controlled trial at John Hunter Hospital and Austin Health. Patients undergoing PD were randomised to reconstruction with or without BE. The primary outcome was DGE incidence (defined by the International Study Group of Pancreatic Surgery); secondary outcomes were postoperative pancreatic fistula (POPF), ICU and hospital stay. The trial was powered to detect a reduction in DGE from 30% to 15%, requiring 264 participants. A pilot study was introduced to assess the feasibility of objective DGE measurement with gastric scintigraphy in 20 patients.
Results: Between May 2022 and October 2025, 34 patients were assessed; five were excluded intraoperatively for unresectable disease, leaving 29 randomised (14 BE, 15 standard). DGE incidence did not differ (35.7% vs 26.7%; p=1.00), nor did ICU stay (2.0 vs 3.7 days; p=0.92) or hospital stay (8.5 vs 10.0 days; p=0.52). POPF was lower with BE (0/14 vs 6/15; p=0.02). Only six completed the required pre- and post-operative gastric scintigraphy investigation.
Conclusion: This trial highlights the difficulty of recruiting to adequately powered pancreatic surgery RCTs in Australia, where low procedural volumes and geographically dispersed populations limit recruitment. The reduction in POPF is hypothesis-generating but not practice-changing given the small sample. Further analysis to understand the challenges with gastric scintigraphy are ongoing, along with quality-of-life measures.



Pre-operative Diagnosis of Intranodal Palisaded Myofibroblastoma by Ultrasound-Guided Core Biopsy: A Rare Benign Mimic of Malignancy

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Introduction: Intranodal palisaded myofibroblastoma (IPM) is a rare benign mesenchymal tumour arising predominantly within inguinal lymph nodes. Owing to its rarity and non-specific clinical and radiological features, it frequently mimics malignant soft tissue neoplasms, creating diagnostic uncertainty and influencing surgical management. We present a case demonstrating the value of ultrasound-guided core biopsy in establishing a pre-operative diagnosis.
Methods: A 54-year-old man presented with a two-year history of a painless, progressively enlarging right inguinal mass. Ultrasound-guided core needle biopsy demonstrated features consistent with IPM. Following multidisciplinary review, elective surgical excision was undertaken to obtain definitive pathological assessment and guide ongoing management.
Results: Histopathological examination confirmed a well-circumscribed 45 x 35 x 30 mm intranodal palisaded myofibroblastoma with myxoid and cystic change. Microscopy demonstrated spindle cell proliferation with nuclear palisading, minimal cytological atypia and a peripheral lymphoid cuff. Immunohistochemistry showed diffuse smooth muscle actin positivity with negative desmin, CD34 and S100 staining, confirming the diagnosis. The patient recovered uneventfully and remains recurrence-free at follow-up.
Conclusion: Although rare, IPM should be considered in the differential diagnosis of a persistent painless inguinal mass. This case demonstrates that ultrasound-guided core biopsy can establish an accurate pre-operative diagnosis, facilitating multidisciplinary decision-making, appropriate operative planning and patient counselling while reducing unnecessary concern for malignancy. Recognition of its characteristic histopathological and immunohistochemical features is essential to distinguish IPM from malignant spindle cell neoplasms and avoid overtreatment.



Multimodal Spectroscopy in Fresh Colorectal Resection Specimens: A Pilot Study Evaluating Cancer and Non-Cancer Discrimination

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Introduction: Accurate identification of residual rectal cancer after neoadjuvant therapy is critical for Watch-and-Wait selection. Current assessment may not reliably distinguish tumour from treatment-related fibrosis. Raman spectroscopy (RS) and near-infrared spectroscopy (NIRS) offer complementary, non destructive biochemical tissue assessment amenable to endoscopic integration. This foundational pilot evaluated cancer discrimination in fresh colorectal specimens and established feasibility for future larger studies of post-neoadjuvant rectal cancer.
Methods: Adults undergoing elective colorectal cancer resection were recruited prospectively. RS and NIRS spectra were acquired from tumour and control regions using a 4 x 4 grid each (2 x 2 cm) and assigned cancer or non-cancer labels using spatially matched histology. Partial least-squares discriminant analysis incorporated modality-specific preprocessing and patient-grouped cross-validation. Exploratory late fusion combined predictions from both modalities.
Results: 539 NIRS and 464 RS spectra were acquired from 6 NIRS and 5 RS patients, respectively. NIRS achieved an area under the receiver operating characteristic curve (AUC) of 0.97, with 91.5% accuracy, 93.1% sensitivity and 89.6% specificity. RS achieved an AUC of 0.83, with 79% accuracy, 66% sensitivity and 91% specificity. Across 4 patients with data from both modalities, weighted late fusion achieved an AUC of 0.94, 92.4% accuracy, 97.1% sensitivity and 88.3% specificity, improving on either modality within that shared subset.
Conclusion: Multimodal spectroscopy was feasible and provided promising preliminary tumour discrimination in fresh ex vivo colorectal specimens. However, the small number of independent patients limits generalisability. Larger studies using paired RS and NIRS measurements of post-neoadjuvant rectal cancer specimens are required before clinical translation.



Early or mild appendicitis on imaging: concordance with histopathology following appendicectomy, a retrospective study

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Background: Pre-operative imaging is routinely used in suspected acute appendicitis to improve diagnostic certainty and reduce negative appendectomy. However, subtle or uncertain radiological descriptors such as “early”, “mild” or “equivocal” appendicitis may contribute to diagnostic uncertainty. This study evaluated the association between imaging terminology and histopathological outcomes following appendectomy.
Methods: A retrospective observational study was conducted of patients undergoing laparoscopic appendectomy over two years at a single Australian hospital. Pre-operative computed tomography (CT) and ultrasound (US) findings were classified as uncomplicated, early/mild or equivocal appendicitis and correlated with histopathology. The primary outcome was negative appendectomy, defined as a normal appendix on histopathology.
Results: Of 304 patients, 226 had uncomplicated, 67 early/mild and 11 equivocal imaging findings. Negative appendectomy occurred in 12 (5.3%), 23 (34.3%) and 7 (63.6%), respectively (p←0.001). Compared with uncomplicated appendicitis, early/mild findings were associated with increased odds of negative appendectomy (OR 9.32, 95% CI 4.32–20.13; p←0.001), as were equivocal findings (OR 31.21, 95% CI 8.02–121.49; p←0.001). This association persisted following stratification by imaging modality and was particularly pronounced on CT.
Conclusion: Early/mild and equivocal appendicitis on pre-operative imaging were associated with substantially higher negative appendectomy rates than uncomplicated appendicitis. These findings highlight the clinical uncertainty represented by subtle radiological terminology and support careful integration of imaging findings with clinical assessment when determining operative management.



Predictors of Bowel Resection in Portomesenteric Venous Thrombosis Following Bariatric Surgery: A Systematic Review

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Introduction: Portomesenteric venous thrombosis (PMVT) is a rare but potentially devastating complication of bariatric surgery. Although most patients respond to anticoagulation, intestinal infarction may necessitate bowel resection. This review aimed to identify clinical and radiological features associated with bowel resection following post-bariatric PMVT.
Methods: MEDLINE, Embase, Scopus and the Cochrane Library were searched from inception to August 2026. Primary studies reporting post-bariatric PMVT, bowel-resection outcomes, and relevant clinical or radiological features were included. Literature-derived duplicate cases were excluded. Owing to heterogeneous reporting, findings were synthesised descriptively.
Results: Eleven primary studies comprising approximately 73 patients were included, with eight acute bowel resections identified. Abdominal pain was common in both resection and non-resection groups and was therefore poorly discriminatory. The strongest signal was bowel-specific CT evidence of ischaemia. In one five-patient series, all three patients with CT-demonstrated small-bowel ischaemia underwent bowel resection, whereas the remaining two were managed non-operatively. Other resection cases were associated with bowel necrosis, pneumatosis, acidosis, peritonism or clinical deterioration. Conversely, substantial thrombus burden frequently occurred without resection. Salinas et al. reported superior mesenteric-vein involvement in 11/17 patients, splenic-vein involvement in 10/17 and massive PMVT in six, without PMVT-related bowel resection. Villagrán et al. reported five PMVT patients, all treated with anticoagulation without surgery.
Conclusion: Bowel-specific CT abnormalities and physiological deterioration appear more closely associated with bowel resection than thrombus extent alone. No validated independent predictor model currently exists.



Tracheal cartilage fracture as a mechanical cause of late post-percutaneous tracheostomy stenosis

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Introduction: Post-tracheostomy tracheal stenosis is conventionally attributed to mucosal ischaemia from tracheostomy tube pressure, with progressive fibrotic scar formation. We report a case in which the mechanism was purely mechanical. A 60-year-old man developed delayed exertional dyspnoea and stridor 15 months after a difficult percutaneous tracheostomy (PT). Bronchoscopy and imaging demonstrated a fixed multilevel stenosis; anterior, displaced tracheal cartilage fractures were suspected and subsequently confirmed in the operating room.
Results: Resection of the stenotic segment and primary anastomosis restored airway patency and markedly improved symptoms. Histopathology showed only mild superficial inflammation, without significant fibrosis or granulation tissue. Stenosis therefore arose from loss of cartilaginous support rather than cicatricial scarring.
Conclusion: Fracture-related stenosis should be considered when dyspnoea or stridor develops beyond 12 months after PT, and is unlikely to respond to endoscopic dilation.



Incisional hernia and perioperative outcomes following laparoscopic right hemicolectomy for colon cancer

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Introduction: Extraction-site incisional hernia is an important long-term complication of minimally invasive colorectal surgery. Reported incidence varies with extraction-site selection, follow-up duration and method of detection. This study evaluates incisional hernia following laparoscopic right hemicolectomy for colon cancer.
Methods: This retrospective cohort study included adults undergoing laparoscopic right hemicolectomy for histologically confirmed colon adenocarcinoma at Sunshine Coast University Hospital from January 2017 to December 2025. Electronic records, operative reports and postoperative computed tomography imaging were reviewed. The primary outcome was time to first radiological detection of an extraction-site incisional hernia within five years. Associations with patient, operative and perioperative factors were explored using univariable analyses. Small or potentially pre-existing umbilical defects are undergoing specialist radiologist review.
Results: The preliminary cohort included 177 patients. On current retrospective CT review, 98 patients (55.4%) had a possible postoperative abdominal wall defect, and 12 subsequently underwent hernia repair. This classification remains provisional and will be revised following specialist radiologist review, particularly for small umbilical defects and possible pre-existing hernias. Recorded preoperative hernia was common and predominantly umbilical. On preliminary univariable analysis, higher body mass index was associated with possible hernia detection.
Conclusion: In conclusion, based on the current analysis, the majority of hernias were detected within the first postoperative year. Higher BMI and pre-existing umbilical hernia were associated with postoperative hernia detection.



PEDIATRIC ADRENALECTOMY: A NATIONAL ANALYSIS OF EPIDEMIOLOGY AND SURGICAL APPROACH USING THE KIDS' INPATIENT DATABASE, 2016–2022

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Introduction Pediatric adrenalectomy is performed for heterogeneous benign and malignant conditions. National data describing operative approach, demographic distribution, and perioperative resource utilization are limited. Our objective is to examine contemporary U.S. epidemiology and surgical approaches of pediatric adrenalectomy.
Methods A cross-sectional analysis of the Kids' Inpatient Database (KID) for 2016, 2019, and 2022, identified discharges with adrenalectomies using ICD-10 procedure codes. We compared adrenalectomies with other paediatric discharges, open versus laparoscopic surgical approaches, and tumor characteristics. HCUP methodology generated weighted estimates. Standardized mean differences (SMD) and Bonferroni adjusted testing quantified effects.
Results An estimated 1,176 adrenalectomies occurred across 17,829,687 discharges, with a relatively stable distribution over time. Compared with other discharges, adrenalectomy patients were younger (SMD 0.55), White (SMD 0.16), privately insured (SMD 0.25), treated at children's hospitals (SMD 0.42), and predominantly elective (SMD 1.04). The open surgical approach prevailed in younger children compared to the laparoscopic approach (SMD 0.73; p← 0.001). Compared with open, laparoscopic adrenalectomies demonstrated shorter length of stay (SMD -0.41), lower inflation-adjusted costs (p← 0.001), and lower charges (p← 0.001). Malignant tumors occurred in younger children (median 2 [1–5]years), longer hospitalizations (6 [4 9]days) and costs ($36,210 [22,511–61,641]) compared with benign tumors (median 15 [11–18]years; LOS 3 [2–7]; costs $25,418 [16,722–41,806], respectively). Complications and mortality were low.
Conclusion Pediatric adrenalectomy in the U.S. remains uncommon, concentrated in children's hospitals and elective settings. While open surgery predominates, laparoscopic adrenalectomy is associated with older children, shorter hospitalization and lower costs. These national data highlight current paediatric adrenal surgery practice patterns.



Code Brain: 5-year impact review of a paediatric traumatic brain injury protocol

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Introduction: Moderate to severe traumatic brain injuries (TBI) is a leading cause of mortality and long term healthcare burden in Australian children. However, there is a lack of consensus on standardised acute care guidelines and limited evaluation of their impact on outcomes. This study aimed to investigate the implementation of neuroprotective interventions according to the Code Brain (CB) protocol at the of Children's Hospital at Westmead (CHW), and its association with functional neurological outcomes.
Methods: A single-centre retrospective cohort study of 151 paediatric moderate-to-severe TBI patients (GCS←13) compared a pre-implementation cohort under a general trauma protocol (Trauma Attend) from 2013 to 2018 with a post-implementation cohort, i.e. CB, from 2018 to 2023. Data were collected from NSW Health Electronic Medical Records and the CHW Trauma Registry. The primary outcome was the frequency of neuroprotective measures implemented during acute management. Secondary outcomes included rehabilitation, 12-month readmission and discharge destination.
Results: An increase in antiepileptic use was found in the CB cohort (92.4% vs. 77.8%, p = 0.019). No significant differences in between cohorts were found in other neuroprotective interventions in the prehospital and ED phase. Code Brain was not found to be an independent predictor of functional outcome in terms of the Glasgow Outcome Scale Extended – Paediatric Version (GOSE-P).
Conclusion: CB implementation at CHW improved antiepileptic use during acute management of paediatric moderate to severe TBI but was not associated with GOSE-P improvement. This suggests that factors beyond adherence to Code Brain may drive functional recovery.



Prognostic Value of Serum Uric Acid for Complications After Open Surgery or Minimally Invasive Interventions: A Systematic Review

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Introduction: Perioperative risk stratification remains challenging despite substantial postoperative morbidity and mortality. Serum uric acid (SUA), a routinely available biomarker, has emerged as a predictor of adverse outcomes. At physiological concentrations SUA is an extracellular antioxidant, but elevated levels are associated with oxidative stress, inflammation, endothelial dysfunction, and renal impairment. This review evaluates associations between SUA, its derived indices, and perioperative outcomes across surgical and endovascular settings.
Methods: Following PRISMA guidelines, MEDLINE, Embase, the Cochrane Library, and Web of Science were searched from inception to January 2026. Eligible studies assessed SUA or derived indices: uric acid to-albumin (UAR), uric acid-to-creatinine (UCR), uric acid-to-HDL cholesterol (UHR), and uric acid-to lymphocyte (ULR) ratios as predictors of postoperative complications, mortality, or organ dysfunction. Risk of bias was assessed using ROBINS-I. Findings were synthesized narratively by procedural domain, with meta-analysis when homogeneity permitted.
Results: One hundred studies were included (median 363 participants, range 39–4,599). In open surgery (61 studies), elevated SUA was associated with acute kidney injury (AKI), cardiovascular complications, and mortality (AKI: OR 1.50, 95% CI 1.19–1.89, I^2=71%; mortality: HR 1.43, 95% CI 1.16–1.76, I^2=59%). In endovascular procedures (39 studies), elevated SUA and UAR predicted no-reflow, contrast-induced nephropathy, and long-term cardiovascular mortality. Ratio-based indices outperformed SUA alone. Both elevated and reduced SUA predicted adverse outcomes, suggesting non-linear relationships.
Conclusion: SUA and its derived indices are consistently associated with perioperative complications and mortality across diverse procedures. These biomarkers may improve perioperative risk stratification. Prospective studies should define thresholds and determine whether SUA is a therapeutic target.

Withdrawn



Worldwide Seasonal Variation in Hospital Admissions for Cholecystitis - A Systematic Review

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Introduction: Acute cholecystitis (AC) is a common emergency surgical condition but the influence of season and climate on presentation remains uncertain. We systematically assessed the direction and magnitude of seasonal variation in AC.
Methods: PubMed, Embase and Web of Science were searched from inception to August 2026 for adult human studies reporting seasonal, monthly or temperature-associated variation in AC presentations or admissions. Owing to heterogeneity in case definitions and analytic methods, findings were synthesised qualitatively.
Results: Nine observational studies across 6 geographical settings within 3 continents were included, representing ~1.2 million reported AC episodes. Most demonstrated increased incidence or admissions during summer or warmer periods, commonly with winter troughs. Large datasets showed significant seasonality in the United States; Higher summer admissions in Japan (OR 1.23, 95% CI 1.11–1.36). A Japanese nationwide temperature analysis found the highest risk at ≥30°C (RR 1.35, 95% CI 1.34–1.37), although temperatures ←5°C also increased risk. Disease severity was generally unchanged across seasons, although one small Saudi study reported greater summer severity. Proposed mechanisms included dehydration, bile concentration and stasis, dietary change and temperature-associated bacterial ecology.
Conclusion: AC shows a predominantly warm-season association across heterogeneous observational data. Prospective patient-level studies, particularly from the Southern Hemisphere, are required to clarify causality and determine whether seasonal forecasting can inform emergency surgical resource allocation.



Out-of-Pocket Costs for the treatment of Colorectal Cancer: A Systematic Review

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Introduction: Colorectal cancer (CRC) imposes a substantial economic burden, with patients incurring out of-pocket (OOP) costs during diagnosis, treatment and survivorship. These costs may contribute to financial toxicity, reduced quality of life and treatment non-adherence. This paper aims to systematically review the literature describing OOP costs and financial toxicity associated with CRC treatment.
Methods: MEDLINE, Embase, Web of Science, EconLit and EBM Reviews were searched from 2000 to 2025 for studies reporting OOP costs in patients with CRC. Two reviewers independently screened and extracted data. Costs were converted to 2025 USD and narratively synthesised. Risk of bias was assessed using the Consensus on Health Economic Criteria (CHEC) checklist.
Results: Of 11,002 records, 20 studies were included from 12 countries. Methodological quality was high (median CHEC score 13/16). There was heterogeneity in the way OOP costs were reported. Most studies reported mean OOP costs of $378-$14,005. Eight reported median OOP costs of $531-$5,142. Surgery and inpatient care were prominent cost drivers, with some evidence of higher costs with advanced disease. Publicly funded health systems did not always protect patients from incurring OOP costs. Patient outcomes related to OOP costs were rarely discussed, including financial toxicity, quality of life, or disease free survival.
Conclusion: OOP costs represent a substantial and variable burden for patients with CRC across healthcare systems, with costs influenced by geography, disease stage, treatment modality and healthcare financing.



The Natural History of Common Bile Duct Stones Detected on Intra-operative Cholangiography: The Fate of the Stone

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Introduction: Common bile duct (CBD) stones are incidentally identified in 10% of intraoperative cholangiography (IOC) during laparoscopic cholecystectomy (LC). These are commonly managed with endoscopic retrograde cholangiopancreatography (ERCP), although some pass spontaneously. Identifying patients likely to achieve spontaneous passage may reduce patient morbidity and healthcare costs associated with non-therapeutic ERCP. We aim to 1) identify clinical, biochemical and radiological factors predicting spontaneous passage of CBD stones 2) assess time to spontaneous passage of small CBD stones on follow-up imaging.
Methods: We conducted a 10-year retrospective single-centre cohort study of patients with IOC-detected incidental CBD stones who underwent biliary imaging or ERCP within 90 days. Cause-specific Cox regression evaluated predictors of confirmed passage and ROC analysis assessed stone-size thresholds. Kaplan–Meier analysis was performed to estimate time to stone passage.
Results: Among 230 patients, 96 (41.7%) had confirmed spontaneous passage. Increasing stone diameter was the strongest independent predictor of failure to pass (adjusted HR 0.81/mm; 95% CI 0.71–0.93; P=0.002). Increasing CBD diameter was also associated with reduced passage (adjusted HR 0.93/mm; 95% CI 0.87–1.00; P=0.045). [RS1.1] ROC performance was similar across thresholds of 4–6 mm. A stone size threshold of ≤4 mm was selected for exploratory analysis. For stones ≤4 mm, Kaplan–Meier estimated passage at 14 days was 72.7%.
Conclusion: Stone diameter was the most clinically informative predictor of spontaneous passage. CBD stones ≤4 mm demonstrated substantial early clearance. Follow-up biliary imaging, after postoperative day 14, for patients with incidental biliary stones ≤4-mm is likely to reduce non-therapeutic ERCP.



The Efficacy of Preoperative and Intraoperative Interventions on R0 Surgical Margins in Colorectal Cancer: A Systematic Review and Meta-Analysis

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Introduction: Achieving a clear surgical margin (R0) is a key determinant of oncological outcomes following colorectal cancer surgery. This systematic review and meta-analysis aimed to evaluate the effectiveness of preoperative and intraoperative interventions on R0 resection rates in colorectal cancer surgery.
Methods: Four electronic databases (PubMed, CENTRAL, CINAHL, and Scopus) were searched from inception to November 2025. Eligible studies included adults undergoing surgery for non-metastatic colorectal cancer that evaluated the effectiveness of preoperative or intraoperative interventions on R0 resection rates. Studies involving paediatric patients, were excluded. Clinically comparable interventions were synthesised using a random-effects meta-analyses. Novel interventions were reviewed qualitatively. Risk of bias was assessed using ROB-2 and certainty of evidence was evaluated using the GRADE framework.
Results: A total of 54 studies (n=8,128 participants), including 21 randomised controlled trials (n=2,100 intervention, n=2,431 control), were included. Neoadjuvant chemoradiotherapy with a brachytherapy boost was effective in improving R0 resection rates (RR: 1.06, 95% CI: 1.01-1.12), when compared with neoadjuvant chemoradiotherapy alone. All other interventions evaluated showed no statistically significant effect. Novel interventions identified included IORT, 3D surgical planning and navigation techniques, MDT, regional hyperthermia, and immunotherapy.
Conclusion: Evidence to support most preoperative and intraoperative interventions for improving R0 resection rates in colorectal cancer remains limited, with brachytherapy boost the only strategy currently supported by moderate-certainty evidence. Treatment decisions should continue to be guided by a broader range of clinical factors beyond margin status alone, while promising novel interventions warrant evaluation in randomised controlled trials before being adopted into routine practice.



Impact of Obesity in the Healthcare Utilisation of Elective Ventral Hernia Repairs.

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Introduction: Obesity has been associated with increased postoperative morbidity and healthcare utilisation after ventral hernia repair (VHR). However, whether obesity independently predicts resource use after accounting for hernia complexity remains unclear. This study evaluated the associations of obesity and hernia characteristics with resource utilisation after elective VHR.
Methods: Adults undergoing elective VHR between January 2024 and December 2025 at the Northern Health, Victoria Australia were retrospectively reviewed. Patients were stratified using World Health Organization BMI categories. Outcomes included operative time, length of stay (LOS), and postoperative complications. Associations were assessed using univariate and multivariable regression models.
Results: Among 105 patients, univariate analysis revealed Class II-III obesity (BMI≥35 kg/m2; n=34) was significantly associated with longer operative time (158 vs 115 minutes; MR 1.45, p<0.001), longer LOS (median 2 vs 1 day; IRR 1.79, p<0.001), and greater complication severity on Clavien-Dindo scoring (p=0.048). Class II-III obesity patients were also associated with larger hernia defect sizes compared to non-obese patients (BMI<30 kg/m2; n=40; 3.00cm vs 2.00cm, p=0.002). In multivariable analysis, hernia defect size remained the strongest independent predictor of operative time (MR 1.10 per cm, p<0.001), LOS (IRR 1.14 per cm, p<0.001), and in-hospital complications (OR 1.28 per cm, p=0.036).
Conclusion: Class II-III obesity was associated with greater unadjusted resource use and complication severity, and multivariable analysis reveals these effects are further mediated by hernia defect size. These findings support a holistic approach to risk stratification and perioperative planning that incorporates BMI, hernia defect size, and overall patient complexity.



Spontaneous haemoperitoneum secondary to omental desmoplastic small round cell tumour (DSRCT): a case report and review of primary peritoneal tumours

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Introduction: Primary peritoneal tumours are rare and can be difficult to distinguish from secondary peritoneal disease on imaging, often requiring histopathology supported by immunohistochemistry and molecular confirmation. Desmoplastic small round cell tumour (DSRCT) is a highly aggressive primary peritoneal malignancy. Here, we present a case of primary omental DSRCT, and use this case to inform a practical surgical framework for primary peritoneal tumours.
Methods: A 22-year-old man presented with acute severe abdominal pain, vomiting and a six-week history of unintentional weight loss. CT abdomen-pelvis demonstrated a large heterogeneous left-sided abdominal mass with moderate-volume free fluid concerning for haemoperitoneum. Diagnostic laparoscopy revealed active haemorrhage from an omental mass, necessitating conversion to laparotomy and en bloc resection, with histopathology confirming DSRCT.
Results: Given the breadth of primary peritoneal pathology and overlap in radiologic appearances, we classified primary peritoneal tumours by cell of origin and, more importantly for surgical decision-making, by whether diagnosis changes the operative plan. Management ranges from surveillance or medical therapy alone (e.g., desmoid fibromatosis) to specialist multimodal oncologic pathways (e.g., lymphoma, DSRCT, mesothelioma), underscoring why early biopsy, specialist referral and multidisciplinary discussion should precede definitive surgery.
Conclusion: This case of primary omental DSRCT grounds a pragmatic, surgically-oriented framework for the recognition and triage of primary peritoneal tumours. As management ranges from surgery alone to intensive multimodal oncologic therapy, accurate early classification is essential to guide timely decision making when an undifferentiated omental or peritoneal mass is encountered.



Robotic Inguinal Hernia Repair: Longer-Term Patient-Reported Outcomes and Perspectives

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Introduction Robotic transabdominal preperitoneal inguinal hernia repair (R-TAPP IHR) is becoming increasingly popular. Although R-TAPP IHR has demonstrated safe short-term outcomes and feasibility as a day-stay model little evidence exists regarding longer-term patient outcomes and perceptions following robotic assisted surgery. Therefore, this study aimed to evaluate longer-term outcomes and patient perspectives of robotic-assisted surgery following R-TAPP IHR.
Methods A retrospective cohort study with a cross-sectional follow up assessment was conducted involving patients who underwent R-TAPP IHR between August 2023 and October 2025 in a single high-volume robotic surgery centre. Participants completed a structured telephone survey focusing on complications, patient perceptions, satisfaction rates, and willingness to recommend robotic-assisted surgery following R-TAPP IHR.
Results Fifty-one participants completed the survey, with a median follow up duration of eleven months. Long-term outcomes were favourable, with 78.4% of respondents reporting no postoperative complications. Groin discomfort was reported in 15.7% of participants, although symptoms were generally mild and improved with time, with the discomfort resolving within 2-4 weeks postoperatively in most participants. Satisfaction following R-TAPP IHR was high, with 96.1% of participants being satisfied with their surgical outcome. Baseline awareness of robotic-assisted surgery was limited, with 58.8% of participants unaware of robotic-assisted surgery prior to specialist consultation. Most participants perceived robotic surgery to be at least “as safe” as conventional approaches and were likely to recommend robotic-assisted surgery to others.
Conclusion R-TAPP IHR in our patient cohort is associated with favourable outcomes, high patient satisfaction, and positive perceptions towards robotic-assisted surgery.



Same-Day Discharge After Appendicectomy: Safety, Age Specific Outcomes and a Geographic Evidence Gap

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Purpose: To update safety estimates for same-day discharge (SDD) after appendicectomy and assess age-specific outcomes, robustness to overlapping datasets and operative approach, and geographic generalisability.
Methodology: A PRISMA 2020-compliant systematic review and meta-analysis (PROSPERO CRD420251123503) searched major databases, trial registries, Google Scholar and reference lists to 28 February 2026. Random-effects meta-analysis used restricted maximum-likelihood estimation with Knapp–Hartung inference. A second independent reviewer re-screened records and full texts verified key quantitative extraction and independently repeated risk-of-bias assessments; discrepancies were resolved by consensus.
Results: Thirty-seven studies were included (aggregate reported sample n=169,396). Twenty-nine (78.4%) were metropolitan/urban and eight (21.6%) used national or unseparated multicentre datasets; no study provided outcomes attributable specifically to an explicitly regional/rural setting. Pooled SDD readmission was 2.1% (95% CI 1.7–2.6%) and complications 4.1% (95% CI 2.8–6.1%). SDD was associated with lower observed readmission (RR 0.73, 95% CI 0.62–0.84) and complication risk (RR 0.76, 95% CI 0.69–0.84) versus later discharge, with no difference in emergency department returns (RR 0.99, 95% CI 0.82–1.20). Adults had higher absolute event rates than paediatric cohorts, but comparative risk ratios did not differ significantly by age. Results were stable in overlapping-dataset and laparoscopic-only sensitivity analyses.
Conclusion: SDD after appendicectomy is associated with low readmission and complication rates in selected patients. Apparent comparative advantages likely reflect clinical selection and structured pathways rather than a protective effect of early discharge. The absence of directly attributable regional/rural evidence limits geographic generalisability and supports prospective evaluation in non metropolitan surgical services.



Bilateral Type I Deep Inferior Epigastric Artery Branching Pattern Predicts Abdominal Bulge after Autologous Breast Reconstruction

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Introduction: Bilateral abdominal-based breast reconstruction is increasingly common, with the deep inferior epigastric perforator (DIEP) flap a preferred autologous option. Bilateral harvest increases donor-site morbidity, including abdominal bulge. This study examined whether deep inferior epigastric artery (DIEA) branching pattern and other perioperative factors are associated with bulge following bilateral reconstruction.
Methods: A retrospective cohort study included patients undergoing bilateral abdominal-based breast reconstruction between June 2019 and April 2024. Bilateral DIEP, bilateral SIEA, and combined DIEP/SIEA reconstructions were included. Preoperative computed tomographic angiography determined DIEA branching according to the Moon and Taylor classification. Univariable logistic regression estimated odds ratios (OR) with 95% confidence intervals (CI); significant variables were entered into multivariable analysis.
Results: Among 198 patients, 13 (6.6%) developed abdominal bulge at a median 6.2 months, with six requiring surgical repair. Bilateral Type I DIEA branching occurred in 18 patients; seven developed bulge (38.9%), compared with 6/180 (3.3%) with other branching combinations. Muscle cut length was greater in patients developing bulge (12.0 vs 10.2 mm; p=0.04). On multivariable analysis, bilateral Type I branching remained strongly associated with bulge (aOR 17.86; 95% CI 4.68–65.72; p←0.001), whereas muscle cut length did not (aOR 1.15; 95% CI 0.97–1.36; p=0.10).
Conclusions: Bilateral Type I DIEA branching was associated with postoperative abdominal bulge. Although limited by few events, this anatomical factor may assist preoperative risk stratification and consideration of SIEA harvest or reinforced abdominal wall closure.



Effect of Mastectomy Type and Weight on Sensory Recovery Following Neurotised Autologous Breast Reconstruction

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Neurotised autologous breast reconstruction aspires to mitigate sensory deficits following mastectomy, maintaining protective function and sexual wellbeing to optimise psychosocial recovery. Although flap neurotisation improves sensory outcomes, the effects of mastectomy type and mastectomy weight on sensory recovery remain unexplored. Our study aspires to evaluate the effects of these two variables on objective sensory recovery after autologous reconstruction involving neurotised DIEP or SIEA flaps.
A single-surgeon retrospective study assessed breast sensation longitudinally utilising Semmes-Weinstein monofilaments at nine predefined regions. This occurred preoperatively and at three, six and twelve months postoperatively. A multivariable linear regression model examined the sensory recovery influence of mastectomy weight and mastectomy type: nipple-sparing mastectomy (NSM) versus skin-sparing mastectomy (SSM).
Global analysis of all breast regions of 154 flaps revealed NSM ($p = 0.01171$) and lower mastectomy weight ($p = 0.00017$) demonstrated significantly greater sensory recovery at three months postoperatively. Specific analysis of the nipple-areola complex (NAC) demonstrated NSM ($p = 0.00228$) and lighter mastectomies ($p = 0.01254$) elicit superior sensation outcomes at three months. Higher mastectomy weight was independently associated with worse sensory recovery over time ($\beta = +0.038$ grams per gram per time, $p = 0.006$).
Mastectomy type and flap weight significantly influence sensory recovery following abdominal-based neurotised autologous breast reconstruction. NSM and lower mastectomy weight are associated with superior sensory recovery of global breast skin and NAC. These findings underscore the importance of mastectomy technique and preoperative breast volume as determinants of sensory recovery, critical factors for surgical planning and preoperative patient counselling.



Clinical tools for assessment of plaster cast quality in patients with limb fractures in the Emergency Department: a systematic review

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Introduction: Limb fractures are common presentations to the emergency departments (ED). Effective fracture immobilisation depends on appropriate application and quality of plaster casts. Objective tools to assess cast quality are not routinely used in clinical practice. The objectives of this systematic review were to: (i) collate indices developed to assess cast quality in limb fractures; (ii) summarise the radiological measurement components of these indices.
Methods: Three databases (OVID MEDLINE, EMBASE and SCOPUS) were searched up to April 2026. Inclusion criteria were English-language observational and interventional studies reporting indices used to assess cast quality in limb fractures. Two reviewers independently assessed eligible studies. Risk of bias was assessed using the Newcastle–Ottawa Scale. Results were synthesised descriptively, with random effects proportion meta-analysis conducted to estimate the frequency of each index reported across studies.
Results: Forty-three studies were included; five cast quality indices were identified, including Cast Index, Gap Index, Padding Index, Three-Point Index and Canterbury Index. Thirteen common variables were synthesised across these indices. Most studies were observational, predominantly involving paediatric upper limb fractures. Cast Index was most frequently assessed, included in 38 out of 43 studies (proportion 0.88, 95% CI 0.79–0.98). Canterbury Index was the least frequently reported index (proportion 0.30, 95% CI 0.17–0.44).
Conclusion: The five cast quality indices, incorporating thirteen radiological measurement variables, provide a foundation for developing an objective checklist to evaluate cast quality in the ED. Further research is required to determine whether a "high-quality" cast based on these measurements correlates with clinically meaningful outcomes.



Reliability and Quality of YouTube Videos on Robotic Radical Prostatectomy: A DISCERN-Based Analysis

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Background: Patients increasingly use YouTube to obtain information regarding robotic-assisted radical prostatectomy (RARP); however, the quality and reliability of this information remain uncertain. To counter medical misinformation, YouTube introduced the “health shelf”, videos published by accredited organisations and professionals, although its effectiveness has not been evaluated.
Aim: To systematically review and assess the quality and reliability of YouTube videos relating to RARP for patient information using the validated DISCERN instrument and compare educational quality between health shelf, general search videos, institutional and individual uploaders.
Methods: Four YouTube search terms relating to RARP were searched in October 2025 using a signed-out incognito browser. Following the screening process, 24 videos were chosen. Video metadata were recorded and educational quality was assessed independently using the 15-item DISCERN instrument. Descriptive statistics, parametric and non-parametric statistical tests were performed. Results: The mean DISCERN score was 46.8 +/- 9.0, indicating moderate educational quality. Health shelf videos achieved higher mean DISCERN scores than general search (47.9 vs 40.3); this difference was not statistically significant (Welch’s p= 0.13, Mann-Whitney p=0.162). Video engagement metrics (views, likes and comments) demonstrated strong correlations with one another but were not associated with DISCERN scores.
Conclusion: YouTube provides moderately reliable educational content regarding RARP, although important gaps remain in treatment balance. While health shelf videos demonstrated higher average quality, larger studies are required to determine whether this represents a true advantage. Clinicians should continue directing patients towards evidence-based online resources while recognising YouTube as an adjunct rather than a replacement for professional advice.



Quality of life after head and neck free flap reconstruction: rural versus metropolitan outcomes

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Introduction: Centralisation of complex head and neck cancer surgery may improve clinical outcomes but raises concerns regarding equitable access for rural patients. This study compared patient-reported functional and psychosocial outcomes between metropolitan and rural/regional patients undergoing maxillomandibular free flap reconstruction.
Methods: A retrospective analysis of a prospectively collected database included adults undergoing maxillomandibular free flap reconstruction between 2008 and 2025 who completed at least one postoperative FACE-Q Head and Neck Cancer assessment. Participants were classified as metropolitan (RA1) or rural (RA2-RA5) using the Australian Statistical Geography Standard. Fourteen FACE-Q domains were compared at 3, 6 and 12 months using Wilcoxon rank-sum tests. A Bonferroni-adjusted significance threshold of p ← 0.001 was applied.
Results: Among 376 participants, 305 were metropolitan and 71 rural. FACE-Q data were available for 278, 242 and 202 participants at 3-, 6- and 12-months, respectively. No between-group differences were observed at 3 months. At 6- and 12-months, rural participants showed lower mean scores across several functional domains, including eating and drinking, oral competence, salivation, speaking and drooling distress. The largest 6-month difference was in drooling distress (73.4 versus 56.6; p = 0.001). At 12-months, nominal differences were observed across the same domains however no comparison met the prespecified adjusted significance threshold.
Conclusion: Outcomes were broadly comparable between groups, suggesting travelling for surgery does not affect selected functional or patient-reported outcomes in the first 12 months post-operatively. Future prospective studies should assess the impact of local access to rehabilitative services and different models of follow-up care.



Does formal research training lead to a career in academic surgery?

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Introduction: Research skills are paramount to develop evidence-based surgical practise, yet little evidence evaluate Australian programs designed for clinicians to develop research skills. This study aimed to evaluate the long-term academic and career outcomes for students completing a supervised dissertation within The University of Sydney (USYD) Master of Surgery (MSurg) degree.
Methods: A retrospective cohort analysis was performed for students who completed a dissertation within the USYD MSurg between 2010 and 2015. Student and dissertation information was extracted from university analytics and submission data. Google and AHPRA registry searches were performed to identify academic and clinical appointments, and practice location. PubMed, Web of Science and SCOPUS were used to identify publications attributable to the students, and their H-indexes. Statistical analysis included backwards stepwise binary logistic regression and negative binomial regression.
Results: There were 180 students were included in the analysis. 79% of students became surgeons as listed by AHPRA at the time of follow-up. Of whom, 44% also held a university academic appointment. No individual variables were identified to significantly predict becoming a surgeon. H-index was a significant predictor of becoming an academic surgeon (OR=1.132, 95% CI=1.038-1.235, p=0.005). Higher degrees by research (IRR=2.625, 95% CI=1.645-4.202, p←0.001), academic affiliation (IRR=1.779, 95% CI=1.267-2.500, p←0.001), and dissertation mark (IRR=1.025, 95% CI=1.005-1.046, p=0.015) predicted increased volume of research output since dissertation completion.
Conclusion: Engagement in a supervised research dissertation during the MSurg is associated with a high rate of subsequent entry into surgical training, sustained research productivity, and attainment of academic positions.



Evaluation of Remplir Nerve Wrap for Sensory Recovery Following Abdominally Based Autologous Breast Reconstruction

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Introduction: Preserving sensation following autologous breast reconstruction (ABR) is important for functional, psychosocial, and sexual well-being. Loss of protective sensation also increases the risk of accidental injury. Although collagen nerve conduits such as Remplir have demonstrated benefit in peripheral nerve repair, their role in sensory restoration following ABR is under-reported. This pilot study evaluated whether Remplir-assisted neurotisation improves objective sensory recovery following ABR.
Methods: A prospective cohort study included patients undergoing bilateral DIEP flap reconstruction by a single surgeon, with at least one breast neurotised using Remplir. Unilaterally treated patients formed a within patient paired cohort comparing Remplir-assisted with standard coaptation. Sensation was assessed using Semmes-Weinstein monofilaments across ten predefined breast regions, including the skin paddle, the region most indicative of flap-specific sensory recovery. Paired differences were analysed using Wilcoxon signed-rank testing.
Results: Sensory data were available for eight patients (median age 49 years; BMI 23.1). Among paired patients (n=5), median sensation across pooled flap regions did not differ between groups. However, skin-paddle sensory recovery was greater with Remplir, with protective sensation achieved in 50% of reconstructions compared with none of the controls.
Conclusion: Remplir-assisted neurotisation achieved protective sensation within the skin paddle, the region most representative of flap sensory function. Larger prospective studies are required to validate these findings and determine whether Remplir provides clinically meaningful improvements over standard nerve coaptation.



Barrier agents in enhancing post-haemorrhoidectomy recovery: a systematic review and network meta-analysis

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Introduction: Excisional haemorrhoidectomy is the gold standard for definitive treatment of high-grade haemorrhoids but is associated with substantial postoperative pain. This systematic review and network meta-analysis aims to evaluate the impact of topical barrier agents, such as sucralfate and petrolatum/petroleum jelly, on post-haemorrhoidectomy recovery.
Methods: A systematic review was conducted of prospective studies published across PubMed, Scopus, MEDLINE and Embase via Ovid from their inception to 27th November 2025, following PRISMA guidelines (PROSPERO CRD420251239498). A network meta-analysis was performed to synthesize data extracted on postoperative pain, wound healing, analgesic consumption, and complication rates.
Results: Twenty-one articles with 1,452 patients were included. Network meta-analysis showed statistically significant reductions in postoperative pain when using sucralfate at postoperative day one (MD -1.50 [95% CI -2.32, -0.67; p ← 0.001]), three (MD -1.50 [95% CI -1.95, -1.05; p ← 0.001]), seven (MD -1.54 [95% CI -2.19, -0.89; p ← 0.001]), and 14 (MD -1.10 [95% CI -1.45, -0.74; p ← 0.001]), and improvements in wound healing at days 21 (OR 3.17 [95% CI 1.40, 7.17; p = 0.006]) and 28 (OR 4.01 [95% CI 2.50, 6.44; p ← 0.001]). Petrolatum was not associated with any statistically significant difference in the outcomes of pain, wound healing, and analgesic consumption when compared to other treatment modalities.
Conclusion: Sucralfate offered significant improvements in pain and wound healing after excisional haemorrhoidectomy when compared to other barrier agents.



Intraperitoneal Local Anaesthetic in Colorectal Surgery : a systematic review and network meta-analysis

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Introduction: Enhanced recovery after surgery encompasses a multimodal approach, with perioperative analgesia serving as one of its cornerstones. Intraperitoneal local anaesthetic (IPLA) is a commonly used analgesic modality after colorectal surgery, targeting visceral pain, but evidence for its effectiveness remains limited. This systematic review aims to evaluate the effect of IPLA on pain and recovery after colorectal surgery.
Methods: Randomised controlled trials were retrieved from PubMed, Scopus, MEDLINE, Embase (via Ovid), and CENTRAL from inception to 10 March 2026, following PRISMA (PROSPERO: CRD420251241869). A network meta-analysis synthesised postoperative pain, opioid consumption, gastrointestinal recovery, nausea and vomiting, length of stay, and complications. Risk of bias was assessed using the Cochrane RoB 2 tool.
Results: Seven trials (457 patients) were included. Four studies administered IPLA via continuous intraperitoneal infusion, while three used bolus instillation. Postoperative pain was significantly reduced only by a bupivacaine + dexmedetomidine bolus administered before pneumoperitoneum deflation (SMD -1.02 [95% CI -1.87, -0.17]; p=0.019). Opioid consumption was reduced by four regimens: bupivacaine + ketorolac before deflation (SMD -3.66 [-4.75, -2.58]; p←0.001); double-bolus ropivacaine at pneumoperitoneum creation and before deflation (SMD -2.31 [-3.06, -1.57]; p←0.001); bupivacaine + dexmedetomidine before deflation (SMD -1.07 [-1.82, -0.32]; p=0.005); and single-bolus ropivacaine before deflation (SMD -1.03 [-1.68, -0.39]; p=0.002).
Conclusion: IPLA reduces postoperative pain and opioid consumption after colorectal surgery. Bupivacaine + ketorolac produced the largest opioid reduction, while bupivacaine + dexmedetomidine was the only regimen to improve both.



Immediate lymphovenous anastomosis during axillary dissection for breast cancer may reduce the lymphoedema risk

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Introduction: Breast cancer-related lymphoedema is a feared complication of axillary lymph node dissection (ALND), causing significant morbidity and reduced quality of life, including heaviness, pain, reduced mobility, disfigurement and recurrent cellulitis. Once established, lymphoedema is incurable, making early prevention essential. Lymphovenous anastomosis (LVA) is a microsurgical technique restoring lymphatic drainage by anastomosing lymphatic vessels to veins. Immediate lymphovenous anastomosis (ILA) performed at the time of ALND is a promising prophylactic strategy.
Methods: A prospective study of breast cancer patients undergoing ALND with ILA is ongoing, collecting data on patient factors, tumour biology, treatment and operative information, L-Dex and arm measurements, indocyanine green (ICG) assessment, and lymphoedema outcomes. Patients undergoing ALND without ILA during the same period (January 2024 to June 2025) served as a control group.
Results: ILA was technically feasible in all 24 cases, adding approximately one hour of operating time. Of 105 patients included (median age 54 years, range 27–85), lymphoedema developed in 8% (2/24) of ALND+ILA patients versus 27% (22/81) of ALND-only patients (Fisher's exact test, p=0.058). Median follow-up was 5 months (range 1–18) for ALND+ILA and 9 months (range 0–18) for ALND alone. Both ILA patients who developed lymphoedema received taxane-based chemotherapy and axillary radiotherapy. Univariate and multivariate analyses to identify predictors of lymphoedema are pending.
Conclusion: ILA appears safe and feasible, with potential to reduce both the incidence and severity of breast cancer related lymphoedema. Ongoing follow-up and analysis will clarify long-term significance and identify modifiable risk factors.



Modified Classification of Postoperative Complications in Plastic and Reconstructive Surgery

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Aim: Postoperative complications are a key indicator of surgical quality. Although the Clavien–Dindo Classification (CDC) is widely used to standardise complication reporting, it does not fully capture specialty-specific outcomes in Plastic and Reconstructive Surgery (PRS), where return to theatre (RTT) encompasses a broad spectrum of clinical severity. This study aimed to validate a modified CDC incorporating PRS-specific RTT criteria.
Methods: A retrospective review of PRS complications at a tertiary Australian centre between January 2012 and December 2021 was performed. Demographic variables, procedure characteristics, postoperative length of stay (PLOS), unplanned ICU admission, readmission, ICU length of stay, and composite length of stay (CLOS) were collected. Complications were graded using a modified CDC based on the indication for RTT and correlated with clinical outcomes.
Results: A total of 237 patients with postoperative complications were identified (mean age 52.4 years; 48.9% female). Infection, haematoma, and graft failure were the most frequent complications. Grade III complications accounted for 77.6% of cases, with 77.2% requiring RTT. Increasing complication grade was associated with significantly longer hospitalisation, with mean PLOS rising from 2.6 to 14.3 days ($p = 0.004$) and mean CLOS from 4.6 to 19.0 days ($p \leftarrow 0.001$). Complication grade correlated positively with both PLOS ($\rho = 0.26$, $p \leftarrow 0.001$) and CLOS ($\rho = 0.28$, $p \leftarrow 0.001$), supporting construct validity.
Conclusion: A PRS-specific modification of the CDC better reflects the heterogeneity of RTT and correlates with clinically meaningful outcomes. This framework provides a more representative method for grading complications in PRS and warrants prospective external validation.



Beyond the Child: A Systematic Review of Parental Wellbeing and Family Functioning in Paediatric Colorectal Conditions

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Introduction: Families of children with Hirschsprung disease (HD) and anorectal malformation (ARM) often experience ongoing caregiving demands extending beyond the child's medical management. This systematic review aimed to synthesise quantitative literature examining parental wellbeing and family functioning outcomes among families of children with ARM or HD.
Methods: Using the PRISMA protocol, a systematic search was conducted across Ovid Medline, Embase, Web of Science, PsycINFO, and CINAHL. Eligible studies included quantitative studies evaluating psychosocial outcomes relating to parents or families of children (aged ←18 years) surgically treated for ARM or HD. Data extraction and quality appraisal using the Joanna Briggs Institute tool were completed independently by two reviewers.
Results: From 1,205 records identified, nine studies met inclusion criteria and were synthesised without meta analysis due to methodological heterogeneity. Across studies, families reported challenges relating to psychological wellbeing, parenting stress, caregiving burden, and family functioning, particularly in the context of ongoing bowel dysfunction and faecal incontinence. However, there is also considerable variability in resilience and adaptation among families.
Conclusion: Current evidence suggests that ARM and HD may have significant psychosocial impacts on the broader family unit. Future research should prioritise longitudinal and family-centred approaches to better inform integrated models of biopsychosocial care.

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