

2020

ILLAWARRA SHOALHAVEN LOCAL
HEALTH DISTRICT

Research Activity Report

This Research Activity Report is a summary of the research that was conducted across the Illawarra Shoalhaven Local Health District (ISLHD) in 2020.

This version is abridged due to the COVID-19-related reprioritisation of activities in our health district, and is a synopsis of the research activities undertaken in 2020.

Please note that this report complies with Section 4.3.5 - *Reporting on research activities* found in Guideline [GL2011_01]: Research Governance in NSW Public Health Organisations which stipulates that:

1. Public Health Organisations are responsible for being aware of all research taking place within their premises, and reporting these activities to the public on an annual basis through their annual report or research reports.
2. To enable this, Public Health Organisations must require that all authorised research projects that are conducted at sites under their control provide progress reports at least annually and on completion.

This publication is proudly sponsored by the Staff Specialists of ISLHD and we thank them for their ongoing support.

This research report was prepared by (in alphabetical order):

Dr. Jose Cuenca
Dr. Kimberley Davis
Madeline Eyles
Janaye Fish
Mitch May
Dr. Marianna Milosavljevic
Bevan Nicholas
Dante Risi

Design & Styling: Dr. Kimberley Davis & Janaye Fish

Content: Dr Kimberley Davis & Janaye Fish

Editor-in-chief: Dr Marianna Milosavljevic

TABLE OF CONTENTS

2020 ISLHD Research at a glance	5
Foreword	6
Chief Executive, ISLHD	6
Executive Director of Research	7
Director of Research Operations	8
Research Output in 2020	9
Research Central	10
Research Governance	11
ISLHD Research Committee	12
Clinical Trials	16
Research News and Successes	17
Research Partners	25
Centre for Health Research Illawarra Shoalhaven Population (CHRISP)	26
Illawarra Health & Medical Research Institute (IHMRI)	28
Joint UOW/ISLHD PhD Programme	30
2020 Early Career Researcher Grant Scheme	32
ISLHD Research Projects	34
Aged Care, Rehabilitation, & Palliative Care	35
Allied Health	37
Cancer Care	42
Critical Care	45
Drug & Alcohol	47
Maternity & Women's Health	48
Medicine	49
Mental Health	54
Nursing & Midwifery	55
Paediatrics	57
Surgery	58
2020 ISLHD Publications and Conferences	63
Publications	63
Conferences	75

2020 ISLHD RESEARCH AT A GLANCE



In 2020, ISLHD clinicians collaborated with researchers at 212 locations in 36 countries around the world.



15 clinical trials

>200 peer reviewed publications



203 ISLHD staff involved in research*



11 research education workshops**



127 site-specific approvals:
- 15 Clinical Trials
- 14 Access requests

* Made known to the Research Directorate

** Significantly reduced in 2020 due to COVID restrictions

FOREWORD

Margot Mains

CHIEF EXECUTIVE, ISLHD

I am very proud to be providing my seventh foreword for the ISLHD Annual Research Report. This document provides an overview of all the work undertaken in research in ISLHD throughout 2020. Despite the unique and challenging environment of a worldwide pandemic, there was significant growth and activity in research across our district. I am truly pleased to see the progress being made in the research space and I am impressed with the number and quality of the research initiatives.



Some of these initiatives have included: the creation of an ISLHD Low and Negligible Risk (LNR) Review committee, the development of an Early Career Research Grant Scheme, the appointment of several key senior research leadership positions including the Director of Research in Critical Care and Emergency (Professor Kate Curtis), the Director of Clinical Trials (Dr Lorraine Chantrill) and the role of ISLHD Clinical Director of CHRISP (Professor Kate Curtis). I am very confident the new research leadership team (under the leadership of Associate Professor Bruce Ashford) will continue to grow research across our district and work collaboratively with our many regional research partners. This District has many unique opportunities through our current investment in strategic partnerships with the Illawarra Medical and Research Institute (IHMRI), Centre for Health Research Illawarra Shoalhaven Population (CHRISP) and the University of Wollongong (UOW). We will continue to leverage these strengths by investing and aligning research activities with our partners that also align with ISLHD strategic priority initiatives.

I was also very pleased to see so many research projects undertaken during 2020 despite the challenges presented by the world pandemic. There were 93 research projects undertaken last year but I was very impressed to see ISLHD setting a new record for the number of peer-reviewed publications in 2020. We reached a milestone of 200 ISLHD publications (primary author and co-authored), which represents a 300% increase in the number of publications compared to when I first arrived in 2014. This achievement is tangible evidence we are on the right track in promoting and facilitating research across ISLHD. I hope to see that number continue to grow over the coming years. I would particularly like to acknowledge our Executive Director of Research, Associate Professor Bruce Ashford, for his leadership, passion and commitment to research development within our organisation.

FOREWORD

Associate Professor Bruce Ashford

ISLHD EXECUTIVE DIRECTOR OF RESEARCH

Every aspect of our workplace was impacted by the pandemic of 2020. Included in the new paradigm was the conduct of research during COVID. As many people as possible worked from home during 2020, and the regular interaction that we have always known in clinical research was not possible.



So it is that the results of our research effort and output during 2020 is even more impressive. Clinically relevant projects were progressed, sentinel papers in very high impact journals were published and our grant success was some of the highest ever.

This success in the face of seeming adversity was not an accident. The momentum of clinical research within the LHD is gaining year on year. That effort is sustained by the staff in research operations, and is focussed on our patients and their benefit. We are fortunate to have the support of the Board and our Executive, and we have done our best to lay the foundations to enable success to be sustained over the coming years.

We will in 2021 enact a new strategic research plan. This plan is built on supporting our teams and growing our partnerships. We expect to see gains in research and clinical trials over the next few years, and we aim to engage more deeply with UOW (including the School of Medicine and CHRISP) and IHMRI.

Ultimately our work is about patient care and improved outcomes. We do well to keep this in mind, for it both sustains the effort and keeps the focus relevant. Thanks again to all of those who do and support research within ISLHD - our patients thank you.

FOREWORD

Clinical Associate Professor
Marianna Milosavljevic

ISLHD DIRECTOR OF RESEARCH OPERATIONS



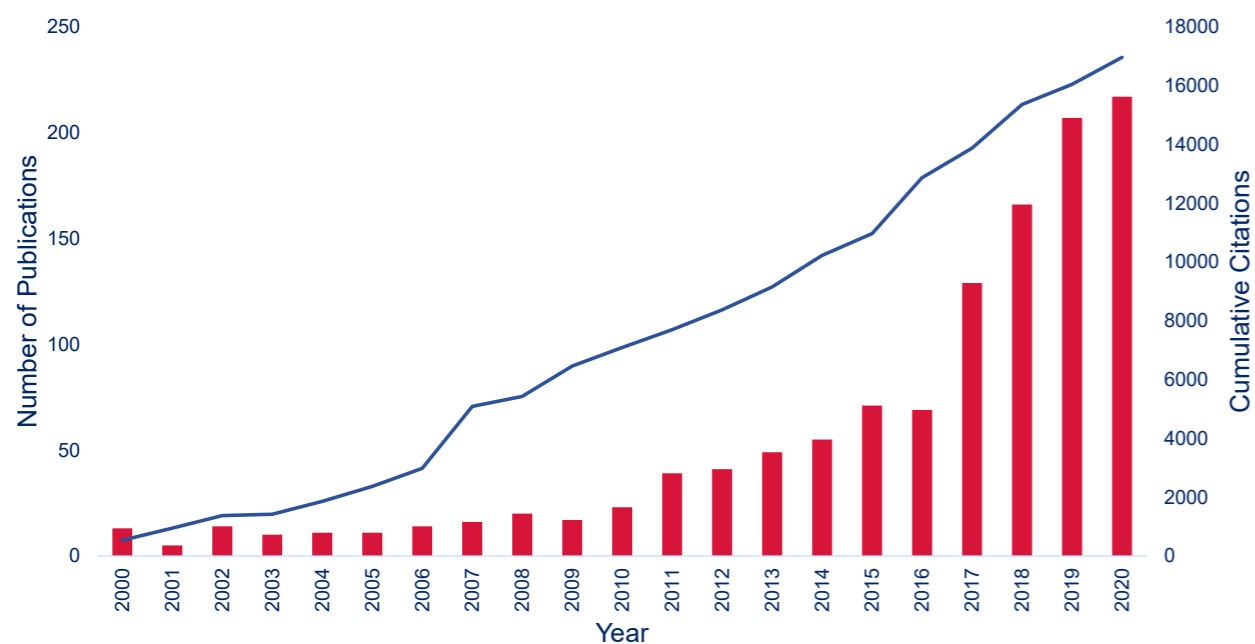
The last year presented all of us with many challenges and despite the upheaval and disruption caused by a world pandemic, research across ISLHD managed to steadily grow.

In my position I have been very fortunate to see this growth first hand and I am encouraged by the very positive changes over the last 18 months. Under the leadership of Associate Professor Ashford we have achieved a number of significant milestones including the establishment of a local low and negligible risk review committee, the launching of ISLHD's first Early Career Research Grant Scheme, and the appointment of the Director of Research in Emergency and Critical Care, Professor Kate Curtis.

In the 2020 report you will find a summary of all the research projects undertaken across our district. Last year we reached a milestone of 200 peer reviewed publications as well as 15 Clinical Trials, 11 education research workshops and 127 site specific approvals. This is tangible evidence the investment made by the ISLHD is resulting in far more research activity and greater research outputs. It is interesting to note there has been significant growth since 2015, which corresponds with the investment into Research Central which occurred in late 2014.

The graph below shows the steady growth of publications and citations across the district since 2000. It is a privilege to be part of a team who strive to make it easier for all staff to undertake Research.

ISLHD Publications 2000-2020



As we know, research is the foundation of evidence-based practice, and I hope you enjoy the 2020 Research Activity Report.

RESEARCH OUTPUT IN 2020

NEW PROJECTS, PUBLICATIONS, CONFERENCES AND GRANTS

Clinical Stream	New Projects	Publications	Conferences	Grants
Aged Care, Rehabilitation & Palliative Care	6	4	1	1
Allied Health:	3	1	1	1
Dietetics	4	8	-	4
Physiotherapy	4	4	-	1
Psychology	3	1	-	1
Ambulatory & Primary Health	-	1	-	-
Drug & Alcohol	5	4	-	3
Public Health	-	7	-	-
Cancer Care	10	45	7	5
Critical Care	5	31	-	3
Health Management	-	2	-	-
Kids & Families	4	2	-	-
Maternity & Women's Health	2	1	-	1
Medicine:	2	3	1	-
Cardiology	2	2	-	-
Endocrinology	1	5	-	2
Gastroenterology	5	2	1	1
Infectious Diseases	4	8	-	3
Neurology	1	2	-	-
Renal Medicine	1	8	3	-
Respiratory Medicine	2	3	-	-
Mental Health	3	3	1	3
Nursing & Midwifery	8	8	-	2
Surgery:				
Anaesthetics	1	10	-	-
Colorectal	1	17	-	-
Ear, Nose & Throat	-	13	-	-
Head & Neck	3	2	1	3
General	9	7	-	1
Neurosurgery	1	3	-	-
Orthopaedic	2	-	-	-
Vascular	1	2	1	-
GRAND TOTAL	93	209	17	35



RESEARCH CENTRAL

WOLLONGONG HOSPITAL, BLOCK C, LEVEL 8

Research Central fosters the development of research skills through educational workshops, mentoring programs and resource allocation.

We provide individual project support including:

- Assistance with developing research questions or hypotheses
- Study design and planning
- Guidance with statistical analysis
- Review and feedback for manuscripts
- Assistance with dissemination through appropriate channels, and available resources

Research Central staff are also available to guide and support researchers through ethics and governance processes. We propagate research achievements of clinicians through appropriate channels, as well as link clinicians to researchers with specific expertise or facilitate collaborations with other entities for greater research impact.

Research Central fosters research acculturation through establishment of relational events, and preparation of research specific, ISLHD-specific publications, in addition to advocacy, promotion and support for all levels of research for all ISLHD staff.

Our Vision

Building a self-improving health system

Our Mission

Help ISLHD clinicians do research

ISLHD EXECUTIVE DIRECTOR OF RESEARCH

Associate Professor Bruce Ashford

DIRECTOR OF RESEARCH OPERATIONS

Clinical Associate Professor Marianna Milosavljevic

ADMINISTRATIVE SUPPORT

Mitch May

RESEARCH CLINICIANS

Lina Baytieh
Dr. Jose Cuenca
Dr Kimberley Davis
Madeline Eyles
Janaye Fish
Dr Lyndel Hewitt
Bevan Nicholas
Dante Risi



RESEARCH GOVERNANCE

WOLLONGONG HOSPITAL, BLOCK C, LEVEL 8

The Research Governance team advises and liaises with investigators, sponsors, and other stakeholders regarding the preparation of applications for site authorisation and ethics processes.

The team fosters effective communication with universities and research institutes, particularly in the promotion and management of collaborative research programmes and grants management.

The Research Governance team manages and assists with:

- Site-Specific research governance review and authorisation in accordance with NSW Health Policies and Guidelines, including associated contracts and support documentation.
- Intellectual Property arising from health and medical research that involves staff or resources of ISLHD.
- Honorary Research Associates appointments and ISLHD-IHMRI researcher affiliations.
- Requests from third parties for access to patient data and transfer of human tissue.

ISLHD EXECUTIVE DIRECTOR OF RESEARCH

Associate Professor Bruce Ashford

RESEARCH GOVERNANCE OFFICER

Kristy Pierce

ADMINISTRATIVE SUPPORT

Leigh Lees

ISLHD RESEARCH COMMITTEE

BACKGROUND TO THE ISLHD RESEARCH COMMITTEE

The ISLHD Research Committee was established in October 2019, led by its Chair Associate Professor of Surgery Bruce Ashford. A/Prof Ashford has a clear philosophy - make it easier for clinicians to do research. He believes this can be achieved by ensuring that the district's driving philosophy is to facilitate research. The committee members share this vision, and as the majority are active clinicians who also do research they too are keen to see research grow across the district.

This vision and approach has already managed to achieve some notable wins in a very short time frame. In 2020, this included:

- Embedding of the Low and Negligible Risk (LNR) Review Committee within ISLHD. This committee enables ISLHD staff with low or negligible risk research projects within the district to receive ethical and governance review in a timely manner, with the average decision turnaround currently at 5 working days.
- Establishing the Early Career Researcher Grant scheme. In 2020, this was three \$50,000 grants which are each supporting a research project that will benefit the Illawarra and Shoalhaven community.

ISLHD RESEARCH COMMITTEE MEMBERS

Associate Professor Bruce Ashford - CHAIR

A/Prof Ashford is a general surgeon with over 30 years of experience, and was commenced as the Associate Professor of Surgery in November 2018. He was appointed as the Chair of the ISLHD Research Committee in October 2019, and ISLHD Director of Research in January 2020. He is very keen to see the district establish processes that make it easier for clinicians to do research. His first two initiatives include the Early Career Grants Scheme and the establishment of a local LNR committee.



Associate Professor Daniel Brungs

A/Prof Brungs works as a medical oncologist at Wollongong Hospital, and has completed a PhD in translation research. He is keen for the district to develop stronger links between the hospital and the university, and to increase capacity for translational research within the Illawarra. He hopes that by being part of this committee he can help influence the direction and support the creation of a stronger and more vibrant research culture.



Dr Lorraine Chantrill

Dr Chantrill is a Medical Oncologist and considers herself a clinician-researcher. She has a PhD in Pancreas Cancer Genomics, and is an ongoing and active participant in research. She believes that the creation of evidence should be embedded in our clinical practice, driving the very best outcomes for our patients and for our community as a whole. Dr Chantrill would like to see the clinical trials portfolio of ISLHD expanded into diverse clinical areas across the entire district including rural patients. The Research Committee will enable her vision through support at all levels of our service.



Dr Steven Craig

Dr Craig is a surgical oncologist and translational researcher with a specific interest in the development of prognostic biomarkers and assays that can tailor cancer treatments, and has been involved with research within ISLHD since his early days as an intern at Wollongong Hospital. He hopes that participating in this committee will help to foster a strong research culture within our junior health professionals, and make research more accessible to our busy clinicians. Being based in the Shoalhaven, Dr Craig also wants to improve access to clinical trials for Shoalhaven-based cancer patients.



Professor Kate Curtis

Professor Curtis is Director of Critical Care Research ISLHD, Clinical Director of CHRISP, RN at Wollongong ED and Professor of Emergency and Trauma Nursing at the University of Sydney. Her translational research program focuses on improving the way we deliver care to patients and their families, and has attracted more than \$8 million funding. Professor Curtis' most recent success is a \$1.5 million NHMRC partnership grant to upscale an emergency nursing model of care piloted in the Illawarra to more than 30 hospitals nationally. She is the world's most published author in the field of Trauma and Emergency nursing, and has mentored more than 50 clinicians in research projects.



Dr Meghan Dares

Dr Dares is an Australian-trained orthopaedic surgeon with extensive surgical experience. She treats patients with all foot and ankle conditions as well as general orthopaedic trauma.

Dr Dares has gained international subspecialty experience in both foot and ankle surgery and trauma. In 2016 she completed a fellowship at one of South Africa's busiest trauma centres (Tygerberg Hospital, Cape Town). During that time, she gained extensive experience in the application of circular frames, a skill she hopes to use for diabetic foot reconstructions.

Dr Dares is committed to research, and has an interest in streamlining clinical practice, having presented at an international level on theatre and fracture clinic efficiency. Her interest in being involved in the committee stems from a desire to streamline the approval process for low risk quality improvement type studies. These are frequently presented at orthopaedic conferences, both at a national and international level, and often drives clinical practice improvement.



Dr Sue Fitzpatrick

Dr Fitzpatrick is the ISLHD Executive Director Allied Health, Disability Inclusion and NDIS lead. She has a professional background as a speech pathologist, and was awarded a Doctor of Health Science in 2016 for her examination of clinical supervision in allied health. She is an active researcher in allied health with a particular interest in inter-professional collaboration and disability. Dr Fitzpatrick believes that Allied Health are in a unique position to increase their practice driven research – initiated from and embedded within a practice community. This takes research questions from health professionals to address issues relevant to the clinical setting.



Dr Susan Furber

Dr Furber is the Research and Evaluation Coordinator with the ISLHD Health Promotion Service. She has a conjoint Senior Lecturer position with the School of Public Health and Community Medicine at the University of NSW. She received degrees from the University of New South Wales (PhD), University of Sydney (MPH); NSW Ministry of Health (Applied Graduate Diploma of Applied Epidemiology); and completed postdoctoral training at the Bowman Gray School of Medicine, Wake Forest University, North Carolina.

Dr Furber's research interests are in population health and have included studies on lifestyle interventions to promote healthy weight and physical activity in people with cardiac disease, health impact assessments on local government urban plans in relation to physical activity, nutrition and social cohesion, falls prevention, and the role of soup kitchens in disadvantaged areas.



Dr Lyndel Hewitt

Dr Hewitt is a Research Clinician for the Division of Surgery, and was awarded a PhD from the University of Wollongong. She is passionate about facilitating research within ISLHD and assisting researchers to complete their projects to publication, as well as translation within the health system. She hopes that by being part of the research committee she can assist to develop a pathway for emerging and existing clinical researchers to enhance high quality research productivity within ISLHD.



Dr Peter Jansen

Dr Jansen joined ISLHD as Executive Director of Medical Services & Clinical Governance in March 2020. He was previously Principal Clinical Advisor for the New Zealand Accident Compensation Corporation, focussing on treatment injury claims and prevention of injuries caused by medical treatment. He has also worked in pharmaceutical medicine, indigenous health research, medical education and health management. Dr Jansen hopes to maintain and strengthen the linkages between the LHD and other stakeholders in the research community.



Clinical Associate Professor Andrew Jones

A/Prof Jones is a Respiratory & Sleep Disorders Physician and the current Head of Department in Respiratory Medicine at Wollongong Hospital. He completed his specialist training at Royal Prince Alfred Hospital and Concord Hospital in Sydney and has worked as a Staff Specialist in General & Respiratory Medicine in ISLHD since then. He has been an Honorary Clinical Associate Professor of Medicine at the University of Wollongong since 2017, and previously held the role of Director of Physician Training at Shellharbour Hospital until 2019.

A/Prof Jones' clinical and research interests include Asthma, Thoracic Oncology and Obstructive Sleep Apnoea. His research recently has focussed on treatments other than CPAP for Obstructive Sleep Apnoea in conjunction with Professor Stuart MacKay.



Professor Stuart MacKay

Prof MacKay completed his medical degree at the University of NSW in 1998, graduating with honours. His Fellowship in Otolaryngology and Head and Neck Surgery was completed in 2006, and in 2007 he completed a Fellowship in Airway Reconstruction Surgery for Snoring and Obstructive Sleep Apnoea which also involved further training in Head and Neck and Laryngology (Voice). He is the Vice President of International Surgical Sleep Society, on the clinical committee of the Australasian Sleep Association, and a reviewer for journals Sleep and Breathing, and Laryngoscope.

Prof MacKay has recently published a multicentre RCT as lead author in JAMA, and looks forward to helping others with setting up hypotheses, design and outcome measures in similar large trials.



Margot Mains

Ms Mains commenced as the Chief Executive of the Illawarra Shoalhaven Local Health District in October 2014. She has extensive health executive leadership and management experience at both hospital and Local Health Network level.

Ms Mains' previous roles include Chief Executive Officer, Northern Adelaide Local Health Network, and prior to that she held senior leadership roles in the New Zealand Health system, as Chief Executive Officer, Capital and Coast District Health Board and Chief Executive Officer, Mid Central Health.



Clinical Associate Professor Marianna Milosavljevic

A/Prof Milosavljevic is the Director of Research Operations, and her job is to help clinicians do research. Marianna has 30 years' experience as a clinical dietitian, and completed her PhD in 2013. Since then she has been working in research and her role on the committee is to implement the initiatives developed by this committee. She has seen many positive changes since she commenced working in research support, and believes that having a committee comprised of staff who are frontline clinicians will help make a real difference to the way research is supported throughout the district.



Dr Dylan Mordaunt

Dr Mordaunt is a Paediatrician by training, and has extensive experience in a range of areas relating to Medical Services as well as Clinical Research. He is currently the Director of Medical Services (DMS) for the ISLHD Shoalhaven Hospital Group (SHG).

In his current role, Dr Mordaunt has a direct hand in the development of District policy as well as the enactment of state and national policy. His research interests focus on the utility and application of machine learning and other innovative technologies in the optimisation of health care service planning. He has published and presented in areas such as those which use health data to understand factors which contribute to diverging pathways in the patient journey through their hospital admission, or to identify patients who are at risk of requiring readmission.



Dr Manash Saha

Dr Saha is a clinician scientist, trained in both Bangladesh and Australia. Following specialisation in General and Renal Medicine, he commenced his career in Bangladesh, later moving to Australia where he obtained his PhD at Macquarie University and FRACP from the Royal Australasian College of Physicians. During the course of his doctoral degree, he identified a new underlying mechanism of hypertension in Chronic Kidney Disease (CKD), and was awarded the Deputy Vice-Chancellor (Research) Commendation award.

Dr Saha is currently working as a staff specialist in the department of General Medicine at Wollongong Hospital, and is involved with different research groups at both Macquarie as well as Charles Sturt Universities. His main research areas of interest are cardiovascular diseases in CKD, community based modelling for prevention of chronic disease and weight disorders, as well as the use of artificial intelligence in risk assessment of different diseases.



Dr Tanya Selak

Dr Selak is a specialist anaesthetist working in public and private practice in Wollongong. She commenced anaesthesia training in Auckland, and moved to London to continue her training before immigrating to Australia. She was the joint Head of Department at Wollongong and Shellharbour hospitals for five years, is a member of the International Advisory Panel of Anaesthesia Journal, completed a Masters of Health Administration and is an ANZCA Councillor. Her main area of clinical interest is head and neck anaesthesia. Dr Selak has a large social media presence where she explores novel communication strategies to promote interdisciplinary and international collaboration - she can be found on Twitter as @GongGasGirl.

Dr Selak believes that research is fundamental to our understanding of disease and by extension it



is essential to advance care for our patients. However, research is not easy with high competition for funding and most work completed in addition to a full-time work load. Navigating complex processes can be difficult and disheartening particularly for a rotating workforce. She is interested in encouraging engagement in high quality research in our vibrant and busy district, bringing a pragmatic approach to decrease barriers faced by clinicians.

Clinical Associate Professor Natalie Smith

A/Prof Smith trained in anaesthesia in the UK, but returned to her native Australia over 15 years ago. Along with a diverse clinical practice, she has pursued interests in education, training, and clinical research. Improving the perioperative management of patients, especially in high risk groups such as the frail elderly and people with obesity, is her main ongoing clinical and research priority.



Dr Stuart Tan

Dr Tan is a specialist physician in trauma and rehabilitation medicine, with a special interest in interventional pain management. He has many years' experience in design, implementation and translational of research projects in a wide range of area with in NSW Health. As there is a scarcity of research in some clinical departments, Dr Tan would like to see increased research activities in ISLHD.



Dr Kia Wallwork

Dr Wallwork's substantive role is in leading a team of healthcare redesign and project management specialist for ISLHD. The team is responsible for assisting all staff to deliver healthcare improvement and innovation by providing tools, resources, education, and coaching to the professionally diverse workforce for the ultimate benefit of the District's healthcare consumers.

In a previous life, Dr Wallwork's physical science research career revealed the atomic structure of minerals and materials used in energy storage. She also played a leading role in building the Powder Diffraction Beamline at the Australian Synchrotron in Melbourne, where she enabled the research of National and International researchers.

Dr Wallwork is passionate about empowering staff and teams to build and use the evidence base, and identifying and implementing healthcare improvement. She is delighted to be part of the Research Committee at ISLHD, providing strategic vision, and supporting the research of clinicians and non-clinicians alike. Her desire is to see a strong community of research practitioners across the Illawarra and Shoalhaven who are working in partnership to an innovative vision, who contribute to and use the evidence base, and who are leading the way in the region, and in their fields.



Professor Val Wilson

Prof Wilson holds a joint appointment between ISLHD and the School of Nursing at UOW as the Professor of Nursing Research. Her research focus is on person centred research and transforming the care context to improve outcomes for patients, their families, staff and the organisation. A key aspect of this is in research capacity building for staff to enable them to undertake clinically relevant research through either formal (HDR) or informal pathways.

Prof Wilson currently has 13 HDR students, the vast majority of whom are ISLHD staff. She is keen to bring her expertise in building research capacity over the last twenty years within a healthcare setting to the committee. She also brings her twenty five years' experience of working in joint positions across healthcare and the academic setting.

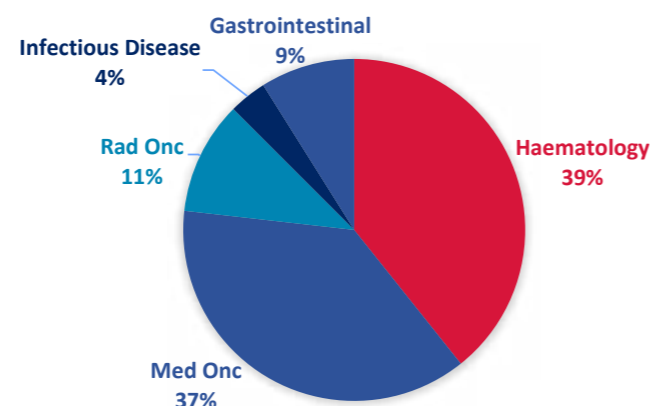


CLINICAL TRIALS

CLINICAL TRIALS DIRECTOR, DR LORRAINE CHANTRILL

Clinical Trials are an integral component of a learning healthcare environment as they help grow and shape our knowledge of diseases and their treatments.

2020 was a challenging year for many, and in Clinical Trials whilst some were placed on hold, our patient treatments were not stopped due to the potential impact on a patient's cancer. Australia's management of the pandemic put it in the spotlight for its ability to control the virus and maintain clinical trial activity - this success has resulted in an influx of trial feasibilities for the country as we grapple with a growing sector in the healthcare industry.



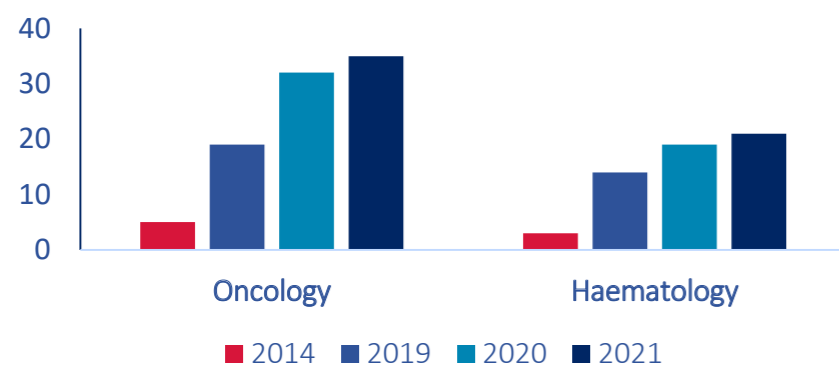
Last year our ISLHD Cancer Clinical Trials portfolio grew to over 50 clinical trials. We now have 14 FTE supporting more than 150 patients on haematology, medical oncology, and radiation oncology clinical trials. Our expertise is also being leveraged to support our colleagues in Infectious Diseases and Gastroenterology with their trial portfolios.

Excitingly, in 2020 the Office of Health and Medical Research through clinicaltrialsNSW won a \$30.6million MRFF grant to support embedding clinical trials into routine healthcare. Included in this program of work was:

- Regional, Rural and Remote Program Grant of \$18.6 million to establish 3 Clinical Trial Support Units (CTSU) across NSW with an aim to increase access to clinical trials for patients in these communities. ISLHD is collaborating with 3 partners for this program grant – ACT, Southern NSW and Murrumbidgee – for the Southern Cluster CTSU.
- Education and workforce development program
- Consumer engagement and awareness campaign (specific to clinical trials)

Another initiative to embed clinical trials into routine care includes the introduction of accreditation standards specific to clinical trials. All LHDs undertaking clinical trials will be assessed according to these new standards from June 2021.

Active Clinical Trials



These are exciting times for Clinical Trials as we see more emphasis on them being a treatment choice in our healthcare system, as well as the increased use of technology to support growing numbers of patients with access to clinical trials closer to their homes – watch this space!

RESEARCH NEWS AND SUCCESSES

NEWS STORIES FROM ISLHD RESEARCH DURING 2020

NEW DIRECTOR OF CRITICAL CARE RESEARCH FOR ISLHD



Congratulations to Professor Kate Curtis who, after an external recruitment process, has been appointed as Director of Critical Care Research for ISLHD, incorporating the Director of Emergency Research role. In line with the ISLHD strategic plan, Professor Curtis will be accountable for the provision of leadership, expertise and development of research literacy amongst clinicians within emergency, anaesthetics and intensive care clinical areas.

The key functions of the role are to:

- Lead and/or facilitate emergency based research and translation in line with ISLHD priorities
- Coordinate and supervise research projects for Emergency Medicine trainees in ISLHD to complete the FACEM research requirement
- Ensure a governance structure is in place for the approval, conduct and monitoring of all studies across the division of Critical Care and Emergency services.
- Maintain clinical currency by regularly working alongside clinicians in the clinical context
- Facilitate ISLHD participation in national and international clinical trials with groups eg ANZICS, ACEM, Sydney HEMS and UOW.

RESEARCH ON MENTAL HEALTH - ISLHD AND CHRISP WORKING TOGETHER.

ISLHD clinicians in collaboration with researchers from the Centre for Health Research Illawarra Shoalhaven Population (CHRISP) are shedding light into the use of health services for mental disorders.

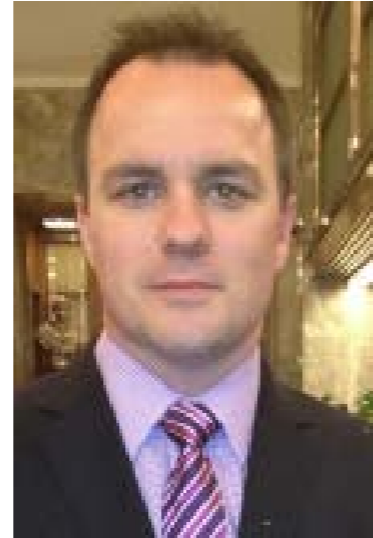
According to the World Health Organisation, mental disorders and their impact on health continues to grow in all countries of the world. In Australia, the prevalence of mental disorders in 2017-2018 was 20.1% based on figures from the Australian Bureau of Statistics. Patients with mental disorders, depending on the complexity and severity of the mental health condition, may use several health services across community, emergency department and inpatient care settings.

To better understand health care use among patients with mental disorders, a team of researchers led by Professor Nagesh Pai have analysed routinely-collected hospital data that was gathered over a period of more than 5 years. Using data-driven methods, the team of researchers were able to distinguish patterns of service use and factors correlating with these patterns. The researchers found, for instance, that a diagnosis of schizophrenia and a previous history of self-harm were associated with ongoing frequent admissions and prolonged hospitalisations.

The findings of this study will be published in the leading psychiatry journal of the Asia-Pacific region, The Australian and New Zealand Journal of Psychiatry. The study, which is the result of an ongoing research collaboration between ISLHD and CHRISP, represents an important step in further investigating and designing effective interventions to improve health outcomes among ISLHD patients.

ENT SURGEON'S STUDY PUBLISHED IN PRESTIGIOUS JOURNAL

Professor Stuart MacKay, an ISLHD Ear, Nose, and Throat (ENT) surgeon, has recently published a study in one of the most prestigious medical journals in the world – The Journal of the American Medical Association (JAMA).



The Sleep Apnoea Multilevel Airway Surgery (SAMS) trial investigated the efficacy and safety of multilevel airway surgery for adult Obstructive Sleep Apnoea (OSA) utilising a randomized clinical trial design. The study is one of the first to provide strong evidence highlighting the efficacy and clinical effectiveness of multilevel airway surgery as an intervention for adult OSA, when compared to less invasive medical treatments. Here Stuart reflects on his first author experience with this publication...

"The work itself in helping to organise, design and execute the trial was arduous but paled into insignificance when compared to the manuscript writing and revisions. These efforts involved a smaller team of five who laboured tirelessly to correct, repair and tweak my original draft over a 24 month timeframe that saw us through submissions and re-submissions to both the New England Journal and JAMA. We (not just the 5, but around 18 other co-conspirators) all felt the trial was worthy of publication in a leading Generalist Medical Annal and applied perseverance and dedication accordingly.

"Most interesting in the process was working with sleep physicians and physiologists on a surgical paper. This brought me to the realisation that input from others who harboured greater doubts over the role of surgery than myself actually strengthened the manuscript and its message. Certainly, compromises had to be made on various beliefs and principles to accommodate the experience and interpretation of others – that includes field expert reviewers and journal editorial boards.

"Ultimately, we wanted a paper that presented detailed primary, secondary and exploratory outcomes and allowed the reader to draw their own conclusions. The only real post-publication disappointment that this philosophy may have contributed to was a poorly written editorial that missed many critical concepts and findings our trial displayed and misunderstood the very premise of salvage surgical therapy. The key message is you can strive to produce good research but you can't manufacture insight in all who read your work.

"It would be remiss of me not to mention the outstanding contributions provided by all collaborators across the 7 different sites throughout Australia, including but not limited to manuscript writing colleagues such as Professor McEvoy, Professor Catchside, Richard Woodman and Charmaine Woods but also to those who helped conduct the study, such as Andrew Jones, Terry Sands and Natasha Umrigar locally. But the last and most important nod goes to Professor Ed Weaver – an outstanding clinician researcher with a sharp academic mind who would answer my calls, texts and emails day and night to make this work everything it could be...."

SEED PROGRAM GROWS INTO UOW-LED GRANT PROJECT

From fire, to flood, to pandemic, and beyond, Milton Ulladulla Hospital's SEED program has grown into a successful University of Wollongong (UOW)-led grant from the National Health and Medical Research Council (NHMRC). The program has formed the basis of a UOW-led Medical Research Future Fund grant. Awarded \$425,803, the project aims to explore mental wellbeing, health and recovery from recent events experienced by the Illawarra Shoalhaven community.



ISLHD social workers Padmini Pai and Lis Murphy are involved in the study, which is a collaboration between ISLHD, Waminda South Coast Women's Health & Welfare Aboriginal Corporation, and UOW. The project aims to use the principles from the ISLHD-developed SEED Program to articulate practices that assist communities regain their sense of belonging, hope for the future, and control over their lives post disasters. By developing recommendations for place-based, culturally-safe approaches to enhancing rural mental health support in response to these disasters, the research team hope to develop a model of care that mitigates the mental health consequences of cumulative trauma.

Planting the SEED

ISLHD staff member, Padmini Pai was the Project Lead for the Fit-for-Frailty Program. Nearing the end of this project, the fires of summer 2019/20 raged. In a small town such as Milton, the staff are the community. Facilitating and listening to staff in Milton over the course of five months saw the blossoming of an important and rewarding program. Padmini worked closely with Stuart Emslie (DON of MUH); their collective leadership led to the evolution of the SEED Program and its success.

About the SEED program

SEED: **S**tability, **E**ncompass, **E**ndurance, **D**irection

The SEED program is centred on determining staff needs and implementing initiatives to address these needs. Core concepts include community healing, resilience, facing grief and loss, and developing coping strategies moving forward. Working with staff, the project team received 84 suggestions, seeded into five initiatives. Every step of the process was participatory and about what staff wanted.



SEED program evolution to Coledale and Bulli

Utilising the learnings from MUH staff, the SEED II program supports Coledale and Bulli staff to "identify, collaborate and find a common voice that fosters promotion and implementation of staff wellness in times of need" (SEED II report). One of the many important take-away points from the process has been to never underestimate the power of a small group and individual stories.

We would like to congratulate all involved on their success of both the SEED program, and the NHMRC grant



FROM MOLLYMOOK TO KRAKOW: SHOALHAVEN SURGEON MAKES A SPLASH AT THE 2019 WORLD CONGRESS OF SURGERY.

In 2019, Dr Steven Craig, a Shoalhaven surgeon, received the prestigious 'Selwyn Taylor Award for Best Scientific Presentation' at the 2019 World

Congress of Surgery, held in Krakow, Poland. This award was for the creation of a novel gene assay that accurately predicts cancer recurrence for papillary thyroid cancer and that outperforms the current available method for establishing the level of risk. The research has enormous potential to improve the way these cancers are treated and managed and is a prime example of how translational research changes the way we provide clinical care.

Accolades as a research surgeon was a world away from his Mollymook persona as one of the local surf rowing crew, who recently made the quarter finals of the Australian Open Surf Life Saving event. It has been a 15 year-long journey for Dr Craig, from his first year as an exercise science student to his present role as an accredited surgeon. He was raised in Newcastle but considers himself an Illawarra local since he moved to our region to undertake his undergraduate degree, a Bachelor of Exercise Science at UOW. At that stage he had no plans to become a medical doctor, but his exposure to the anatomy and physiology subjects sparked his interest in medicine.

At the time he completed his initial degree there was no medical training program at UOW, so he completed the four year post graduate medical training program at the University of Sydney. He then returned to ISLHD to undertake his training as an intern and then a resident, and after the post graduate medical training he embarked on a six year accredited training program for surgery. During this time he also completed a Masters in Surgery. After this, he was successful in obtaining a two-year Surgical Fellowship at Calgary University, where he developed his research interest in thyroid cancers.



Receiving his award from Professor Gerard Doherty, the President of the International Association of Endocrine Surgeons and Professor of Surgery Harvard Medical School.

Since returning to the Shoalhaven, Dr Craig has taken up a position at Shoalhaven Hospital and now works across the district as a surgeon. Nevertheless, within his very busy clinical schedule he is still committed to continuing his research interest and would like to see research continue to grow across the region. Dr Craig and his family love living in the region, so he will continue to build his research portfolio within ISLHD over the foreseeable future.

ISLHD CLINICAL UNITS COLLECT DATA FOR INTERNATIONAL IMPAKT STUDY

The iMPAKT Study is an international study that has taken place in six clinical units across ISLHD since March 2018. It uses a mobile health app to capture data on the patient experience over three cycles and measured person-centred practice using eight key performance indicators (KPIs).

During each of the three cycles, nurses and midwives collected patient surveys, observations of practice, documentation audits and patient stories. The data was collated in a report that was given to staff to discuss and evaluate person-centred practice in their unit. Teams used the data generated by the app with other available data sets such as IIMS, SAQ etc. to celebrate and improve person-centred practice, and developed an action plan at the end of each cycle.

A number of practice changes have been made over the last two years, including documentation templates, changes to patient call buzzers, changes to nursing care models, shift planning templates, enhanced orientation packages, patient information boards and staff culture champions. The data sets also showed improvement in average scores across all six units from cycle one to cycle three.

Staff involved in the study have provided valuable feedback that is now informing a sustainability plan which will guide future direction and use of the app which is likely to be rolled out in LHDs across other states in Australia and Northern Ireland, and a number of publications are in progress.



Emma Radbron, Nurse Manager - iMPAKT



The Nursing and Midwifery Research Unit in 2020
L-R: Professor Val Wilson, Rebekkah Middleton, Emma Radbron, Maree Parker, Alera Bowden, Denise Edgar

UPDATE FROM THE NURSING AND MIDWIFERY RESEARCH UNIT

The Nursing and Midwifery Research Unit (NMRU), under the leadership of Professor Val Wilson, contributes to ISLHD's research agenda and is dedicated to enhancing patient care. The Unit builds research capacity in nurses and midwives and supports District initiatives through research. There's little doubt that the spotlight on health research has been focussed on COVID-19 across the globe in 2020, but there's much, much more going on!

Locally, ISLHD's NMRU has continued to flourish with eight studies currently in progress, including the incredibly successful Safety Attitudes Questionnaire (SAQ). More than \$274,000 has been invested in this project, which has seen an improvement in the District's safety culture. This ultimately leads to better patient outcomes, and therefore findings of the study are very important for the LHD. A publication about the results is due for submission shortly. Thanks to the work and dedication of the team, further funding has been obtained to sustain the SAQ work beyond the completion of the research.

The team has had 14 manuscripts published as well as a further six in the submission process. Staff at ISLHD involved in research have also contributed to nine book chapter in a new international text about health and social care. This text is due for publication in early 2021, which is incredibly exciting.

Another key achievement is the co-design, implementation and evaluation of the IMAGINE staff wellbeing program, which showed significant improvements across measures for staff workplace engagement, wellbeing and job satisfaction when compared to the pre-program data. The work undertaken in ISLHD is now being used in other collaborative research projects here and throughout the state, including strengthening the safety culture of acute Mental Health in-patient units in NSW which has attracted funding of almost \$440,000. In addition to this, ISLHD is also participating in a multi-site NSW translational project on post-operative delirium. This \$500,000 project originated from questions staff raised in the PACU at Wollongong Hospital!

The IMPAKT study (Implementing and Measuring Person Centeredness through an App for Knowledge Transfer) has been a collaboration between ISLHD and Southern Health in Northern Ireland. This involved six clinical teams across ISLHD collecting data about nursing practice from patients via an app, and then using the results to inform action plans around improving patient care. The next phase of this work will bring together NSW, South Australia and the ACT with counterparts in Ireland and Scotland looking at a whole of system change using the Nursing/Midwifery KPIs.

Of course none of this would happen without the leadership of Professor Wilson and her team, who have worked tirelessly to secure almost \$2 million in funding over the past four years to build local research capacity and a stronger research culture. "We now offer training and workshops to assist staff, we support a wide range of nurses to undertake research that addresses issues identified in practice like falls prevention or reducing medication errors, or nurses' perception of their role in appropriate antibiotic use," Prof Wilson said, "All of our work aims to improve person-centred practice using a wide range of research approaches with the principles of collaboration, inclusiveness and participation. We have grown capacity through Higher Degree by Research (HDR) candidates (six Nursing, two Midwifery and one Physio) with two completing their studies in 2021 when they will move into post-doctoral research, which is just terrific.

"In 2021, research modules will be run that support staff to further engage in research. I firmly believe that the NMRU has made a positive contribution to improving care across ISLHD, and in supporting staff to undertake clinically relevant research. I look forward to continuing and expanding this."

BUILDING CAPACITY THROUGH RESEARCH SUPERVISION

Professor Val Wilson, Professor of Nursing Research at both ISLHD and the University of Wollongong (UOW), is a prolific teacher and mentor – throughout 2020 she continued to supervise 13 PhD students, nine of which are current ISLHD nurses or midwives who are still actively involved in their clinical work.

The focus of Professor Wilson's role is on working with clinicians to develop person-centred approaches to care which are both evidence-based and also take into account the needs of patients and their families. The PhD projects of her students reflect this same approach, one that puts the patient first and improves their overall experience as well as both their physical and mental health.

Supervision of so many students within ISLHD means more than simply increasing the research knowledge within the district – Professor Wilson has not only created a significant base of highly trained nurses for ISLHD who are able to apply high-level skills in problem solving and critical analysis, but it is also a strong foundation on which high quality and important research can grow.

PhD students currently being supervised by Professor Wilson are:

Name	Project Title
Alera Bowden	"In My Shoes": Investigating the Empathy Levels of Staff towards Older Patients through Participation in an Age Simulation Educational Initiative
Miriam Coyle	'Specialling' activities for older people: an ethnographic study
Leanne Cummins	AD-MIRE Breastfeeding Study - Antenatal Diabetes - Mothers Improving Rates of Exclusive Breastfeeding
Vani David	An Innovative Approach to Minimise Falls and Falls Related Injuries by Implementation of a Reflective Model Aimed at the Staff and the Patients in Acute Care Facility
Erinn Dawes	The Development of a Cognitive Screening Process, and the Utility of Using Cognitive Screening in Predicting Outcomes of Vascular Amputations
Linda Deys	"Where's my baby?" What is the maternal experience of separating well mothers and babies at caesarean section birth?
Denise Edgar	Enhancing Person Centred Practices and Outcomes through participation in a Person Centred Group Clinical Supervision Model (Nurses and Midwives)
Julia Kittscha	Psychological Rehabilitation and Adjustment after Stoma Formation
Emma Radbron	How Does the Evidence Generated by Person Centred Nursing KPIs Drive and Sustain Improvements in the Development of Person Centred Practice?



The Wilson Research Group meeting virtually during 2020. From top left: Alera Bowden, Vani David, Professor Val Wilson, Denise Edgar, Erinn Dawes, Linda Deys, Emma Radbron, Leanne Cummins, Julia Kittscha, and Miriam Coyle

COVID-19 AND RESEARCH IN ISLHD

COVID-19 has changed priorities for our District and that of the world at large. With the realisation that SARS-CoV-2 has dealt us a medical conundrum, has come the dawning of awareness of the pivotal place research has in survival and care, and its absolute indispensability in this space - a space that has necessitated a dramatic change in approach to the conduct and dissemination of research.

Research relating to COVID has burgeoned worldwide, and our district has mirrored this trend. In the urgent race to learn more about the workings of the virus so as to disarm it - or at least find effective treatment therapies - the scientific, medical and political agenda for research has been abruptly repurposed. The publication process has been expedited in an effort to share knowledge to inform progressive research related to the virus that allows the concerted effort towards treatments and vaccines.

The establishment of the Low and Negligible Research (LNR) committee, and within that the appointment of a COVID reviewer, has streamlined the process for ISLHD COVID research. Current projects in the COVID domain feature diverse studies across various streams. The following list of projects is a sample of the fervent activity occupying ISLHD health staff in this realm.

- ISLHD Specialist Physician in Trauma & Rehabilitation Medicine **Dr Stuart Tan** is principal investigator on a research project looking at the longer term health impacts of COVID-19. Dr Tan and his team are investigating the effects of COVID-19 on the human body and how those affected can best be treated to reduce the negative impact of the disease.
- **A/Prof Bruce Ashford** is part of a team investigating the presentation of appendicitis cases at this time. They will be examining the number, characteristics and health outcomes of patients presenting to hospital with suspected appendicitis during the pandemic.
- Psychiatric studies have a strong presence in the COVID-19 pandemic for obvious reasons. **Professor Nagesh Pai** is involved in at least 3 local projects, including: 1. effects of loneliness and social isolation in Australia, 2. an exploration into whether lessons learned from natural disasters (e.g. bushfires) has made health professionals better prepared for COVID-19, 3. Psychosocial effects on health professionals in the context of COVID. The fourth research study is an international study of which Professor Pai is part and is being undertaken at Manipal University in India where students are being surveyed on the effects of social isolation in the current pandemic.
- **Leissa Pitts** and **Sofia Lema** from Multicultural Health Service are leading a study interviewing culturally and linguistically diverse populations in a participatory methodological approach to examine public health messaging uptake barriers to test community-driven COVID-19 key health messaging strategies and approaches in this subpopulation. They, like many, await the outcome of the NSW Health COVID grant application that would propel their research onward.

Researchers involved in recent publications in the context of COVID include our intensivist **Dr Cartan Costello** who is first author on a paper on the prevention of pathogen transmission during ultrasound use in the Intensive Care Unit, published in the Australasian Journal of Ultrasound in Medicine in March. He also appears in the list of authors on a paper concerning a simplified approach to cardiopulmonary ultrasound in COVID-19 patients published in the June issue of the same journal. In July, **Dr Robert Moses**, as second author, published in Diabetes Care on "the diagnosis and management of gestational diabetes mellitus in the context of the COVID-19 pandemic". All three publications feature in the associated month's issue of the ISLHD Research Gazette.

RESEARCH PARTNERS

ISLHD partnerships and collaborators provide a holistic, comprehensive approach to the research undertaken across the district. By supporting collaborations and partnerships it enables ISLHD staff to access a broader range of skills and expertise.

Examples of ISLHD partnerships and collaborations are included throughout this Report, and can be seen both in the listed projects as well as publications for this year.



Centre for Health Research Illawarra Shoalhaven Population (CHRISP) Directorship (L-R): Professor Kate Curtis (Clinical Director), Professor Belinda Goodenough (Director), and Associate Professor Judy Mullan (Academic Director).

CENTRE FOR HEALTH RESEARCH ILLAWARRA SHOALHAVEN POPULATION (CHRISP)

AUTHORED BY CHRISP

A PARTNERSHIP FOR RESEARCH THAT MATTERS

The Centre for Health Research Illawarra Shoalhaven Population (CHRISP) is a research partnership between ISLHD and the University of Wollongong (UOW) Australian Health Services Research Institute (AHSRI). With four main goals (Figure 1), CHRISP brings together leadership expertise in the domains of clinical, academic and translational research, to support ISLHD clinicians with projects on priority topics.



Figure 1. Main Goals for CHRISP

In 2020, the 4th anniversary for CHRISP, the partnership agreement with ISLHD was renewed for a further three years and expanded to include the UOW School of Medicine. This strengthens CHRISP for developing multidisciplinary collaborations and strategic capacity building, including research mentoring for early career students and clinicians and building links with Research Central. Supported by this new agreement, the partnership continued to build a project portfolio mapping broadly onto the following themes:

CHRISP at a glance 2016-2020



- Health service utilisation – high use and demand
- Chronic conditions – including risk factors for recurrent hospitalisations
- Health issues for older people – frail elderly and end-of-life care
- Mental health and drug and alcohol
- Quality and safety – adverse events and health care associated complications
- Evaluation – service, policy and program indicators and impacts

To date CHRISP has supported 13 ISLHD clinicians and UOW graduates in higher degree programs (e.g. PhD, MPhil). CHRISP has also organised training events (e.g. research translation workshops) and provided mentoring to 6 junior/early career ISLHD and UOW researchers. The Illawarra Shoalhaven Epidemiology

Biostatistics Network, convened by CHRISP, continued in 2020 in a combined virtual and in-person format. This regional professional development initiative brings together isolated staff who have trained in epidemiology, biostatistics and related data/analyst fields.

FROM DISCOVERY TO DISSEMINATION

The Illawarra Health Information Platform (IHIP) is the CHRISP data repository and linkage platform. In addition to 21 core collections already hosted in IHIP (Figure 2), progress was made in 2020 to incorporate a new aged care data set from the Illawarra Retirement Trust (IRT). This will provide unique opportunities for collaborative linked data research with regional cross-sector translation impact, such as improving the interface between aged care and health services.



Figure 2. Data sets in the Illawarra Health Information Platform (IHIP)

Since its inception, CHRISP has undertaken 41 collaborative priority-driven and investigator-driven research projects involving teams of ISLHD clinicians, UOW academics and other stakeholders. In 2020, 19 projects were active and included 4 new commencements - see Table 1 for examples, which includes the first higher degree program completion with CHRISP by an ISLHD clinician. Some project findings have already achieved translational potential and are currently informing proposals in ISLHD for change in policy, practice, and service design.

Table 1. Examples of collaborative CHRISP research projects active for 2020

Project	Investigators	Type	Themes
Health pathway discovery, conformance and enhancement- appendicitis as an archetype	D Mordaunt ¹ , K Davis ¹ , S Craig ¹ , M O'Sullivan ⁷	Investigator driven	Quality and safety/ Evaluation
Assessing end-of-life patterns and quality of care	V Westley-Wise ^{1,2,4} , G Barclay ¹ , Z Nangati ¹ , K Cope ¹ , J Davis ¹ , S Moules ^{2,4} , E Davis ^{2,4} , K Eagar ²	Priority driven	Older people (End-of-life)
Uptake of maternal and child health services after primary care assessment (Safe Start)	J Claridge ¹ , V Westley-Wise ^{1,2,4} , B Suesse ^{2,4} , C Frohmuller ¹ , J Budd ¹	Priority driven	Evaluation/ Mental health
Health care use among patients with mental disorders	N Pai ¹ , V Westley-Wise ^{1,2,4} , B Suesse ^{2,4} , J Cuenca ¹ , L Lago ^{2,4}	Investigator driven	High users/ Mental health
Antimicrobial resistance - Global Challenges: the evolving threat and impact	S Miyakis ¹ , A van Oijen ² , M Byrne ² , J Fish ¹ , J Mullan ^{2,4} , B McAlister ^{1,4} , P Newton ¹ , S Crawford ¹ , S Miellet ²	Investigator driven	Quality & Safety (AMR)
The Health Impacts Research Cluster – chronic kidney disease study (HIRC-CKD)	H Hassan ¹ , K Lambert ^{2,4} , J Mullan ^{2,4} , T Suesse ² , K Murali ¹ , A Lee ¹	Investigator driven	Chronic conditions (Renal)
Increasing LHD capacity to respond to methamphetamine related harm	B Larence ² , S Adams ¹ , D Reid ¹ , P Kelly ² , L Lago ^{2,4} , J Lappin ³ , L Robinson ²	Investigator driven	Mental health/ Drug & alcohol
Higher Degree Research Projects			
Hospitalisations resulting from side effects associated with oral anticoagulants	K Watts ¹ (ISLHD pharmacist & MPhil candidate); Supervisors: J Mullan ^{2,4} , L Lago ^{2,4} , M Jordan ¹ , L Villalba ¹	Investigator driven	Quality & Safety (Adverse events)
Relationship between cognitive function & treatment adherence in patients with chronic kidney disease	K Murali ¹ (ISLHD renal physician & PhD candidate); Supervisors: J Mullan ^{2,4} , S Roodenrys ² , M Lonergan ¹	Investigator driven	Chronic conditions (Renal)

Legend for Affiliations: ¹ISLHD ²UOW ³UNSW ⁴CHRISP ⁵COORDINARE ⁶Grand Pacific Health ⁷The University of Auckland

To date, project outputs include 26 peer-reviewed journal articles, 25 brief reports, and 34 national and international conference presentations. These publications can be found in the list at the end of this report. CHRISP also works with projects at the grant development stage, with the following grants awarded in 2020:

1. NSW Department of Education 2020 Strategic Research Fund. Lead: Michelle Townsend. *Early Intervention: Knowledge and resources to improve educational outcomes for students requiring multi agency support for mental health and well-being.*
2. Suicide Prevention Australia Innovation Grant. Lead: Vida Bliokas. *Investigating gender differences in a suicide prevention aftercare program: How can we improve outcomes for all?*

Please visit the CHRISP website to meet the current team, and learn more about working with the data: ahsri.uow.edu.au/chrisp

Vale Dave Webster (December 5, 2020), IT Manager AHSRI UOW: a valued colleague and friend for the CHRISP team, and fundamental to the establishment of the Illawarra Health Information Platform (IHIP).

Dave left a lasting impression on everyone he worked with. He had a remarkable intellect, and an ability to simplify and explain highly technical topics to make them understandable.

Dave will be sorely missed by his many colleagues and friends both from across the University and ISLHD





ABOUT IHMRI

IHMRI brings scientists, doctors and health professionals together to solve our greatest health challenges through research. Together we are striving to find better ways to prevent and treat illness and disease.

As an independent Medical Research Institute (MRI) we also help our partners, the University of Wollongong and the Illawarra Shoalhaven Local Health District, advance health and medical research in our region.

VISION

Working together for better health.

OUR PURPOSE

We strive to understand how the human body works to prevent disease, improve treatments and the health services people receive.

RESEARCHER SUPPORT

By affiliating with IHMRI you will have access to a range of research services:

- Assistance with the development, review and writing of grant proposals
- Assistance with commercialisation opportunities
- Assistance with clinical trials
- Access to IHMRI's biomedical laboratories and building facilities
- Media support and community engagement
- Networking opportunities and events

Contact IHMRI

ihmri.org.au | research@ihmri.org.au | 4221 4333

For research related queries Dr Benjamin Buckley, Research Development Coordinator (bbuckley@uow.edu.au), is onsite at Research Central, Level 8, Wollongong Hospital every Wednesday.

JOINT UOW/ISLHD PHD PROGRAMME

CURRENT PHD CANDIDATES

Name	Project Title	Supervisors
Afshan Rauf	Mindfulness, Resilience and Well-being: Its impact on organisational Outcomes	ISLHD: A/Prof Marianna Milosavljevic UOW: Dr Shamika Almeida, Dr Laura Rook
Tiffany Sandell	Follow up care in patients post cancer treatment: what works best?	ISLHD: Dr Andrew Miller UOW: Dr Heike Schutze, Dr Rowena Ivers
Helena Ibro	Using Machine Learning as a Visual Tool to assist Cancer Management	ISLHD: Steven Harvey UOW: Prof Aditya Ghose, A/Prof Hoa Dam

WHAT DOES THE ALBANIAN VILLAGE OF POLIÇAN HAVE IN COMMON WITH WOLLONGONG?



The answer is “Helena Ibro”.

Helena is the new Clinical PhD student in the Radiology Department of Wollongong Hospital. Helena commenced her PhD in late 2020 under the supervision of Dr Steven Harvey (Chief Radiologist Wollongong Hospital), Professor Andrew Miller (Radiation Oncologist Wollongong Hospital), Professor Aditya Ghose and Professor Hoa Dam (both School of Computing & Information Technology, Faculty of Engineering and Information Sciences, University of Wollongong).

Helena was born in the village of Poliçan in Albania. The city was built in the 1960s by the Communist government of the time, for the purpose of creating an industrial town

for the production of weapons and munitions. Helena’s family however only stayed a short while in Poliçan before moving to Greece, returning to Abania’s capital of Tirana when she was ten. Helena completed a Bachelor of Business/Bachelor of IT double degree at the University of Tirana. It was after her undergraduate studies that Helena decided to enrol in a Masters of Computer Science at the University of Wollongong. The reasons for choosing Wollongong were not surprising: English speaking, good weather, fantastic beaches, affordable housing and close to Sydney. She also found out after arriving that she was in fact the first ever Albanian student at UOW!

Once she completed her Masters in Computer Science, Helena was keen to pursue further studies in the area.

Dr Harvey and Professor Miller were both already aware of the ISLHD/UOW Joint Clinical PhD program, and investigated how this could be used to help get Helena into a PhD. The program started in 2014, and so far eight PhD Students have been funded through this initiative, five already having graduated and four well on their way to becoming Doctors of Philosophy. Helena’s PhD scholarship is a partnership between UOW and the ISLHD Radiology department.



Helena’s PhD involves working with machine learning and artificial intelligence, and is about helping doctors better utilise the PET scan technology. Helena is investigating ways to improve the accuracy of the PET scans in identifying cancerous tissues using radiomics and predictive modelling, technology which will help improve diagnoses made by specialists. The long term aim for this work is to improve the accuracy of a diagnosis so that patients will not have to undergo more invasive and expensive testing using MRI – thereby improving equity of access to treatment, diagnosis and care.

TWO NEW GRADUATES IN 2020 FROM THE JOINT ISLHD/UOW PHD SCHOLARSHIP PROGRAM.

The Joint ISLHD/UOW PhD Scholarship, coordinated by Research Central, has since 2014 provided ISLHD clinicians with the opportunity to further their skills not just in their own clinical field, but also in the area of research more broadly. This initiative is unique to our LHD, and has since its inception been supported by local clinicians. In 2020, the program has seen a further two PhD completions; although vastly different in their focus, both share a mutual goal of improving clinical service to patients through enhancing knowledge of health problems faced by patients.



One of these recent PhD completions is Emily Hazzard. Emily is a Dietitian within ISLHD, and is still practicing both on the Surgical Wards at Wollongong Hospital as well as in the outpatient paediatric feeding clinics for ISLHD. Her PhD research explored how nutritional care is provided to patients with head and neck cancers. The results of her work highlighted ways that governing organisations, service managers and individual healthcare professionals could work together with patients to improve nutritional outcomes. “Undertaking research in the form of a PhD has allowed me to develop my research skills, as well as provide me with a better understanding of the intricacies of interprofessional practice in addition to the multi-level nature of improving health service”, said Emily. “I intend to use this knowledge to deliver evidence-based and patient-centred nutritional care.”

The other student to complete their PhD in 2020 was Ramya Walsan, originally an Environmental Science graduate whose transition into the health care sphere demonstrates the crucial nature of interdisciplinary collaborations to help understand challenges faced by patients. Ramya’s work has investigated the link between socioeconomic disadvantage, Type 2 Diabetes and serious mental illness, with a focus on the Illawarra-Shoalhaven geographic area. Results from Ramya’s work can be used in service management to help prioritise and target future interventions.

The work completed by these two students demonstrates the importance of research undertaken within a clinical setting in being able to create knowledge which assists ISLHD to improve patient care and service delivery.



To date, from just five completed students supported by Joint ISLHD/PhD Scholarships, their work has already generated 30 publications, 28 conference presentations (including at international sites), and a total of 169 citations with an average of 8 citations per publication. The reach of these communications continues to grow, as more researchers both in Australia and overseas read about what has been completed within our District and incorporate the findings into developing further research in the area. Furthermore, PhD graduates have developed skills which allow them to use critical thinking and research-based methods to identify gaps in the management of patients and solve problems – resulting in the delivery of health care which is founded in evidence-based best practice.

Achievements of the Joint UOW/ISLHD PhD Program to date in 2020



8 commenced or completed candidatures



30 Publications in peer-reviewed journals



28 Conference Proceedings



169 total citations

2020 EARLY CAREER RESEARCHER GRANT SCHEME

FUNDED PROJECTS AND RESEARCHERS

The Inaugural ISLHD Early Career Researcher Grant Scheme was launched in 2020. Grants were open to all ISLHD clinician employees, with three grants awarded up to the value of \$50,000 each.

The objectives of this grant scheme are to:

- support excellent applied clinical research led by early career ISLHD clinicians
- advance promising early career ISLHD clinician researchers and promote enhanced opportunities for diverse career pathways
- enable research and research training in high quality and supportive environments
- contribute to the outcomes of District's Strategic Priorities, including expanding ISLHD's knowledge base and research capability, enhancing the scale and focus of research across ISLHD, and also providing the opportunity for early carer clinicians to develop both research and leadership skills.

DR STEVEN CRAIG

Project Title: *Validation of a novel prognostic gene assay for papillary thyroid cancer to improve appropriateness of care.*

Associate Investigators: Associate Professor Bruce Ashford, Dr Takako Eva Yabe, and Dr Kimberley Davis (ISLHD); Professor Oliver Bathe and Dr Cynthia Stretch (University of Calgary, Canada).

Dr Steven Craig is a General Surgeon based at Shoalhaven hospital, with sub-specialties in Endocrine Surgery and Surgical Oncology. He completed an initial Bachelor of Science at the University of Wollongong in 2004, before attending the University of Sydney and receiving his MBBS with Honours in 2008. He subsequently completed a Masters of Surgery, and received his Fellowship in 2017. The following year, he was accepted into the prestigious American Association of Endocrine Surgeons' fellowship training program at the University of Calgary in Canada, where he was able to complete further surgical as well as research training.

During his time in Canada, Dr Craig developed a 44-gene assay to help more precisely identify classification types of papillary thyroid cancer (PTC), in particular through the relationship between RNA expression profiles and PTC prognosis classification. By more accurately estimating prognosis and risk of recurrence of PTC, this project will enable better targeted treatment for patients; this may be through either avoiding unnecessary treatment, or alternatively identifying those at greater risk and therefore directing more extensive surgery and adjuvant treatments.



This project aims to validate the 44-gene assay by using real tissue samples from PTC patients in ISLHD. In collaboration with NSW Health Pathology and the Illawarra Health and Medical Research Institute (IHMRI), RNA will be extracted from PTC tumours, its expression quantified, and used in algorithm calculations to predict tumour risk. These results will then be correlated with actual recorded tumour risk stratification as well as patient outcomes in order to further establish the validity of this assay to better predict risk and outcomes for patients diagnosed with PTC.



DR LAUREN BELL

Project Title: *Determining Early Treatment Response: Maximising Multi-Parametric MRI Use for Brain Cancer Patients.*

Associate Investigators: Dr Daniel Brungs, Prof Martin Carolan, Trent Causer, Dr Senthilkumar Gandhidasan, Dr Matthias Jaeger, Prof Andrew Miller, Dr Hon Trinh, Dr James Chen, Matthew Hundy, Ashleigh Splitt (ISLHD).

Dr Bell received her Doctoral degree in Medical Physics from the University of Wollongong (UOW). For her doctoral dissertation, she developed methods to manage uncertainties associated with defining the region of the body to be treated with radiation therapy. Prior to that, Dr Bell received her undergraduate degree in Medical and Radiation Physics from UOW.



At present, Dr Bell works with ISLHD as a registrar in Medical Physics, and in 2020 was awarded an ISLHD Early Career Researcher Grant. The primary aim of her research project is to improve the distinction between pseudo-progression, recurrence and radiation necrosis in ISLHD high-grade brain tumour patients using multi-parametric magnetic resonance imaging (mpMRI).

Current radiology techniques are often unable to adequately differentiate treatment response from pseudo-progression in high-grade primary brain tumours. The study will examine the correlation between mpMRI radiomic features and tumour molecular features with clinical outcomes to facilitate more informed treatment decisions for cancer patients. The main purpose is to aid in the treatment response stratification of patients with high-grade brain tumours

DR BENJAMIN THOMAS

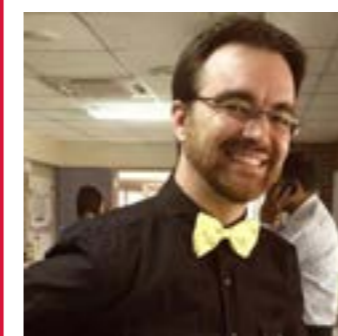
Project Title: *DREAMS: Dexmedetomidine for the Reduction of End-of-life Agitation and for optimised Sedation.*

Associate Investigators: Dr Zivai Nangati, Dr Greg Barclay, Dr Angela Lo, Dr Camilla Chan (ISLHD).

Dr Benjamin Thomas is a Staff Specialist in Palliative Care at ISLHD. He attributes his path to palliative care being due to "accident and exposure". The ability to make a significant impact in his patients and their families' lives in a short space of time, the holistic nature and atmosphere of palliative medicine are all reasons why he has chosen to spend his career in this field.

Similar to his work role, Dr Thomas fell into clinical research more-or-less by accident and has become more and more involved over time. He explained that "so much [of his field] is yet to develop, and the chance to be part of that development is a privilege."

One such area for development is sedation at the end of life. "The difficulty as a clinician is being sure that my patients are comfortable, and although I can presume they are it's hard to ever be sure." The DREAMS study aims to assess the efficacy of dexmedetomidine as an end of life sedative compared to current practice using benzodiazepine sedatives. The anticipated outcome is that a 10% or more difference will be detectable between agents, in both maintaining patient communication and interactivity, and as effective as benzodiazepines at relieving agitation. This study is the first of its kind worldwide and has the potential to drive changes to standard practice in palliative medicine.



"Our pilot work showed us that dexmedetomidine allowed most of the treated patients to have some interaction, usually quite meaningful with their loved ones, but also to be able to tell their clinicians they were comfortable and pain free, which was invaluable for us and for them. We are hoping to find a niche going forward for its use and for better use of sedatives in palliative care to provide a better quality of dying, both for families and for their loved ones."



ISLHD RESEARCH PROJECTS

The projects listed on the following pages represent projects which were approved during the course of 2020, and does not include those which have previously been approved and are ongoing.

Projects have been grouped according to clinical divisions (and sub-disciplines, where appropriate), and are presented in alphabetical order.



AGED CARE, REHABILITATION, & PALLIATIVE CARE AGED CARE

Murray G, Potter J, Silvester D. *Screening for osteoporosis in frail elderly patients recently admitted to hospital.*

Locations: Port Kembla Hospital.

Frail, elderly patients have higher risks of falls and fractures, and associated readmissions, placements and deaths. This project is adopting a new, comprehensive protocol for the assessment of Osteoporosis Refracture Program patients. Bone density studies will include vertebral fracture assessments because undiagnosed vertebral fractures amongst frail elderly people are common. Participants who have T scores of -2.5 or less, undiagnosed vertebral fracture or previous fragility fracture will be offered PBS subsidized treatment of osteoporosis with denosumab.

Golsorkhtabaramiri M. *Predictability of Neutrophil to lymphocyte ratio in Preoperative fractured neck of femur patients for post-operative short term complication: A retrospective study.*

Locations: Wollongong Hospital.

Neutrophil to lymphocyte ratio (NLR) is a biomarker of systemic inflammatory response and has been used in cancer prognostication. There are multiple systematic reviews and meta-analyses which show prognostication of NLR in prediction of complications post-surgery. However, there are anecdotal studies in regards to performance of NLR in emergency hip fractures. There is a need to evaluate the performance of NLR in this group of patients. In this study, we aim to measure association of NLR with short term post-operative complications.

REHABILITATION

Tan S, Hewitt L, Cuenca J, Risi D. *Illawarra Covid-19 Outcome Study (ICOS).*

Locations: Wollongong Hospital, Port Kembla Hospital.

This is a longitudinal study on a cohort of individuals diagnosed with COVID-19 to investigate their clinical status, functional outcome and mental state, and to identify ongoing health issues and service needs. The study is to test the hypothesis that COVID-19 positive individuals have ongoing health issues and needs after being deemed to have “recovered” under current guidelines.

PALLIATIVE CARE

Thomas B, Chan C, Barclay G, Lo A, Nangati Z. *DREAMS: Dexmedetomidine for the Reduction of End-of-life Agitation and for optimised Sedation.*

Locations: Wollongong Hospital, Port Kembla Hospital, Shoalhaven District Memorial Hospital.

Sedation in end-of life care has classically involved benzodiazepines like valium or neuroleptic medications like risperidone, which appear to alleviate symptoms but leave patients unrousable. Dexmedetomidine provides sedation that is rouseable, meaning patients can still interact with family and medical staff, and has an anti-delirium effect.

Khou M. *Exploration of consumer and patient experience of Telehealth in community palliative care patients.*

Locations: David Berry Hospital, Port Kembla Hospital.

Due to the geographical distances between patients, a significant time is spent travelling to deliver specialist palliative care services. Telehealth, as an adjunct to clinical care, will improve efficiency in the timely delivery of palliative care services to patients, improve the number of patients that can be reviewed in a day, enable urgent reviews of deteriorating patients thereby avoiding unnecessary admissions to the acute hospital and reduce cost to the healthcare system. This study aims to identify these barriers and demonstrate how Telehealth may potentially be used to improve palliative health outcomes.

Thomas B. *Audit into bedflow into and out of the palliative care unit.*

Locations: Port Kembla Hospital.

Patients are admitted to the Palliative Care Unit (PCU) at Port Kembla Hospital from both the community, and from other LHD hospitals. They are also admitted for a number of reasons, including end of life care, symptom management, discharge planning/optimisation, and respite. This study aims to analyse historical data to determine from where patients were admitted to the PCU, where they were discharged to, why they were admitted to the PCU, and for how long. Results from this analysis will ascertain if there are particular patterns of admission to discharge

GRANTS

2020 ISLHD Early Career Researcher Grant - \$50,000 - *DREAMS: Dexmedetomidine for the Reduction of End-of-life Agitation and for optimised Sedation.*



ALLIED HEALTH

DIETETICS

Beck E, Talley N, Apte M, **McDonald J**, Prakoso E, Duncanson K, Williams G, Herath C, Shackel N, **Kapur A.** *Manifestation of metabolic disease including non-alcoholic fatty liver disease (NAFLD).*

Locations: Wollongong Hospital.

External Partners: University of Wollongong, University of Newcastle, John Hunter Hospital, University of New South Wales, Liverpool Hospital, SWSLHD.

Non-alcoholic fatty liver disease (NAFLD) is associated with metabolic conditions, including obesity and type two diabetes, known to be influenced by dietary patterns. However, it is poorly understood how diet composition influences subsequent outcomes of NAFLD through the microbiome, or if dietary composition can be successfully changed to directly impact NAFLD outcomes. The principal aim of this study is to better understand how diet may be used to modify the microbiome in NAFLD.

King V, White M, Spicer N, Thomas S. *Nutrition practice in critically ill adults - an observational study.*

Locations: Wollongong Hospital.

External Partners: Multiple hospitals Australia-wide.

This project aims to develop a platform to study nutrition provision and practice over the duration of hospitalisation in critically ill adults in Australia & New Zealand (ANZ) that will inform nutrition care and research.

Spicer N, Stefoska-Needham A, Cross E, Komninos R. *What do we know about nutrition for colorectal surgery? A consumer's perspective.*

Locations: Shoalhaven District Memorial Hospital.

External Partners: University of Wollongong.

Previous work on Enhanced Recovery After Surgery (ERAS) in colorectal surgical patients at SDMH showed that there are gaps in the nutrition care provided to colorectal surgical patient during the perioperative period. We aim to use data from a previously completed clinical audit to assist direct patient interviews post-operative to understand the consumers experience in the perioperative period in relation to nutrition.

Barone L. *Changing the way we provide nutrition care to our older patients – a review of a new model of care.*

Locations: Port Kembla Hospital, Bulli Hospital, Coledale Hospital, Wollongong Hospital, Shoalhaven District Memorial Hospital, Milton Ulladulla Hospital.

The number of older patients admitted into our hospitals is increasing. Older hospitalised adults, irrespective of their admission diagnosis, are at higher risk of malnutrition, sarcopenia and frailty. In older patients, 10 days of inactivity can lead to a 30% reduction in muscle protein synthesis, taking up to 4 months of rehabilitation to replenish this muscle loss. Targeted nutrition support including adequate calories and protein is crucial to mitigate the risk of malnutrition, sarcopenia and frailty with evidence showing that leucine-rich whey protein and adequate protein distribution are needed to maximise muscle protein synthesis. Based on this evidence, in 2017/2018, the ISLHD Nutrition Department implemented a new model of care to mitigate nutritional decline and sarcopenia. The aim of this project is to review the model of care.



PHYSIOTHERAPY

Kennedy D, **Getley A**, Fisher G, Quel de Oliveira C, **Bushell L**, Gandevia S, Power E. *The Clinical Experience of Unilateral Neglect Assessment in Practice - A Pilot Study*.

Locations: Coledale District Hospital.

External Partners: University of Technology Sydney.

Unilateral Neglect (UN) is a condition where people fail to perceive or respond to stimuli on the opposite side of a stroke. Despite the clinical importance of UN, there are significant limitations in its assessment. This is a multi-site observational study using mixed-methods aiming to describe physiotherapists' and occupational therapists' experiences of implementing validated UN assessment tools, and also describe the barriers and facilitators to the implementation of UN assessment tools in clinical practice.

Brown P, Fitzpatrick S, Andersen K. *Allied Health experience of an inter-disciplinary home-based pilot program targeting elderly patients discharged from the ED: A mixed method study*.

Locations: ISLHD.

This pilot study involves a novel Allied Health service providing timely, short-term at-home care to elderly (>65 years) patients, either acutely admitted or presenting to two ISLHD ED's, with the aim of avoiding hospitalisation. This study will explore the inter-disciplinary experience of this Allied Health team over the life of the pilot, assessing the extent to which interdisciplinary collaboration has occurred, and examine the challenges and benefits of incorporating interdisciplinary competencies from the perspective of the clinician.

Archer K, Davidson E, Getley A, Barr C. *A Review of Physiotherapy Goal Setting Practice During Inpatient Rehabilitation*.

Locations: Coledale District Hospital, Bulli District Hospital.

External Partners: Flinders University.

This project will review how Physiotherapists across the Illawarra Shoalhaven Local Health District set goals with patients during inpatient stroke rehabilitation by completing an audit of patient notes and an online survey of local physiotherapists.

Hewitt L, Frohmuller C, Martin L, Okely AD. *Clinician knowledge and advice given to parents regarding physical activity, sedentary behaviour and screen time for infants. An observational study*.

Locations: Wollongong Hospital, Shoalhaven District Memorial Hospital.

External Partners: University of Wollongong.

Most parents receive their information regarding infant care from their local hospital during their pre and post-natal hospital and/or community visits. To determine if the translation of the Australian and WHO guidelines on infant physical activity, sedentary behaviour and sleep is required in the local health district, an audit of current clinician knowledge and the advice given from clinicians (Allied Health, Nursing, Medical) to parents in the care of infants is required. This will enable a baseline from which future interventions can be compared.

Dawes E, Bliokas V, Hewitt L, Wilson V. *Cognitive screening in amputee patients: A retrospective medical record audit*.

Location: ISLHD

External partners: University of Wollongong

Dawes E, Hewitt L, Bliokas V, Wilson V. *Cognition and health outcomes post-amputation secondary to a vascular condition. A systematic review*.

Location: ISLHD

External partners: University of Wollongong

In this systematic literature review, the association between cognition following amputation as a result of vascular complications was examined with regards to health outcomes. There were eight identified health outcomes (mobility, activities of daily living (ADLs), endurance, mobility and balance, prosthetic use, general health, social participation and discharge location) and these studies identified both strong and weak associations with cognition following vascular amputation. Strong associations were found between cognition and mobility, and ADLs. More research is required to identify the appropriate cognitive assessment measure and the timing of application.

Jones M, Hewitt L, King P, Thorn R, Davidson E, Elphick TL. *The association between physiotherapy clinical indicators (DEMMI, TUG, 10MWT) and FIM scores during inpatient rehabilitation. A retrospective analysis*.

Location: ISLHD

The outcome measures evaluated in this study demonstrated functional gains and positive outcomes. They were not shown to be able to predict the functional outcome for the reconditioning, orthopaedic fracture and orthopaedic replacement population groups. Patients have the ability to improve despite their admission functional scores.

PODIATRY

Burgess A, Hawkins J, Duncanson K, Baytieh L. *A Patient Reported Outcome Measure (PROM) for Diabetes with Aboriginal Communities in the Southern Shoalhaven region*.

Locations: Shellharbour Hospital.

External Partners: University of Newcastle.

Patient Reported Outcome Measures (PROMs) are emerging and becoming embedded in Australian health care. These surveys are completed by patients to report on how health services affect the patient's quality of life and health conditions, delivering a holistic approach to patient centred care. The International Consortium of Outcomes Measurement (ICHOM) have developed a Standard Set for Diabetes. The Agency for Clinical Innovation (ACI) determined the Problem Areas in Diabetes Scale (PAID) would be implemented. There are no validated PROMs specific to the Aboriginal Community reported in the literature, nor has cultural appropriateness been addressed. Given the major disparity in incidence and prevalence of diabetes between Aboriginal and non-Aboriginal people, this study will explore the perceptions of the cultural appropriateness of a diabetes PROM set for Aboriginal people in the Southern Shoalhaven region and co-design an Aboriginal PROM if this outcome is an agreed outcome of the research process.

PSYCHOLOGY

Broyd S, Feros D. *New therapies for functional neurological disorder: Evaluating a multidisciplinary and cognitive behavioural therapy approach.*

Locations: Port Kembla Hospital.

This study aims to evaluate the effectiveness of a 6 week multidisciplinary and cognitive behavioural therapy (CBT) group on the self-management of symptoms, psychological and psychosocial wellbeing and adjustment in adults with Functional Neurological Disorder (FND). Participants will be assessed on the nature, frequency and severity of their FND symptoms, psychological wellbeing and psychosocial adjustment.

Whiting D, Simpson G, Deane F, Chuah S, Maitz M, **Gordon I, Cusack J.** *Evaluation and feasibility of eHealth for individuals with a traumatic brain injury (TBI) experiencing psychological distress: ACT-Adjust via video consulting.*

Locations: Port Kembla Hospital.

External Partners: Ingham Institute for Applied Medical Research, University of Wollongong, Western Sydney University, Liverpool Hospital.

This study delivers and evaluates the effectiveness of an evidence-based psychological treatment, ACT-Adjust, in alleviating psychological distress, increasing psychological flexibility and improving quality of life for adults with moderate to severe traumatic brain injury (TBI). The study is the first to evaluate technology knowledge and access for people living with moderate to severe TBI and compares the effectiveness of ACT-Adjust delivered face-to-face and via video consulting (eHealth), with a wait list control group.

Thinn MM, Parab C, Sadozai A, McKeon B, Piper S. *A retrospective audit to analyze factors impacting wait times to access multidisciplinary developmental and autism assessment. What we have learnt and how could we improve timely diagnostic assessment?*

Locations: ISLHD.

The research aims to identify factors contributing to longer wait times for children who were referred for developmental and autism assessment in the multidisciplinary clinic at Illawarra Shoalhaven Diagnostic and Assessment Service from January 2015 to December 2019. The retrospective study data will allow identification of trends and patterns of change in intake criteria from 2015 to 2019, with a secondary objective being to discuss improvement in future service planning and policy making. Timely assessment service is crucial for early diagnoses and consequent appropriate early intervention.



SPEECH PATHOLOGY

Clayton N, Walker E, Maclean J, Hamilton-Foster E, Donovan G, Melbourne L, **Absalom N, Mogg P, Mann B, Rolfe D, Walter A, Goers K, Kostal K, Black R, Freeman-Sanderson A.** *Clinical profile and recovery pattern of dysphagia in the ICU COVID-19 patient: the NSW experience.*

Locations: Wollongong Hospital.

External Partners: Concord Repatriation General Hospital, University of Queensland, University of Sydney, Royal Prince Alfred Hospital, St George Hospital, Westmead Hospital, Liverpool Hospital, Sutherland Hospital, Prince of Wales Hospital, Royal North Shore Hospital, Hornsby Hospital, WNSWLHD, Nepean Hospital, NNSWLHD, St Vincent's Hospital (Sydney), University of Technology Sydney, The George Institute for Global Health.

The impact of COVID-19 on swallowing function is not well understood. Currently in Australia, we have a relatively low rate of ICU admissions compared to our international colleagues, however we are still seeing that the virus and its subsequent treatment can affect swallow function in those who require ICU admission. As such, these patients require Speech Pathology assessment and treatment of their dysphagia. The current COVID-19 pandemic provides us with the unique opportunity to describe swallowing function in this cohort and outline their clinical dysphagia characteristics and trajectory of recovery for a series of cases that have been managed by Speech Pathology in the ICU across NSW. The overall objective of this study is to investigate the physiological characteristics and pattern of recovery of swallowing function during the acute care period, for a cohort of COVID-19 patients who required ICU admission as part of their treatment.

Rowntree K, Brown A, Woods E, Tsaccounis K, Edwards M, Boehm-Leslie J. *Use of Expiratory Muscle Strength Training (EMST) in the treatment of dysarthria associated with Parkinsons Disease.*

Locations: ISLHD.

Individuals with Parkinsons Disease typically experience changes to speech and voice associated with poor breath support. While it may be hypothesised that breathing exercises could improve communication function, available evidence does not support this. Expiratory Muscle Strength Training (EMST) devices encourage a specific style of breathing training, where individuals must use maximal strength of expiration to overcome a high level of resistance. Training with EMST in isolation has seen improvements in voice and speech in some other populations, however is no known evidence to support its use for people with Parkinsons Disease.

GRANTS

NUW Alliance Grant - \$89,000 - *Manifestation of metabolic disease including non-alcoholic fatty liver disease (NAFLD)*

NHMRC Emerging Leadership Fellowship Grant - \$85,000 - *Nutrition practice in critically ill adults - an observational study*

HETI Rural Research Capacity Building Program | ISLHD Illumination Innovation Award - \$42,691 - *A Patient Reported Outcome Measure (PROM) for Diabetes with Aboriginal Communities in the Southern Shoalhaven region.*

ISLHD Illuminate Innovation Award - \$12,334 - *New therapies for functional neurological disorder: Evaluating a multidisciplinary and cognitive behavioural therapy approach.*

iCare Foundation - \$637,170 - *Evaluation and feasibility of eHealth for individuals with a traumatic brain injury (TBI) experiencing psychological distress: ACT-Adjust via video consulting.*

CANCER CARE

Presgrave P, Parmar G, Warburton P, Cartwright K, Desai S, Leighton C, Robinson S. *CADENCE Registry - Cold Agglutinin Disease Real World Evidence Registry.*

Locations: Wollongong Hospital.

Cold Agglutinin Disease (CAD) is a rare condition. Prospective longitudinal data in large populations are therefore limited. The aim of this registry is to prospectively collect longitudinal data in order to better understand patient and clinical characteristics, disease progression, complications, treatment impact, and patient-reported outcomes. This registry will also improve the understanding of the natural history of CAD and will help raise awareness of CAD and its treatment.

Presgrave P, Parmar G, Warburton P, Cartwright K, Desai S. *Coronavirus Outcomes Registries in Immunocompromised Individuals Australia (CORIA): a multisite registry and optional biorepository in people with SARS-CoV-2 infection and selected conditions affecting immune function.*

Locations: Wollongong Hospital.

Bell L, Brungs D, Chen J, Carolan M, Ahamed N, Causer T, Hundy M, Gandhidasan S, Splitt A, Jaeger M, Miller A, Trinh H, Crinnion C. *Determining Early Treatment Response: Maximising Multi-parametric MRI use for brain cancer patients.*

Locations: Wollongong Hospital.

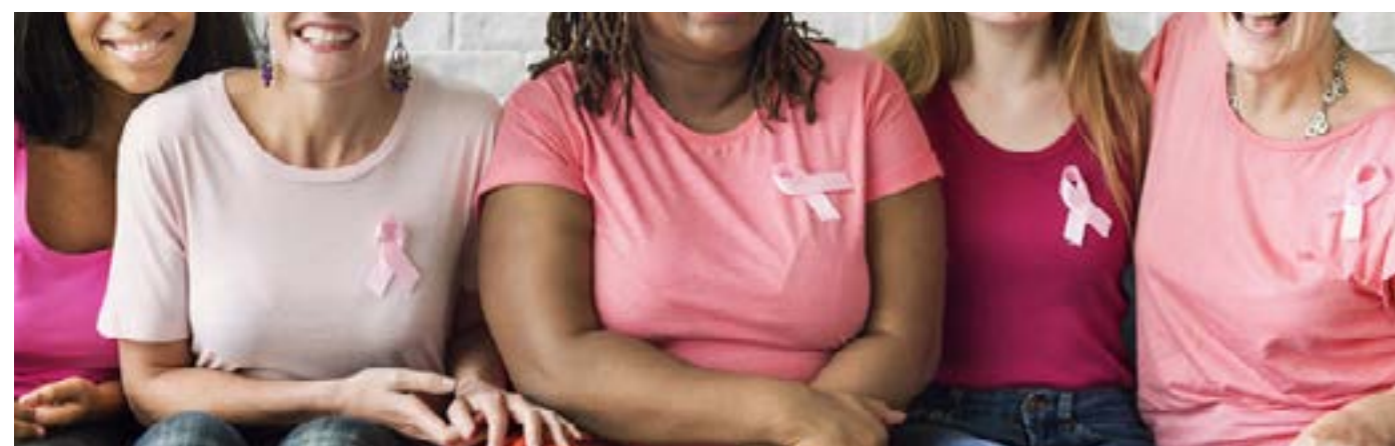
Currently employed radiology techniques at Illawarra Shoalhaven Local Health District (ISLHD) don't adequately differentiate treatment response from pseudoprogression (PsP) in high-grade (WHO Grade 3 & 4) primary brain tumours. Multi-Parametric MRI (mpMRI) data, coupled with tumour molecular features, will facilitate more informed treatment decisions for these patients and enable earlier interventions. This single centre, prospective, longitudinal study aims to correlate mpMRI radiomic features and tumour molecular features with clinical outcomes to aid in the treatment response stratification of patients with high-grade brain tumours.

Schutze H, **Sandell T, Miller A.** *Shared-care cancer follow-up with general practitioners and radiation oncologists.*

Locations: Wollongong Hospital, Shoalhaven District Memorial Hospital.

External Partners: University of Wollongong.

This research explores a shared care model of follow-up care for breast, colorectal and prostate cancer patients that have been treated with radiotherapy. This research will involve general practitioners performing some of the routine radiotherapy follow-up visits, whilst ensuring the patient's care continues to be overseen by the radiation oncologist.



Girgis A, Durcinoska I, Delaney G, **Arnold A**, Bray V. *Using online patient reported outcome assessments to deliver integrated cancer care across South Western Sydney and Illawarra Shoalhaven Local Health District Cancer Services.*

Locations: Wollongong Hospital, Shoalhaven District Memorial Hospital, Milton Ulladulla Hospital.

External Partners: Ingham Institute (Liverpool Hospital), SWSLHD.

Demand for cancer services continues to grow. Changing models of care and resource infrastructure are needed. Telehealth and web-based care options are increasingly being adapted and provide a flexible approach to provide essential care to patients. The objective of this project is to develop and implement the PROMPT-Care model of screening in cancer services as "business as usual" across SWSLHD and ISLHD. The project will involve re-design of current models of care by facilitating systematic screening of PROs in routine practice, and will ensure no patients 'fall through the gaps' by providing them with appropriate information and referral to services where needed.

Schutze H, **Sandell T, Miller A.** *Patient self-reported follow-up for radiotherapy patients – during COVID-19.*

Locations: Wollongong Hospital.

External Partners: University of Wollongong.

The aim of this project is to evaluate patient self-reported follow-up for radiotherapy patients, during COVID-19. Patients will be sent either a text message or email asking them to complete a survey about their health specific to their follow-up care.



Hertzberg M, **Agrawal S.** *The impact of mobilising regimen on immune reconstitution, progression-free survival and overall survival in myeloma patients treated with bortezomib, cyclophosphamide and dexamethasone induction followed by a high dose melphalan autograft.*

Locations: Wollongong Hospital.

External Partners: Prince of Wales Hospital.

The data being collected will be from patients receiving a specified treatment regimen (Bortezomib, Cyclophosphamide, Dexamethasone) for newly diagnosed multiple myeloma followed by an autologous bone marrow stem cell transplant. The analysis will focus on whether the doses/treatments given prior to transplantation influence stem cell characteristics and patient outcomes.

Forrest L, James P, Keogh L, **Duffy J**. *The psychosocial implications of managing significantly increased risks of breast and ovarian cancer during young adulthood: A national survey of young women who have had genetic testing for a BRCA1/2 mutation.*

Locations: Wollongong Hospital.

External Partners: Peter MacCullum Cancer Centre, Royal Melbourne Hospital, University of Melbourne.

This project uses mixed methods to develop and then conduct a national online survey with young women aged 18-40 years with a BRCA1/2 mutation. Prior work illuminated the need to expand the data collection to a national population of young Australian women to fully examine the psychosocial complexities of living with a BRCA1/2 mutation. Therefore, this study aims to examine the psychosocial implications of managing significantly increased risks of breast and ovarian cancer during young adulthood experienced by Australian women with a BRCA1/2 mutation.

Gonzalez T, Williams R, **Duffy J**, Zia R, Tucker K, Taylor N, Wakefield C, De Abreu Lourenco R. *CONsultation via Telehealth to Access Cancer geneTic counselling (CONTACT).*

Locations: Wollongong Hospital.

External Partners: Prince of Wales Hospital, ACT Genetic Service, St George Hospital, University of New South Wales, Cancer Council NSW, Sydney Children's Hospital, University of Technology Sydney.

The CONTACT study is trialling the use of direct-to-patient Telehealth in cancer genetic counselling. This study aims to demonstrate the non-inferiority of Telehealth compared to standard care (telephone and face-to-face appointments), assess patient and genetic counsellor acceptability and satisfaction with the technology and determine the costs and implementation challenges associated with Telehealth.

Miller AA, Ahmad I. *Predicting pathological response to neo-adjuvant chemoradiotherapy in oesophageal cancer using Engineered Features and Deep Learning models.*

Locations: Wollongong Hospital.

External Partners: Rajiv Gandhi Cancer Centre (New Delhi, India), Keele University (United Kingdom).

The area of Radiomics is in its infancy. It is clear that data sets are not large enough for robust analysis. It is also unclear whether existing studies are based on complete routine clinical datasets. It is currently unknown whether oesophagus cancer in India looks and behaves the same as in Australia. Clinically, this study aims to identify patients who achieve complete pathological response to chemoradiation, and can be spared oesophagectomy.

GRANTS

2020 ISLHD Early Career Researcher Grant - \$49,998.20 - *Determining Early Treatment Response:*

Maximising Multi-parametric MRI use for brain cancer patients.

Joint UOW/ISLHD PhD Scholarship - \$46,500 - *Shared-care cancer follow-up with general practitioners and radiation oncologists.*

CONCERT Seed Translational Grant - \$150,000 - *Using online patient reported outcome assessments to deliver integrated cancer care across South Western Sydney and Illawarra Shoalhaven Local Health District Cancer Services.*

IHMRI Clinical Translation Grant - \$20,000 - *Unravelling Tumour Budding in Gastroesophageal cancer: Molecular and Clinical Implications.*

Centre for Oncology Education and Research Translation (CONCERT) - \$50,000 - *Localised Immunotherapy for Pancreatic Cancer: Targeting CD40 to enhance tumour immunity to checkpoint blockade.*

CRITICAL CARE

Sterba M, Geng W. *Short Period incidence study of Severe Acute Respiratory Infection (SPRINT-SARI).*

Locations: Wollongong Hospital.

Varndell W, **Ruperto K.** *Impact of triage training delivered by distance learning on emergency nurse confidence and triage decision accuracy: an observational study.*

Locations: Wollongong Hospital.

External Partners: Prince of Wales Hospital, University of Technology Sydney.

The primary objective of this study is to examine and compare participant learning experiences, confidence and triage decision accuracy for those who have attended a triage training course delivered using either distance learning technology, or traditional face-to-face classroom teaching.

Curtis K, Brown J, Sharwood L, Elphick T-E, Eyles M, Risi D. *Implementation effectiveness of playground injury prevention to inform the national injury prevention strategy. #stopkidsinjury.*

Locations: Wollongong Hospital.

External Partners: The George Institute, University of Sydney.

Playground fall injury hospitalisations cost the Australian hospital system almost \$2 million annually in acute care costs alone. Playground falls in particular are a common source of upper limb fractures, also with the potential for adverse long-term functional outcomes (64.9%). The hospitalisation rates for playground fall injuries in NSW children aged 14 years or less have been steadily increasing since 1993 and have been projected to increase substantially to 2021. In 2020-21 the Federal Government will develop a new national injury prevention plan focussed on children. This plan needs to be informed by evidence. This study will contribute to that evidence using a case study: the Illawarra Shoalhaven. Our team will partner with government to achieve this. Firstly using local government data to determine the uptake of AS4685 at 401 playgrounds in the Illawarra Shoalhaven. Then, using hospitalisations data, will we determine the rate of hospitalised playground related injury and demographic targets for future interventions.



Curtis K, Eyles M, Elphick T-L, McKenzie J, Yu P, Moules P. *Implementation evaluation of an early activation hip fracture care bundle to improve outcomes of frail older persons (eHIP).*

Locations: Wollongong Hospital.

External Partners: University of Wollongong.

This study aims to ascertain whether an early activation hip fracture care bundle (eHIP) improve patient outcomes. Currently, the human cost of a hip fracture is enormous - 25% of patients are dead at 1 year and 50% do not regain their previous level of function. This translational pre-post research will compare the outcomes of 654 patients with hip fractures who received (or did not receive) eHIP, the collective implementation of the Hip Fracture Standard. We hypothesise eHIP will result in at least 50% of hip fracture patients receiving all components of the Standard and a 10% reduction in complications.

Munroe B, Curtis K, Royston K, Balzer S, Tuala E. *Improving Emergency Department patient safety: Implementation evaluation of an Emergency Department Clinical Escalation Response System (EDCERS).*

Locations: Shoalhaven District Memorial Hospital, Wollongong Hospital.

In 2010 the Clinical Excellence Commission implemented the Between the Flags (BTF) program across NSW to trigger recognition of clinical deterioration. In ISLHD, a tiered-inpatient rapid response system was introduced to the wards using the BTF criteria. A Tier 2 call triggers an immediate response from the rapid response team comprising of a medical doctor (specialty team during hours), ICU doctor and nurse, and at some hospitals an ED doctor and nurse. This system works well on the wards, negating the need for multiple phone calls and mandates a response within a specific timeframe, decreasing delays to treatment. However, if an admitted patient who is located in the ED deteriorates, they are not afforded the same response. To address this gap, EDCERS (ED Clinical Emergency Response System) was developed and implemented at Shoalhaven District Memorial Hospital (SDMH) ED on the 26th June 2019. EDCERS introduced a tiered response to clinical deterioration triggered by the BTF observation charts, including escalation to senior ED clinicians (for ED patients) and specialty / intensive care teams (for admitted patients only). EDCERS now requires evaluating to determine uptake and effectiveness, and to enable refinement (if needed) prior to translation to other Australian EDs.

GRANTS

NSW Institute of Trauma and Injury Management Grant - \$25,464.79 - *Implementation effectiveness of playground injury prevention to inform the national injury prevention strategy. #stopkidsinjury.*

IHMRI Clinical Translation | NSW Agency for Clinical Innovation Research Grants - \$59,990 -

Implementation evaluation of an early activation hip fracture care bundle to improve outcomes of frail older persons (eHIP).



DRUG & ALCOHOL

Stratten M, MacPhail C, Lisle S. *Further Assessing Impact of a Sexual Health and Relationships Kit.*

Locations: ISLHD.

External Partners: University of Wollongong.

This project will explore the impact of this resource and obtain feedback from participants to further inform the 'scale up' of a previous Sexual Health and Relationships Resource Kit. The goal is to empower and reduce the incidence of HIV, Sexually Transmitted Infections (STIs), Hepatitis diagnosis and unplanned pregnancy in students.

Salom C, McDaid L, Peacock A, Gisev N, Maravilla J, Bruno R, Farrell M, Juckel J, Daly C, Thomas N, **Reid D, Qian S, Woods D, Fernandez M.** *Evaluation of the Pharmaceutical Benefits Scheme Subsidised Take Home Naloxone Pilot.*

Locations: ISLHD.

External Partners: University of Queensland, University of New South Wales, University of Tasmania.

This evaluation will determine the impact of the Take Home Naloxone (THN) Pilot on naloxone access, uptake and impact, as well as address previously identified knowledge gaps in the evidence about the effectiveness of THN programs more broadly. Results will be used to improve the implementation and effectiveness of this program and feed information back to the service model to facilitate this via an action learning cycle.

Woods D, Qian S. *Accessing support services: Perceptions and experiences of carers and family members who are affected by someone else's drug or alcohol use.*

Locations: ISLHD.

Haber P, Lintzeris N, Monds L, Butler K, Winter D, **Reid D, Qian S, Collison C, Curran C, Graf C.** *Driving Perspectives, Behaviours, Knowledge and Concerns of Clients Receiving Opioid Treatment and their Staff.*

Locations: ISLHD.

External Partners: University of Sydney, SLHD, SESLHD.

This project aims to explore transport and driving behaviours, perceptions, knowledge, and concerns of clients enrolled in the Opioid Treatment Program (OTP) at New South Wales drug & alcohol clinics, and their treatment staff. The information collected for this research project will enhance our knowledge and understanding of current driving perceptions, behaviours, knowledge and concerns of drug & alcohol clinic OTP clients, and their staff.

Sneddon S, Qian S, Pados J. *Investigating hospital admission for cannabis-related hyperemesis for pregnant women who self-reported non-medical cannabis use: Did the patients stop using cannabis and have less unplanned hospital returns after the admission?*

Locations: ISLHD.

This study will investigate hospital admission for cannabis-related hyperemesis for pregnant women who self-reported non-medical cannabis use.

GRANTS

Healthy Cities Illawarra - \$50,000 - *Further Assessing Impact of a Sexual Health and Relationships Kit.*

Australian Government Department of Health - \$997,927 - *Evaluation of the Pharmaceutical Benefits Scheme Subsidised Take Home Naloxone Pilot.*

NSW Ministry of Health - \$10,000 - *Accessing support services: Perceptions and experiences of carers and family members who are affected by someone else's drug or alcohol use.*

MATERNITY & WOMEN'S HEALTH

Jones A, Haora P, Luland E. *Building on Our Strengths (BOOST): Developing and Evaluating a Birthing on Country Service with integrated Community Hub and Birth Centre.*

Locations: ISLHD.

External Partners: Charles Darwin University.

This project aims to implement and evaluate 'Birthing on Country' in an urban (Queensland) and rural (New South Wales) settings. Birthing on Country is a complex intervention combining Aboriginal and Torres Strait Islander knowledge and governance, continuity of midwifery carer, access to an Aboriginal and Torres Strait Islander standalone birth centre, clinically and culturally safe care, maternal and infant health (MIH) workforce development, and programs to strengthen family capacity. The project will investigate the process of establishing the Birthing on Country Service, and carefully monitor outcomes to determine the acceptability, clinical and cultural safety, efficacy, cost and features likely to enable sustainability in each community. We will monitor intended and unintended outcomes with a view to scaling up in the future. We are building on our previous studies, particularly the Indigenous Birthing in an Urban Setting (IBUS) study, which has seen an effective service redesign in an urban setting.

McNamara K, Shand A, Henry A, Nassar N, Black K, Ludlow J, Chinoy R. *Pregnancy Intention, Contraception and Obstetric Outcomes in Women Who Use Alcohol and Other Drugs in Pregnancy.*

Locations: Wollongong Hospital.

External Partners: University of Sydney, St George Hospital, Royal Hospital for Women, Royal North Shore Hospital, University of New South Wales, Global Women's Health, The George Institute for Global Health, Royal Prince Alfred Hospital.

This project will evaluate pregnancy intention, contraception use and obstetric outcomes in women who use alcohol and other drugs. The first part is a retrospective analysis of existing hospital datasets from NSW public hospitals. This analysis investigates the incidence of pregnancy intention, and the association between pregnancy intention and pregnancy, birth and labour outcomes in pregnant women who use alcohol and other drugs. The second part of the project is a prospective survey to examine pregnancy intention using a validated scale, and contraception use, including postpartum contraception. Pregnant women known to use alcohol and other drugs will be recruited during pregnancy or two weeks post-partum.

GRANTS

National Health and Medical Research Council - \$1,090,701 - *Building on Our Strengths (BOOST): Developing and Evaluating a Birthing on Country Service with integrated Community Hub and Birth Centre.*



MEDICINE

CARDIOLOGY

Lee A, Mackay S, Norman S, Zaki N, Krishnamoorthy R. *Cardiovascular COVID-19 Database.*

Locations: Wollongong Hospital.

Krishnamoorthy R, Norman S, Mohd Zaki I, Lee A, Shetty P, Elison B. *Diagnostic utility of paired myocardial perfusion scans and coronary calcium score in low to intermediate risk chest pain.*

Locations: Wollongong Hospital.

Myocardial perfusion studies (MPS) and coronary artery calcium scores (CACS) have been widely utilised non-invasive modalities in the assessment of patients with intermediate risk chest pain. Whilst CACS correlates to burden of atherosclerotic disease, MPS is beneficial in assessing myocardial function and ischaemia. The combination of both modalities can be valuable in risk stratifying patients in the low to intermediate risk in order to appropriately refer higher risk patients for more invasive coronary investigation.

ENDOCRINOLOGY

Francois M, Moses R. *Should an evening snack be recommended in the management of gestational diabetes.*

Locations: Illawarra Diabetes Service.

External Partners: University of Wollongong, Illawarra Health and Medical Research Institute.

GDM, glucose intolerance in pregnancy, is the fastest growing diabetes subtype in Australia. Currently, high fasting glucose (FBG) is of high concern, with more women being diagnosed with elevated FBG increasing the need for exogenous insulin and complications for both mother and child. Despite popular advice from health care practitioners to consume a bedtime snack containing 1-2 carbohydrate exchanges, no scientific studies exist to support this recommendation as a strategy to lower FBG. The research will test whether consuming a snack prior to bed is a viable treatment option for improving fasting and nocturnal hyperglycaemia in women with Gestational Diabetes (GDM).

FORENSIC MEDICINE

Bilton L, Green H, l'Ons B. *Application of 3D Printing in Post Mortem Reconstruction.*

Locations: Wollongong Hospital.

External Partners: NSW Health Pathology, Western Sydney University.

This project plans to study the possibilities of advancing existing reconstruction techniques with the use of artificial prosthetics manufactured by 3D printing. Although there are currently several reconstructive approaches, few of them involve the restoration of fractured craniofacial structures as the foundation for soft tissue reconstruction. In addition, current reconstruction techniques lack structure and stability in situations requiring replacement of vertebrae or skull repair after brain and spinal cord retrievals. The success of this project would substantially increase the likelihood of family viewings where there is significant craniofacial trauma (head and facial trauma) or following the removal of tissue (eg cervical spine) for forensic examination. It would also significantly minimise the trauma and grief process at such devastating times for families.

GASTROENTEROLOGY

Ha T, **Kapur A, McDonald J**, Feletto E, Eckermann S, Simpson H. *Bowel Cancer - time for targeting more effective screening strategies in those who benefit.*

Locations: Wollongong Hospital.

External Partners: Cancer Council NSW, University of Wollongong.

The main aim of this study is to identify why colorectal cancer (CRC) and pre-cancerous lesions (adenomas and polyps) do not participate in screening, and to begin to identify strategies to improve the current nationally funded and administered screening program in Australia (The National Bowel Cancer Screening Program; NBCSP).

Ding JNS, **Lee T, Leighton C, Robinson S, Rogge C**. *A Phase 3, multicentre, randomized, double blind placebo controlled study of oral ozanimod as maintenance therapy for moderately to severely active Crohn's disease (RCP01-3203).*

Locations: Wollongong Hospital.

External Partners: St Vincent's Hospital (Melbourne).

Crohn's disease (CD) is a gastrointestinal inflammatory disease. Subjects with CD suffer from diarrhoea, rectal bleeding, weight loss, abdominal pain and fever. This is a study to determine the effect of oral ozanimod as a maintenance treatment for subjects with moderately to severely active CD.

Ding JNS, **Lee T, Leighton C, Robinson S, Rogge C**. *A Phase 3, multicenter, open label study of oral ozanimod for moderately to severely active Crohn's disease (RCP01-3204).*

Locations: Wollongong Hospital.

External Partners: St Vincent's Hospital (Melbourne).

Crohn's disease (CD) is a gastrointestinal inflammatory disease. Subjects with CD suffer from diarrhoea, rectal bleeding, weight loss, abdominal pain, fever. The current standard of care therapy consists of anti-inflammatory approaches. There remains considerable unmet medical need for safe and effective oral treatments for CD. This is an openlabel, multicenter extension study to evaluate safety and efficacy of ozanimod in subjects with moderately to severely active CD. Participants will receive ozanimod for the duration of their participation in the study.

Leong R, **Lee T, Leighton C, Robinson S**. *Induction Study #1 - A phase 3, multicenter, randomized, double blind, placebo controlled study of oral ozanimod as induction therapy for moderately to severely active Crohn's Disease.*

Locations: Wollongong Hospital.

External Partners: Concord Repatriation General Hospital.

This is a Phase 3, randomized, double-blind, placebo-controlled study to determine the effect of oral ozanimod as an induction treatment for subjects with moderately to severely active Crohn's Disease.

Hold G, **Lee T, Rogge C, Roberts J, Robinson S** et al. *Defining the Australian Inflammatory Bowel Disease Microbiome - the AIM Study.*

Locations: Wollongong Hospital.

The aim of this study is to better understand the microbial and host cellular events underlying the development of inflammatory bowel disease (IBD). Our aim is to define the changes in the gut microbiota and host response which occur prior to, during and after IBD symptoms. Thoroughly understanding the sequence of events which precedes IBD symptom onset will enable more effective management of existing IBD patients and their disease but more excitingly, may ultimately prevent people from developing the disease.

INFECTIOUS DISEASES

Slavin M, Yong M, Thursky K, Teh B, Worth L, Haeusler G, Reynolds G, Weinkove R, McQuilten Z, Crane M, **Shum O, Leighton C, Robinson S**. *A Multi-Centre National Study of COVID-19 Infection in Cancer Patients.*

Locations: Wollongong Hospital.

External Partners: Multiple hospitals Australia-wide.

Since the identification of a novel coronavirus (SARS-CoV-2) in January 2020 and its associated respiratory disease, COVID-19 has gained worldwide attention. While most cases result in mild symptoms, a significant proportion of the fifteen percent of patients hospitalised with COVID-19 have additional complications requiring intensive care admission, end-organ support and mechanical ventilation. Cancer patients are vulnerable to many infections and may represent a subgroup of patients disproportionately affected by COVID-19 morbidity and mortality. Currently, the outcomes of COVID-19 infection in cancer patients are yet to be adequately captured, although this population is at high risk of mortality. This National Centre for Infections in Cancer (NCIC)-led project aims to evaluate the clinical course of cancer patients who develop COVID-19 within Australia and New Zealand and will provide critical information about cancer patients' risks, clinical outcomes and ways to best support cancer patients during public health epidemics. Nuances in potential interaction between cancer therapies, cancer immunity and treatments for COVID-19 may better inform management of COVID-19 infection amongst this group.

Tong S, **Shum O, Leighton C, Miyakis S** et. al. *Australasian COVID-19 Trial (ASCOT).*

Locations: Wollongong Hospital.

External Partners: Several hospitals Australia-wide.

There are no therapies known to be effect for COVID-19. Lopinavir/ritonavir (LPV/r) has demonstrated some laboratory activity and is available as an approved oral formulation for HIV. Hydroxychloroquine has demonstrated some laboratory activity and is available as an approved oral formulation for malaria. The ASCOT trial is multi-centre Randomised Clinical Trial to assess clinical, virological and immunological outcomes in hospitalised patients with SARS-CoV-2 infection (COVID-19) treated with lopinavir/ritonavir and/or hydroxychloroquine compared to current standard of care.

Shehabi Y, Rogers B, Leditschke A, Nayyar V, Sarode V, Rudham S, Chimunda T, Finfer S, Taori G, Udy A, Moore J, White H, Dwivedi D, **Shum O, Eyles M, Miyakis S, Stockbridge R, Arcioni S**, *Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness: Randomized Controlled Trial - the BALANCE study.*

Locations: Wollongong Hospital.

External Partners: Monash Health, Mater Private Hospital, Westmead Hospital, Cabrini Hospital, St Vincent's Hospital (Melbourne), Bendigo Health, Royal North Shore Hospital, Dandenong Hospital, Alfred Hospital, Sunshine Coast University Hospital, Logan Hospital.

The optimal duration of antibiotic treatment for critically ill patients with bloodstream infections is unknown. There is evidence in less severe infections that shorter durations of antibiotic treatment are equally as effective as longer durations of treatment. There is considerable variation in the length of antibiotic treatment that doctors prescribe for patients with bloodstream infections, but longer duration contributes to antibiotic resistance, complications such as secondary infections and increased healthcare costs. This international, multicentre, randomized, controlled trial in New Zealand, Canada and Australia will determine whether a shorter duration of antibiotic treatment (7 days) for patients with bloodstream infections is as effective as a longer duration of treatment (14 days) and is associated with less total antimicrobial use, and fewer secondary bowel infections, adverse events and development of antibiotic resistant organisms. The cost effectiveness of total treatment costs under the two alternatives will also be studied.

Davis J, Sud A, Dotel R, O'Sullivan M, Foo H, **Ghosh N**, McKew G, Gray T, Paterson D, Smith S, Holmes N, Rogers B, Robinson JO, Davies J, Anagnostou N, Runnegar N, Tramontana A. *Impact of evidence-based quality-of-care processes gained from clinical trial participation on management and outcome of methicillin-resistant Staphylococcus aureus bacteraemia (CAMERA2 case-control retrospective study).*

Locations: Wollongong Hospital.

External Partners: Multiple hospitals Australia-wide.

This retrospective case-control study aims to compare clinical outcomes and adherence to quality-of-care processes between clinical trial participants versus non-clinical-trial patients. The cases will be participants of our recently concluded Combination Antibiotic Therapy for Methicillin Resistant Staphylococcus Aureus infection (CAMERA 2) trial. The controls will be Methicillin Resistant Staphylococcus aureus (MRSA) bacteraemia patients from CAMERA2 sites who were not enrolled into the CAMERA2 trial.



NEUROLOGY

Strathdee J, Venkat A, Lichtenberg I. *Impact of COVID-19 on acute stroke admissions and outcomes: A regional Australian hospital experience.*

Locations: Wollongong Hospital.

If there is a change in stroke presentations with corresponding worse outcomes, public health campaigns encouraging patients to present earlier to hospital with stroke-like symptoms may be required. This is particularly important as Australia transitions to a post COVID-19 life as viral case numbers drop. At present, there have been no Australian publications on rates of presentation for strokes during COVID-19.

RENAL MEDICINE

Hassan HIC, Murali K, Chen JHC. *Association between peritonitis and cardiovascular mortality in patients on peritoneal dialysis.*

Locations: ISLHD.

In the peritoneal dialysis (PD) population, PD peritonitis remains a challenge for patients and health care providers and remains one of the most common reasons for technique failure. However, the association between peritonitis and cardiovascular events has not been extensively examined in this high-risk population. A recent ANZDATA study examining technique and patient survival in PD patients showed that <10% of the association between diabetes and cardiovascular mortality was mediated by peritonitis. This study aims to examine in detail the association between peritonitis and cardiovascular mortality using the Australia and New Zealand Dialysis and Transplant (ANZDATA) registry.

RESPIRATORY MEDICINE

Wark P, **Samuel S, Vining L.** *Choosing between biological agents for severe allergic eosinophilic asthma.*

Locations: Wollongong Hospital.

External Partners: University of Newcastle, John Hunter Hospital.

Severe asthma clinicians now have the choice to access treatment with two biologic agents: Omalizumab or Mepolizumab. Clinical trials were designed to maximise their treatment effect against the broadest number of severe asthma patients. They did not however compare them to each other in terms of efficacy, nor provide clarity as to who may benefit from one agent compared to the other if either presents as a possible treatment option. The study described here will compare the two monoclonal antibody treatments in severe asthma patients whose asthma presentation qualifies for either treatment according to PBS approval criteria.

Jones AC, Maqbool MB, Napaki SM. *Optimum volume of pleural fluid required to find immune-cytological and molecular markers among patients of Non-Small Cell Lung cancers (NSCLC).*

Locations: Wollongong Hospital.

The data available to date is from two studies performed in the United States, which recommended optimum pleural fluid volume of 50 ml and 70 ml for accurate cytological diagnosis of lung cancers. It is unclear whether collection of extra pleural fluid would provide extra cellular material to improve defining molecular and immuno-cytological markers which are now routine in lung cancer management. We aim to determine the optimal volume of pleural fluid that is required to diagnose lung cancer using molecular and immuno-cytological markers in a retrospective cohort of patients presenting to the Illawarra Shoalhaven Local Health District.

RHEUMATOLOGY

Loganathan A, Raman A, Riordan J. *Evaluating the perceptions of the management of lower back pain.*

Locations: ISLHD.

We have designed a questionnaire to be distributed to junior doctors and final year medical students in Australia to understand their perceptions about managing back pain. The questionnaire involves demographic data and ten multiple choice questions based on a hypothetical clinical scenario of a patient with lower back pain.

GRANTS

IHMRI Clinical Translation Grant - \$20,000 - *Should an evening snack be recommended in the management of gestational diabetes.*

NSW Health Pathology Forensic & Analytical Science Service Funds - *Application of 3D Printing in Post Mortem Reconstruction.*

UOW Faculty of Social Sciences Mid-Career Research Grant - *Bowel Cancer - time for targeting more effective screening strategies in those who benefit.*

National Health and Medical Research Council - \$40,000 - *Australasian COVID-19 Trial (ASCOT).*

National Health and Medical Research Council - \$500,000 - *Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness: Randomized Controlled Trial - the BALANCE study.*

MENTAL HEALTH

Townsend M, Miller C, Kelly P, **Sanzone G**. *Exploratory study: Prevalence and responses to self-harm and suicidal ideation in primary school aged children.*

Locations: ISLHD.

External Partners: University of Wollongong.

The goal of this exploratory research is to develop a comprehensive understanding of self-harm and suicidal ideation in children. Little is known about self-harm in children under the age of 12 years, however international studies support that self-harming behaviours affect younger populations. This project aims to estimate the prevalence of young people aged 5-17 in contact with ISLHD health services for self-harm or suicidal ideation and to understand care pathways and management of young people with health service contacts for self-harm or suicidal ideation.

Eagles S, Fisher S, Delgado S, Walsh M, McKay R, **Misztal G**. *Mental Health Pathways in Practice: Evaluation of a state-wide mental health capability enhancement program for nursing and allied health staff in NSW.*

Locations: Wollongong Hospital.

External Partners: HETI, University of Sydney.

The Mental Health Pathways in Practice (MHPiP) program is a state-wide mental health capability enhancement program for nursing and allied health staff in NSW. The evaluation of MHPiP is guided and structured by four key lines of enquiry (KLEs): (1) What was the learning experience of the evaluation participants? (2) How effective was the program in teaching new skills and knowledge, or enhancing the existing skills and knowledge, of the evaluation participants? (3) To what extent are evaluation participants more capable and confident to deliver better care for mental health consumers? and (4) To what extent do the number and type of units completed by participants impact their learning experience, acquisition or enhancement of skills and knowledge, and their capability and confidence at work?

Lakshmanan DAM, *Timely communication of effective discharge summaries (Transfer of Care) to GPs.*

Locations: ISLHD.

Communication between various professionals and organisations is vital in patient care, treatment, safety and other factors. Discharge summaries are important documents; a patient's health can depend on it and death, readmission, morbidity could follow if not communicated in a timely manner. However, there are high levels of variability in issuing quality discharge summaries to GPs. This raises important issues concerning continuity of care, potential risks and readmissions.



GRANTS

UOW Social Sciences Seed Grant - \$17,754 - *Exploratory study: Prevalence and responses to self-harm and suicidal ideation in primary school aged children.*

NSW Ministry of Health Nurse Strategy Reserve Funding - \$118,014 - *Mental Health Pathways in Practice: Evaluation of a state-wide mental health capability enhancement program for nursing and allied health staff in NSW.*

NURSING & MIDWIFERY

Some projects undertaken by Nursing & Midwifery staff have already been listed under their principal clinical stream. Their delineation into these clinical groups as opposed to Nursing & Midwifery directly serves to illustrate the dedicated work put into research by nurses and midwives.

Meedya S, Fernandez R, **Wilson V**, Konecny P, Adhikari S, Lewer K, Ellwood L, Sedhain S. *What are the perceptions of nurses about their role towards antimicrobial stewardship?*

Locations: Wollongong Hospital.

External Partners: University of Wollongong, SESLHD, Australian Primary Health Care Nursing Association, University of New South Wales.

As the threat of antimicrobial resistance continues to rapidly escalate, the need for new evidence to support novel strategies in reducing resistance is paramount. Nurses are in a unique position to be a driving force for improved antimicrobial stewardship (AMS) programs and in providing patient and carer education to reinforce the appropriate use of antimicrobials in both the acute and community adult settings. However, inconsistency surrounds nurses' perception and understanding of their role in antimicrobial stewardship, and evidence shows that nurses feel disempowered to advocate for the proper use of antimicrobials. This study intends to explore nurses' perception on their role in antimicrobial stewardship in order to develop new strategies to support appropriate use of antimicrobials across both hospital and community settings.

Wilson V, Kittscha J, Bliokas V, Fairbrother G. *Psychological Adjustment after Stoma Formation.*

Locations: Wollongong Hospital.

External Partners: University of Wollongong, University of Sydney, SLHD.

Stoma surgery involves a surgical procedure to bring a portion of intestines onto the outside of a person's abdomen for the passage of urine or faeces. This renders them incontinent with the necessity to wear a stoma bag to collect their waste. It is confronting and disruptive to the person's daily living, as physical and psychological adjustments need to be made. This study aims to identify important strategies that people having stoma surgery require to facilitate adjustment, and also investigate participants experiences of attending one support strategy currently in place (the Illawarra Ostomy Information Group), whether this contributed to their adjustment to living with a stoma and if so, how.

Wilson V, Traynor V, Lapkin S, **Coyle M**. *'Specialling' activities for older people in hospital: an ethnographic study.*

Locations: Shoalhaven District Memorial Hospital.

External Partners: University of Wollongong.

When in hospital, older people are at increased risk of adverse health outcomes, such as longer lengths of hospital stay, falls and delirium (acute confusion). Nursing staff will commonly implement the use of 'specials' to reduce safety risks, which involves the use of additional staff to provide one-to-one care. There is little evidence supporting the activity which is costly and lacks guidelines. Ethnography provides cultural description and a means to understand staff beliefs.

Moroney T, **Wilson V**, **Edgar D**. *The facilitation of person-centred practice through the provision of group clinical supervision informed by The Person-Centred Practice Framework.*

Locations: ISLHD.

External Partners: University of Wollongong.

This project will design, implement and evaluate a group clinical supervision (CS) program guided by The Person-Centred Practice Framework (PCPF), which supports organisations and individuals to understand

and work in person-centred ways. The PCPF will be used to inform the supervisors training program, as well as to assist the supervisees to 'name' their clinical issue, find solutions and evaluate outcomes.

Higgs M, Frost S, **Cash K, Morgan S.** *Getting to know youR pAtient for safe individualised CarE: the GRACE project.*

Locations: Shoalhaven District Memorial Hospital.

External Partners: SWSLHD.

The implementation of standardised risk assessment tools has led to task orientated nursing. This siloed approach to risk assessment has removed the need for nurses to comprehensively assess patients and critically analyse the results to develop individualised, comprehensive care plans. The 'Getting to know youR pAtient for safe individualised CarE' (GRACE) project is designed to align nursing admission assessment processes with the National Safety and Quality Health Service comprehensive care standard (standard 5, 2nd edition). This will be achieved through the development of a framework, that will be trialled to guide the conduct of consistent comprehensive admission assessment processes that are conducted in partnership patients and patients' families/carers. It will incorporate important components of risk screening, and inform the development of individualised care plans that are in-line with the patients' values and priorities, and designed to mitigate identified risk.

Wilson V, Riley K, Middleton R, Molloy L. *Uncovering the resuscitative practices and experiences of rural nurses in Australia: An ethnographic study.*

Locations: Milton Ulladulla Hospital.

External Partners: University of Wollongong.

This research will aim to uncover the resuscitation practices and experiences of rural nurses. An ethnographic approach will help to describe the rural nursing culture surrounding resuscitation.

Kittscha J, Lawrie S. *Investigating the experiences of adults following stoma surgery who are given a companion bear (Teddy Bear Study).*

Locations: Wollongong Hospital.

This study will bring new evidence about the use of ostomy companion bears for adults having stoma surgery. The bears have been specially made with a fake stoma and stoma bag (ostomy companion bears). We have noticed that the recipients gained comfort from this and report that it helped them talk about their stoma with their family. There are no published studies in the literature about the use of ostomy companion bears with adults or children having stoma surgery, although anecdotally knowledge of their use exists.

Edgar D, Fitzpatrick S, Carswell C, Allen A, Rowntree K, Woods E, Carrie A, Roby J, Wheaton A, Nicholls J, Knowles L. *A Mission to Enhance the Provision of Clinical Supervision.*

Locations: Wollongong Hospital.

Whilst there is shared recognition of the benefits of clinical supervision across allied health and nursing professions, there are also differences in professional requirements and local implementation across each group, particularly those who require AHPRA registration. This research aims to complement the work already being conducted by both professional groups to enhance the effectiveness of clinical supervision.

GRANTS

UOW Faculty of Science, Medicine and Health Partnership Grant - \$20,000 - *What are the perceptions of nurses about their role towards antimicrobial stewardship?*

NSW Health Nursing and Midwifery Strategy Reserve Funding - \$315,518 - *Getting to know youR pAtient for safe individualised CarE: the GRACE project.*

PAEDIATRICS

Dalby-Payne J, Lau C, Bhurawala H, Teo S, Chay P, Chin R, Dowling T, **Piper S,** Vuillermin P, Standish J, Newnham T, Thomson-Bowe K, Rosser J, Martin A, Kapoor V, Costa-Pinto J, Sypek S, Mace A, McNab S, Simeonovic M, Thomas C, Camadoo L, Beggs S, Stewart P, Liu A, Kaufman J. *Children's Inpatient Research Collaboration of Australia and New Zealand (CIRCAN) Study of the Impact of the COVID-19 Pandemic on General Paediatric Admissions in Australia.*

Locations: Wollongong Hospital.

External Partners: Multiple hospitals Australia-wide.

The aim of this multi-centre epidemiological observational study is to compare the burden of general paediatric inpatient admissions in tertiary and non-tertiary hospital across Australia pre and post-COVID-19 Pandemic. Secondary aims will be to examine the change in the profile of patients admitted under General Paediatric teams including demographic features, severity of illness and types of diagnoses.

Oei JL, Travadi J, Tracy M, Allgood C, Sotiropoulos J, Smyth J, **Kunjunju A, Marjoribanks C.** *AIR Study: Air for Infant Resuscitation.*

Locations: Wollongong Hospital.

External Partners: University of New South Wales, Royal Hospital for Women, John Hunter Children's Hospital, Westmead Hospital, Campbelltown Hospital.

For more than 15 years, international resuscitation guidelines have recommended the use of air (21% oxygen) to initiate respiratory support of full-term infants at birth. This is to prevent oxidative stress. However, the impact of using air instead of oxygen (which had been used for >200 years) is unknown and concerning if the infant has lung problems, necessitating extra oxygen. This project will aim to recruit 5,000 infants from >40 hospitals around the world to measure oxygen saturations (SpO₂) for the first 10 minutes after birth. The primary aim of the study is to see if air allows sick babies to reach recommended oxygen saturations by 5 minutes and if this impacts on death at 24 hours.

Kunjunju A, Uebel H, Piper S. *Where to draw the line? Comparison of two jaundice guidelines and implications on readmission for phototherapy.*

Locations: Wollongong Hospital.

Phototherapy is a safe and effective treatment for neonatal unconjugated hyperbilirubinemia, which involves placing the infant under a blue spectrum light, facilitating the conversion of bilirubin to soluble isomers that are then excreted in the urine. This has reduced the need for exchange transfusion, and in many centres, also enabled the treatment of infants in the community. In this study, we are aiming to compare the two jaundice algorithms and the babies will meet the treatment threshold in both charts.

Reid S, Kunjunju A. *Crossing the threshold: Comparing guidelines for neonatal inpatient management of jaundice.*

Locations: Wollongong Hospital.

There is significant variation in clinical practice between Australian Neonatal Units in regards to the minimum serum bilirubin level requiring phototherapy. Current guidelines used in NSW are based on the more conservative NICE guidelines, whilst Queensland utilise AAP guidelines, which advocate higher treatment thresholds. This study may provide evidence for an alteration in clinical practice, with the potential for decreasing unnecessary medical interventions, and subsequently reducing hospital stays for neonates and their mothers.

SURGERY

ANAESTHETICS

Smith N, McNamara P. *Climbing a flight of stairs: Patient self-report compared to objective measurements.*
Locations: Wollongong Hospital.

This project aims to identify whether patient self reported ability to climb a flight of stairs (FOS) correlates with objective measures, and whether self-reported or objective measures correlate with NIRS measures of leg muscle oxygen saturation. Patients from an anaesthetic pre-admission clinic will be asked to self report their ability to climb a FOS before having a NIRS device (non invasive way to measure muscle oxygen saturation) attached to their leg, and then climbing a flight of stairs. Additional parameters will be measured including Borg scale, heart rate and duration of exercise.

COLORECTAL SURGERY

Winn R, Ang ZH, De Robles MS, Putnis S. *Retrospective analysis of colorectal cancer outcomes in Illawarra, NSW.*
Locations: Wollongong Hospital.

This project is retrospectively looking at the patients who underwent colorectal resections in the Illawarra area for colon & rectal cancers in the last 15 years. Investigators will be looking at all the patients who were operated on for colorectal malignancy and follow up their short and long term outcomes. Main outcomes of interest include survival, whether low muscle mass affects outcome, response of elderly patients' (age 70 and greater) response to chemotherapy, cell based (histological) features and its relationship to outcomes of patient, and accuracy of pre-operative MRI staging

GENERAL SURGERY

Craig S, Yabe TE, Ashford B, Davis KJ, Stretch C, Bathe O. *Validation of a novel prognostic gene assay for papillary thyroid cancer to improve appropriateness of care.*
Locations: Wollongong Hospital, Shoalhaven District Memorial Hospital.
External Partners: University of Calgary, Illawarra Health and Medical Research Institute.

Thyroid cancer is the 8th most common cancer by prevalence, and the incidence has been increasing by more than 6% per year since 1992. In 2021, there is projected to be over 1,600 new cases in New South Wales. Papillary thyroid cancer (PTC) is the most common thyroid cancer, and usually has a favorable prognosis with high cure rates. However, approximately 10-15% of PTCs display a more aggressive behavior and are often resistant to conventional adjuvant therapies such as radioactive iodine. Although the current clinical systems have been validated in clinical studies, the proportion of variance explained is sub-optimal and accounts for only a small proportion of the uncertainty in PTC prognosis. We have developed a novel algorithm that has identified 44 genes that most highly impact PTC prognosis. From these results, we have designed a practical clinical assay to help guide treatment decisions.

Ashford B, Hewitt L, *Impressions of a career in surgery. Reflections from retired surgeons. An observational study.*
Locations: ISLHD.

The aim of this study is to categorise and describe the impressions/reflections from retired surgeons regarding their career in surgery. The results of this study will provide valuable insights into the training and education of junior surgeons.

Richardson A, **Putnis S, Watson E,** Ramsay A, Patel B, Jones M, Sutherland A. *American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP).*
Locations: Wollongong Hospital, Shoalhaven District Memorial Hospital.
External Partners: Coffs Harbour Health Campus, Queensland Children's Hospital, Coffs Harbour Hospital.

ACS NSQIP is a hospital based surgical quality improvement program that allows facilities to collect data on a variety of variables on all patients undergoing major procedures that meet program criteria. Data is collected in the pre-operative, intra-operative and post-operative phase up to 30 days post-surgery and entered into the NSQIP database. Monitoring of surgical outcomes will highlight areas for improvement and change in service provision.

Pockney P, **Putnis S, De Robles MS, Ang ZH.** *COVIDSurg - Outcomes of surgery in COVID-19 : international cohort study.*
Locations: Wollongong Hospital.
External Partners: University of Newcastle.

COVIDSurg is a prospective international multicentre cohort study looking at outcomes in patients infected with SARS-CoV-2 who undergo surgery. There is an urgent need to understand the outcomes of SARS-CoV-2 infected patients who undergo surgery. Capturing real-world data and sharing international experience will inform the management of this complex group of patients who undergo surgery throughout the COVID-19 pandemic, improving their clinical care.

Pockney P, Koh C, Aitken S, **Putnis S, Ang ZH.** *COVIDSurg Cancer - An International Cohort Study.*
Locations: Wollongong Hospital.
External Partners: University of Sydney, SLHD, University of Newcastle, HNELHD.

The rapid emergence of the COVID-19 virus has led to a global impact on elective surgical care. We have very little evidence to guide us. The magnitude and effects of these changes are uncertain. The safety of operating on patients electively with the risks of COVID-19 postoperative pneumonia is unknown. High-quality data will allow policy planning at regional and hospital level for both this outbreak and future pandemics.

Kalogeropoulos G, **Ban C,** Chuan A, Yam A, Varanasi S, Ben-Menachem E, Stevens J. *Multi-site audit of COVID-19 airway interventions.*
Locations: Wollongong Hospital.
External Partners: St Vincent's Hospital, Liverpool Hospital, Westmead Hospital, Royal Prince Alfred Hospital.

This study will collect data on confirmed or suspected COVID-19 patients requiring an airway intervention in hospital. The data collected include reason for airway intervention, type of airway intervention, strategy used for airway intervention, availability of PPE and any complications.



Hewitt L, Yabe T, Wykes J, McAndrew D, Clark JR, Ashford B. *Defining the dimensions of periosteal free tissue transfer harvest sites.*

Locations: ISLHD.

External Partners: University of Wollongong, University of Sydney, Chris O'Brien Lifehouse.

The use of a periosteal flap with Polyetheretherketone (PEEK) in the setting of maxillofacial reconstruction is expected to reduce donor site morbidity significantly compared to the traditional vascularised bone graft such as fibula and scapula flap. However, this is currently untested. Our study aims to assess the viability to use the periosteum from the scalp, scapula, humerus, femur, sternum, tibia, and pelvis to wrap a PEEK prosthesis.

Seth I, Hewitt L, Yabe T, Wykes J, Clark JR, Ashford B. *Assessment of post-surgical donor-site morbidity in Vastus lateralis free flap for head and neck reconstructive surgery: An observational study.*

Locations: Wollongong Hospital.

External Partners: Chris O'Brien Lifehouse.

Studies have found that a section of vastus lateralis myofascial free flap (VLMFF) can be removed and is feasible to treat various disorders of the head and neck. No studies have demonstrated the prevalence of patients receiving VLMFF surgery and lower limb morbidity in receiving from this type of surgery. Identifying potential complications may assist in the prevention of various conditions e.g. patellofemoral pain syndrome, obesity, assisting in future early prevention and intervention. Identifying the number and types of patients receiving this surgery may assist in quantifying the impact of VLMFF use and patient health outcomes. Our aim is to determine the prevalence of patients receiving a VLMFF to reconstruct the head and neck in the Illawarra Shoalhaven Local Health District, and to determine the association between patients who have had surgery and donor site morbidity such as knee pain, decreased overall function and decreased lower limb strength/length/sensation.

Hewitt L, Yabe T, Clark JR, Wykes J, Ashford B. *Vastus lateralis free flap for head and neck reconstruction: An assessment of post-surgical donor site. A Systematic Review.*

Locations: Wollongong Hospital.

External Partners: Chris O'Brien Lifehouse.

Current research reports a neutral effect between the use of the vastus lateralis and donor-site morbidity. Further research is required using a more rigorous investigative approach using a wider range of objective measures and larger sample sizes to confirm these findings to inform holistic post-operative care options.

Beck M, Ashford B, Napaki SM. *Appendicitis in the COVID-19 Pandemic.*

Locations: Wollongong Hospital.

During the COVID-19 pandemic we noticed a reduction in the number of patients presenting to Wollongong Hospital for the assessment of suspected appendicitis. Recent research seems to confirm a drop in the number of cases of appendicitis during the pandemic, but the reasons for this change and the health outcomes of these patients remain unclear. To our knowledge, no previous Australian study has been carried out to examine the association between COVID-19 and appendicitis. If we know why the number of cases of appendicitis have changed, and the characteristics of these cases, we can better prepare for treating our patients during the pandemic.

Wykes J, Clark J, Subramanian N, Charters E, Leung L. *Tongue Reconstruction with Innervated Vastus Lateralis and Antero-Lateral Thigh Free Flap.*

Locations: Wollongong Hospital.

External Partners: Chris O'Brien Lifehouse.

This is a study to determine tongue function (speech and swallowing) after removal for cancer and reconstruction using thigh muscle and re-establishing its nerve supply.

Mordaunt D, Craig SJ, Davis KJ, O'Sullivan M, Yu P, Thilakarathne N. *Health pathway discovery, conformance and enhancement: appendicitis as an archetype.*

Locations: ISLHD.

External Partners: University of Auckland, University of Wollongong.

This study will apply process mining (which uses machine learning) to clinical data from appendicectomies performed over a ten year period for patients presenting to ISLHD hospitals. This will produce appendectomy pathway models that represent an unbiased view of patient movements through the diagnostic and treatment process. Analysis of the discovered pathways will enable identification of the major areas of clinical variability, such as reasons for longer than usual treatment times to be explored, as well as reasons for deviations from standard treatment pathways, and will assist with identifying sources of unwarranted clinical variability. Results obtained will be able to be translated into a basis for data-driven, consensus-based clinical pathways thereby reducing unwarranted clinical variability and improving health outcomes for these patients.

NEUROSURGERY

McLoughlin J, Hewitt L, Cherukuri R, Attewell L. *Complications post elective neurosurgery. A local health district analysis.*

Locations: Wollongong Hospital.

Outcomes from this study could potentially identify which patient type/surgery type is more at risk of getting a certain complication. This would mean that appropriately placed screening tools can be put into current practice in an attempt to either prevent the complication from occurring or put in place a strategy designed to mitigate the risk.

Jaeger M, Ecroyd H. *Identifying biomarkers of idiopathic normal pressure hydrocephalus in cerebrospinal fluid and brain tissue.*

Locations: Wollongong Hospital.

External Partners: University of Wollongong, Illawarra Health and Medical Research Institute.

Idiopathic normal pressure hydrocephalus (iNPH) is part of the large group of neurodegenerative diseases affecting mainly the elderly population. The goal of this study is to investigate and search for biomarkers from cerebrospinal fluid and brain tissue of patients undergoing CSF Shunt insertion that might help to correctly diagnose iNPH, better understand disease mechanisms and help differentiate from other neurodegenerative disorders.

ORTHOPAEDIC SURGERY

McNamara W, Dares M. *The Orthopaedic Response to COVID-19: The Australian Experience.*

Locations: Wollongong Hospital.

This study is designed to determine the key changes made in day to day functioning of orthopaedic departments in Australia that have been implemented in response to COVID-19. Currently, there are no guidelines for orthopaedic trauma services. It is expected that this study will identify key strategies used to promote social distancing, reduce hospital flow and ensure quality trauma services are continued. These findings would be used as a benchmark for international orthopaedic institutions and for similar situations in the future.

McNamara W, Dares M. *The effect of COVID-19 on orthopaedic trauma in a tertiary institution.*

Locations: Wollongong Hospital.

Since March 2020 our orthopaedic department has anecdotally noticed an increase in trauma volume and a change in trauma patterns. Outcomes of this study are important because they firstly identify high risk behaviours that can be broadcast to the community to avoid or prevent; it may direct governmental regulation formation to help prevent unnecessary traumas and it would demonstrate the essential role of orthopaedic trauma management in the setting of a pandemic that would attract funding and justify regular trauma lists.

VASCULAR SURGERY

Murambi RT, Cherukuri RVK, Villalba L, Winn R, Jaber M. *Multidisciplinary approach to retroperitoneal peripheral nerve sheath tumours – an institutional case series.*

Locations: Wollongong Hospital.

Retroperitoneal peripheral nerve sheath tumours (RPNST) are rare. They pose a challenge to management even with experienced surgeons. The lumbosacral plexus is a complex peripheral nervous system anatomical structure that innervates the local organs in the retroperitoneum, pelvis, buttocks and the lower limbs. The plexus is surrounded by a significant amount of soft tissue and vascular structures complicating access to it. This study will contribute to a body of knowledge in the management of these rare tumours and will suggest some management principles based on our experience.

GRANTS

ISLHD Early Career Researcher Grant - \$50,000 - *Validation of a novel prognostic gene assay for papillary thyroid cancer to improve appropriateness of care.*

IHMRI Clinical Translation Grant - \$23,420 - *Identifying biomarkers of idiopathic normal pressure hydrocephalus in cerebrospinal fluid and brain tissue.*

Tour de Cure - Early Career Researcher Grant. - *Establishing a molecular signature of risk of metastasis and progression in primary cutaneous squamous cell carcinoma.*

National Health and Medical Research Council - \$59,7622.50 - *Cutaneous Squamous Cell Carcinoma: defining prognostic markers of metastasis.*



2020 ISLHD PUBLICATIONS AND CONFERENCES

There were a total of 226 publications or conference presentations made known to the ISLHD Research Office appearing in the year 2020, and had one or more authors listed with ISLHD affiliations. They are listed below in alphabetical order of first author surname, and names in bold font represent ISLHD clinicians.

Publications with ISLHD-affiliated first author = 93

CHRISP/ISLHD joint publications = 6

Publications with one or more IHMRI-affiliated author(s) = 91

PUBLICATIONS

Affinity Trial Collaboration (incl **Hartwell T**) (2020). *Safety and efficacy of fluoxetine on functional outcome after acute stroke (AFFINITY): a randomised, double-blind, placebo-controlled trial*, The Lancet: Neurology, 19(8):651-660.

Ahmad I, Chufal KS, Bhatt CP, **Miller AA**, Bajpai R, Chowdhary RL, Pahuja AK, Chhabra A, Gairola M (2020). *Can the Choice of Radiotherapy Delivery Technique Influence Which Target Delineation Protocol to Use? A Plan-Quality-Based Analysis in Left Breast Cancer*, Asian Journal of Oncology, 7(01):13-21.

Ahmad I, Chufal KS, Bajpai R, **Miller AA**, Chowdhary RL, Pahuja AK, Chhabra A, Gairola M (2020). *Malignant esophagorespiratory fistulas: a comparative effectiveness survival analysis*, BMJ Supportive & Palliative Care.

Ahmad I, Chufal KS, Bhatt CP, **Miller AA**, Bajpai R, Chhabra A, Chowdhary RL, Pahuja AK, Gairola M (2020). *Plan quality assessment of modern radiotherapy delivery techniques in left-sided breast cancer: an analysis stratified by target delineation guidelines*, BJR Open, 2(1):20200007.

Ahmadzada T, Cooper WA, Holmes M, Mahar A, Westman H, Gill AJ, Nordman I, Yip PY, Pal A, Zielinski R, Pavlakakis N, Nagrial A, Daneshvar D, **Brungs D**, Karikios D, Aleksova V, Asher R, Grau GE, Hosseini-Beheshti E, Reid G, Clarke S, Kao S (2020). *Retrospective Evaluation of the Use of Pembrolizumab in Malignant Mesothelioma in a Real-World Australian Population*, JTO Clinical and Research Reports.

Alexander W, **Davis S**, **Ramakrishna R**, Manoharan A (2020). *Outcomes of reduced frequency dosing of ibrutinib in chronic lymphocytic leukemia patients following complete or partial remission: A pilot study*, Journal of Hematology, 9(3):55-61.

Almeida S, **Bowden A**, Bloomfield J, **Jose B**, **Wilson V** (2020). *Caring for the carers in a public health district: A well-being initiative to support healthcare professionals*, Journal of Clinical Nursing, 29(19-20):3701-3710.

Alnaghy SJ, **Causser T**, Roberts N, **Oborn B**, Jelen U, Dong B, Gargett M, Begg J, Liney G, Petasecca M, Rosenfeld AB, Holloway L, Metcalfe P (2020). *High resolution silicon array detector implementation in an inline MRI-linac*, Medical Physics: The International Journal of Medical Physics Research and Practice, 47(4):1920-1929.

Alomari A, **Wilson V**, Lewis J (2020). *Action research: A mechanism for active engagement of clinical nurses in a program of research*, Nursing & Health Sciences, 22(3):539-547.

Alomari A, Sheppard-Law S, Lewis J, **Wilson V** (2020). *Effectiveness of Clinical Nurses' interventions in reducing medication errors in a paediatric ward*, Journal of Clinical Nursing, 29(17-18):3403-3413.

Al-sudani TA, Biasi G, **Wilkinson D**, Davis JA, **Kearnan R**, Matar FS, Cutajar DL, Metcalfe P, Rosenfeld AB (2020). *eXaSkin: A novel high-density bolus for 6MV X-rays radiotherapy*, Physica Medica, 80:42-46.

Ang ZH, **De Robles MS**, **Kang S**, **Winn R** (2020). *Accuracy of pelvic magnetic resonance imaging in local staging for rectal cancer: a single local health district, real world experience*, ANZ Journal of Surgery.

Ang ZH, **De Robles MS**, **Still A** (2020). *How to do a handsewn reversal of ileostomy: a systematic technique for new surgical trainees*, ANZ Journal of Surgery, 90(9):1762-1763.

Archer J, Madden L, Li E, **Wilkinson D**, Rosenfeld A (2020). *2D photon dosimetry with a scintillation fibre optic dosimeter*, Radiation Physics and Chemistry, 166:108490.

Ashford BG, Yabe TE (2020). *Reconstruction of Pharyngeal Defects*, Surgical Management of Head and Neck Pathologies.

Ayer C, Eapen V, Overs B, Descallar J, Jalaludin B, Eastwood JG, Dissanayake C, Williamms K, Murphy E, Woolfenden S, Watch Me Grow Study Group (incl. **Sadozai A**) (2020). *Risk factors for non-participation in a universal developmental surveillance program in a population in Australia*, Australian Health Review, 44:512-520.

Behmer Hansen RT, Behmer Hansen RA, Behmer VA, Gold J, Silva A, **Dubey A**, Nanda A (2020). *Update on the global neurosurgery movement: A systematic review of international vernacular, research trends, and authorship*, Journal of Clinical Neuroscience, 79.

Beukers AG, **Newton P**, Hudson B, Ross K, Gottlieb T, O'Sullivan M, Daley DA, Pang S, Coombs GW (2020). *A multicentre outbreak of ST45 MRSA containing deletions in the spa gene in New South Wales, Australia*, Journal of Antimicrobial Chemotherapy, 75(5):1112-1116.

Binks AC, Parkinson SM, Sabbouh V (2020). *Oxygen: under or over a surgical facemask for COVID-19 patients?* Anaesthesia, 75(12):1691-1692.

Bolte M, **Knapman B**, Leibenson L, Ball J, Giles M (2020). *Reducing surgical site infections post-caesarean section in an Australian hospital, using a bundled care approach*, Infection, Disease and Health, 25(3).

Bowden A, Wilson V, Traynor V, Chang H-C (2020). *Exploring the use of ageing simulation to enable nurses to gain insight into what it is like to be an older person*, Journal of Clinical Nursing, 29(23-24):4561-2572.

Brace OJ, Alhujaili SF, Paino JR, Butler DJ, **Wilkinson D, Oborn BM**, Rosenfeld AB, Lerch MLF, Petasecca M, Davis JA (2020). *Evaluation of the PTW microDiamond in edge-on orientation for dosimetry in small fields*, Journal of Applied Clinical Medical Physics, 21(8):278-288.

Brown PF, Fitzpatrick S, Hockings F (2020). *Allied Health Professionals Experience of Supervising Allied Health Assistants. A Mixed Method Study*, The Internet Journal of Allied Health Sciences and Practice, 18(3):Article 6.

Brungs D, Minaei E, Piper A-K, Perry J, **Splitt A, Carolan M**, Ryan S, Wi XJ, Corde S, Tehei M, **Aghmesheh M**, Vine KL, Becker TM, Ranson M (2020). *Establishment of novel long-term cultures from EpCAM positive and negative circulating tumour cells from patients with metastatic gastroesophageal cancer*, Scientific Reports, 10:539.

Cameron PA, Fitzgerald MC, **Curtis K**, McKie E, Gabbe B, Earnest A, Christey G, Clarke C, Crozier J, Dinh M, Ellis DY, Howard T, Joseph AP, McDermott K, Matthew J, Ogilvie R, Pollard C, Rao S, Reade M, Rushworth N, Zalstein S (2020). *Overview of major traumatic injury in Australia - Implications for trauma system design*, Injury, 51(1):114-121.

Cammaroto G, Bianchi G, Zhang H, Veer V, Kotecha B, Jacobowitz O, Llatas MC, Ruis de Apodaca PM, Lugo R, Meccariello G, Iannella G, Gobbi R, Toh ST, Hsu Y-S, Baghat AY, Lechien JR, Carlv-Henriquez C, Chuesa-Estomba C, Barillari MR, Ibrahim B, Ayat T, Fakhry N, Hoff P, Thuler ER, **Chan L**, Kastoer C, Ravesloot M, De Vito A, Montevecchi F, Vicini C (2020). *Sleep medicine in otolaryngology units: an international survey*, Sleep and Breathing.

Causier TJ, Alnaghy SJ, Alnaghy S, Roberts N, Petasecca M, Rosenfeld AB, Metcalfe P, **Oborn BM** (2020). *Imaging and radiation isocentre determination for inline MR-guided radiotherapy systems – proof of principle using MR-phantom with embedded monolithic silicon detector*, Journal of Physics: Conference Series, 1662:012008.

Causier TL, Schellhammer SM, Gantz S, Luhr A, Hoffman AL, Metcalfe PE, Rosenfeld AB, Guatelli S, Petasecca M, **Oborn BM** (2020). *First application of a high-resolution silicon detector for proton beam Bragg peak detection in a 0.95 T magnetic field*, Medical Physics: The International Journal of Medical Physics Research and Practice, 47(1):181-189.

Chan L, Kitipornchai L, MacKay SG (2020). *Causative Factors for Complications in Transpalatal Advancement*, Annals of Otolaryngology & Laryngology, 129(1):18-22.

Chow JSF, Adams K, Cho Y, Choi P, Equinox K-L, Figueiredo AE, Hawley CM, Howard K, Johnson DW, Jose MD, **Lee A, Lonergan M, Manera KE**, Moodie J-A, Paul-Brent P-A, Pascoe EM, Reidlinger D, Steiner GZ, Tomlins M, Tong A, Voss D, Boudville NC (2020). *Targeted Education ApproaCH to improve Peritoneal Dialysis Outcomes (TEACH-PD): A feasibility study*, Peritoneal Dialysis International: Journal of the International Society for Peritoneal Dialysis, 40(2).

Chung E, Risi D, Holt J, Lonergan M, Kotwal S, Yong K, Smyth B, **Chen J, Wen C** (2020). *A retrospective study on the epidemiology of ANCA-associated vasculitis in two Australian health districts*, Internal Medicine Journal.

Cipko K, Cuenca J, Wales E, Harris J, Bond S, Newton P, Miyakis S (2020). *Implementation of an antimicrobial stewardship programme and reduction in carbapenemase-producing Enterobacterales in an Australian local health district*, JAC - Antimicrobial Resistance, 2(3):dlaa041.

Cleary J, Dalton SMC, **Harman A, Wright IM** (2020). *Current practice in the introduction of solid foods for preterm infants*, Public Health Nutrition, 23(1):94-101.

Combes A, Limmer A, & **Verschuer K** (2020). *Small bowel intussusception secondary to Meckel's diverticulum containing polypoid lesion in pregnancy*. ANZ Journal of Surgery, 90(9):1774-1776.

Comminos NB, Garton L, Guy R, Callander D, Fairley CK, Grulich AE, Donovan B, Goddard SL, **Rutherford A**, Templeton DJ (2020). *Increases in pharyngeal Neisseria gonorrhoeae positivity in men who have sex with men, 2011-2015: observational study*, Sexually Transmitted Infections, 96(6):432-435.

Connors MH, Lehmann-Waldau F (2020). *Delusions of gender: The role of motivation in bizarre beliefs*, Psychiatry Research, 284:112668.

Cortes J, Cescon DW, Rugo HS, Nowecki Z, Im S-A, Yusof MM, Gallardo C, Lipatov O, Barrios CH, Holgado E, Iwata H, Masuda N, Otero MT, Gokmen E, Loi Sherene, Guo Z, Zhao J, Aktan G, Karantza V, Schmid P, KEYNOTE-355 Investigators (incl. **Clingan P**) (2020). *Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for previously untreated locally recurrent inoperable or metastatic triple-negative breast cancer (KEYNOTE-355): a randomised, placebo-controlled, double-blind, phase 3 clinical trial*, The Lancet, 396(10265):1817-1828.

Costello C, Basseal JM, Yang Y, Anstey J, Yastrebov K (2020). *Prevention of pathogen transmission during ultrasound use in the Intensive Care Unit: Recommendations from the College of Intensive Care Medicine Ultrasound Special Interest Group (USIG)*, Australasian Journal of Ultrasound in Medicine, 23(2):103-110.

Coyle MA, Wilson V, Lapkin S, Traynor V (2020). *What are we asking for when requesting "Specialling" for the confused hospitalised older person? A concept analysis*, International Journal of Older People Nursing, 15(2):e12302.

Crowe R, Probst Y, **Norman J, Furber S, Franco L**, Stanley RM, Vuong C, Wardle K, Davies M, Ryan S, Okley AD (2020). *Healthy eating and physical activity environments in out-of-school hours care: an observational study protocol*, Research Methods, 10:e036397.

Cummins ML, Sanderson-Smith M, **Newton P**, Carlile N, Phalen DN, Maute K, Monahan LG, Hoye BJ, Djordjevic SP (2020). *Whole-Genome Sequence Analysis of an Extensively Drug-Resistant Salmonella enterica Serovar Agona Isolate from an Australian Silver Gull (Chroicocephalus novaehollandiae) Reveals the Acquisition of Multidrug Resistance Plasmids*, mSphere, 5(6):e00743-20.

Curtis E, Fernandez R, Moroney T, **Lee A** (2020). *How coronary artery catheterisation has influenced cardiovascular nursing – An historical Australian perspective*, Collegian, 27(6):649-653.

Curtis K, Kennedy B, Lam MK, Mitchell RJ, Black D, Burns B, White L, Loudfoot A, D'Amato A, Dinh M, Holland AJA (2020). *Cause, treatment costs and 12-month functional outcomes of children with major injury in NSW, Australia*, Injury, 51(9):2066-2075.

Curtis K, Gabbe B, Vallmurr K, Martin K, Nahidi S, Shaban RZ, Pollard C, Christey G (2020). *Challenges to trauma care delivery for Australian and New Zealand trauma clinicians*, Injury, 51(5):1183-1188.

Curtis K, Kennedy B, Holland AJA, Mitchell RJ, Tall G, Smith H, Soundappan SSV, Loudfoot A, Burns B, Dinh M (2020). *Determining the priorities for change in paediatric trauma care delivery in NSW, Australia*, Australasian Emergency Care, 23(2):97-104.

Curtis K, Qian S, Yu P, White J, **Ruperto K, Balzer S, Munroe B** (2020). *Does electronic medical record redesign increase screening of risk for pressure injury, falls and substance use in the Emergency Department? An implementation evaluation*, Australasian Emergency Care.

Curtis K, Van C, Foster K, Winters J, Mitchell R (2020). *Evaluation of a Paediatric Trauma Social Worker Service*, Australian Social Work, 73(4):477489.

Curtis K, Elphick T-L, Eyles M, Ruperto K (2020). *Identifying facilitators and barriers to develop implementation strategy for an ED to Ward handover tool using behaviour change theory (EDWHAT)*, Implementation Science Communications, 1(71).

Curtis K, Nahidi S, Gabbe B, Vallmuur, Martin K, Shaban RZ, Christey G (2020). *Identifying the priority challenges in trauma care delivery for Australian and New Zealand trauma clinicians*, Injury, 51(9):2053-2058.

Curtis K, Ellwood J, Walker A, Qian S, Delamont P, Yu P, Stojic J, **Phang SM** (2020). *Implementation evaluation of pre-hospital blood collection in regional Australia: a mixed methods study*, Australasian Emergency Care.

Curtis K, Brysiewicz P, Shaban RZ, Fry M, Considine J, Esperanza F, Gamboa A, Holden M, Heyns T, Peden M (2020). *Nurses responding to the World Health Organization (WHO) priority for emergency care systems for universal health coverage*, International Emergency Nursing, 50:100876.

Curtis K, Kennedy B, Lam MK, Mitchell RJ, Black D, Burns B, Loudfoot A, Tall G, Dinh M, Beech C, Holland AJA (2020). *Prehospital care and transport costs of severely injured children in NSW Australia*, Injury, 51(11):2581-2587.

Curtis K, Gabbe B, Shaban RZ, Nahidi S, Pollard C, Vallmuur K, Martin K, Christey G (2020). *Priorities for trauma quality improvement and registry use in Australia and New Zealand*, Injury, 51(1):84-90.

Curtis K, Munroe B, Van C, **Elphick T-L** (2020). *The implementation and usability of HIRAID, a structured approach to emergency nursing assessment*, Australasian Emergency Care, 23(1):61-70.

Davis EL, Deane FP, Lyons GCB, **Barclay GD, Bourne J, Connolly V** (2020). *Feasibility randomised controlled trial of a self-help acceptance and commitment therapy intervention for grief and psychological distress in carers of palliative care patients*, Journal of Health Psychology, 25(3):322-339.

Davis EL, Kelly PJ, Deane FP, Baker AL, Buckingham M, Degan T, **Adams S** (2020). *The relationship between patient-centered care and outcomes in specialist drug and alcohol treatment: A systematic literature review*. Substance Abuse, 41(2):216-231.

Davis S, Ramakrishna R, Fox M (2020). *Low-dose ibrutinib in the treatment of refractory pure red cell aplasia in chronic lymphocytic leukaemia*, Internal Medicine Journal, 50(8).

De Robles MS, Winn RDR (2020). *How to deal with complex anal fistula in an immunosuppressed patient*, ANZ Journal of Surgery, 90(9):1764-1765.

Disler RT, **Spiliopoulos N**, Inglis SC, Currow DC, Davidson PM (2020). *Cognitive screening in chronic obstructive pulmonary disease: patient's perspectives*, Disability and Rehabilitation, 42(9):1233-1239.

Do VQ, Ting HP, **Curtis K**, Mitchell R (2020). *Internal validation of models for predicting paediatric survival and trends in serious paediatric hospitalised injury in Australia*, Injury, 51(8):1769-1776.

Dummer J, Dobler CC, Holmes M, Chambers D, Yang IA, Parkin L, Smith S, Wark P, Dev A, Hodge S, Dabscheck E, Gooi J, **Samuel S**, Knowles S, Holland AE (2020). *Diagnosis and treatment of lung disease associated with alpha one-antitrypsin deficiency: A position statement from the Thoracic Society of Australia and New Zealand*, Respirology, 25(3):321-335.

Eastwood PR, Barnes M, **MacKay SG**, Wheatley JR, Hillman DR, Nguyen X-L, Lewis R, Campbell MC, Petelle B, Walsh JH, **Jones AC**, Palme CE, Bizon A, Meslier N, Bertolus C, Maddison KJ, Laccourreye L, Raux G, Denoncin K, Attali V, Gagnadoux F, Launois SH (2020). *Bilateral hypoglossal nerve stimulation for treatment of adult obstructive sleep apnoea*, European Respiratory Journal, 55:1901320.

Edgar D, Wilson V, Moroney T (2020). *Which is it, person-centred culture, practice or care? It matters*, International Practice Development Journal, 10(1):8.

Eljiz K, Greenfield D, Hogden A, Siddiqui N, Agaliotis M, **Milosavljevic M** (2020). *Improving knowledge translation for increased engagement and impact in healthcare*, BMJ Open Quality, 9:000983.

Espada M, Leonaradi M, Aas-Eng K, Lu C, **Reyftmann L**, Tetstall E, Slusarczyk B, Ludlow J, Hudelist G, Reid S, Condous G (2020). *A Multicenter International Temporal and External Validation Study of the Ultrasound-based Endometriosis Staging System*, Journal of Minimally Invasive Gynecology, 28(1):57-62.

Faris M, Lystad RP, Harris I, **Curtis K**, Mitchell R (2020). *Fracture-related hospitalisations and readmissions of Australian children ≤16 years: A 10-year population-based cohort study*, Injury, 51(10):2172-2178.

Foster K, Van C, McCloughen A, Mitchell R, Young A, **Curtis K** (2020). *Parent perspectives and psychosocial needs 2 years following child critical injury: A qualitative inquiry*, Injury, 51(5):1203-1209.

Fry M, Elliott R, Fitzpatrick L, Warton J, **Curtis K** (2020). *Measuring nurses' perceptions of their work environment and linking with behaviour change theories and implementation strategies to support evidence based practice change*, Applied Nursing Research, 56:151374.

Gabbe BJ, Veitch W, **Curtis K**, Martin K, Gomez D, Vicil I, Moran C, Teague WJ, Holland AJA, Lecky F, Fitzgerald M, Nathens A, Joseph A (2020). *Survey of major trauma centre preparedness for mass casualty incidents in Australia, Canada, England and New Zealand*, E Clinical Medicine, 21:100322.

Gadgeel S, Rodriguez-Abreu D, Speranza G, Esteban E, Felip E, Domine M, Hui R, Hochmair MJ, **Clingan P**, Powell SF, Cheng SY-S, Bischoff HG, Peled N, Grossi F, Jennens RR, Reck M, Garon EB, Novello S, Rubio-Viqueira B, Boyer M, Kurata T, Gray JE, Yang J, Bas T, Pietanza MC, Pietanza MC, Garassino MC (2020). *Updated Analysis From KEYNOTE-189: Pembrolizumab or Placebo Plus Pemetrexed and Platinum for Previously Untreated Metastatic Nonsquamous Non-Small-Cell Lung Cancer*, Journal of Clinical Oncology, 38(14):1505-1517.

Girgis A, Durcinoska I, **Arnold A**, Descallar J, Kaadan N, Koh E-S, **Miller A**, Ng W, **Carolan M**, Della-Fiorentina SA, Avery S, Delaney GP (2020). *Web-Based Patient-Reported Outcome Measures for Personalized Treatment and Care (PROMPT-Care): Multicenter Pragmatic Nonrandomized Trial*, Journal of Medical Internet Research, 22(10):e19685.

Grimison P, Mersiades A, Kirby A, Lintzeri N, Morton R, Haber P, Olver I, Walsh A, McGregor I, Cheung Y, Tognela A, Hahn C, Briscoe K, **Aghmesheh A**, Fox P, Abdi E, Clarke S, Della-Fiorentina S, Shannon J, Gedye C, Begbie S, Simes J, Stockler M (2020). *Oral THC:CBD cannabis extract for refractory chemotherapy-induced nausea and vomiting: a randomised, placebo-controlled, phase II crossover trial*, Annals of Oncology, 31(11):1553-1560.

Grimison PS, Stockler MR, Kirby A, Walsh A, Lintzeris N, Cheung Y, Mersiades A, Tognela A, Haber P, Simes J, Morton RL, Olver IN, McGregor I, Gedye C, Fox P, Briscoe KP, **Aghmesheh M**, Abde EA, Clarke SJ, Della-Fiorentina S (2020). *Results of crossover phase II component of randomized placebo-controlled trial evaluating oral THC/cannabis extract for refractory chemotherapy-induced nausea and vomiting (CINV)*, Journal of Clinical Oncology, 38(S15):12008.

Gutke A, Stuge B, Elden H, **Sandell C**, Asplin G, Olsen MF (2020). *The Swedish version of the pelvic girdle questionnaire, cross-cultural adaptation and validation*, Disability and Rehabilitation, 42(7).

Haggstrom L, Parmar G, Brungs D (2020). *Central Venous Catheter Thrombosis in Cancer: A Multi-Centre Retrospective Study Investigating Risk Factors and Contemporary Trends in Management*, Clinical Medicine Insights: Oncology.

Haggstrom L, Kang S, Winn R, Putnis S, Nasser E, Chen J, Aghmesheh M, Brungs D (2020). *Factors influencing recurrence of stage I-III rectal cancer in regional Australia*, ANZ Journal of Surgery, 90(12):2490-2495.

Harris J, Walsh K, Maxwell H, Dodds S (2020). *Emotional touchpoints: the feelings nurses have about explaining multi-resistant organisms to colonised patients*, Infection, Disease and Health, 25(2).

Hassan HCI, Chen JHC, Murali K (2020). *Incidence and factors associated with geographical relocation in patients receiving renal replacement therapy*, BMC Nephrology, 21:249.

Hau E, Hegi-Johnson F, Atkinson C, Barber J, Browne LH, Chin Y, Dwyer P, Graham PH, O'Hare J, Lu D, **Rains M**, Ragusa C, Schmidh L, Small K, Unicomb K, West K, White S, Last A, Ludbrook J, Azzi M, Aherne NJ, van Tilburg K, Vinod S, Ma X, Alvandi RY, Alvandi RY (2020). *Collaborative implementation of stereotactic ablative body radiotherapy: A model for the safe implementation of complex radiotherapy techniques in Australia*, Asia-Pacific Journal of Clinical Oncology, 16(1):39-44.

Hazzard E, Walton K, McMahon A-T, **Milosavljevic M** (2020). *Healthcare Professionals' Perceptions of Feeding Tube Practices for Patients With Head and Neck Cancer Across 4 International Radiation Oncology Departments*, Journal of Parenteral and Enteral Nutrition, 44(5):796-805.

Heckelmann M, Shivapathasundram G, Cardim D, Smielewski P, Czosnyka M, Gaio R, Sheridan MMP, **Jaeger M** (2020). *Transcranial Doppler-derived indices of cerebrovascular haemodynamics are independent of depth and angle of insonation*, Journal of Clinical Neuroscience, 82(Part A):115-121.

Henderson A, Paterson DL, Chatfield MD, Tambyah PA, Lye DC, De PP, Lin RTP, Chew KL, Yin M, Lee TH, Yilmaz M, Cakmak R, Alenazi TH, Arabi YM, Falcone M, Bassetti M, Righi E, Rogers BA, Kanj SS, Bhally H, Iredell J, Mendelson M, Boyles TH, Looke DFM, Runnegar NJ, Runnegar NJ, **Miyakis S**, Walls G, Khamis MAI, Zikri A, Crowe A, Ingram PR, Daneman N, Griffin P, Athan E, Roberts L, Beatson SA, Peleg AY, Cottrell K, Bauer MJ, Tan E, Chaw K, Nimmo GR, Harris-Brown T, Harris PNA (2020). *Association Between Minimum Inhibitory Concentration, Beta-lactamase Genes and Mortality for Patients Treated With Piperacillin/Tazobactam or Meropenem From the MERINO Study*, Clinical Infectious Diseases.

Hepburn KS, Lambert K, Mullan J, McAlister B, **Lonergan M, Hassan HIC** (2020). *Peritoneal dialysis related peritonitis as a risk factor for cardiovascular events*, Internal Medicine Journal.

Hewitt L, Kerr E, Stanley RM, Okely AD (2020). *Effects of tummy time and prone positioning ability on infant health outcomes: A systematic review*. Pediatrics, 145(6):e20192168.

Hewitt L, Stephens S, Spencer A, Stanley RM, Okley AD (2020). *Weekly group tummy time classes are feasible and acceptable to mothers with infants: a pilot cluster randomized controlled trial*, Pilot Feasibility Studies, 6(155).

Hingley L, Jeiranikhameneh A, Beirne S, Peoples G, Jones A, Sayyar S, Eastwood P, Lewis R, Wallace G, **MacKay SG** (2020). *Modeling the upper airway: A precursor to personalized surgical interventions for the treatment of sleep apnea*, Journal of Biomedical Materials Research Part A, 108(6):1419-1425.

Hodgkins AJ, Mullan J, **Mayne AJ**, Boyages CS, Bonney A (2020). *Australian general practitioners' attitudes to the extraction of research data from electronic health records*, Australian Journal of General Practice, 49(3):145-150.

Hodsdon A, Smith NA, Story DA (2020). *Preoperative communication between anaesthetists and patients with obesity regarding perioperative risks and weight management: a structured narrative review*, Perioperative Medicine, 9:24.

Hoffman A, **Oborn B**, Moteabbed M, Yan S, Bortfeld T, Knopf A, Fuchs H, Georg D, Seco J, Spadea MF, Jakel O, Kurz C, Parodi K (2020). *MR-guided proton therapy: a review and a preview*, Radiation Oncology, 15:129.

Htay H, Cho Y, Pascoe EM, Hawley C, Clayton PA, Borlace M, Badve SV, Sud K, Boudville N, **Chen JHC**, Sypek M, Johnson DW (2020). *Multicentre registry data analysis comparing outcomes of culture-negative peritonitis and different subtypes of culture-positive peritonitis in peritoneal dialysis patients*, Peritoneal Dialysis International: Journal of the International Society for Peritoneal Dialysis, 40(1).

Hutchinson CL, **Curtis K**, McCloughen A, **Qian S**, Yu P, Fethney J (2020). *Identifying return visits to the Emergency Department: A multi-centre study*, Australasian Emergency Care.

Jacobowitz O, **MacKay S** (2020). *The faces of sleep apnea in the age of machine learning*, Journal of Clinical Sleep Medicine, 16(4):469-470.

Johannsson H, **Selak T** (2020). *Dissemination of medical publications on social media – is it the new standard?* Anaesthesia, 75(2):L155-157.

Jones T, **Curtis K**, Shaban RZ (2020). *Academic and professional characteristics of Australian graduate emergency nursing programs: A national study*, Australasian Emergency Care, 23(3):173-180.

Joseph C, Tsang CLN, Sarofim M, Lim CSH, Jaber M (2020). *Omental band causing gallbladder strangulation: a rare cause of cholecystitis and gallbladder perforation*, ANZ Journal of Surgery, 90(9):1807-1808.

Joseph CT, Tsang CLN, Goltsman D, Garibotto N, Mekisic A (2020). *Synchronous Acute Appendicitis and Cholecystitis in a Paediatric Patient with Salmonella Enteritidis*, Cureus, 12(3):e7214.

Juszczyk K, Kang S, Putnis S, Winn R, Chen J, Aghmesheh M, Fylyk G, Brungs D (2020). *High body mass index is associated with an increased overall survival in rectal cancer*, Journal of Gastrointestinal Oncology, 11(4):626-632.

Kalogeropoulos G, Shirvington WJ, Magi KE, **Fischer A**, Ramirez V, Khoury S, Moi DK, **Ban CD**, Kim J, Chuan A, Ben-Menachem E (2020). *A multicentre audit of COVID-19 intubations in New South Wales metropolitan hospitals*, Anaesthesia and Intensive Care, 48(5).

KConFab Investigators (incl. **Greening S**) (2020). *Fine-mapping of 150 breast cancer risk regions identifies 191 likely target genes*, Nature Genetics, 52(1).

Kelly T, Arnold B, Surjan Y, **Rinks M**, Warren-Forward H (2020). *Radiation therapist health literacy training: A qualitative study exploring perceived barriers and attitudes*, Radiography, 26(4):294-301.

Kelly T, Arnold B, Surjan Y, **Rinks M**, Warren-Forward H (2020). *Radiation therapist health literacy training: Does learning alternate communication methods translate into improved confidence in patient interactions?* Radiography (London), 26(3):220-226.

Kristensen H, Lam M, MacKay S (2020). *Subglottic plasma cell mucositis: a case study highlighting challenge in management*, ANZ Journal of Surgery, 90(12):E183-E185.

Kueng R, **Oborn BM**, Roberts NF, **Causer T**, Stampanoni MFM, Manser P, Keall PJ, Fix MK (2020). *Towards MR-guided electron therapy: Measurement and simulation of clinical electron beams in magnetic fields*, Physica Medica, 78:83-92.

Kulinski K, **Smith NA** (2020). *Surgical prehabilitation using mobile health coaching in patients with obesity: A pilot study*, Anaesthesia and Intensive Care, 48(5).

Kwok AMF, Attwell-Heap A (2020). *Acute necrotizing cholecystitis as a rare cause of mechanical small bowel obstruction*, ANZ Journal of Surgery, 90(3):385-387.

Kwok AMF (2020). *Locally advanced prostate cancer with peritoneal carcinomatosis causing large bowel obstruction*, ANZ Journal of Surgery, 90(9):1814-1816.

Kwok AMF (2020). *Trichobezoar as a cause of pediatric acute small bowel obstruction*, Clinical Case Reports, 8(1):166-170.

Lam D, **Rindani R**, Leslie S, Warriar S, Ahmadi N (2020). *Value of Indocyanine Green Angiography to Guide Wound Management and Prevent Necrosis in a Robotic Surgical Procedure*, Journal of Endourology Case Reports, 6(3).

Lam ME, Kitipornchai L, Chan L, Creber NJ, Hayward NJ, Jones AC, Petersen AJ, **Sarkissian L, MacKay SG** (2020). *Assessment of macroglossia as a cause of failed continuous positive airway pressure adherence*, Australian Journal of Otolaryngology, 3:25.

Lambert K, Lau TK, **Davison S, Mitchell H, Harman A, Carrie M** (2020). *Does a renal diet question prompt sheet increase the patient centeredness of renal dietitian outpatient consultations?* Patient Education and Counseling, 103(8):1645-1659.

Lambert K, Ferguson A, Meletis M, Charlton K (2020). *How frequently are patients weighed in hospital? Results from a five-year cross-sectional audit of clinical practice in nine hospitals*, Clinical Nutrition ESPEN, 36:157-161.

Lambert K, Bird L, Borst AC, Fuller A, Wang Y, Rogers GB, Stanford J, Sanderson-Smith ML, Williams JG, McWhinney BC, Neale EP, Probst Y, **Lonergan M** (2020). *Safety and Efficacy of Using Nuts to Improve Bowel Health in Hemodialysis Patients*, Journal of Renal Nutrition, 30(5):462-469.

Larkin TA, Hovav O, Dwight K, **Villalba L** (2020). *Common iliac vein obstruction in a symptomatic population is associated with previous deep venous thrombosis, and with chronic pelvic pain in females*, Journal of Vascular Surgery: Venous and Lymphatic Disorders, 8(6):961-969.

Lee TW (2020). *Editorial: Risk of Cancer Development in IBD-Inflammation vs Immunosuppression*, Inflammatory Bowel Diseases, 26(3):460-461.

Li R, **Curtis K**, Zaidi STR, Van C, Castelino R (2020). *Effect of the black triangle scheme and its online educational campaign on the quantity and quality of adverse drug event reporting in Australia: a time series analysis*, Expert Opinion on Drug Safety, 19(6):747-753.

Lim LX, De Robles MS, Winn RD, Hart KA (2020). *A case report of metastatic mixed adeno-neuroendocrine carcinoma of the anus presenting as anal pain*, International Journal of Surgery Case Reports, 71:240-243.

Liu J, Tong SYC, Davis JS, Rhodes NJ, Scheetz MH, CAMERA2 Study Group (incl. **Ghosh N**) (2020). *Vancomycin Exposure and Acute Kidney Injury Outcome: A Snapshot From the CAMERA2 Study*, Open Forum Infectious Diseases, 7(12):ofaa538.

Love RL, **MacKay SG** (2020). *Case report of nasopharyngeal rhabdomyosarcoma causing obstructive sleep apnoea*, ANZ Journal of Surgery, 90(5):904-905.

Lystad RP, **Curtis K**, Soundappan SSV, Mitchell R (2020). *Trends of traumatic spinal injury-related hospitalizations in Australian children over a 10-year period: a nationwide population-based cohort study*, The Spine Journal, 20(6):896-904.

MacKay S, Carney S, Catchside PG, Chai-Coetzer CL, Chia M, Cistulli PA, Hodge J-C, **Jones A**, Kaambwa B, Lewis R, Ooi EH, Pinczel AJ, McArdle N, Rees G, Singh B, Stow N, Weaver EM, Woodman RJ, Woods CM, Yeo A, McEvoy RD (2020). *Effect of Multilevel Upper Airway Surgery vs Medical Management on the Apnea-Hypopnea Index and Patient-Reported Daytime Sleepiness Among Patients With Moderate or Severe Obstructive Sleep Apnea*, JAMA, 325(12):1168-1179.

MacKay SG, Lewis R, McEvoy D, Joosten S, Holt NR (2020). *Surgical management of obstructive sleep apnoea: A position statement of the Australasian Sleep Association*, Respirology, 25(12):1292-1308.

Mahin HH, Sarofim M, Lim CS (2020). *Necrotic Excluded Gastric Remnant Post Gastric Bypass: A Rare Fatal Complication*, Cureus, 12(11):e11559.

Mahin HH, Iyer A, Putnis S (2020). *Squamous cell carcinoma found in the mesorectum: an extremely rare pathology*, ANZ Journal of Surgery, 90(9):1789-1790.

Martin AJ, **McGrath R**, Fung VSC (2020). *A Wilted Flower: Lotus Position Dystonia, Movement Disorders Clinical Practice*, 7(2):206-207.

Matar FS, **Wilkinson D**, Davis J, Biasi G, **Causer T**, Fuduli I, Brace O, Stansook N, **Carolan M**, Rosenfeld AB, Petasecca M (2020). *Quality assurance of VMAT on flattened and flattening filter-free accelerators using a high spatial resolution detector*, Journal of Applied Clinical Medical Physics, 21(6):44-52.

Matar RS, **Wilkinson D**, Davis J, Biasi G, **Causer T**, Fuduli I, Brace O, Stansook N, **Carolan M**, Rosenfeld AB, Petasecca M (2020). *Corrigendum: Quality assurance of VMAT on flattened and flattening filter-free accelerators using a high spatial resolution detector*, Journal of Applied Clinical Medical Physics, 21(8):329.

McCance T, Lynch BM, Boomer C, Brown D, Nugent C, Ennis A, Garcia-Constantino M, Clelland I, **Edgar D, Radbron E, Wilson V** (2020). *Implementing and measuring person-centredness using an APP for knowledge transfer: the IMPAKT app*, International Journal for Quality in Health Care, 32(4):251-258.

McCluskey A, Massie L, Gibson G, **Pinkerton L**, Vandenberg A (2020). *Increasing the delivery of upper limb constraint-induced movement therapy post-stroke: A feasibility implementation study*, Australian Occupational Therapy Journal, 67(3):237-249.

McIntyre HD, **Moses RG** (2020). *Response to Comment on McIntyre and Moses The Diagnosis and Management of Gestational Diabetes Mellitus in the Context of the COVID-19 Pandemic*. Diabetes Care 2020;43:1433–1434, Diabetes Care, 43(11):e193.

McIntyre HD, **Moses RG** (2020). *The Diagnosis and Management of Gestational Diabetes Mellitus in the Context of the COVID-19 Pandemic*, Diabetes Care, 43(7):1433-1434.

McKetin R, Quinn B, Higgs P, Berk M, Dean OM, Turner A, Kelly PJ, Lubman DI, Carter G, Baker AL, Manning V, Thomas T, Bathish R, Rafferty D, Saunders L, Wrobel A, Meehan A, **Sinclair B, Reid D**, Arunogiri S, Hill J, **Cordaro F**, Dietze PM (2020). *Clinical and demographic characteristics of people who smoke versus inject crystalline methamphetamine in Australia: Findings from a pharmacotherapy trial*, Drug and Alcohol Review.

McKimmie-Doherty M, Arnolda GRB, Buckmaster AG, Owen LS, Hodgson KA, **Wright IMR**, Roberts CT, Davis PG, Manley BJ (2020). *Predicting Nasal High-Flow Treatment Success in Newborn Infants with Respiratory Distress Cared for in Nontertiary Hospitals*, The Journal of Pediatrics, 227:135-141.e1.

Molnar K, Walczynski T, Harris D (2020). *Clinical reasoning in resource limited settings: The realities of a remote medical retrieval service*, Emergency Medicine Australasia, 32(5):893-896.

Mordaunt DA (2020). *On Clinical Utility and Systematic Reporting in Case Studies of Healthcare Process Mining. Comment on: "Towards the Use of Standardised Terms in Clinical Case Studies for Process Mining in Healthcare"*, International Journal of Environmental Research and Public Health.

Morosin T, De Robles MS, Putnis S (2020). *Gallstone Ileus: An Unusual Cause of Intestinal Obstruction*, Cureus, 12(3):e7284.

Morris D, Lambert K, **Vellar L, Mastroianni F, Krizanac J**, Lago L, Mullan J (2020). *Factors associated with utilisation of health care interpreting services and the impact on length of stay and cost: A retrospective cohort analysis of audit data*, Health Promotion Journal of Australia.

Morris RW, Cooper MG (2020). *The East–Freeman Automatic Vent: An interesting footnote in the history of mechanical ventilation*, Anaesthesia and Intensive Care, 48(3,S).

Mourad AP, De Robles MS, O'Toole S, Paver E, **Winn RD** (2020). *A case of an asymptomatic sacrococcygeal teratoma diagnosed in adulthood*, Journal of Surgical Case Reports.

Mourad AP, De Robles MS, Winn RD (2020). *Intestinal T-cell lymphoma presenting as colonic perforation in the setting of ulcerative colitis: a case report*, Clinical Journal of Gastroenterology.

Mourad AP, De Robles MS, Winn RD (2020). *Low-Dose Pre-Operative Botulinum Toxin A Effectively Facilitates Complex Ventral Hernia Repair: A Case Report and Review of the Literature*, Medicina, 57(1):14.

Mugino M, Yabe TE, Ashford B (2020). *Gallstone Ileus Decades after Cholecystectomy and Pylorus-Preserving Whipples*, Case Reports in Surgery, 2020.

Munroe B, Curtis K, Balzer S, Roysten K, Fetchet W, Tucker S, Pratt W, Morris R, Fry M, Considine J (2020). *Translation of evidence into policy to improve clinical practice: the development of an emergency department rapid response system*, Australasian Emergency Care.

Murali KM, Lonergan M (2020). *Breaking the adherence barriers: Strategies to improve treatment adherence in dialysis patients*, Seminars in Dialysis, 33(6):475-485.

Murali KM, Mullan J, Roodenrys S, **Lonergan M** (2020). *Comparison of health literacy profile of patients with end-stage kidney disease on dialysis versus non-dialysis chronic kidney disease and the influencing factors: a cross-sectional study*, BMJ Open, 10(10):e041404.

Nath CE, Trotman J, Nivison-Smith I, Gurney H, Zeng L, **Presgrave P**, Tiley C, Joshua D, Kerridge I, McLachlan AJ, Shaw PJ (2020). *Melphalan exposure and outcome in obese and non-obese adults with myeloma. A study of pharmacokinetics and pharmacodynamics*, Bone Marrow Transplantation, 55(9).

Neale EP, Middleton J, **Lambert K** (2020). *Barriers and enablers to detection and management of chronic kidney disease in primary healthcare: a systematic review*, Nephrology BMC, 21:83.

O'Neill R, Mohd Zaki NI, Grant C, Napaki S, Brungs D (2020). *A Case of Non–Small-cell Lung Cancer in a Patient With Neurofibromatosis Type 1*, Clinical Lung Cancer, 21(4):e261-e264.

O'Neill RS, Duong T, Dionela W, Rogge C, Brungs D (2020). *Pancreatitis and Biliary Obstruction Secondary to Duodenal Metastasis from Rapidly Progressing Lung Adenocarcinoma Treated with Common Bile Duct Stenting*, Case Reports in Oncology, 13:962-967.

PCAWG Consortium (incl **Chantrill LA**) (2020). *Retrospective evaluation of whole exome and genome mutation calls in 746 cancer samples*, Nature Communications, 11(1).

PCAWG Consortium (incl **Chantrill LA**) (2020). *Sex differences in oncogenic mutational processes*, Nature Communications, 11(1).

Peng A, Chua MJ, Chan B, **Jaeger M**, Aneman A, Chuan A (2020). *Tissue oxygenation indices of cerebrovascular autoregulation in healthy volunteers: a comparison of two NIRS devices*, Neurological Research, 42(10):897-903.

Perry J, **Ashford B**, Thind AS, Gauthier M-E, Minaei E, Major G, Iyer NG, Gupta R, Clark J, Ranson M (2020). *Comprehensive Mutational and Phenotypic Characterization of New Metastatic Cutaneous Squamous Cell Carcinoma Cell Lines Reveal Novel Drug Susceptibilities*, International Journal of Molecular Sciences, 21(24):9536.

Perry J, Minaei E, Engels E, **Ashford BG**, McAlary L, Clark JR, Gupta R, Tehei M, Corde S, **Carolan M**, Ranson M (2020). *Thulium oxide nanoparticles as radioenhancers for the treatment of metastatic cutaneous squamous cell carcinoma*, Physics in Medicine & Biology, 65(21):215018.

Posar JA, Davis J, Brace O, Sellin P, Griffith MJ, Dhez O, **Wilkinson D**, Lerch MLF, Rosenfeld A, Petasecca (2020). *Characterization of a plastic dosimeter based on organic semiconductor photodiodes and scintillator*, Physics and Imaging in Radiation Oncology, 14:48-52.

Posar JA, Davis J, Large MJ, Basirico L, Ciavatti A, Fraboni B, Dhez O, **Wilkinson D**, Sellin PJ, Griffith MJ, Lerch MLF, Rosenfeld A (2020). *Characterization of an organic semiconductor diode for dosimetry in radiotherapy*, Medical Physics: The International Journal of Medical Physics Research and Practice, 47(8):3658-3668.

Price SAL, **Moses RG** (2020). *Gestational Diabetes Mellitus and Glucose Sample Handling*, Diabetes Care, 43(7):1371-1372.

Price T, Burge M, **Chantrill L**, Gibbs P, Pavlakis N, Shapiro J, Sjoquist K (2020). *Trifluridine/tipiracil: A practical guide to its use in the management of refractory metastatic colorectal cancer in Australia*, Asia-Pacific journal of clinical oncology, 16(S1).

Qian S, Munyisia E, **Reid D**, Hailey D, **Pados J**, Yu P (2020). *Trend in data errors after the implementation of an electronic medical record system: A longitudinal study in an Australian regional Drug and Alcohol Service*, International Journal of Medical Informatics, 144:104292.

Raftery D, Kelly PJ, Deane FP, Baker AL, Ingram I, Goh MCW, Lubman DI, Carter G, Turner A, Dean OM, **Sinclair BL**, McKetin R (2020). *Insight in substance use disorder: A systematic review of the literature*, Addictive Behaviours, 111:106549.

Roach LA, Russell KG, **Lambert K**, **Holt JL**, Meyer BJ (2020). *Polyunsaturated fatty acid food frequency questionnaire validation in people with end stage renal disease on dialysis*, Nutrition & Dietetics, 77(1):131-138.

Ross P, Hendlisz A, Ajithkumar T, Iwuji C, Harris M, Croagh D, **Aghmesheh M**, Nagrial A, Nguyen N, Nikfarjam M, Wilson N, Kenny D, Turner D, Wasan HS (2020). *PanCO: Updated Results of an Open-Label, Single-Arm Pilot Study of OncoSil P-32 Microparticles in Combination with Standard-of-Care (SoC) Gemcitabine + Nab-Paclitaxel or FOLFIRINOX Chemotherapy in Unresectable Locally Advanced Pancreatic Cancer (uLAPC)*, Pancreatology, 20(8):e16.

Ryan D, **Miller J**, **Campbell J** (2020). *Cannula complications using elastomeric infusers in Hospital in the Home*, JAC - Antimicrobial Resistance, 2(3):dlaa033.

Sareen H, Garrett C, Lynch D, Powter B, **Brungs D**, Cooper A, Po J, Koh E-S, Vessey JY, McKechnie S, Bazina R, Sheridan M, van Gelder J, Darwish B, **Jaeger M**, Roberts TL, De Souza P, Becker TM (2020). *The Role of Liquid Biopsies in Detecting Molecular Tumor Biomarkers in Brain Cancer Patients*, Cancers, 12:1831.

Sarofim M, **Joseph C**, **Tsang CLN**, **Lim CSH**, **Jaber M** (2020). *Bezoar due to laxatives: a rare cause of acute small bowel obstruction*, ANZ Journal of Surgery, 90(9):1776-1777.

Selak T, Mitchell R (2020). *Accidental Injection of Propofol Into a Lumbar Drain*, Journal of Neurosurgical Anesthesiology.

Selak T (2020). *Re: Comparative study of outcomes for elderly hip fractures presenting directly to a referral hospital versus those transferred from peripheral centres*, ANZ Journal of Surgery, 90(6):1214-1215.

Shand S, **Curtis K**, Dinh M, Burns B (2020). *Prehospital Blood Transfusion in New South Wales, Australia: A Retrospective Cohort Study*, Prehospital Emergency Care.

Sharwood LN, Wiseman T, Tseris E, **Curtis K**, Vaikyntam B, Craig A, Young J (2020). *Pre-existing mental disorder, clinical profile, inpatient services and costs in people hospitalised following traumatic spinal injury: a whole population record linkage study*, Injury Prevention.

Shepherd BR (2020). *Birth in Aerial Transit: Be Prepared, It Does Happen*, Air Medical Journal, 39(4):298-299.

Sideris AW, **Ghosh N**, **Lam ME**, **MacKay SG** (2020). *Peritonsillar abscess and concomitant COVID-19 in a 21-year-old male*, BMJ Case Reports, 13(9):e238104.

Sideris AW, Wallace G, **Lam ME**, **Kitipornchai L**, Lewis R, **Jones A**, Jeiranikhameneh A, Beirne S, Hingley L, **MacKay S** (2020). *Smart polymer implants as an emerging technology for treating airway collapse in obstructive sleep apnea: a pilot (proof of concept) study*, Journal of Clinical Sleep Medicine, 12(2).

Stanford J, Charlton K, Stefoska-Needham A, Zheng H, **Bird L**, Borst A, Fuller A, Lambert K (2020). *Associations Among Plant-Based Diet Quality, Uremic Toxins, and Gut Microbiota Profile in Adults Undergoing Hemodialysis Therapy*, Journal of Renal Nutrition.

Taylor N, **Healey E**, Morrow A, **Greening S**, Wakefield CE, Warwick L, Williams R, Tucker KM (2020). *Aligning intuition and theory: enhancing the replicability of behaviour change interventions in cancer genetics*, Implementation Science Communications, 1:90.

The ICGCTCGA Pan-Cancer Analysis of Whole Genomes Consortium (incl. **Chantrill LA**) (2020). *Pan-cancer analysis of whole genomes*, Nature, 578(7793).

Thomas B, Jacques J, Stiel H (2020). *Clonidine for the Management of Refractory Distressing Hallucinations, a Case Report*, Journal of Pain and Symptom Management, 59(6):e1-e3.

Thomas J, Dahm MR, Li J, **Smith P**, **Irvine J**, Westbrook JI, Georgiou A (2020). *Variation in electronic test results management and its implications for patient safety: A multisite investigation*, Journal of the American Medical Informatics Association, 27(8).

Toms R, **Mayne DJ**, Feng X, Bonney A (2020). *Geographic variation in cardiometabolic risk factor prevalence explained by area-level disadvantage in the Illawarra-Shoalhaven region of the NSW, Australia*, Scientific Reports, 10:12770.

Toms R, Feng X, **Mayne DJ**, Bonney A (2020). *Role of Area-Level Access to Primary Care on the Geographic Variation of Cardiometabolic Risk Factor Distribution: A Multilevel Analysis of the Adult Residents in the Illawarra—Shoalhaven Region of NSW, Australia*, International Journal of Environmental Research and Public Health, 17(12):4297.

Tong DC, Quinn S, Nasis A, Hiew C, Roberts-Thomson P, Adams H, Sriamareswaran R, Htun NM, Wilson W, Stub D, van Gaal W, Howes L, Collins N, Yong A, Bhindi R, Whitbourn R, **Lee A**, Hengel C, Asrress K, Freeman M, Amerena J, Wilson A, Layland J (2020). *Colchicine in Patients With Acute Coronary Syndrome: The Australian COPS Randomized Clinical Trial*, Circulation, 142(20):1890-1900.

Tong SYC, Lye DC, Yahav D, Sud A, Robinson JO, Nelson J, Archuleta S, Roberts MA, Cass A, Paterson DL, Foo H, Paul M, Guy SD, Tramontana AR, Walls GB, McBride S, Bak N, **Ghosh N**, Rogers BA, Ralph AP, Davies J, Ferguson PE, Dotel R, McKew GL, Gray TJ, Gray TJ, Holmes NE, Smith S, Warner MS, Salimuddin S, Young BE, Runnegar N, Andresen DN, Anagnostou NA, Johnson SA, Chatfield MD, Cheng AC, Fowler Jr VG, Howden BP, Meagher N, Price DJ, van Hal SJ, O'Sullivan MVN, Davis JS (2020). *Effect of Vancomycin or Daptomycin With vs Without an Antistaphylococcal β -Lactam on Mortality, Bacteremia, Relapse, or Treatment Failure in Patients With MRSA Bacteremia*, JAMA, 323(6):527-537.

Trautman J, **Sarofim M**, **Kwok A**, **Creber N**, **Winn R** (2020). *Isolated unilateral vocal fold palsy: a rare complication of base of skull trauma*, ANZ Journal of Surgery, 90(1-2):171-173.

Tsang CLN, **Cao J**, Sugand K, Chiu J, Pretorius FC (2020). *Face, content, construct validity and training effect of touch surgery™ as a surgical decision-making trainer for novices in open appendectomy*, International Journal of Surgery Protocols, 22:19-23.

Tsang CLN, **Gunanayagam P**, **Feitosa R**, **Villalba L** (2020). *High Output Chylous Fistula Post First Rib Resection*, Annals of Vascular Surgery, 63:455.e1-455.e5.

Tsang CLN, **O'Neill R**, **Joseph CM**, **Palasovski T** (2020). *Small Bowel Perforation Secondary to Biliary Stent Migration in an Incarcerated Inguinal Hernia*, Cureus, 12(3):e7268.

Tse C, **Esler V**, **Hewitt L**, **Davidson E** (2020). *Do orthopaedic and neurosciences inpatients who are at risk of falls have best practice fall prevention strategies implemented during their acute inpatient hospitalization?* Australasian Journal on Ageing, 39(3):e410-e415.

Turner MT, **Samuel SR**, **Silverstone EJ**, **Yates DH** (2020). *Reply to Lescoat et al.: Silica Exposure and Scleroderma: More Bridges and Collaboration between Disciplines Are Needed*, American Journal of Respiratory and Critical Care Medicine, 201(7):882.

Turner MT, **Samuel SR**, Silverstone EJ, Yates DH (2020). *Silica Exposure and Connective Tissue Disease: An Underrecognized Association in Three Australian Artificial Stone Workers*, American Journal of Respiratory and Critical Care Medicine, 201(3).

Turner RJ, Geraghty NJ, Williams JG, Ly D, **Brungs D**, **Carolan MG**, Guy TV, Watson D, **de Leon JF**, Sluyter R (2020). *Comparison of peripheral blood mononuclear cell isolation techniques and the impact of cryopreservation on human lymphocytes expressing CD39 and CD73*, Purinergic Signalling, 16:389-401.

van Gemert TE, Moses RG (2020). *Climate change and an increased prevalence of gestational diabetes*, Australian and New Zealand Journal of Obstetrics and Gynaecology, 60(5):E14.

van Gemert TE, Moses RG, Pape AV, Morris GJ (2020). *Gestational diabetes mellitus testing in the COVID-19 pandemic: The problems with simplifying the diagnostic process*, Australian and New Zealand Journal of Obstetrics and Gynaecology, 60(5):671-674.

Vonhoff CR, Wallis T, Jaeger M (2020). *Complications of elective intracranial pressure monitoring in adult hydrocephalus*, Journal of Clinical Neuroscience, 79:67-70.

Wade SJ, Sahin Z, Piper A-K, Talebian S, Aghmesheh M, Foroughi J, Wallace GG, Moulton SE, Vine KL (2020). *Dual Delivery of Gemcitabine and Paclitaxel by Wet-Spun Coaxial Fibers Induces Pancreatic Ductal Adenocarcinoma Cell Death, Reduces Tumor Volume, and Sensitizes Cells to Radiation*, Advanced Healthcare Materials, 9(21):2001115.

Waller K, Furber S, Bauman A, Allman-Farinelli M, van den Dolder P, Hayes A, Facci F, Franco L, Webb A, Moses R, Cook R, Gugusheff J, Owen K, Colagiuri S (2020). *Effectiveness and acceptability of a text message intervention (DTEXT) on HbA1c and self-management for people with type 2 diabetes*. A randomized controlled trial, Patient Education and Counseling.

Walsan R, Feng X, Mayne DJ, Pai N, Bonney A (2020). *Neighborhood Environment and Type 2 Diabetes Comorbidity in Serious Mental Illness*, Journal of Primary Care & Community Health.

Walsan R, Bonney A, Mayne DJ, Feng X, Vella S-L, Pai N (2020). *Neighbourhoods and physical health comorbidity in individuals with serious mental illness*, Schizophrenia Research, 222:509-510.

Westley-Wise V, Lago L, Mullan J, Facci F, Zingel R, Eagar K (2020). *Patterns of morbidity and multimorbidity associated with early and late readmissions in an Australian regional health service*, Chronic Illness.

White LD, Thand C, Hodsdon A, Melhuish TM, Barron FA, Godsall MG, Mclin TR, Vlok R (2020). *Comparison of supraglottic airway devices with endotracheal intubation in low-risk patients for cesarean delivery: Systematic review and meta-analysis*, Anesthesia & Analgesia, 131(4):1092-1101.

White LD, Thang C, Hodsdon A, Melhuish TM, Vlok R (2020). *Cricoid pressure during intubation: A systematic review and meta-analysis of randomised controlled trials*, Heart & Lung, 49(2):175-180.

White LD, Hodsdon A, An GH, Thang C, Melhuish TM, Vlok R (2020). *In reply - Induction opioids for caesarean section: A word on fentanyl*, International Journal of Obstetric Anesthesia, 42:117-118.

Wilson V, Dewing J, Cardiff S, Mekki TE, Oye C, McCance T (2020). *A person-centred observational tool: devising the Workplace Culture Critical Analysis Tool®*, International Practice Development Journal, 10(1):3.

Wong ATY, Munt A, Allmann-Farinelli M, Badve SV, Boudville N, Coolican H, Chandra AN, Coulshed S, Fernando M, Grantham J, Haloob I, Harris DCH, Hawley CM, Holt J, Johnson DW, Kumar K, Kee VW, Lonergan M, Mai J, Rangan A, Roger SD, Saravanabavan S, Sud K, Torres VE, Vilayur E, Vilayur E, Zhang JQJ, Rangan GK (2020). *Assessment of Dietary Sodium Intake Using the Scored Salt Questionnaire in Autosomal Dominant Polycystic Kidney Disease*, Nutrients, 12(11):3376.

Wong VC, Shen L, Nasser E, Adams DN, Mansberg R (2020). *68Ga-Prostate-Specific Membrane Antigen Uptake in Cerebral Tuberculosis*, Clinical Nuclear Medicine, 45(3):238-240.

Wood B, Habashy D, Mayne DJ, Dhar A, Purvis C, Skyring T (2020). *The utility of preoperative and intraoperative cultures for guiding urosepsis empirical treatment*, Journal of Clinical Urology, 13(2).

Wu Q, Qian S, Deng C, Yu P (2020). *Understanding Interactions Between Caregivers and Care Recipients in Person-Centered Dementia Care: A Rapid Review*, Clinical Interventions in Aging, 15:1637-1647.

Yang Y, Anstey J, Yastrebov K, Nanjaya VB, Orde S, Nalos M, Costello C, Ryan NPG (2020). *COVID-US: A simplified approach to cardiopulmonary ultrasound in suspected and confirmed COVID-19 patients in surge crisis*, Australasian Journal of Ultrasound in Medicine, 23(2):96-102.

Yaxley WJ, Nouhand F-X, Raveenthiran S, Franklin A, Donato P, Coughlin G, Kua B, Gianduzzo T, Wong D, Parkinson R, Brown N, Samaratinga H, Delahunt B, Egevad L, Roberts M, Yaxley JW (2020). *Histological findings of totally embedded robot assisted laparoscopic radical prostatectomy (RALP) specimens in 1197 men with a negative (low risk) preoperative multiparametric magnetic resonance imaging (mpMRI) prostate lobe and clinical implications*, Prostate Cancer and Prostatic Diseases.

Young AL, Butow PN, Tucker KM, Wakefield CE, Healey E, Williams R (2020). *When to break the news and whose responsibility is it? A cross-sectional qualitative study of health professionals' views regarding disclosure of BRCA genetic cancer risk*, BMJ Open, 10:e033127.

Yu Y, Tang R, Fenton-Lee D (2020). *National survey of inguinal hernia mesh repair practices*, ANZ Journal of Surgery, 90(11).

Zilberg C, Lee MW, Kraitsek S, Ashford B, Ranson M, Shannon K, Iyer NG, Ch'ng S, Low T-H, Palme C, Clark J, Gupta R, Yu B (2020). *Is high-risk cutaneous squamous cell carcinoma of the head and neck a suitable candidate for current targeted therapies?* Journal of Clinical Pathology, 73:17-22.

CONFERENCES

Ahmad I, Chufal KS, Bajpai R, Miller A, Chowdhary RL, Umesh P, Dobriyal K, Gairola M (2020). *Clinical Outcomes Of Patients With Pathologic Residual Nodal Disease After Neo-Adjuvant Chemoradiation For Esophageal Carcinoma*, International Journal of Radiation Oncology, Biology, Physics.

Ahmad I, Chufal KS, Bhatt CP, Bajpai R, Miller AA, Chowdhary RL, Pahuja AK, Gairola M (2020). *Plan Quality of Modern Radiotherapy Delivery Techniques in Left-Sided Breast Cancer: An Analysis Stratified by Consensus Target Delineation Guidelines*, International Journal of Radiation Oncology, Biology, Physics, 108(3):e78-e79 0 Proceedings of the American Society for Radiation Oncology.

Arnold B, Halkett G, Dhillon J, Girgis A, Descallar J (2020). *Does an educational intervention increase radiation therapists' confidence and knowledge in administering an electronic patient symptom and distress screening tool?* Clinical Oncology Society of Australia Annual Scientific Meeting 2020.

Chen J, Ilic N, Mitchell H (2020). *Symptom burden in Australian patients with advanced Chronic Kidney Disease and end-stage kidney disease receiving renal supportive care: A single centre cohort study*, Nephrology Dialysis Transplantation, 35(S3) - 57th ERA-EDTA Congress.

Chin P, Villalba L, Huang S, Osei-Tutu L, O'Riordan J (2020). *Varicocele is associated with left common iliac vein compression*, The Journal of Urology, 203(S1):e541 - American Urological Association Annual Meeting 2020.

Chufal KS, Ahmad I, Bajpai R, Miller A, Chowdhary RL, Gairola M (2020). *Pathological Response Prediction To Neo-Adjuvant Chemoradiation In Esophageal Carcinoma Using Artificial Intelligence And Radiomics: An Exploratory Analysis*, International Journal of Radiation Oncology, Biology, Physics, 108(3):E612-613.

Chung E, Risi D, Holt J, Lonergan M, Kotwal S, Yong K, Smyth B, Chen J, Wen C (2020). *A retrospective study on the epidemiology of ANCA-associated vasculitis in two Australian health districts*, Australian and New Zealand Society of Nephrology 2020 ePoster.

Davis E, Westley-Wise V, Moules S, Masso M, Barclay G, Nangati Z, Davis J, Eagar K (2020). *How Many People Need Palliative Care and How Many Miss Out?* Innovation in Aging, 4(S1):244 - The GSA 2020 Annual Scientific Meeting "Turning 75: Why Age Matters".

Elison B (2020). *CTCA*, 50th Annual Scientific Meeting of the Australian and New Zealand Society of Nuclear Medicine, 2020.

Harris D, Brungs D, Ladwah R, Mant A, McGrath M, Tazbirkova A, Akopov A, Fadeeva N, Kasparov B, Kovalenko N, Kozlov V, Moiseenko F, Oschepkov V, Koralewski P, Kowalski d, Lugowska I, Charoentumn C, Dechaphunkul A, Sriuranpong V, Oliviero J, Clingan P (2020). *Cosibelimab, an anti-PD-L1 antibody: preliminary safety and efficacy results from a global, multicohort phase 1 clinical trial*, Journal for ImmunoTherapy of Cancer, 8(S3) - Society for Immunotherapy of Cancer, 35th Anniversary Annual Meeting (SITC2020).

Hewitt L, Kerr E, Stanley RM, Okely AD (2020). *Tummy time and infant health outcomes. A systematic review*. International Society on Behavioral Nutrition and Physical Activity (ISBNPA).

Hicham Ibrahim CH, Lonergan M, Mullan J, McAlister B, Lambert K, Suesse T (2020). *Acute kidney injury as a risk factor for kidney stones: A propensity matched analysis*, Nephrology Dialysis Transplantation, 35(S3) - 57th ERA-EDTA Congress.

Loganathan A, Riordan J (2020). *Outcomes of Acute Gout in patients discharged from the Emergency Department*, ARA-NSW 2020 - 42nd Annual NSW Branch Meeting.

Luke JJ, Patel MR, Hamilton EP, Chmielowski B, Ulahannan SV, Kindler HL, Bahadur SW, **Clingan PR**, Mallesara GM, Weickhardt AJ, Currence S, Xi L, Kaul S, Chen F, Moore PA, Bonvini, Sumrow B, Blumenschein G (2020). *A phase I, first-in-human, open-label, dose-escalation study of MGD013, a bispecific DART molecule binding PD-1 and LAG-3, in patients with unresectable or metastatic neoplasms*, Journal of Clinical Oncology, 38(S15):3004 - 2020 American Society of Clinical Oncology Annual Meeting I.

Mahin H, Hewitt L, Napaki S, Ashford BG (2020). *uPAR as a diagnostic tool for high-risk follicular thyroid neoplasm. A systematic review*. Royal Australasian College of Surgeons. Surgical Research Society of Australasia Conference.

Ross PJ, Croagh D, **Aghmesheh M**, Nagrial A, Kwan V, Nguyen NQ, Nikfarjam M, Wasan H, Ajithkumar T, Iwuji C, Hendlisz A, Warrener M, Kenny D, Harris M (2020). *Su1146 PANCO: An open-label, single-arm pilot study of phosphorus-32 (ONCOSIL TM) microparticles in patients with unresectable locally advanced pancreatic adenocarcinoma (LAPC) in combination with Folfirinox or Gemcitabin + NAB-Paclitaxel (GNP) chemotherapies*, Gastroenterology, 158(6, S1):S523-S524.

Siu HW, O'Neill R, Tong M, Hong JH, Harris CA, **Aghmesheh M**, Soudy H (2020). *Immune checkpoint inhibitor induced overlapping cardiac and neuromuscular toxicities: Highlight of early diagnosis, early initiation of immunosuppressive therapy and multidisciplinary management*, Journal for ImmunoTherapy of Cancer, 8(S3) - Society for Immunotherapy of Cancer, 35th Anniversary Annual Meeting (SITC2020).

van de Kraaij, Smeets J, Bertora L, Carrozzi A, Serra A, Gantz S, Hoffman A, Karsch L, Luhr A, Pawelke J, Schellhammer S, **Oborn B** (2020). *MRI-Guided-PT: Integrating an MRI in a proton therapy system*, CYC 2019 - Proceedings of the 22nd International Conference on Cyclotrons and their Applications (pp. 145-148). JACoW Publishing.

Walsan R, **Mayne DJ**, Feng X, **Pai NB**, Bonney AD (2020). *Neighbourhoods Matter too: Association between Neighbourhood Socio Economic Disadvantage and Type 2 Diabetes Comorbidity in Serious Mental Illness*, 2020 Congress of the Schizophrenia International Research Society.



CONTACT DETAILS

Research Support Office
Level 8, Block C, Wollongong

PHONE

Research Central: 02 4253 4891
Research Governance: 02 4253 4800

EMAIL

ISLHD-Research@health.nsw.gov.au

POSTAL ADDRESS

Locked Mail Bag 8808
South Coast Mail Centre,
NSW, 2521