Research Report 2020-2021



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We would like to thank the many participants who have contributed to the research conducted at Joondalup Health Campus who have helped us to improve our care.

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Introduction

A message from the A/Chief Executive Officer

Welcome to the 2020-2021 Joondalup Health Campus Research Report which showcases the research that has been conducted at our hospital over the past 12 months. The report also highlights some of the research support structures that underpin the research we conduct here.

By undertaking research within our hospital, our staff are continuing to innovate and explore new ways to improve the care that we deliver to our patients. It is encouraging to observe that several of our research projects are already being translated directly into practice changes which are benefitting the patients who attend our hospital. Additionally, research from our hospital has been published in a number of scientific papers, allowing doctors and health care providers in other locations to benefit from the research we have undertaken here. Continued expansion of the research portfolio at JHC is anticipated over the next 12 months with plans to undertake more formal clinical trials research.

The past 12 months have been particularly challenging for all of those working in healthcare and I commend those researchers at JHC who are continually questioning, exploring and considering how to improve our patient care.

Dr Amanda Ling

Acting Chief Executive Officer Joondalup Health Campus



Research & Ethics Department

The Joondalup Health Campus (JHC) Research & Ethics Department acts as a central focal point for research undertaken at Joondalup Health Campus.

The primary functions of the Department are to:

- Assist researchers with queries relating to the initiation and approval of research;
- Provide access to researcher education and training;
- Capture and monitor research activity at JHC;
- Provide input into local and national research agendas on behalf of JHC;
- Monitor local and national changes in research management to ensure continued compliance with best practice.

The Department is also engaged in strategic planning to enhance JHCs participation and reputation in the research sphere, focusing on initially on streamlining research approvals, promoting the research occurring at JHC, developing cohesion in research activity across the site and enhancing JHCs capabilities as a clinical trial site.

NEDTH RANIOLOGICAL CLINIC - Joondalup Health Campus

Ramsay Health Care WAISA Human Research Ethics Committee (HREC) Report

Central to the conduct of ethically sound research are the principles of respect, fairness and the protection of study participants. When research is conducted ethically it values and respects the individual, fairly distributes any benefits or burdens of research throughout society, and minimizes harm to participants. Unless proposed research also has merit and is conducted with integrity, the involvement of human participants in research cannot be ethically justified.

The role of a Human Research Ethics Committee (HREC) is to provide an ethical review of proposed research in accordance with principles as set out in the National Statement on Ethical Conduct in Human Research 2007 (updated 2018)('the National Statement').

The Ramsay Health Care (RHC) WAISA HREC, provides ethical review of proposed research at all RHC sites in WA and SA and a limited number of external sites.

In 2020-2021:

- 50 proposed research applications were reviewed by the full RHC WAISA HREC, (29 were for projects to be conducted at JHC).
- A further 5 projects conducted at JHC met the criteria for low- or negligible-risk research as defined in the National Statement and were reviewed via an expedited review pathway.
- 78 submissions to amend existing projects were made in 2020-2021, (50 were for projects conducted at JHC).

Research Approved Using a Waiver of Consent

All research involving the collection, use or disclosure of identifiable health information, where the requirement for consent is waived, must be reviewed by a full HREC. If the HREC determines that the public interest in the proposed activity outweighs the public interest in the protection of privacy, the requirement for consent can be waived. The following projects, conducted at Joondalup Health Campus in 2020-2021, were approved by a HREC without the requirement for participant consent:

Case series of critically ill patients with COVID-19 with recent travel in an Australian Intensive Care Unit

A retrospective case series detailing presentation, disease progression, management strategies, and complications, pitfalls and lessons learned from the management of COVID-19.

Curious Cases of COVID-19: An Australian retrospective audit

An audit documenting the course of the illness for COVID-19 patients, including the blood tests during admission, treatment required, frequency of additional diagnoses and results of repeat COVID-19 diagnostic PCR tests.

47 Research Publications

>120 projects

currently underway

>2000

>2000 research participants recruited over the past 12 months

ISARIC/WHO Clinical Characterisation Protocol for Severe Emerging Infections

This project examined the coordinated clinical investigation of patients affected by severe acute infections by pathogens of public interest, including COVID-19.

A retrospective cohort analysis of the oral glucose tolerance test versus maternal height when used to diagnose gestational diabetes

The aim of this study was to determine if women who have a shorter stature are more likely to be positive for the oral glucose tolerance test and therefore receive a diagnosis of gestational diabetes.

Pacemaker Manufacturer Identification with AI to Streamline Patient Flow

The aim of this retrospective audit was to develop an Al system to identify a pacemaker manufacturer from a simple chest x-ray. It was expected that this algorithm would reduce length of stay for patients with a pacemaker presenting with syncope, and accelerate the management of cardiac patients.

Nutrition in Pregnancy Following Bariatric Surgery

The aim of this audit was to determine the impact of previous bariatric surgery on the nutritional intake of pregnant women, in particular looking at the prevalence of nutrient deficiencies, and determine if there were any adverse outcomes for the mother or baby.

HREC Membership

The RHC WAISA HREC is constituted and operates in accordance with the requirements of the National *Statement*, which means it has medical, care provider, research, legal, pastoral care and community representation, all of whom undertake their role in a voluntary capacity.

I would like to extend my appreciation to all past and present members of the RHC WAISA HREC for their commitment and dedication and without whom, research could not be conducted at Joondalup Health Campus.

A/Professor Paul Porter Chairperson, RHC WAISA HREC

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13 clinical Re **trials** ad underway **s**



Research occurred across >15 medical specialties



29 applications were submitted to RHC HRECs for research to be conducted at JHC

Inaugural

JHC Research Week

held in October 2020



Research Snapshots

Translating our research into improved care for our patients

The following research snapshots highlight how the research at JHC is being directly translated into improved care for our patients.

Changing how we monitor fetal health during pregnancy

Dr Kym Jones, Obstetrician & Dr Paul Porter, Paediatrician



Pregnant women are required to attend between 10 and 12 antenatal appointments during an uncomplicated pregnancy and more if the pregnancy is deemed high risk. A key component of these visits is the assessment of the fetal heart rate by an obstetrician or midwife to determine whether the pregnancy is progressing well.

Researchers at Joondalup Health Campus recently evaluated a handheld fetal heart rate monitor and demonstrated that it provides accurate, reliable and usable fetal heart rate data that can be recorded and transmitted remotely by expectant mothers at home, thus potentially reducing the number of hospital visits required throughout pregnancy.

The research team have since rolled out the technology to a small group of expectant mothers who present to JHC to further evaluate the feasibility of using the device as part of routine care. It is expected that the monitor will soon be used across the whole hospital allowing women to attend home-based telehealth appointments.

Providing real-time feedback to our youngest research participants

Professor Desiree Silva



The ORIGINS Project is a large-scale biobank and databank which aims to assess how early life exposures influence a child's growth, development and health.

The ORIGINS Project also provides real-time feedback and referral to appropriate services for participants – mother, partners and infants. At one-year and three-years of age, ORIGINS children are invited to attend a health check (clinic appointment) where they are assessed by a paediatrician who reviews their developmental progress and may refer the child for additional services.

Of those ORIGINS infants who have attended a one-year clinic appointment, 20% were recommended to attend a General Practitioner or Child Health Nurse follow-up appointment while 15% were referred to another health care specialist (immunologist, general paediatrician, child development service, ear/nose/throat surgeon, physiotherapist, dietician or ophthalmologist) for further assessment/treatment.

Additionally low iron levels were detected in many participant children at the one- and three-year appointments. Each child was individually followed up by a paediatrician and advised on specific iron supplements or dietary advice.

The ORIGINS Project is providing direct and immediate evidence of the benefits of research participation for our patients.

Improving how we sample blood in the Emergency Department

Mr Darren Jacob and Ms Maggie Husain, Joondalup Health Campus and researchers from Edith Cowan University (E Jacob, A Jacob, H Davies, M Jenkins, L Coventry)



The way in which blood is collected in the Emergency Department can cause the blood to haemolyse or break down, which renders it useless for future testing.

Researchers from both Edith Cowan University and Joondalup Health Campus sought to determine whether there was any relationship between the way in which the blood was collected and the risk of haemolysis. The researchers found that haemolysis of blood samples was associated with increased tourniquet duration, if the blood collection tube was less than half-filled, increased age of the patient and the difficulty of blood draw.

The research will allow clinicians to modify how blood is collected from patients to ensure it is usable in downstream testing.

Joondalup Health Campus Research Week 2020

Joondalup Health Campus held its inaugural Research Week between 19-23 October 2020.



The highlight of the week was undoubtedly the day of research presentations featuring a number of speakers from both within and external to the hospital, with many attendees commenting that they were surprised to realise the scope of research conducted here.

Professor Fiona Stanley AC, was the keynote presenter and led the audience on an inspiring journey discussing the research she has undertaken and how it has driven her to improve care.

The day also featured presentations by:

- Dr Jonathan Chambers, Infectious Diseases
 Physician & Clinical Microbiologist, JHC
 "COVID-19 and infectious diseases research"
- Professor Gary Geelhoed, Executive Director, Western Australian Health Translation Network (WAHTN)
 - "The Western Australian Health Translation Network"
- Dr Beverley Ewens, A/Dean, School of Nursing & Midwifery, Edith Cowan University
 - "A novel approach to post ICU recovery using an ehealth platform: ICU-Together"
- A/Professor Therese O'Sullivan, School of Nutrition & Dietetics, Edith Cowan University
 - "Helping new mums with breastfeeding before their babies are born: The ACE Study"

As well as research overviews from a number of JHC departments:

- Cardiology Dr Wasing Taggu
- Respiratory Dr Scott Claxton
- Paediatrics & Neonatalogy Dr Ravisha Srinivas Jois
- Clinical Registries Ms Glynis Porter



Research Week Prizes

Prizes were awarded for a number of presentations. The judges awarded:



Dr Nicholas Lichtenberg-McGill

Dr Nicholas Lichtenberg-McGill the winner of the best Rapid Research Presentation, for his 5-minute presentation of "Adverse pregnancy and neonatal outcomes associated with elevated maternal and paternal body mass index (BMI): a single-centre retrospective cohort study";



Ms Sarah Bennett, Ms Linh Le-Kavanagh and Ms Gerri Harris

Ms Sarah Bennett (Occupational Therapy), Ms Linh Le-Kavanagh (Physiotherapy) and Ms Gerri Harris (Speech Pathology) Best Research Poster for their poster titled "Joondalup Health Campus Stroke Outpatient Service: The First Year". The Stroke Outpatient Service team also collected the most number of votes by members of the public to win the popular vote prize and a \$100 gift voucher.



Joondalup Health Campus Research Week – 2020

Rapid Research Presentations

1. Are babies born with a vulnerable airway epithelium? NOSE: a pilot study to determine feasibility of newborn nasal sampling, Dr Liz Starcevich, Telethon Kids Institute

2. Service Evaluation and Retrospective Audit of Electronic HEEADSSS (e-HEEADSSS) Screening Device in Paediatric Inpatient Service in Western Australia - Dr Alide Smit, JHC/Curtin

3. The impact of blood sampling technique, including the use of peripheral intravenous cannula, on haemolysis rates in an emergency department: a cohort study - Dr H Davies, ECU

4. Adverse pregnancy and neonatal outcomes associated with elevated maternal and paternal body mass index (BMI): a single-centre retrospective cohort study – Dr N Lichtenberg, SCGH

5. Children's participation in the decision-making process during hospitalisation: An observational study – Dr M Foster, ECU

6. The impact a Mediterranean Diet in pregnancy has on neonatal body fat composition – D Ashwin, Oceanus University of Medicine

Research Posters

1. Language abilities in children born to mothers with diabetes: A systematic review and meta-analysis

2. Community wellbeing during the COVID-19 Pandemic: The Origins Cohort

3. The ORIGINS Project: Involving consumers in a cohort study

4. Nature Play & Grow: Promoting healthy eating, unstructured play and planetary responsibility by connecting preschool children to nature

5. Time for change: The ORIGINS Project leading a new generation of interventional birth cohorts

6. Parent use of smartphones and tablet computers and prenatal attachment

7. Investigating the effect of chlorinated drinking water on the assembly of the infant gut microbiome

8. How are families of children with Neurodevelopmental problems coping during the COVID-19 Pandemic? Findings from a parent survey

9. The ORIGINS project Biobank

10. Detection of asthma exacerbation in adolescent and adult subjects with chronic asthma using a cough-centred, smartphone-based algorithm

11. Diagnosis of lower respiratory tract disease (LRTD) and pneumonia using a smartphone-based cough-centered algorithm in an adolescent and adult acute-care cohort

12. Development of an algorithm to interpret cough sounds recorded on a smartphone stratifies asthma/reversible airway disease (RAD) severity in children with high accuracy

13. Joondalup Health Campus. Stroke Outpatient Service: The first year

14. Successful Interdisciplinary Collaboration: A Case Study

15. Barcode blood labelling to reduce sample identification errors in an Emergency Department setting

16. Cardiovascular risk evaluation in expectant fathers (CARE-Dads): Investigating the health of fathers in the ORIGINS project

17. COUGH APP: Cough sound analysis can detect various respiratory diseases with high accuracy in children

18. Diagnosis of Chronic Obstructive Pulmonary Disease (COPD) using a smartphone-based, cough-centered algorithm in a mixed-disease acute-care cohort

19. How registries facilitate the improvement of clinical standards

20. Foot problems in patients in acute care

21. Diagnosis of Chronic Obstructive Pulmonary Disease (COPD) Exacerbations using a smartphone-based cough centered algorithm

22. Do adults born preterm deliver preterm babies? A data linkage study from WA

23. Do probiotics in pregnancy reduce the risk of group B streptococcal colonization? A systematic review of RCTs

24. Anaesthesia, infection and ADHD Risk in children

Research Publications



The following research articles involved staff or patients of Joondalup Health Campus and were published in 2020-2021¹:

1. Abu-Qamar, M.Z., et al., *Foot Problems in Patients in Acute Care: A Point-Prevalence Survey.* J Wound Ostomy Continence Nurs, 2020. 47(5): p. 513-520.

2. Augustine, P., et al., *Pancreas size and exocrine function is decreased in young children with recent-onset Type 1 diabetes*. Diabet Med, 2020. **37**(8): p. 1340-1343.

3. Burrell, A.J.C., et al., *Rapid Translation of COVID-19 Preprint Data into Critical Care Practice*. Am J Respir Crit Care Med, 2021. **203**(3): p. 368-371.

4. Chung, J.S., et al., *Asystole following bilateral endoscopic thoracic sympathectomy*. Anaesth Intensive Care, 2021. **49**(3): p. 234-236.

5. Davis, J.A., et al., *Can Positive Mindsets Be Protective Against Stress and Isolation Experienced during the COVID-19 Pandemic? A Mixed Methods Approach to Understanding Emotional Health and Wellbeing Needs of Perinatal Women.* Int J Environ Res Public Health, 2021. **18**(13).

6. Elliott, C., et al., *Early Moves: a protocol for a population-based prospective cohort study to establish general movements as an early biomarker of cognitive impairment in infants.* BMJ Open, 2021. **11**(4): p. e041695.

¹Does not include review articles.

Research Publications

7. Faugno, A.K., et al., Do rapid diagnostic methods improve antibiotic prescribing in paediatric bacteraemia? J Paediatr Child Health, 2020.

8. Finlay-Jones, A.L., et al., *Comparing Web-Based Mindfulness with Loving-Kindness and Compassion Training for Promoting Well-Being in Pregnancy: Protocol for a Three-Arm Pilot Randomized Controlled Trial.* JMIR Res Protoc, 2020. **9**(10): p. e19803.

9. Finn, J.C., et al., *Prehospital continuous positive airway pressure (CPAP) for acute respiratory distress: a randomised controlled trial.* Emerg Med J, 2021.

10. Gamez, C., et al., Lower Cord Blood IL-17 and IL-25, but Not Other Epithelial Cell-Derived Cytokines Are Associated with Atopic Dermatitis in Infancy. Int Arch Allergy Immunol, 2021. **182**(6): p. 474-478.

11. Jarvis, G. and S. Geraghty, *Importance of vitamin D during the antenatal period for maternal well-being*. British Journal of Midwifery, 2020. **28**(6): p. 353-358.

12. Godecke, E., et al., *A randomized control trial of intensive aphasia therapy after acute stroke: The Very Early Rehabilitation for SpEech (VERSE) study.* Int J Stroke, 2020: p. 1747493020961926.

13. Gozt, A.K., et al., *Predicting outcome following mild traumatic brain injury: protocol for the longitudinal, prospective, observational Concussion Recovery* (BMJ Open, 2021. **11**(5): p. e046460.

14. Graf, A.C., et al., Contemporary nursing graduates' transition to practice: A critical review of transition models. J Clin Nurs, 2020. **29**(15-16): p. 3097-3107.

15. Graf, A.C., et al., Experiences of Western Australian rural nursing graduates: A mixed method analysis. J Clin Nurs, 2021.

16. Gunaratne, R., et al., *Chronic Achilles tendon rupture: a novel modification of surgical technique described by El Shewy.* ANZ J Surg, 2021.

17. Hagemann, E., et al., *Developmental Origins of Health and Disease (DOHaD): The importance of life-course and transgenerational approaches.* Paediatr Respir Rev, 2021.

18. Holden, L.M., *Successful uterine-sparing surgical management in a patient with a large multi-fibroid uterus.* J Surg Case Rep, 2021. **2021**(6): p. rjab233.

19. Hoskins, M.J. and S. Richards, *Statin-induced liver dysfunction triggering fatal myonecrosis*. Intern Med J, 2021. **51**(5): p. 812-813.

20. Ibilola O and Silva D, *Environmental (Perinatal) Risk Factors of ADHD in a Sibling Control Design Study.* Open Access Journal of Behavioural Science & Psychology, 2021. **4**(1): p. 180052.

21. Jacob, E., et al., *The impact of blood sampling technique, including the use of peripheral intravenous cannula, on haemolysis rates: A cohort study.* J Clin Nurs, 2021. **30**(13-14): p. 1916-1926.

22. Jois, R.S., J.K. Tan, and D. Silva, *Do probiotics in pregnancy reduce the risk of group B streptococcal colonisation?* J Paediatr Child Health, 2020. **56**(9): p. 1468-1472.

23. Kim, K.W., et al., *Higher frequency of vertebrate-infecting viruses in the gut of infants born to mothers with type 1 diabetes.* Pediatr Diabetes, 2020. **21**(2): p. 271-279.

24. Laurens, J.R., A. Foster, and A. Hardley, *Closing Difficult Laparostomies With the Aid of Botulinum Toxin A: An Audit of 12 Cases.* Cureus, 2021. 13(3): p. e14066.

25. Ledowski, T., et al., *Deep neuromuscular paralysis during hip arthroscopic surgery: influence on perineal tissue pressures and hip joint width.* J Hip Preserv Surg, 2020. **7**(3): p. 533-536.

26. Leie, M.A., et al., Decreasing Posterior Femoral Condyle Offset Improves Intraoperative Correction of Flexion Contracture in Total Knee Arthroplasty. J Knee Surg, 2020.

27. Lock, J.H., N.K. Irani, and N.J. Newman, *Neuro-ophthalmic manifestations of mitochondrial disorders and their management*. Taiwan J Ophthalmol, 2021. **11**(1): p. 39-52.

28. McEntee, P., et al., Western Australian Peritonectomy Service: a review of the first 6years of operation of a low-volume peritonectomy centre. ANZ J Surg, 2021. **91**(5): p. 885-889.

29. Moschovis, P.P., et al., *The diagnosis of respiratory disease in children using a phone-based cough and symptom analysis algorithm: The smartphone recordings of cough sounds 2 (SMARTCOUGH-C 2) trial design.* Contemp Clin Trials, 2021. **101**: p. 106278.

30. Muirhead, F.C., H.L. Lee, and R. Singh, *Ovarian endosalpingiosis mimicking hydrosalpinges. Unexpected intraoperative findings and a diagnostic rollercoaster.* J Surg Case Rep, 2021. **2021**(6): p. rjab264.

31. Ng, Z.Q., et al., *Chylous ascites in colorectal surgery: A systematic review.* World J Gastrointest Surg, 2021. **13**(6): p. 585-596.

32. Penno, M.A.S., et al., *Changes in pancreatic exocrine function in young at-risk children followed to islet autoimmunity and type 1 diabetes in the ENDIA study.* Pediatr Diabetes, 2020. **21**(6): p. 945-949.

33. Plummer, M.P., et al., Smoking in critically ill patients with COVID-19: the Australian experience. Crit Care Resusc, 2020.

34. Porter, P., et al., *Diagnosing community-acquired pneumonia via a smartphone-based algorithm: a prospective cohort study in primary and acute-care consultations.* Br J Gen Pract, 2021. **71**(705): p. e258-e265.

35. Porter, P., et al., *Diagnosing Chronic Obstructive Airway Disease on a Smartphone Using Patient-Reported Symptoms and Cough Analysis: Diagnostic Accuracy Study.* JMIR Form Res, 2020. **4**(11): p. e24587.

36. Porter, P., et al., Accuracy, Clinical Utility, and Usability of a Wireless Self-Guided Fetal Heart Rate Monitor. Obstet Gynecol, 2021. **137**(4): p. 673-681.

37. Quick, M.E., et al., *Endoscopic Management of Early Stage Middle Ear Paragangliomas - An Australian Case Series*. Otol Neurotol, 2021.

38. Rathore, K., et al., *Two cases of heparin-induced thrombocytopenia after off-pump coronary artery bypass surgery.* Indian J Thorac Cardiovasc Surg, 2020. **36**(3): p. 237-240.

39. Sakalidis, V.S., et al., Wellbeing of Breastfeeding Women in Australia and New Zealand during the COVID-19 Pandemic: A Cross-Sectional Study. Nutrients, 2021. **13**(6).

40. Saw, C., et al., Service evaluation and retrospective audit of electronic HEEADSSS (e-HEEADSSS) screening device in paediatric inpatient service in Western Australia. Int J Adolesc Med Health, 2020.

41. Seymour, H., et al., *Implementing a hip fracture registry and financial incentive program to enhance best practice in hip fracture care in Western Australia*. Aust Health Rev, 2021. **45**(2): p. 143-147.

42. Silva, D.T., et al., *Introducing the ORIGINS project: a community-based interventional birth cohort.* Rev Environ Health, 2020.

43. Silva, D., et al., *Literacy and Numeracy Underachievement in Boys and Girls with ADHD*. J Atten Disord, 2020. **24**(9): p. 1305-1316.

44. Srinivasjois, R.M., et al., *Do adults born preterm deliver preterm babies? A record linkage study from Western Australia.* J Matern Fetal Neonatal Med, 2021: p. 1-4.

45. Taylor, S., H. Lee, and R. Singh, *Innocent until proven guilty: acute on chronic tubal torsion mimicking pelvic inflammatory disease*. J Surg Case Rep, 2021. **2021**(5): p. rjab187.

46. Tynas, R. and L. Smith, *Type 4 hiatal hernia causing haemodynamic compromise by compression of the left atria*. Eur Heart J Case Rep, 2020. **4**(3): p. 1-2.

47. Zhou, H., et al., Using machine learning to predict paediatric 30-day unplanned hospital readmissions: a case-control retrospective analysis of medical records, including written discharge documentation. Aust Health Rev, 2021. **45**(3): p. 328-337.

Current Research²

ALLIED HEALTH

- **1725** The role of executive function in discourse production and health-related quality of life in aphasia
- **1905** Does malnutrition risk affect rehabilitation progress?
- **1915** Stand up for Chronic Obstructive Pulmonary Disease
- 1917 Hemi-Hamate Arthroplasty Rehabilitation Protocol
- **1918** ORIF (Open Reduction Internal Fixation) with hook plate for bony mallet fractures
- **1921** A Phase 3,Multi-Arm , Multi-Stage Covariate-Adjusted , Response-Adaptive, Randomised Trial to determine Optimal Early Mobility Training after Stroke (Avert Dose)
- 1934 Evaluating implementation and acceptability of embedding E-Health Pregnancy Lifestyle, Activity, Nutrition (PLAN) into routine clinical practice pathways to provide a healthy start to life
- **1944** From Observing to Doing: Embedding Entrustable Professional Activities in Allied Health Placements
- 2115 Nutrition in Pregnancy Following Bariatric Surgery

ANAESTHETICS

- 1737 A multicentre trial of Continuous Catheters in Adductor Canal versus Femoral Triangle (The CAFE Study) locations for Total Knee Replacement Surgery (CAFÉ Study)
- **1928** Evaluation of Essential Pain Management (EPM) workshops in Aboriginal health service

CARDIOLOGY AND VASCULAR SURGERY

- **609** Monitoring Coronary Heart Disease in the modern era
- **1221** Evaluation of Long-Term Clinical and Health Service Outcomes Following Coronary Artery Revascularisation in Western Australia
- **1225** Functional status of survivors of out-of-hospital cardiac arrest in Perth, Western Australia
- **1621** Is the incidence of heart attack still decreasing in Australia? Developing more reliable methods for monitoring trend in myocardial infarction and coronary heart disease
- **1636** Classification of chronic heart failure using sound recordings
- 2048 Microbiota Profile in Heart Failure and Heart Transplant
- 2049 Microbiota Profile in Acute Coronary Syndrome
- **2050** Pacemaker Manufacturer Identification with AI to Streamline Patient Flow

EMERGENCY MEDICINE

- **1715** Patient outcomes for those receiving CPAP for severe respiratory distress in the prehospital setting
- 1811 Australian Snakebite Project (ASP)
- 1832 Sampling blood from peripheral intravenous cannulas, venepuncture and haemolysis rates: An observational study
- **1833** Headache in the Emergency Department (HEAD Study)
- **1839** Back pain in Joondalup Health Campus Emergency Department: a continuous quality improvement project
- 1920 The impact of the Goals of Patients care Summary on Documentation of Advance Care Planning Discussions with Patients and their Surrogate Decision Makers
- **1929** Evaluation of the expansion of take-home naloxone project conducted by the Mental Health Commission
- **1931** Examination of the interuser reliability of the Joondalup Health Campus paediatric wheeze severity scoring tool
- 2008 Exploring the factors associated with early representation to the emergency department in people living with heart failure
- 2009 CREST Concussion Recovery Study
- 2026 Retrospective review of the appropriateness of cervical spine CT for trauma patients presenting to JHC ED
- 2027 A retrospective review of the appropriate usage of CT abdomens in patients presenting with abdominal pain to Joondalup Health Campus Emergency Department
- 2029 Retrospective review of Head CT Scans for patients presenting to Joondalup Health Campus Emergency Department
- 2032 Audit of Emergency Department Paediatric Wheeze Severity Action Plan
- **2040** An audit of medical documentation of Code Blacks in the Emergency Department at Joondalup Health Campus
- 2042 Audit of Paediatric Emergency Surgical Transfers from JHC to PCH 2019

GENERAL MEDICINE

 2111W Diagnostic accuracy in the era of expanded medical tests and an instrumental variable analysis of test ordering

IMMUNOLOGY AND INFECTIOUS DISEASE

- **2016** Virucidal pilot study of Nasodine® Antiseptic Nasal Spray (povidone-iodine 0.5%) in people with COVID-19 and confirmed nasal shedding of SARS-CoV-2 virus
- 2023 Serology Survey of Health Care Workers following close contact with positive COVID-19 Participants whilst wearing Personal Protective Equipment in a low community prevalence setting
- 2025 Curious COVID-19 Audit
- **2043** ISARIC/WHO Clinical Characterisation Protocol for Severe Emerging Infections
- ASCOT Trial: Australasian COVID-19 Trial

INTENSIVE CARE MEDICINE

- **1616** Short PeRiod IncideNce sTudy of Severe Acute Respiratory Infection (SPRINT-SARI)
- 1617 Prophylactic administration of Melatonin for the prevention of Delirium in Intensive Care Units – A randomised placebo controlled trial (The ProMEDIC Trial)
- 1646 The impact of an m-health recovery program on the mental health and wellbeing of intensive care survivors: A randomised controlled trial
- 2015 West Australian APRV Ventilation (WAVES) Study
- 2018 Case series of critically ill patients with COVID-19 with recent travel in an Australian Intensive Care Unit
- 2114W ICU Consumer Research Survey

NURSING AND MIDWIFERY (Not classified elsewhere)

- **1711** Exploring the impact of a delirium assessment tool on delirium prevalence, outcomes and management during a hospital admission
- **1947** Understanding Nurses' perception of their non-technical skills in response to and reporting of clinical deterioration in medical-surgical wards
- 2046 Patient Acuity Tool evaluation study
- **2054** Preparing the nursing workforce for a pandemic response

OBSTETRICS AND GYNAECOLOGY

- **919** Australasian Maternity Outcome Surveillance System (AMOSS)
- **1315** Environmental Determinants of Islet Autoimmunity (ENDIA)
- **1935** Mackenzie's Mission: The Australian Reproductive Carrier Screening Project
- 2045 A retrospective cohort analysis of the oral glucose tolerance test versus maternal height when used to diagnose gestational diabetes
- The HeraBEAT Trial: An evaluation of the clinical utility and acceptability of maternally-administered foetal heart rate monitoring using a remote medical-grade device

ONCOLOGY AND HAEMATOLOGY

- **1829** Incidence of radiation necrosis in patients with brain metastases who received stereotactic radiotherapy with or without chemotherapy and immunotherapy at Sir Charles Gairdner Hospital
- **1831** Role of patient HLA class I genotype as a predictive biomarker of response to immunotherapy in lung cancer
- **1916** Valuing aspects of cancer care: Patient and population perspectives
- **PACIFIC-R:** First real-world data on unresectable stage III NSCLC patients treated with durvalumab after chemotherapy

ORIGINS PROJECTS – OBSTETRICS AND PAEDIATRICS

- **1440** The ORIGINS Project: A healthy start to life for a better future
- **1536** The Cardiovascular Risk Evaluation in expectant fathers (CARE-Dads) Study
- **1624** Testosterone and Language in Kids (TALK) Study
- 1649 Examining subfertility in a prospective birth cohort
- **1708** A Family's Journey at JHC: Analysis of routinely collected data
- **1728** Screen ORIGINS: First longitudinal study of the multidimensional influences and impacts of contemporary screen technology use over the first five years of life
- **1729** Breastfeeding and Eating Nuts and Eggs For Infant Tolerance (BENEFIT) Trial
- **1740** Introducing cashew nuts during infancy: The Cashew Study
- **1746** A vulnerable airway epithelium: A pilot study to assess recruitment and nasal sampling in newborns
- **1804** Screen ORIGINS: Qualitative investigation of parental views and practices regarding screen technology use by young children

ORIGINS PROJECTS – OBSTETRICS AND PAEDIATRICS

- 1830 Maternal diet rich in eggs and peanuts to reduce food allergies: a randomised controlled trial (PrEggNut Study)
- **1838** A Pilot Study of a behavioural intervention for increasing the quality of parent-baby social interactions in the first 6 months of life: The Engage Study
- **1901** Helping new mothers to breastfeed before their babies are even born
- 1902 Early Moves Study
- 1904 The SunPreg Study: Measuring sun exposure in pregnancy and its association with the development of early childhood allergies.
- 1906 A randomised controlled trial: Effect of probiotics on gut microbiome and vaccine responses in newborns with antibiotic-induced dysbiosis (ADAPTS: Antibiotic Dysbiosis and Probiotics Trial in InfantS)
- 1908 The Airway Epithelium Respiratory Illnesses and Allergy "AERIAL" Study Vulnerable from the first breath

 epithelial dysfunction and respiratory outcomes in children
- **1911** TUMS Study Water Quality and the Microbiome Study
- **1922** Diabetes during pregnancy and subsequent child development: A 3-year follow up study
- 1923 The Impact of a Mediterranean diet and physical activity in pregnancy on gestational weight gain and neonatal body composition at birth and weight at 1 year of age
- **1924** Origins of neurodevelopmental risk and resilience: Examining neurodevelopmental trajectories of infants in the ORIGINS cohort.
- 1926 Kindy readiness in the ORIGINS cohort
- **1927** Mums minds matter: A pilot study of antenatal mindfulness and self-compassion training to reduce maternal stress and support wellbeing
- **1941** A randomised-controlled trial of a behavioural intervention for optimising social and communication of newborns at high genetic risk of autism spectrum disorders
- 1946 Onset of severe RSV bronchiolitis due to identified maternal or environmental viral transmission (ORBIT)
- **1948** Contribution of a novel mast cell subset to development of atopic disease
- **2001** Time Out for Wellbeing: an experimental study within the ORIGINS Project pregnancy cohort
- **2012** An intervention to enhance psychological wellbeing in families from pregnancy to infancy

ORIGINS PROJECTS – OBSTETRICS AND PAEDIATRICS

- 2024 The COVID COmmunity compassiON Study (COCOON): Assessing virus transmission immunity development and wellbeing of families during COVID-19
- 2037 ORIGINS Community Wellbeing during the COVID-19 Pandemic - Part B: ORIGINS Team, Collaborators and Joondalup Health Campus Staff
- **2041** BioMood: A pilot study of associations between Mediterranean diet, microbiome, metabolome and mental health in pregnant women
- **2101** Maternal and Neonatal Factors Affecting Neonatal Body Fat Percentage
- **2105** Tele-screening for tooth decay in early childhood during COVID-19 pandemic
- **1451r** The SYMBA study: Improving gut biodiversity with soluble fibre and probiotic supplementation in early life to prevent allergic disease
- 2124W The STORK Project (STress biOmaRKers) A pilot retrospective observational study to assess biomarkers of stress and serotonin pathways in pregnant women in the ORIGINS Project
- Plus project 1934 (PLAN Project) which is listed under Allied Health

ORTHOPAEDICS

- **1539** Effect of arthroscopic femoroacetabular impingement surgery on pelvic tilt (FAI)
- **1622** Does far cortical locking improve fracture healing in elderly patients distal femur fractures: A randomised, controlled prospective multicentre study
- **2034** Assessment of Postoperative Pain Management in the Intermediate Period Following Unilateral Total Knee Arthroplasty
- Australia New Zealand Trauma Registry
- National Joint Replacement Registry

PAEDIATRICS

- 1712 Environmental and lifestyle changes in the antenatal population over the past three decades:
 A comparative study utilising Raine Study and Joondalup Health Campus birth cohort data
- **1821** Children's participation in the decision-making process during hospitalisation
- 1837 Safely Preventing Errors and Complications due to Inappropriate Allergy Labelling: The SPECIAL Study – The Paediatric Study
- **1907** Cognitive Improvement by early Restoration of cirCADian rhythms in very preterm Infants through Environmental Modification: The CIRCA DIEM Study

PAEDIATRICS

- **1914** Hypoglycaemia and it's risk factors in a level 2 Nursery
- **1930** Father's Matter: Fathers experiences of caring for their late preterm infants in the neonatal unit
- 2051 Clinical Experience of Subgaleal Haemorrhage
- **2058** Contemporary Idiopathic Childhood Constipation Health Education within the Primary Health Care Setting and its Utilisation by Families living in Perth, Western Australia: A Mixed Methods Study

REHABILITATION AND AGED CARE

- **1647** Australian and New Zealand Hip Fracture Registry (ANZHFR)
- 1744 Effectiveness of an oral care protocol in an older adult rehabilitation unit
- 1925 Short-term postoperative complications and mortality outcomes following fractured neck of femur surgery

RENAL MEDICINE

- 1513 Independent predictors of successful vascular access cannulation in haemodialysis patients and the development a vascular access cannulation complexity instrument
- 1720 Protection against Incidence of Sudden Cardiovascular Events Study with daily fish oil supplementation in dialysis patients (PISCES Study)

RESPIRATORY MEDICINE

 1501 Diagnosis of respiratory illness using non-contact sound recordings

STROKE SERVICE

- **2104** The impact of attention on mobility for patients under 65 years with posterior circulation stroke
- The Australian Stroke Clinical Registry

SURGERY (INCLUDING EAR, NOSE & THROAT SURGERY)

- 1650 Histology in Post Tonsillectomy Haemorrhage
- 1827 Discectomy Survey
- **2002** Surgical management of pilonidal sinus disease: a retrospective cohort study
- **2011** Reliability of estimating blood loss in epistaxis and the value of a visual aid
- 2102 Venous thromboembolic events following cytoreductive surgery: A single centre experience
- 2103 Western Australian Peritonectomy Service
- A Review of the First Six Years of Operation of a Low Volume Peritonectomy Centre.

Collaborations

Research currently being conducted at Joondalup Health Campus involves collaboration with researchers from the following Western Australian organisations:

Child and Adolescent Health Service Curtin University Edith Cowan University East Metropolitan Health Service Harry Perkin's Institute of Medical Research Murdoch University North Metropolitan Health Service Ramsay Health Care South Metropolitan Health Service Telethon Kids Institute University of Notre Dame University of Western Australia Western Diagnostic Pathology

Plus many other national and international collaborators.







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People caring for people.