# Health and Medical Research

Annual Report 2019/21



Investing in research is central to the way we deliver exceptional patient care, now and in the future



EVERGENCY SPECIALIST



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Annual Report 2019/21

# **CEO Welcome**



**Ben Edwards** Chief Executive Officer St John of God Murdoch Hospital Welcome to the 2019-21 St John of God Murdoch Hospital Research Report. The projects and outcomes presented confirm our commitment to clinical innovation and research that promotes excellence in patient care, and access to the most contemporary medical and surgical treatments.

Despite the recent global health challenges, our research teams have remained productive and achieved some significant milestones. These include publications in prestigious medical journals, approvals for new cancer treatments and commencement of surgical outcome trials.

The inaugural Murdoch Strategic Research Grants awarded in 2020 encourage caregiver and consumer participation in research. Recipients of these grants, and their projects presented in this report will stimulate on-going research for the investigators and within the hospital more broadly.

Beyond the research conducted by our caregivers, St John of God Murdoch Hospital supports the research endeavours of many research organisations through access to participants, caregivers and physical resources.

Our generous donors, university collaborators, and industry partners provide much valued support for the research conducted in our hospital. These partnerships build research capacity and our reputation as a research active organisation.

Conducting research in a busy clinical environment presents many challenges, and I take this opportunity to thank all of our Caregivers and Clinicians engaged in research and clinical trials. Your work supports our on-going commitment to excellence in clinical care in the hospital, and the community we serve.





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# **Research Operations Manager Report**



Dr Stephen Edmondston The clinical trials and research caregiver teams are critical to research operations. Research nurses and clinical trial co-ordinators support the day-to-day conduct of research and clinical trials at St John of God Murdoch Hospital.

In April 2020, Rebecca Weselman was appointed the inaugural Clinical Trials Regulatory and Quality Officer. Rebecca has operational oversight of Oncology clinical trials, and has developed a suite of operating procedures, which ensure quality and safety. The unit is conducting clinical trials in collaboration with a growing number of industry sponsors, which is evidence of the capacity to recruit patients, and support them through their treatment.

Research infrastructure purchased in this reporting period includes an ultra-cold freezer for bio-specimen storage, and dedicated patient monitoring equipment. Procurement of this equipment was supported by the generosity of donors to the St John of God Foundation. The REDCap data capture platform has been successfully installed, and is being used in a number of investigatorinitiated studies in the hospital. The licensing agreement for a clinical trials management system (CTMS) was recently finalised. This cloud-based system will streamline clinical trials processes including feasibility, data management and finances.

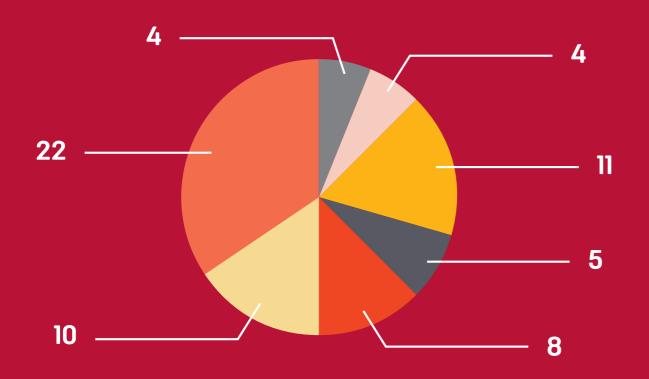
Contract management is a key function of research operations. We continue to improve negotiation and review processes for clinical trials and service agreements. In 2021, industry-funding agreements were successfully negotiated for two orthopaedic surgery trials

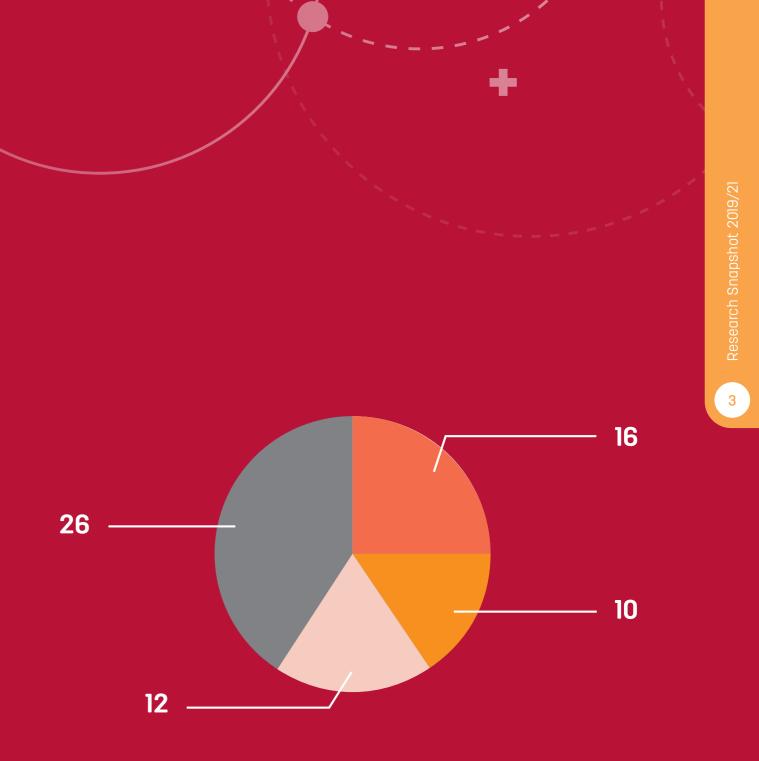
Hospital-based research is dependent on the support of service providers. I am grateful for the on-going partnerships with our pathology and radiology partners who support the sometimes-complex requirements of research protocols. The preparation and dispensing of clinical trial medications by EPIC pharmacy, together with the broader requirements of clinical trials participation, is also much appreciated.

Finally, I acknowledge the Murdoch Strategic Research Committee for their advice and support of research operations. Refinement of research operations aligned to the research strategic objectives will assist the ongoing research success in the hospital. 2

# Research Snapshot 2019/21

St John of God Murdoch Hospital approved 64 new research projects across 20 research areas in the period 2019 – 2021





# **Research Discipline**

- Emergency Medicine
- Oncology (Surgical)
- Oncology (Medical)
- Intensive Care
- Nursing/Management
- Orthopaedics
- Other

# **Research Type**



- Collaborative Research Group
- Research Institute / University
- Investigator Initiated

# Strategic Research Committee Chair Report 2021



**Dr Andrew** Wesseldine Director Medical The Strategic Research Committee provides oversight of research strategy and governance at St John of God Murdoch Hospital. Building research capacity in our major areas of clinical care, and increasing caregiver participation in research have been key strategic themes over the past two years. Approvals for over 60 new research projects granted during that time is evidence of this strategy. I anticipate the results of this work will have significant impact on patient treatment, and the related outcomes in the years ahead.

Despite the recent global health challenges, SJG Murdoch Hospital participation in international clinical trials continues to grow. The results of clinical trials conducted in our Oncology clinical trials unit have been published in prestigious medical journals and will extend treatment options for patients requiring cancer treatment. We have received very positive feedback from our industry partners in relation to the efficient clinical trial procedures, and strong patient recruitment into our Oncology trials.

Patient and caregiver safety, patient education and patient wellbeing are central themes in the research conducted by the Centre for Nursing and Midwifery research. The CNMR works in partnership with university and hospital collaborators, including other hospitals in the SJOGHC Group. These collaborations have resulted in the publication of 17 papers in nursing and medical journals over the

past two years. Three Murdoch nurse caregivers are currently enrolled in research degrees at the University of Notre Dame, with co-supervision from the Centre for Nursing and Midwifery Research.

Over 100,000 joint replacement procedures are performed in Australia each year. The Murdoch Centre for Orthopaedic Research is conducting seven clinical trials examining various aspects of joint replacement surgery and patient outcomes. A world-first study is using digital technology to support remote-monitored knee replacement rehabilitation. This technology has the potential to improve access to rehabilitation, reduce costs and improve patient outcomes. Innovative technologies under investigation in orthopaedic surgery research include using stem cells and collagen scaffolds to promote shoulder tendon repair.

Our intensive care research seeks to optimise recovery and reduce the risk of complications in the management of critically ill patients. This team is participating in national and international studies investigating best-practice in the management of medical conditions, including COVID-19. Consumer-focused studies have provided insight into patient willingness to participate in intensive care research, and sources of information for families of patients in intensive care.

Being the only private Emergency department in Western Australia provides a unique research perspective for our Emergency Medicine research team. This research addresses important issues in the management of common medical emergencies. Innovative approaches in acute pain management, reducing treatment delay for patients having a heart attack, and early identification of delayed recovery from concussion injury are just some of the issues under investigation.

An important strategic initiative in 2020 was the awarding of the inaugural Murdoch Strategic Research grants to five research teams in the hospital. These grants aim to broaden caregiver research participation at Murdoch, and support the development of new lines of research. Donations to research held in the Murdoch Research Gift fund support these awards. I thank the Murdoch Strategic

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Research Committee for their dedication to building the research culture, capacity and reputation at Murdoch, and acknowledge the contribution of Dr Alison Parr to the research outcomes at Murdoch during her tenure as Chair of this Committee. This report is a celebration of the research achievements at Murdoch, and our reputation as a hospital engaged in world-leading research.

# **Our team**

# Murdoch Strategic Research Committee



**Dr Andrew Wesseldine** Chair, Director Medical Services



Dr Stephen Edmondston Research Operations Manager



Zaheerah Haywood Orthopaedic Research Officer



Sarah-Jayne Powell Director of Nursing and Patient Experience



**Associate Professor** Adrian Regli Intensivist Researcher



Annamaria Palermo ICU Research Nurse



Helene Bordas Director of Mission Integration



Dr Katherine Mackie ED Research Associate



Shelagh Lawrence Consumer Representative



**Professor Leanne** Monterosso Chair of Nursing Research



Rebecca Weselman Oncology Clinical Trials Regulatory & Quality Officer



**Alexis Cranfield** Committee Secretary, Clinical Nurse Research





**Alexis Cranfield** Nurse Research

# **Murdoch Research Governance Sub-Committee**

Sarah-Jayne Powell Chair, Director of Nursing and Patient Experience



Panel Secretary, Clinical



**Professor Leanne** Monterosso Chair of Nursing Research

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# **CEO Report** St John of God Foundation



**Bianca Pietralla** Chief Executive Office St God of God Foundation Our commitment to advancing discoveries in health care with a focus on human dignity has never felt more relevant. Recent events worldwide have highlighted the need for a pandemic response to occur in parallel with, not at the expense of, ongoing progress in health care to treat people fighting other health conditions who continue to rely on innovations in medical treatment. Reflecting on the significant health, economic and environmental challenges faced by our communities across Australia over the past two years, I am so very grateful to our community of wonderful donors for their support in enabling St John of God Murdoch Hospital caregivers to continue to transform health care for patients through leading medical research.

Over financial years 2019/20 and 2020/21, philanthropic and community supporters have contributed over \$3.3 million nationally through the Foundation to support better health outcomes for St John of God Health Care patients and the broader community. Donations totalling over \$380,000 were directed to St John of God Murdoch Hospital in accordance with our valued supporters' wishes, including:

- Over \$265,000 towards excellence in cancer research and treatment
- Over \$27,000 towards Gifts of Hope for patients and families fighting cancer, struggling with financial toxicity
- Over \$19,000 to support St John of God Murdoch Hospice, providing compassionate end of life care to patients and families
- Over \$19,000 towards caregiver education, training and state-of-the-art medical technology, improving treatment and health outcomes for patients.

I would particularly like to acknowledge the benefactors who have made significant contributions to medical research and related clinical equipment at St John of God Murdoch Hospital over the past two years. My special thanks to the Westerfeld family, the Beasley family, The Estate of the Late Jeffrey Kniveton, Galvin Engineering Pty Ltd, and others, for their compassion and vision in helping to improve the lives of others.

# Decoration CEO Report

## Leading medical research

Philanthropic support of leading medical research is critical in enabling St John of God Hospitals to deliver improved health outcomes for patients, and informing the future of treatment nationally and globally, including people fighting cancer.

St John of God Murdoch Hospital oncologists are passionate about finding new and more effective cancer treatments through clinical trials, and now, thanks to philanthropic donor support, a greater number of clinical trials will be available to eligible cancer patients.

Clinical trials play an essential role in the discovery of new medicines while offering eligible patients access to new treatment options beyond the standard care. For many patients, participating in a clinical trial brings renewed hope in fighting their cancer.

### Thank you for supporting our vision

Community and philanthropic support plays a critical role in enabling medical discoveries and advancements, giving hope to patients and their families in their time of greatest need.

Thank you to each and every supporter that has commenced or continued to support health care advancements at St John of God Murdoch Hospital over the past twelve months. Your kindness is more valued than ever, and my gratitude for your shared vision and compassion is immense.

Together, we can continue to transform the future of health care.

St John of God Foundation, together with St John of God Murdoch Hospital, thank all of our generous donors for helping us to transform health care in our hospitals.



St John of God Murdoch Hospital and St John of God Foundation caregivers.



# Remembering **Siegfried Westerfeld**

Westerfeld Philanthropic giving often comes from a desire to enhance the wellbeing of others. The ability to 'give back' can be a powerful motivation for individuals to donate to causes that have had a lasting impact on their own lives.

This was certainly the case for generous donors, Siegfried and Gudrun Westerfeld.

St John of God Foundation and St John of God Health Care were deeply saddened by the recent passing of a compassionate and inspiring man, Siegfried (Siggi) Westerfeld. Siggi passed away on Saturday 20 March 2021 at St John of God Murdoch Hospital, surrounded by his wife Gudrun, family and friends.

Siggi began attending the Cancer Centre at St John of God Murdoch Hospital in 2017. During this time, he and Gudrun became significant contributors to supporting improved health outcomes for all cancer patients at the Hospital, including providing vital support to the Oncology Clinical Trials unit to find new and more effective treatments for cancer.

Originally from Germany, Siegfried and Gudrun wanted to give back to the community in a way that was

# Siggi's compassion and philanthropy lives on and inspires us all."

personal and meaningful to them. Siggi firmly believed in philanthropy as a way of enhancing the wellbeing of others. "The people of Australia have looked after us so well." he once said.

A man of generous spirit and heart, to know and spend time with Siggi was a privilege. St John of God Foundation CEO Bianca Pietralla said, "Siggi was a beloved husband and father, a loyal friend and a highly astute businessman. He cared deeply about the community in which he lived, had a big heart and a humble nature. His philanthropy was a true act of kindness and about making a difference for others. Siggi leaves a legacy to support better health outcomes for future generations, and I feel blessed to have known him."

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# **Our Ethics**



Clinical Professor Dr Simon Dimmitt Ethics Board Chair The St John of God Health Care Human Research Ethics Committee (SJGHC HREC) and Scientific Review Sub-Committee (SRC) review, support and monitor the progress of approved research projects throughout SJGHC.

This research spans a wide range of clinical specialties, study design, and scope – from small, single site, quality improvement projects conducted by individual SJGHC caregivers through to large, collaborative, multicentre research projects, including international randomised control trials of novel medications and treatment modalities. The committees work closely with researchers and the SJGHC hospitals and services to promote ethical and high quality research. The ultimate aim is to translate this research into evidencebased, best practice and care for our patients.

The SJGHC Research Handbook (accessible on our SJGHC website) is the Standard Operational Procedures (SOPs) and the key reference for conducting research at SJGHC. It provides guidelines for how to make a new study submission, contains protocols and references to support researchers and has links to all the submission forms. Over the past year, there has been continued streamlining of the research review and monitoring processes, in line with revisions made to NHMRC guidelines and other regulatory requirements.

Also, in response to the COVID-19 pandemic, the committees have worked according to best practice national guidelines and with researchers and the SJGHC hospitals and services to ensure minimal disruption to existing open studies. Furthermore, the committees made the commitment to provide an expedited review pathway for COVID-19 related studies to ensure timely start-up and encourage a more rapid dissemination and translation of COVID-19 research results. Consequently, research activity at SJGHC continued to increase in 2020.

Following various submissions and contributions by SJGHC HREC members, the HREC welcomed the Guardianship and Administration Amendment (Medical Research) Act 2020, which came into effect in Western Australia on 7 April 2020. The new legislation effectively allows a "research decision-maker" (ie enduring guardians, guardians and next of kin) to consent to medical research on behalf of a person with impaired capacity to consent. In emergency/urgent circumstances (ie when it is not practicable to obtain consent from a research decisionmaker), the legislation enables an independent medical practitioner (IMP) to authorise research without consent, subject to strict safeguards and stringent conditions to protect the individual. As with all medical

research, this research involving individuals with impaired capacity to consent, must have approval of an HREC. The legislation was timely given the COVID-19 pandemic – providing the potential to conduct COVID-19 related research and other research involving study participants/ patients who were in intensive care and emergency care and/or otherwise found to have impaired capacity to consent to the research.

The committees are managed by Ms Gorette De Jesus, Executive Officer and Ms Grace Till, Research Ethics Officer (whilst Ms Karen Roberts takes maternity leave).

During the past two years, we have welcomed new committee members: Dr Mary Theophilus, Mr Gannon Jones, Dr Vivian Chiu, Dr Afaf Abed and Dr Evan Bayliss. We are, as ever, grateful for the time and commitment to research ethics review provided by the following committee member who retired from the SRC in late 2020: Dr Samantha Bowyer.

We look forward to continuing to support and promote ethical and high quality research at St John of God Murdoch Hospital.

# SJGHC HREC Membership (2021)

Clinical Professor Dr Simon Dimmitt (Chair) BMedSc (Hons) MBBS FRACP FCSANZ

Fr Joe Parkinson STL PhD

Mr Gannon Jones BA(Phil) BA(Psych)

Dr Janie Brown BNurs MEd PhD

Dr Ben Carnley MBBS FRACP FRCPath

Mr Eric Heenan BLaws (Hons) The Honorary Q.C (Retired Judge Supreme Court WA)

Dr Tasnuva Kabir PhD MSc MBBS

Mr Hamish Milne

BA (Hons) GradCertEthics MPhil MBA GAICD FAIM

Mr Patrick O'Connor

Dr Vivian Chiu

PhD BPysch BSc BComm

Professor Sally Sandover BSc MPH

Sr Philomena Burrell BEd MEd Leadership

Dr Gail Ross-Adjie BN MClinNurs PhD

Dr Evan Bayliss

MBBS FRACP

# SRC Membership (2021)

Professor Sally Sandover (Chair, SRC) BSc MPH Dr Afaf Abed MBBS FRACP Dr Mary Theophilus MBChB MRCS FRACS PhD **Professor Kevin Croft** Ms Gemma McGrath BNurs BLaws (Hons) Master of Laws Professor Leanne Monterosso Mr Myles Murphy BPhysio GCSports Physio MClinPhysio A/Prof Kylie Russell Cert Human Resource Management Dr Ru-Wen Teh MBBS FRCAP Clinical Professor Dr Simon Dimmitt (Chair) BMedSc (Hons) MBBS FRACP FCSANZ





# **Centre for Nursing and Midwifery Research**

# **Overview**

Our Centre is the only dedicated nursing and midwifery research hub across the national St John of God Health Care group. Whilst the scope of the Centre's research activity is intentionally broad,

# Investigators and Research Team

### Professor Leanne Monterosso

University of Notre Dame Australia

Alexis Cranfield Clinical Nurse Research

Dr Gail Ross-Adjie

# **Key Research Themes**

experience at other St John of God Health Care hospitals, the public sector, nationally and

The Centre has built a strong track record of research that is responsive to the needs and experiences of our patients, and aligned with organisational and national research priorities and the Australian Council on Health Care Standards.

# Group highlights for the 2019-21 period

- The research-based Cancer Survivorship Video series designed to support patients and carers through the cancer experience was launched in August 2019
- Commencement of a partnership study between St John of God Murdoch, Midland and Bunbury Hospitals to explore the emotional wellbeing of caregivers from this large workforce emerging from the immediate threat of the COVID-19 pandemic
- A multisite study to determine uptake of discussions between physicians and patients to document care. The influence of the COVID-19 pandemic was

# **Research collaborators**

Dr Gail Ross-Adjie Nurse Researcher (2019-2020)

**Kirstie Bennett** Director Organisation Development & Improvement

Jocelyn Arnold

Farah Feeney

Clinical Psychologist,

Dr Sarah Dunlop

Bunbury Hospital

Dr Ohide Otome

Midland Hospital

Oliver Brennan

(Midland & Mt Lawley)

Natasya RajaAzlan Registered Nurse Emergency Department

Kate Brereton Stomal Therapy/Wound Management/Breast Care Nurse

Tania Norman Stomal Therapy/Wound Management/Breast Care Nurse

Felicity Sim Registered Nurse Cancer Centre

Irene van Staden Nurse Unit Manager (Orthopaedics)

Dr Alison White Consultant in Palliative Care

Dr Scott Lee Head of Department Palliative Care Services

### Sarah-Jayne Powell

Director of Nursing and Patient Experience/Adjunct Associate Professor, School of Nursing, Midwifery, Health Sciences and Physiotherapy, University of Notre Dame Australia

**Kimberley Montgomery** 

Deputy Director of Nursing, Clinical Safety & Quality

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## External

Quality and Risk Clinical Audit Nurse

Oncology West, Murdoch

Palliative Care Physician, St John of God

General Medicine & Infectious Disease Physician, St John of God

Hospital Procurement Director

Associate Professor Alison Parr Director of Clinical Services, Armadale Kalamunda Group (East Metropolitan Health Service)/Consultant in Palliative Medicine/Palliative Care Lead University of Notre Dame Australia

Professor Caroline Bulsara Research Coordinator. School of Nursing, Midwifery, Health Sciences and Physiotherapy, University of Notre Dame Australia

Professor Max Bulsara Chair in Biostatistics, Institute for Health Research, University of Notre Dame Australia

Melissa Berg Project Manager, School of Nursing, Midwifery, Health Sciences and Physiotherapy, University of Notre Dame Australia



PROJECT 1

# Development and Evaluation of an Educational Video for Patients Undergoing Ileostomy Formation Surgery

The readmission rate for patients who undergo ileostomy formation surgery is high, and usually occur in the first 60 days after surgery as a result of dehydration and acute kidney failure. This project will develop an educational video to provide patient education designed to improve nutritional status and prevent dehydration. We will evaluate its effect on knowledge retention at one week, one and three months after discharge and examine readmission rates.

**PROJECT 2** 

# Goals of Patient Care documentation: a point prevalence study at St John of God Murdoch and Bunbury Hospitals

Goals of Patient Care (GOPC) is a clinical framework to support shared clinical decision making between patient and doctor. The GOPC form is used to document a patient's wishes for care in the event of clinical deterioration and/or end-of-life. Clinical experience before the study suggested the uptake of GOPC discussions was low. This study is being conducted at our Murdoch and Bunbury hospitals to determine the profile of patients who would have been eligible for discussion of Goals of Patient Care and documentation in their medical records, incidence of Specialist Palliative Care team involvement for patients meeting the requirement for GOPC discussions, and whether the COVID-19 pandemic influenced compliance of the GOPC form.

**PROJECT 3** 

# The effect of psycho-spiritual-mindfulness based cognitive-behavioural group therapy in reducing spiritual distress, stress, anxiety and depression in cancer patients and their carers: a feasibility study

Spiritual distress is experienced by a large proportion of cancer patients and their carers throughout the cancer experience. Evidence supports the need for health professionals to develop ethical and compassionate relationships with patients and be equipped to assess spiritual needs and where necessary request support from appropriately skilled health care team members who can provide evidence based interventions. This study will examine the feasibility of a Meaning-Centred Group Psychotherapy Program (MCGPP) using a 6-week psycho-spiritual-mindfulness-based cognitive behavioural model in cancer patients and primary carers. The Centre has built a strong track record of research that is responsive to the needs and experiences of our patients and aligned with organisational and national research priorities."



# PROJECT 4

(COVID-19 caregiver experience study) Looking ahead: A longitudinal convergent mixed method study of emotional wellbeing and organisational support among caregivers working in a large private/public health care system

This partnership study will explore the emotional wellbeing of a large WA private healthcare workforce emerging from the immediate threat of the COVID-19 pandemic. Understanding emotional wellbeing of the workforce during key points of the pandemic and how organisational support for wellbeing, education and training is perceived, will inform provision or leveraging of impactful, targeted wellbeing initiatives and contribute to ongoing planning for future care models and pandemics. With further funding the study can potentially follow the health status of this population as it adapts to working in an environment of prolonged uncertainty at 6 and 12 months.

**PROJECT 5** 

# Graded Assertiveness: C.A.R.E Model

Patient safety is a serious health issue with the World Health Organisation estimating that as many as one in 10 patients are harmed when receiving care in hospital, with almost half of these events being considered preventable. We have implemented a novel customised Graded Assertiveness C.A.R.E. Model that provides a framework to encourage caregivers and doctors to 'speak up' for patient safety initiative. The Model has been designed by our theatre caregivers and doctors and aligns with the Mission and Values of St John of God Health Care.

### This study has several aims:

- To cultivate and promote a culture where caregivers have the confidence, the courage, the urgency, and the support systems in place to speak up for patient safety.
- To develop agreed patient safety language across disciplines.
- To eliminate preventable incidents, caused by a failure to assert concern.
- For assertive communication to be viewed in a positive way, and to break down the hierarchical barriers and perceptions of respect versus disrespect.
- For patient centred care to be the common goal, for all teams, in all situations.

# PROJECT 6

# Establishing a National Consensus on Stomal, Parastomal and Peristomal Complications

This study is that it will endeavour to achieve a consensus amongst Australian stomal therapy nurses for a glossary of definitions and terms for stomal and peristomal complications. The current lack of consensus impairs verbal and documented communication amongst novice and expert health professionals, patients and carers. Consensus on definitions and terminology for stomal, parastomal and peristomal complications will inspire further research within the domain and facilitate national and international benchmarking of prevalence and treatment outcomes. A four-phased project consisting of scoping and prioritising terminology used by stomal therapy nurses to describe stomal, parastomal and peristomal complications; undertake a literature review to define these terms; develop a photograph/image database to visually identify the complications; and conduct an online Delphi process amongst expert Australian stomal therapy nurses to gain a consensus of the related definitions and terminology used.

### **Top 5 Publications**

Hill AM, Ross-Adjie G, McPhail SM, Jacques A, Bulsara M, Cranfield A, Etherton-Beer C, Raja Azlan N, Powell SJ, Hardisty G, Monterosso L. (2020). Incidence and associated risk factors for falls in older adults post discharge who undergo elective total hip replacement surgery- a prospective cohort study. J Gerontol A Biol Sci Med Sci. Published online 12 November 2020. DOI: 10.1093/gerona/glaa283.

Ross-Adjie GM, **Cranfield AA**, Yates PJ, **Monterosso L**. Bowel management post major joint arthroplasty: a randomised controlled trial to test two pre-admission bowel regimens. International Journal of Orthopaedic and Trauma Nursing. Published online 25 August 2020. DOI: 10.1016/j.ijotn.2020.100816.

Boztepe H, Ay A, **Monterosso L**. (2019). Validity and reliability of Turkish version the family inventory of needs-pediatric II: an inventory to identify care needs of parents of children with cancer. Turkish Journal of Oncology. 34(4), 231-235. DOI: 10.5505/tjo.2019.1854.

Taylor K, Chivers P, Bulsara C, Joske D, Bulsara M, Monterosso L. (2019). Care After Lymphoma (CALy) trial: A phase II pilot pragmatic randomised controlled trial of a nurse-led model of survivorship care. European Journal of Oncology Nursing. 40, 53-62. DOI: 10.1016/j. ejon.2019.03.005.

Monterosso L, Platt V, Bulsara M, Berg M. (2019). Systematic review and meta-analysis of patient reported outcomes for nurse-led models of survivorship care for adult cancer patients. Cancer Treatment Reviews. 73, 62-72. DOI: 10.1016/j.ctrv.2018.12.007.





# **Higher Degree Caregiver Studies**

### PROJECT 1

# Patient controlled analgesia in emergency departments: A pilot randomised controlled feasibility trial

to emergency departments (EDs). However, analgesia (PCA) enables patients to self-administer pump. PCAs are not routinely used in EDs, however have been rigorously evaluated and widely used in other clinical areas. This four-phase mixed-methods study will identify and describe ED clinicians' perceptions of the use of PCAs in EDs and establish the feasibility of using PCAs in the ED through a pilot randomised controlled trial.

Natasya Raja Azlan

University of Notre Dame Australia

PROJECT 2

# An examination of the trends in activities of daily living in the 12 months after total knee arthroplasty: a descriptive study

in Australia continues to rise largely due to our ageing population and increasing rates of obesity. It goals and the information required to self-manage and meet these goals prior to discharge. This study will identify the range of functional and activities of daily living deficits that patients may experience in the first year post-operatively. Results will guide development of targeted educational strategies to optimise functional outcomes and address potential deficits with patients prior to discharge, thus reducing potential complications.

Irene van Staden

Master of Nursing (Research) University of Notre Dame Australia PROJECT 3

# A prospective exploratory scoping study of the prevalence of peristomal and stoma skin complications in the first 12 weeks post ostomy formation.

Complications following ostomy surgery affecting both the stoma and surrounding peristomal skin are commonly reported and largely preventable. They cause an unnecessary burden to the ostomate both physically and psychologically. The resulting loss of skin integrity is often accompanied by pain and frequent leakages, which affect overall wellbeing and quality of life. In addition, the costs of treatment are significant and readmission to hospital is often required. There is a lack of Australian data describing stoma and peristomal skin

### Tania Norman

Master of Nursing (Research) University of Notre Dame Australia

# Funding 2019-2021

Research Gift Fund, St John of God Health Care Foundation and The University of Notre

Arnold J, Montgomery K, Monterosso L, Parr A, Powell S-J, Bennett K, Brennan O, Bulsara Monterosso L, Ross-Adjie G, White A, Dunlop Memorial Charitable Trust, St John of God Murdoch Hospital Research Gift Fund and St

Raja Azlan N, Ross-Adjie G, Monterosso L, Bulsara C, Bulsara M. Patient controlled analgesia in emergency departments: A pilot randomised controlled feasibility trial. St John of God Murdoch Hospital Research Gift Fund (\$4,030.00).

Monterosso L, Berg M. Family carer

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complication (PSC) rates and the related psychosocial impact. International published literature highlights inconsistencies with terminology making it difficult to compare outcomes between studies. This study will describe the prevalence and aetiology of stoma and PSC in the early post-operative period, and the wellbeing and QOL of ostomates. In addition, the study will test the acceptability and feasibility of terminology used to describe PSCs derived from a recent Perth consensus study.

# Emergency Medicine Research Group

## **Overview**

SJOG Murdoch Hospital has the only Private Emergency Department in Western Australia, offering a unique research perspective. We are committed to improving patient outcomes in our Emergency Department. Our collaboration with the University of Notre Dame also provides both undergraduate and postgraduate student research opportunities.

# Contact

Dr Katherine Mackie (08) 9438 9022 katherine.mackie@sjog.org.au

# Investigators and Research Team

# Dr Katherine Mackie

Emergency Medicine Research Associate

**Prof Ian Rogers** Professor of Emergency Medicine

**Dr John Iliff** Emergency Medicine Consultant

**Dr Paul Bailey** Emergency Medicine Consultant

Natasya Raja Azlan Registered Nurse / PhD Candidate

**A/Prof. Andrew Jan** Adjunct Professor of Emergency Medicine / PhD Candidate

# **Focus areas**

- Concussion
- Patient Flow
- Pain Management
- Antiemetic Use

## PROJECT 1

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# CREST Concussion REcovery STudy: A validation study to predict poor outcomes following mild traumatic brain injury

Following concussion, the symptoms of most patients resolve within a few days to weeks. However, a small proportion of people's symptoms do not resolve, leaving them with debilitating persisting post-concussion symptoms including altered thinking, headaches, dizziness and fatigue. This study, conducted by Curtin University and the Perron Institute, aims to identify indicators of whether concussion will develop into persisting postconcussion symptoms.

Health and Medical Research



# PROJECT 2

# The Effect of Perform on SJGMH ED Patient Flow

SJGMH has had a focus on improving patient flow within the Emergency Department since mid 2019. This is critical work to achieve the best possible patient experience and outcomes by making sure every patient is in the right place, at the right time with the right care. This project will monitor the effect of changes by collecting and analysing administrative data.

# PROJECT 3

# **Current Antiemetic Use in the Emergency Department**

Nausea and vomiting are commonly treated with a class of medications called antiemetics. Despite the widespread use of these medications, there is very little evidence to support their use in the emergency department (ED). Several randomised controlled trials have failed to find significant differences in outcomes between these medications and placebo. This study aims to describe the current use of antiemetic medication in the ED.

PROJECT 6

# Door to balloon time outliers who owns the timeline

Cardiovascular disease is a time dependent health condition especially with ST elevation muocardial infarction (STEMI), which is one tupe of heart attack. Treatment for a STEMI heart attack can include a procedure where a stent (or tube) is placed into the heart vessels, also known as a percutaneous coronary intervention (PCI). The time to this treatment, known as doorto-balloon-time (DTBT) is critical in terms of reducing mortality. Published guidelines recommend a door-to-balloon time of less than ninety minutes. This pilot improvement project aims to identify factors that may delay or improve DTBT and make recommendations to improve processes.

## PROJECT 4

# Acupuncture in the emergency setting

Providing an alternative holistic viewpoint on pain management in the emergency department, A/Prof Andrew Jan's PhD is designed to investigate the effect of acupuncture on acute pain management in the emergency setting. This pilot trial investigates the use of a brief, ED suitable technique known as battlefield acupuncture.

PROJECT 5

# Patient controlled analgesia in emergency departments: A pilot randomised controlled feasibility trial

Pain is one of the primary reasons patients present to emergency departments. Studies suggest that current intravenous (IV) methods for severe pain treatment are inefficient, increase demands on nursing time, result in delays in administering analgesia and have poor patient satisfaction rates. This trial is investigating patient controlled analgesia (PCA) for treatment of severe pain which involves the patient self-administering IV analgesia via a pre-set medication administration pump.



## Top 5 Publications

Can Schalkwyk S, Brooks P, Iliff J et al. (2021) Predicting outcome following mild traumatic brain injury: protocol for the longitudinal, prospective, observational Concussion Recovery (CREST) cohort study. BMJ Open, 11(5). DOI: 10.1136/bmjopen-2020-046460

Harris SA, Dempsey AR, Mackie K, King D, Hecimovich M, concussion in adults? A systematic review and meta-analysis. Am J Sport Medicine, online ahead of print 25 August 2021. DOI: 10.1177/03635465211027946

Jan, AL, Visser, EJ. (2021) Response to Cummings and Usichenko. Re: Battlefield acupuncture added no benefit as an adjunct analgesic in ED for abdominal, low back or limb trauma pain. Emergency Medicine Australasia,

11

Hince DA, Suen LK, Woosey MV. (2020) Battlefield Acupuncture added no benefit as an adjunct analgesic in ED for abdominal. low back or limb trauma pain. Emergency Medicine Australasia, 33(3):434-441. DOI:

Australasia. 3(32(S1)):9-10.

# **Intensive Care Unit Research Group**

### **Overview**

The focus of our Intensive Care Research Group is improving care provided to critically ill patients. We should receive the best possible treatment.

New Zealand ICU Clinical Trials Group.

## Contact

Annamaria Palermo Annamaria.palermo@sjog.org.au

# **Investigators and Research Team**

A/Prof Adrian Reali Consultant Intensivist

A/Prof Bart De Keulenaer Consultant Intensivist

Annamaria Palermo Intensive Care Research Nurse

## **Key Research Themes**

Our focus is participating in comparative effectiveness studies. In the void of evidence, treatment variation can be large. Comparative effectiveness studies assess which of several recognised treatments is better for patients.

# Group highlights for the 2019-21 period

• Australian and New Zealand Intensive Care Society agreed to add questions to the national register around airborne protection for staff members. This project is supported by a St John of God Murdoch Hospital Strategic Research Award: Respiratory protection of health care workers in ICU from airborne diseases during the COVID19 pandemic-training, fit-testing and mask availability.

PROJECT 1

DASH

# **BALANCE STUDY** Bacteraemia Antibiotic Length Actually Needed for **Clinical Effectiveness: Randomised Controlled Trial**

This study will compare whether longer or shorter duration of antibiotic is better for hospitalised patients with bloodstream infections. This study is scheduled to start in the immediate future.

PROJECT 2

# **CHESTY** Chest infection prevalence following surgery. International multicentre observational trial

This study examined the incidence of post-operative pulmonary complications following major abdominal surgery. The study has been completed and the results are being prepared for publication.



PROJECT 3	DIANA Study	PROJECT 7	ICU-ROX Study
	Determinants of Antimicrobial Use and de-escalation in critical care Prospective, observational multicentre,		Conservative oxyger in mechanically vent This study compared two different a ventilator. The results of this England Journal of Medicine, an
	<b>international cohort study</b> This study assessed antibiotic therapy usage and de-escalation strategies in relation to patient mortality, ICU and hospital length of stay, and subsequent infection rate in ICU patients. This published study provides the background for the development of multi-centre interventional studies.		
		PROJECT 8	INTUBE
PROJECT 4	ESODICE		International observ
	Efficacy & Safety of Drainage of Intensive Care Pleural Effusion		This study assessed the curre and the associated impact or foundation for future intervent
	This ongoing study compares the safety and efficacy of pleural effusion drainage versus non-drainage in patients in the intensive care setting.		of patients requiring advanced published in the <i>Journal of the</i>
PROJECT 5	EUROBACT	PROJECT 9	PLUS Study
	International multicentre observational study of		Plasmalyte vs norm
	critically ill patients with Hospital-Acquired Blood Stream Infection		This study compared Plasma- in critically ill patients who rea
	This observational study seeks to establish the prevalence and epidemiology of hospital-acquired blood stream infections, and the potential for improved medical management. The data from this completed		
	study is being analysed.		

# PROJECT 6

# **Intensive Care Unit Consumer Research Survey**

This ongoing study aims to understand the beliefs and attitudes regarding the health outcomes of patients after admission to the ICU, and their willingness to participate in clinical trials.

This study compared melatonin to placebo for treatment of delirium in critically ill patients. The data is being analysed.

**PROJECT 10** 

# gen therapy versus standard care ntilated patients

lifferent levels of oxygen delivered to ventilated erence in the 180-day mortality or time spent on his study were published in papers in the New and the Intensive Care Medicine journal.

# rvational study

rrent practice variation in airway management on the safety of patients. The results provide a entional studies seeking to improve the safety ced airway management. This study has been he American Medical Association.

# mal saline for fluid resuscitation

na-Lyte 148 to Normal Saline on 90-day mortality required fluid resuscitation. .

# Prophylactic Melatonin for the Prevention of Delirium in Intensive Care. A randomised blinded placebo controlled trial of melatonin in Intensive Care patients for the prevention of delirium

"In the void of evidence, treatment variation can be large. Comparative effectiveness studies assess which of several recognised treatments is better for patients."



## PROJECT 11

# **ROCIT Trial**

# Restoration of gut microflora in critical illness

This study compared administration of probiotic therapy or placebo in critically ill patients but failed to show any difference in rates of infection or mortality. The results were published in two papers in the *Intensive Care Medicine* journal. critically ill patients.

**PROJECT 13** 

# **SIQ Study**

# Multicentre survey of sources of health information used by surrogate decision makers of patients admitted to the ICU

This study assessed the resources used to access health information by ICU patient's person responsible. There was an inverse association between trust in health care professionals and internet information used. This study has been published in the *Critical Care and Resuscitation* journal.

## PROJECT 12

# **RSVP Study**

# Intravascular device administration sets: Replacement after Standard Versus Prolonged use study

The study examined infection outcomes, staff workload and costs associated with different replacement intervals of infusion sets of central venous and peripheral arterial catheters. Seven day replacement results in significant cost and caregiver workload reductions, with no impact on patient safety. This study has been published *The Lancet*.

**PROJECT 14** 

# SPRINT-SARI Short Period Incidence Study of Severe Acute Respiratory Infection

Established before the COVID-19 pandemic, this study observes critically ill patients afflicted by new pandemics, to understand better the clinical epidemiology and microbiology profiles of severe acute respiratory infections. This ongoing study has been instrumental in the understanding of COVID-19.

# PROJECT 15

# TARGET Study

# The Augmented versus Routine approach to Giving Energy Trial: a randomised controlled trial

Calorie-dense enteral nutrition was compared to standard nutrition in patients in intensive care. The higher calorie intake during hospitalisation had no longor short-term impact on patient outcomes. The long-term outcomes were published in the *American Journal of Respiratory and Critical Care Medicine*. **PROJECT 19** 

# REMAP-CAP Study Randomised, Embedded, Multifactorial Adaptive Platform trial for Community-Acquired Pneumonia.

This is an international adaptive randomised controlled trial (RCT) of treatments for patients admitted to hospital with community-acquired pneumonia, that also includes patients with COVID-19.

### **PROJECT 16**

# The ANZICS Clinical Trial Group Point Prevalence Program

# Annual one-day observation across all participating ICUs in Australia.

This study assessed the current practice variation in airway management and the associated impact on the safety of patients. The results provide a foundation for future interventional studies seeking to improve the safety of patients requiring advanced airway management. This study has been published in the *Journal of the American Medical Association*.

## **PROJECT 17**

# WEAN SAFE Study

# Worldwide assessment of separation of patients from ventilator assistance

This observational study assessed the current practice of weaning patients from invasive mechanical ventilation. The data is being analysed.

## **PROJECT 18**

# WELCOME-ICU Study

# **Online survey on ICU visiting practices**

Current ICU visiting practices were investigated, together with the attitudes of ICU staff towards the barriers, risks and benefits of open visiting hours. The study is completed and the data is being analysed.

## Top 5 Publications

Angus DC, Deride L, Al-Beidh F et al. (2020) Effect of hydrocortisone on mortality and organ support in patients with severe COVID-19. The Journal of the American Medical Association. 324, 1317-1329. DOI:10.1001/ jama.2020.17022.

Das A, Anstey M, Bass F et al. (2019) Internet health information use by surrogate decision makers of patients admitted to the intensive care unit: a multicentre survey. Critical Care and Resuscitation. 21(4):305-10.

Litton E, Anstey M, Broadhurst D et al. (2021) Early and sustained Lactobacillus Plantarum probiotic therapy in critical illness: the randomised, placebo-controlled, restoration of gut microflora in critical ill ness trial (ROCIT). Intensive Care Medicine. 47, 307-315. DOI: 10.1007/ s00134-020-06322-w. 0) IC 1C Ri in

Mackle D, Bellomo R, Bailey M et al. (2020) Conservative oxygen therapy during mechanical ventilation in the ICU. New England Journal of Medicine. 382, 989-998. DOI: 10.1056/NEJMoa1903297.

Rickard CM, Marsh NM, Larsen EN et al. (2021) Effect of infusion set replacement intervals on catheter-related bloodstream infections (RSVP): a randomised, controlled, equivalence (central venous access device) - noninferiority (peripheral arterial catheter) trial. The Lancet. 397, 1447-58. DOI:10.1016/S0140-6736 (21)00351-2.

# Murdoch Centre for Orthopaedic Research

### **Overview**

The Murdoch Centre for Orthopaedic Research (MCOR) conducts high-quality research in the field of orthopaedics, with the aim of discovering innovative ways to improve clinical practice and patient outcomes.

Our orthopaedic research seeks to evaluate orthopaedic surgery techniques, patient outcomes following surgery, and innovative approaches to orthopaedic rehabilitation.

### Contact

Zaheerah Haywood Orthopaedic Research Officer Murdoch Centre for Orthopaedic Research (08) 9438 9011 mcor@sioq.org.au

# **Investigators and Research Team**

**Prof Piers Yates** Orthopaedic Surgeon

**Prof Allan Wang** Orthopaedic Surgeon

**Mr Mark Hurworth** Orthopaedic Surgeon

A/Prof Chris Jones Orthopaedic Surgeon

**A/Prof Gareth Prosser** Orthopaedic Surgeon

**Mr Greg Cunningham** Orthopaedic Surgeon

**Ms Zaheerah Haywood** Orthopaedic Research Officer

# **Key Research Themes**

- Innovation in orthopaedic surgery to improve surgical and patient outcomes
- Radiological and clinical outcomes of hip and knee joint replacement surgery
- Computer navigation and clinical outcomes in shoulder replacement surgery
- Impact of remote monitored cycling rehabilitation on patient recovery following total knee replacement surgery.

# Group highlights for the 2019-21 period

- MCOR research results published in international orthopaedic journals, and presented at national and international conferences
- Significant growth in investigator-led and industry supported research projects
- Industry funding support for investigator-led
  orthopaedic clinical trials conducted in MCOR

## **PROJECT 1**

# The cycle sprint test to evaluate lower limb muscle power before and after primary knee arthroplasty

Researchers: Mr Mark Hurworth, Dr S Edmondston, Ms Zaheerah Haywood..

Summary: This study examined a new method to measure muscle power using a bicycle power meter. The first phase of the study examined the reliability of the test in healthy participants. The second phase examined recovery of muscle power, pain and function following total knee replacement.

## PROJECT 2

# Clinical and radiological outcomes using the Absolut femoral prosthesis and the Global cup system

Researchers: Prof. Piers Yates, A/Prof. Gareth Prosser, Ms Zaheerah Haywood.

Summary: This study evaluates radiological and clinical outcomes in patients who undergo primary total hip replacement using the Absolut femoral stem and Global acetabular cup. Patients are followed-up for 10 years after surgery.



# **PROJECT 3**

# A multi-centre clinical evaluation of the **ATTUNE®** revision system in revision total knee arthroplasty

Researchers: Prof. Piers Yates, A/Prof. Gareth Prosser, Ms Zaheerah Haywood.

Summary: A five-year, prospective, multi-centre, non-randomized, noncontrolled study of the ATTUNE® Revision total knee prostheses, utilizing the fixed bearing (FB) and rotating platform tibial component with the posterior stabilizing femoral component in revision total knee arthroplasty.

PROJECT 4

# A multi-centre clinical evaluation of the **ATTUNE®** revision system in complex primary total knee arthroplasty

Researchers: Prof. Piers Yates, A/Prof. Gareth Prosser, A/Prof Chris Jones, Ms Zaheerah Haywood.

Summary: A five-year, prospective, multi-centre, non-randomized, noncontrolled study of the ATTUNE® Revision total knee prostheses, utilizing the fixed bearing and rotating platform tibial component with the posterior stabilizing femoral component in complex primary total knee arthroplasty.

# **PROJECT 5**

# Outcomes following randomised patellar resurfacing vs retention in anatomically designed total knee arthroplasty (KASPAR study)

Researchers: Prof Piers Yates, Dr Heidi Wilson, A/Prof Gareth Prosser, A/Prof Christopher Jones, Mr Peter D'Alessandro, Dr Steve Edmondston, Ms Zaheerah Haywood.

Summary: A randomised prospective study to evaluate outcomes in patients who have patella resurfacing compared to non-resurfacing in total knee arthroplasty using the SAIPHTM knee system.

PROJECT 6

Researchers: Prof Allan Wang, Ms Zaheerah Haywood

Summary: The study examines tendon healing and patient outcomes in patients requiring full-thickness rotator cuff tear repair or revision repair surgery. Conventional arthroscopic rotator cuff repair surgery is compared to rotator cuff repair augmented with a collagen implant designed to enhance tendon repair and accelerate recovery of function.

**PROJECT 7** 

# Does collagen scaffold augmentation of high-grade partial rotator cuff tendon tears improve early functional recovery? A randomized controlled trial (RePACT Study)

Researchers: Prof Allan Wang, Mr Jon Spencer, Mr Travis Falconer, Dr Jay Ebert

Summary: A prospective randomized controlled trial that compares the postoperative clinical and radiological outcomes of conventional rotator cuff repair compared to rotator cuff repair with collagen scaffold augmentation, (REGENETENTM) in patients with symptomatic partial thickness rotator cuff tears.

**PROJECT 8** 

# **OrthoATI for partial thickness cuff tears**

Researchers: Prof Allan Wang, Dr A Rao, Dr B Breidahl, Prof. M Zheng

Summary: This randomised controlled trial evaluates the Perth-developed technology of injecting a patient's own cultured tendon stem cells into a partial tear of the rotator cuff tendon, with the aim of achieving intrinsic tendon healing without surgery.

A prospective, multi-centre, randomized controlled study to evaluate the safety and efficacy of ARCR augmented with **REGENETEN™** bioinductive implant system in full-thickness tear (large or massive) repair versus ARCR alone. (RAISE Study)

# PROJECT 9

# **OrthoSensor in Reverse Total Shoulder** Arthroplasty- a pilot trial

Researchers: Prof Allan Wang, Mr A May , Mr A Greene

Summary: During reverse total shoulder replacement, a novel pressure sensor embedded in the trial joint insert is used to measure joint load prior to implantation of the definitive insert. By correlating intra-operative joint load measurements with post-operative clinical function scores, this study aims to determine the optimal joint load magnitude.

**PROJECT 13** 

# **Tourniquet Use and Peri-prosthetic Radiolucency in Total Knee Replacement:** A Retrospective Study

Researchers: Prof Piers Yates, Dr Michael Finsterwald, Dr Alfred Roy

surgery was examined in this study.

### PROJECT 10

# The SPINE Registry

Researchers: Mr Greg Cunningham

Summary: The purpose of this registry is to monitor the long-term patient outcomes of spinal conditions and related treatments. The registry is aiming to improve the management of spinal conditions and how treatments including surgery, are performed.

### PROJECT 11

# A personalised, post-operative cycling exercise regimen following total knee arthroplasty (PROSPECT Study)

Researchers: Mr Mark Hurworth, Ms Zaheerah Haywood, Dr Steve Edmondston

Summary: This study will compare a patient-specific, remotely monitored, dose-measured cycling exercise program with a conventional exercise program following total knee replacement. Changes in pain, patient function and muscle function are being evaluated over the first year following surgery.

## PROJECT 12

# Australian Orthopaedic Association National Joint Replacement Registry **Patient Reported Outcomes Measures** (PROMs) Project

Researchers: Prof Piers Yates & Murdoch Orthopaedic Surgery Department

Summary: A multi-centre national project which will evaluate joint replacement outcomes from the patient perspective.

### **Top 5 Publications**

navigation in reverse total shoulder arthroplasty: Measuring the learning curve. Journal of Shoulder and

Summary: The association between the use of an intra-operative tourniquet and radiological features of loosening of the joint following knee replacement

# Acknowledgements

We wish to acknowledge the support of SKG Radiology and Perth Radiological Clinic for performing the radiological



# **Oncology Clinical Trials**

## **Overview**

The Murdoch Oncology Clinical Trials Unit provides West Australian oncology patients and their families the best possible care through research-driven practice. Our current portfolio of clinical trials examine outcomes of conventional and innovative cancer treatments for a range of cancer types.

Best practice in clinical trials conduct in the unit is reflected in the caregiver profile, site-specific procedures and growing support from industry sponsors.

## Contact

Rebecca Weselman (08) 9438 9599 Rebecca.wesselman2@sjog.org.au

# **Investigators and Research Team**

### **Medical Oncologists**

A/Prof Kynan Feeney A/Prof Daphne Tsoi Dr Sanjay Mukhedkar Dr Rajanikar Tota Dr Wei-Sen Lam

# Clinical Trials Regulatory & Quality Officer

Rebecca Weselman

### **Clinical Trial Co-ordinators**

Tijana Coe Shelby Margolius Christelle Quirin

### Clinical Nurse - Research

Sabina Jelinek

# Clinical Trials Support Officer

Tina Kern

# **Key Research Themes**

- Improve treatment options, outcomes and the quality of life for current and future patients on their treatment journey
- Provide exceptional holistic care to our patients through innovative clinical research
- Strong focus on areas with a high unmet need
- Growing partnership with industry leaders in clinical research.

# Group highlights for the 2019-21 period

- CHECKMATE-649 Study St John of God Murdoch Hospital was the top recruiter in Australia with 20 patients on treatment.
- MARIPOSA Study St John of God Murdoch Hospital is currently the highest recruiter in Australia and met the recruitment target within approx. 4 months of the trial opening.
- CHECKMATE-577 Study St John of God Murdoch Hospital was the top recruiter in Australia with 11 patients on treatment.
- Javelin Renal 101, Checkmate 274
  Immunotherapy regimes evaluated in these clinical trials at Murdoch, have been approved by the US Food and Drug Administration (FDA) which has facilitated access to these medications for patients in Australia.

Annual Report 2019/21





# **Clinical Trials Opened to Recruitment FY19-21**

### AdvanTIG-302

A Phase 3, Randomized, Double-Blind Study of BGB-A1217, an Anti-TIGIT Antibody, in Combination With Tislelizumab Compared to Pembrolizumab in Patients With Previously Untreated, PD-L1-Selected, and Locally Advanced, Unresectable, or Metastatic Non-Small Cell Lung Cancer

Principal Investigator: Dr Rajanikar Tota

### CA001-050

A Randomized, Open-Label Phase 2 Clinical Trial of BMS-986012 (Anti-Fucosyl-GM1) in Combination with Carboplatin, Etoposide, and Nivolumab as First-Line Therapy in Extensive-Stage Small Cell Lung Cancer

Principal Investigator: Dr Rajanikar Tota

### CA017-078

A Phase 3, Randomized, Study of Neoadjuvant Chemotherapy alone versus Neoadjuvant chemotherapy plus Nivolumab or Nivolumab and BMS-986205, Followed by Continued Post-Surgery Therapy with Nivolumab or Nivolumab and BMS-986205 in Participants with Muscle-Invasive Bladder Cancer

Principal Investigator: Dr Sanjay Mukhedkar

### CA022-001

Phase 1/2a First-In-Human Study of BMS-986218 Monoclonal Antibody Alone and in Combination with Nivolumab in Advanced Solid Tumors

Principal Investigator: A/Prof Kynan Feeney

### CA045-009

A Phase 3, Randomized, Study of Neoadjuvant and Adjuvant Nivolumab Plus NKTR-214, Versus Nivolumab Alone Versus Standard of Care in Participants with Muscle-Invasive Bladder

Cancer (MIBC) Who Are Cisplatin Ineligible.

Principal Investigator: A/Prof Kynan Feeney

### CA209-73L

A Phase 3, Randomized, Open Label Study to Compare Nivolumab plus Concurrent Chemoradiotherapy (CCRT) followed by Nivolumab plus Ipilimumab or Nivolumab plus CCRT Followed by Nivolumab vs CCRT followed by Durvalumab in Previously Untreated, Locally Advanced Non-Small Cell Lung Cancer (LA NSCLC)

Principal Investigator: A/Prof Kynan Feeney

### CA224-104

A Phase II Randomized Double-Blind Study of Relatlimab plus Nivolumab in Combination with Chemotherapy vs. Nivolumab in Combination with Chemotherapy as First Line Treatment for Participants with Stage IV or Recurrent Non-Small Cell Lung Cancer (NSCLC)

Principal Investigator: A/Prof Kynan Feeney

### MARIPOSA

A Phase 3, Randomized Study of JNJ-61186372 and Lazertinib Combination Therapy Versus Single Agent Osimertinib or Lazertinib as First-Line Treatment in Patients with EGFR-Mutated Locally Advanced or Metastatic Non-Small Lung Cancer

Principal Investigator: Dr Sanjay Mukhedkar

### PIVOT-09

A Phase 3 Randomized Open Label Study to Compare an Investigational Product (IP) Combined with Nivolumab to the Investigator's Choice of Sunitinib or Cabozantinib in Patients with Previously Untreated Advanced Renal Cell Carcinoma

Principal Investigator: A/Prof Kynan Feeney

### PIVOT-10

A Phase 2, randomized, non-comparative, open-label study of NKTR-214 in combination with nivolumab and of

chemotherapy in cisplatin ineligible, locally advanced or metastatic urothelial cancer patients with low PD-L1 expression

Principal Investigator: A/Prof Kynan Feeney

# Improve treatments, outcomes and quality of life for current and potentially future patients affected by cancer, through exceptional holistic and innovative clinical research.

# Active Studies FY19-21

### CA224-060

A Randomized, Open-label, Phase II Clinical Trial of Relatlimab (anti-LAG-3) plus Nivolumab in Combination with Chemotherapy Versus Nivolumab in Combination with Chemotherapy as First-Line Treatment in Patients with Gastric or Gastroesophageal Junction Adenocarcinoma

Principal Investigator: A/Prof Kynan Feeney

### CA209-274

A Phase 3 Randomized , Double-blind, Multi-centre Study of Adjuvant Nivolumab versus Placebo in Subjects with High Risk Invasive Urothelial Carcinoma

Principal Investigator: A/Prof Kynan Feeney

### CA209-577

A Randomized, Multicentre, Double Blind, Phase III Study of Adjuvant Nivolumab or Placebo in Subjects with Resected Esophageal, or Gastroesophageal Junction Cancer

Principal Investigator: A/Prof Kynan Feeney



## CA209-648

A Randomized Phase 3 Study of Nivolumab plus Ipilimumab or Nivolumab Combined with Fluorouracil plus Cisplatin versus Fluorouracil plus Cisplatin in Subjects with Unresectable Advanced, Recurrent or Metastatic Previously Untreated Esophageal Squamous Cell Carcinoma

Principal Investigator: A/Prof Kynan Feeney

## MK-7902-007 (LEAP-007)

A Phase 3, randomized, double-blind trial of pembrolizumab (MK-3475) with or without lenvatinib (E7080/MK-7902) in participants with treatment-naïve, metastatic non-small cell lung cancer (NSCLC) whose tumors have a tumor proportion score (TPS) greater than or equal to 1% (LEAP-007)

Principal Investigator: A/Prof Kynan Feeney

# Active Studies - Closed to recruitment/Patients on Treatment or in Follow-Up FY19-21

### B9991001

A Phase 3, Multicentre, Multinational, Randomized, Open-Label, Parallel-Arm Study of Avelumab\* (MSB0010718c) Plus Best Supportive Care Versus Best Supportive Care Along as a Maintenance Treatment in Patients with Locally Advanced or Metastatic Urothelial Cancer Whose Disease Did Not Progress After Completion of First-Line Platinum Containing Chemotherapy

Principal Investigator: A/Prof Kynan Feeney

### B9991003

A Phase 3, Multinational, Randomized, Open-Label Parallel-Arm study of Avelumab (MSB0010718C) In Combination with Axitinib (Inlyta) versus Sunitinib (Sutent) Monotherapy in the First-Line Treatment of Patients with Advanced Renal Cell Carcinoma

Principal Investigator: A/Prof Kynan Feeney

### CA209-227

An Open-Label, Randomized Phase 3 Trial of Nivolumab, or Nivolumab plus Ipilimumab, or Nivolumab plus platinum doublet chemotherapy versus platinum doublet chemotherapy in Subjects with Chemotherapy-Naïve Stage IV or Recurrent Non-Small Cell Lung Cancer (NSCLC)

Principal Investigator: A/Prof Kynan Feeney

### CA209-331

An Open-label, Randomized, Phase 3 Study of Nivolumab or Chemotherapy in Subjects with Relapsed Small-Cell Lung Cancer after Platinum-based First Line Chemotherapy

Principal Investigator: A/Prof Kynan Feeney

### CA209-401

Clinical Trial of Nivolumab (BMS-936558) Combined with Ipilimumab Followed by Nivolumab Monotherapy as First-Line Therapy of Subjects with Histologically Confirmed Stage III (Unresectable) or Stage IV Melanoma

Principal Investigator: A/Prof Kynan Feeney

### CA209-649

A Randomized, Multicentre, Open-Label, Phase 3 Study of Nivolumab Plus Ipilimumab or Nivolumab in Combination with Oxaliplatin plus Fluoropyrimidine versus Oxaliplatin plus Fluoropyrimidine in Subjects with Previously Untreated Advanced or Metastatic Gastric or Gastroesophageal Junction Cancer

Principal Investigator: A/Prof Kynan Feeney

### CA209-9LA

A Phase 3, Randomized Study of Nivolumab plus Ipilimumab in Combination with Chemotherapy vs Chemotherapy alone as First Line Therapy in Stage IV Non-Small Cell Lung Cancer (NSCLC)

Principal Investigator: A/Prof Kynan Feeney

### COLET

A Multistage, Phase II Study Evaluating the Safety and Efficacy of Cobimetinib Plus Paclitaxel, Cobimetinib Plus Atezolizumab Plus Paclitaxel, or Cobimetinib Plus Atezolizumab Plus Paclitaxel as First-Line Treatment for Patients with Metastatic Triple-Negative Breast Cancer

Principal Investigator: A/Prof Daphne Tsoi

### IMMOTION

A Phase III, Open-Label, Randomized Study of Atezolizumab (Anti-PD-L1 Antibody) in Combination with Bevacizumab Versus Sunitinib in Patients with Untreated Advanced Renal Cell Carcinoma

Principal Investigator: A/Prof Kynan Feeney

### KAITLIN

A Randomized, Multicentre, Open-Label, Phase III Trial Comparing Trastuzumab Plus Pertuzumab Plus a Taxane Following Anthracycline Versus Trastuzumab Emtansine Plus Pertuzumab Following Anthracyclines as Adjuvant Therapy in Patients with Operable HER2-Positive Primary Breast Cancer

Principal Investigator: A/Prof Kynan Feeney

### Keynote 604

A Phase 3 Randomized, Double-Blind, Placebocontrolled Trial of Pembrolizumab (MK3475/SCH900475) in Combination with Etoposide/Platinum (Cisplatin or Carboplatin) for the First-line Treatment of Subjects with Extensive Stage Small Cell Lung Cancer

Principal Investigator: A/Prof Kynan Feeney

### Keynote 654

A Phase 3, Randomized, Double-Blind Study of Pembrolizumab (MK-3475) plus Epacadostat (INCB024360) Versus Pembrolizumab plus Placebo as First-Line Treatment in Patients with Metastatic Non-Small Cell Lung Cancer Expression High Levels of PD-L1

Principal Investigator: A/Prof Kynan Feeney

### MONALEESA

A Phase III, randomized, double-blind, placebo-controlled study of LEEOII or placebo in combination with tamoxifen and goserelin or a non-steroidal aromatase inhibitor (NSAI) and goserelin for the treatment of premenopausal women with hormone receptor positive, HER2-negative, advanced breast cancer

Principal Investigator: A/Prof Daphne Tsoi

### Monarch3

A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study of Nonsteroidal Aromatase Inhibitors (Anastrazole or Letrozole) plus LY2835219, a CDK4/6 Inhibitor, or Placebo in Postmenopausal Women with Hormone Receptor-Positive, HER2-Negative Locoregionally Recurrent or Metastatic Breast Cancer with No Prior Systemic Therapy in this Disease Setting

Principal Investigator: A/Prof Kynan Feeney

### **Top 5 Publications**

Kelly R, Ajani J, Kuzdzal J, Zander T, Van Cutsem E, Piessen G, Mendez G, Feliciano J, Motoyama S, Lievre A, Uronis H, Elimova E, Grootscholten C, Geboes K, Zafar S, Snow S, Ko A, Feeney K, Schenker M, Kocon P, Zhang J, Zhu L, Lei M, Singh P, Kondo K, Cleary J, Moehler M. (2021) Adjuvant Nivolumab in Resected Esophageal or Gastroesophageal Junction Cancer. New England Journal of Medicine. 384, 1191-1203. DOI: 10.1056/NEJMoa2032125.

Janjigian Y, Shitara K, Moehler M, Garrido M, Salman P, Shen L, Wyrwicz L, Yamaguchi K, Skoczylas T, Bragagnoli A, Liu T, Schenker M, Yanez P, Tehfe M, Kowalyszyn R, Karamouzis M, Bruges R, Zander T, Pazo-Cid R, Hitre E, Feeney K, Cleary J, Poulart V, Cullen D, Lei M, Xiao H, Kondo K, Li M, Ajani J. (2021) First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastro-oesophageal junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. The Lancet. DOI: 10.1016/S0140-6736(21)00797-2.

Reck M, Schenker M, Lee KH, Provencio M, Nishio M, Lesniewski-Kmak K, Sangha R, Ahmed S, Raimbourg J, Feeney K, et al. (2019). Nivolumab plus ipilimumab versus chemotherapy as first-line treatment in advanced

### Sequoia

A Randomized Phase 3 Study of AM0010 in Combination with FOLFOX Compared with FOLFOX Alone as Second-line Therapy in Patients with Metastatic Pancreatic Cancer that has Progressed During or Following a First-Line Gemcitabine Containing Regimen

Principal Investigator: A/Prof Kynan Feeney



non-small-cell lung cancer with high tumour mutational burden: patient-reported outcomes results from the randomised, open-label, phase III CheckMate 227 trial. European Journal of Cancer. 116, 137-147. DOI:10.1016/j. ejca.2019.05.008.

Rudin CM, Awad MM, Navarro A, Gottfried M, Peters S, Csószi T, et al. (2020) Pembrolizumab or placebo plus etoposide and platinum as first-line therapy for extensive-stage small-cell lung cancer: randomized, double-blind, phase III KEYNOTE-604 study. Journal of Clinical Oncology. 38, 2369-2379. DOI:10.1200/ JC0.20.00793.

Paz-Ares L, Ciuleanu TE, Cobo M, Schenker M, Zurawski B, Menezes J, Richardet E, Bennouna J, Felip E, Juan-Vidal O, Alexandru A, Sakai H, Lingua A, Salman P, Souquet PJ, De Marchi P, Martin C, Pérol M, Scherpereel A, Lu S, John T, Carbone DP, Meadows-Shropshire S, Agrawal S, Oukessou A, Yan J, Reck M. (2021) First-line nivolumab plus ipilimumab combined with two cycles of chemotherapy in patients with non-small-cell lung cancer (CheckMate 9LA): an international, randomised, open-label, phase 3 trial. Lancet Oncol. 22(2):198-211. doi: 10.1016/S1470-2045(20)30641-0

# **Murdoch Strategic Research Awards**

In 2020, the Murdoch Strategic Research Committee awarded funding to five Murdoch research teams. The purpose of these awards is to broaden caregiver research participation at Murdoch, and support the development of new lines of research. These awards are supported by donations to research which are held in the Murdoch Research Gift Fund.



# Looking ahead

A longitudinal convergent mixed method study of emotional wellbeing and organisational support among caregivers working in a large private/public health care system

# **Principal Investigator**

Professor Leanne Monterosso<sup>1,4</sup>

## **Co-Investigators**

Professor Caroline Bulsara<sup>4</sup> Professor Max Bulsara<sup>4</sup> Adjunct Associate Professor Alison Parr<sup>1,4</sup> Adjunct Associate Professor Adrian Regli 1, 5 Dr Ohide Otome <sup>3</sup> Dr Sarah Dunlop<sup>2,5</sup> Melissa Berg <sup>4</sup> Alexis Cranfield

# **Graded Assertiveness**

C.A.R.E. Model (CARE Study)

## **Principal Investigator**

Joceyln Arnold<sup>1</sup>

# **Co-Investigators**

Kimberley Montgomery<sup>1</sup> Professor Leanne Monterosso<sup>1,4</sup> Adjunct Associate Professor Alison Parr<sup>1,4</sup> Sarah-Jayne Powell<sup>1</sup> Kirstie Bennett<sup>1</sup> Oliver Brennan<sup>1</sup> Professor Caroline Bulsara <sup>4</sup> Alexis Cranfield<sup>1</sup>

# Aims

• To explore and document the impact of the COVID-19 pandemic in caregivers working in a large tertiary private hospital, a large public/private hospital and a private regional hospital.

# Aims

- To identify the communication culture, and the barriers to 'speaking up' in the selected setting.
- Ascertaining whether graded assertiveness training, and the implementation of a novel graded assertiveness model has a measurable impact on reducing incidents and patient harm.
- Facilitating a positive change in the culture of communication, making the work environment more safe, satisfying, supportive, and enjoyable.

# **Goals of Patient Care documentation**

A point-prevalence study at St John of God Murdoch and Bunbury Hospitals (GOPC Study)

# **Principal Investigator**

### Professor Leanne Monterosso 1,5

# **Co-Investigators**

Dr Gail Ross-Adjie <sup>4</sup> Dr Alison White <sup>1, 4</sup> Dr Sarah Dunlop <sup>2, 5</sup> Alexis Cranfield <sup>1</sup> Melissa Berg <sup>4</sup>

# Aims

- To determine the prevalence of patients meeting at least one GSF criteria at two time points;
- To describe the profile of patients meeting at least one GSF criteria;
- To determine the proportion of patients meeting at least one GSF criteria who have a completed GOPC form;
- To describe the completeness of the GOPC form;
- To determine the incidence of MER calls for patients meeting at least one GSF criteria;
- To determine the incidence of Specialist Palliative Care team involvement for patients meeting at least one GSF criteria; and
- To determine if COVID-19 influenced compliance of the GOPC form

# Respiratory protection of health care workers in ICU from airborne diseases during the COVID 19 pandemic

Training, fit-testing and mask availability

## Principal Investigator

Adjunct Associate Professor Adrian Regli<sup>1,5</sup>

Annamaria Palermo<sup>1</sup> Multiple - multi-site, Australia-wide pointprevalence study

**Co-Investigators** 

# Patient controlled analgesia in emergency departments

A pilot randomised controlled feasibility trial (PCAED Study)

# **Principal Investigator**

Natasya Raja Azlan<sup>1</sup>

## **Co-Investigators**

Dr Gail Ross-Adjie <sup>4</sup> Professor Leanne Monterosso <sup>1, 4</sup> Professor Caroline Bulsara <sup>4</sup> Professor Max Bulsara <sup>4</sup>

# Aim

• To establish the feasibility of using PCAs for the administration of IV fentanyl for patients who present with severe abdominal pain in the ED.



# Aim

• The aim of this study is gain information regarding the level of respiratory protection offered to health care workers in Australian and New Zealand Intensive Care Units by assessing the level and timing of PPE training, availability of fit-testing, range of N95/P2 masks as well as negative pressure environments for patient care during the COVID-19 pandemic.

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# Publications and Presentations

## Centre for Nursing and **Midwifery Research**

### Publications

- Norman T. (2021). The impact of living in rural communities without direct access to a STN. Journal of Stomal Therapy Australia, 41(1):24-26. DOI 10.33235/jsta.41.1.24-26
- Brereton K, Monterosso L. (2021). A technique for managing the off-centre stoma os to prevent peristomal skin complications and pouch leakage. Journal of Stomal Therapy Australia, 41, 10-12. DOI:10.33235/jsta.41.1.10-12
- Hill AM, Ross-Adjie G, McPhail SM, Jacques A, Bulsara M, Cranfield A, Etherton-Beer C, Raja Azlan N, Powell SJ, Hardisty G, Monterosso L. (2020). Incidence and associated risk factors for falls in older adults post discharge who undergo elective total hip replacement surgery- a prospective cohort study. J Gerontol A Biol Sci Med Sci. Published online 12 November 2020. DOI: 10.1093/gerona/glaa283.
- Marriott R, Reibel T, Barrett T-L, Bowen A, Bradshaw S, Kendall S, Kotz J, Martin T, Monterosso L, Robinson M. (2020). Midwifery knowledge of equitable and culturally safe maternity care for Aboriginal women. Birth: Issues in Perinatal Care. Published online 30 December 2020, DOI: 10.1111/ birt.12525.
- Ross-Adjie GM, Cranfield AA, Yates PJ, Monterosso L. Bowel management post major joint arthroplasty: a randomised controlled trial to test two pre-admission bowel regimens. International Journal of Orthopaedic and Trauma Nursing. Published online 25 August 2020. DOI: 10.1016/j.ijotn.2020.100816.
- Hoon SN, Lawrie I, Qi C, Rahman N, Maskell N, Forbes K, Gerry S,

Monterosso L, Chauhan A, Brims F. (2020). Symptom burden and unmet needs in MPM: exploratory analyses from the RESPECT-Meso study. Journal of Palliative Care. Published online 14 August 2020. DOI: 10.1177/0825859720948975.

- Mitchell G. Aubin M. Senior H. Johnson C, Fallon-Ferguson J, Williams B, Monterosso L, Rhee J, McVey P, Grant M, Nwachukwu H, Yates P. General practice nurses and physicians and end of life: a systematic review of models of care. BMJ Supportive & Palliative Care. Published online 27 July 2020. DOI: 10.1136/bmjspcare-2019-002114.
- Rhee J, Grant M, Senior H, Monterosso L, McVey P, Johnson C. Aubin M. Nwachukwu H. Baileu C. Fallon-Ferguson J. Yates P. Williams B, Mitchell G. Facilitators and barriers to general practitioner and general practice nurse participation in end-of-life care: systematic review. BMJ Supportive & Palliative Care. Published online 19 June 2020. DOI: 10.1136/ bmjspcare-2019-002109.
- Marriott R, Reibel T, Gliddon J, Griffin D. Coffin J. Eades A-M, Robinson M, Bowen A, Kendall S, Martin T, Monterosso L, Stanley F, Walker R. (2020). Aboriginal research methods and researcher reflections on working 'two-ways' to investigate culturally secure birthing for Aboriginal women. Australian Aboriginal Studies Journal. No. 1, 2020: 36-53.
- Sim F, Ross-Adjie G, Monterosso L. (2020). Standardisation of systemic anti-cancer treatment (SACT) prescription forms: a pre-post audit evaluation. The Australian Journal of Cancer Nursing. 21(1), 4-8. DOI: 10.33235/ ajcn.21.1.4-8.
- Boztepe H, Ay A, Monterosso L. (2019). Validity and reliability of Turkish version the family inventory of needs-pediatric II: an inventory to identify care needs of parents

of children with cancer. Turkish Journal of Oncology. 34(4), 231-235. DOI: 10.5505/tjo.2019.1854.

- Senior H, Grant M, Rhee J, Aubin M. McVey P. Johnson CE. Monterosso L. Nwachukwu H. Fallon-Ferguson J. Yates P. Williams B. Mitchell G. (2019). General practitioners' and general practice nurses' self-reported practice at the end of life: delivery, communication, coordination, and multidisciplinary care –a systematic review. BMJ Supportive & Palliative Care. Published online 29 August 2019. DOI: 10.1136/ bmjspcare-2019-001852.
- Pugh J, Williams A, Bentley B, Pienaar C, McCoy K, Monterosso L. (2019). Neurological patients' and careaivers' post-discharae challenges explored in a World Café. Collegian. 26(5), 528-533. DOI: 10.1016/j.colegn.2019.02.004.
- Taylor K, Chivers P, Bulsara C, Joske D, Bulsara M, Monterosso L. (2019). Care After Lymphoma (CALy) trial: A phase II pilot pragmatic randomised controlled trial of a nurse-led model of survivorship care. European Journal of Oncology Nursing. 40, 53-62. DOI: 10.1016/j.ejon.2019.03.005.
- Platt M, Coventry T, Monterosso . L. (2019). Perioperative nurses' perceptions of cross-training: A qualitative descriptive study. Journal of Perioperative Nursing. 32(1), 19-25.
- Monterosso L, Platt V, Bulsara M, Berg M. (2019). Systematic review and meta-analysis of patient reported outcomes for nurse-led models of survivorship care for adult cancer patients. Cancer Treatment Reviews, 73, 62-72, DOI: 10.1016/j.ctrv.2018.12.007.
- Pugh J, McCoy K, Williams A, Bentley B, Monterosso L. (2019). Rapid Evidence Assessment of Approaches to Community Neurological Nursing Care

for People with Neurological Conditions Post-discharge from Acute Care Hospital. Health & Social Care in the Community. 27(1), 43-54. DOI: 10.1111/hsc.12576.

### Reports

- Monterosso L, Berg M. (2020). Family carer satisfaction with service provision at St John of God Murdoch Community Hospice. St John of God Murdoch Hospital.
- Monterosso L, Platt V, Bulsara C, Walker M, Bronson M, Berg M. (2019). Delivery of immunotherapy to cancer patients in the home settina: an exploratory study. WA Cancer and Palliative Care Network – Clinical Implementation Unit. Department of Health WA.

### Presentations

- A Consensus on Terminology for Peristomal Skin Complications. Walls P. Norman T. Carville K. Haesler E, Monterosso L. World Council of Enterostomal Therapists - The Association of Stoma Care Nurses UK 2021 Joint Congress, Glasgow, Scotland. (3 - 6 October 2021 Virtual).
- COVID 19: A study of wellbeing and organisational support among St John of God Health Care caregivers during the pandemic. Monterosso L, Bulsara C, Bulsara M, Parr A, Regli A, Otome O, Dunlop S, Berg M, Cranfield A. Research Symposium, School of Nursing and Midwifery, University of Notre dame Australia. Fremantle, November 2020. (Oral Presentation Virtual).
- Evaluation of a nurse-led survivorship care model for lymphoma cancer survivors: a pilot randomised controlled trial. Taylor K, Bulsara M, Bulsara C, Monterosso L. Research Symposium, School of Nursing and Midwifery, University of Notre Dame Australia. Fremantle, (November 2020 Virtual).

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- Patient controlled analgesia in emergency departments: A mixed method study. Raja Azlan N, Ross-Adjie G, Monterosso L, Bulsara C, Bulsara, M. Research Symposium, School of Nursing and Midwifery, University of Notre Dame Australia, Fremantle, (November 2020 Virtual).
- Nurse-led survivorship model of care for lymphoma survivors: a pilot randomised controlled trial. Monterosso L, Taylor K, Joske D, Bulsara M, Bulsara C. International Conference on Cancer Nursing, London, United Kingdom. (2-5 February 2021; virtual). (Oral presentation Virtual).
- Results of a nurse-led survivorship model of care with lumphoma cancer survivors. Taulor K. Joske D. Bulsara M. Bulsara C. Monterosso L. Nursing & Midwifery Leadership Conference 2019, Perth, Western Australia. (28-29 November 2019). (Poster presentation).
- Qualitative results of a pilot lymphoma nurse-led survivorship model of care. Taylor K, Monterosso L, Bulsara C. Nursing & Midwifery Leadership Conference 2019, Perth, Western Australia. (28-29 November 2019), (Oral presentation).
- A one day wellbeing workshop for cancer nurses: Can it make a difference? Williams A, Allen E, Williams N, Slayer S, Cope V, Towell-Barnard A, Petterson A, Morrison P, Stomski N, Pienaar C, Jaques A, Buchanan G, Monterosso L, Twigg D, Maben J. Cancer Nurses Society Australia Annual Congress, Melbourne, Victoria. (June 2019). (Oral Presentation).
- Stoma site selection outside stomal therapy hours - training hospital staff. Brereton K, Monterosso L. 41st National Australian Association of Stomal Therapy Nurses Conference, Sydney, New South Wales. (May 2019). (Oral Presentation).

• Finding the right fit. Brereton K, Monterosso L. 41st National Australian Association of Stomal Therapy Nurses Conference, Sydney, Australia. (May 2019). (Poster presentation).

### **Emergency Medicine Research Group**

### Publications

- Gozt AK, Hellewell SC, Thorne J, Thomas E, Buhagiar F, Markovic S, Van Houselt A, Ring A, Arendts G, Smedley B, Can Schalkwyk S, Brooks P, Iliff J et al. (2021) Predicting outcome following mild traumatic brain injury: protocol for the longitudinal, prospective, observational Concussion Recovery (CREST) cohort study. BMJ Open, 11(5). DOI: 10.1136/ bmjopen-2020-046460
- Harris SA, Dempsey AR, Mackie K, King D, Hecimovich M, Murphy MC. (2021) Do sideline tests of vestibular and oculomotor function accurately diagnose sports-related concussion in adults? A systematic review and meta-analysis. Am J Sport Medicine, online ahead of print 25 August 2021. DOI: 10.1177/03635465211027946
- Jan, AL, Visser, EJ. (2021) Response to Cummings and Usichenko. Re: Battlefield acupuncture added no benefit as an adjunct analgesic in ED for abdominal, low back or limb trauma pain. Emergency Medicine Australasia, online ahead of print June. DOI: 10.1111/1742-6723.13803
- Jan A. (2020) Lessons learned in teaching Battlefield (ear) Acupuncture to emergency medicine clinicians Medical Acupuncture, 32(5):253-262, DOI: 10.1089/acu.2020.1436
- Jan AL, Aldridge ES, Rogers IR, Visser EJ. Bulsara MK. Hince DA. Suen LK, Woosey MV. (2020)

Battlefield Acupuncture added no benefit as an adjunct analgesic in ED for abdominal, low back or limb trauma pain. Emergency Medicine Australasia, 33(3):434-441. DOI: 10.1111/1742-6723.13642

• Jan AL. (2020) Teaching, trials and tribulations in utilising acupuncture for emergency department analgesia: Ready to go? (abstract). Emergency Medicine Australasia. 3(32(S1)):9-10.

### Presentations

- Analgesia in the Emergency department – East versus West. Jan AL. Johnson M. SJOG Murdoch Hospital Emergency Department Gamechanger. Murdoch, Western Australia. June 2021.
- Learnings from STEMI doorto-balloon time outliers – why reporting mean DTBT doesn't tell the whole story. House C, Mackie K, Whelan A. 68th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand. CSANZ Virtual. December 2020.
- Patient controlled analgesia in emergency departments: A mixed method study. Raja Azlan N. Ross-Adiie G. Monterosso L. Bulsara C, Bulsara M. School of Nursing & Midwifery 2020 Virtual Research Symposium, University of Notre Dame. Fremantle, Western Australia. November 2020.
- The Role of acupuncture in the emergency setting. Jan AL. Australian Medical Acupuncture College (WA) End of Year Seminar. Perth, Western Australia. November 2020.
- ED Ear Acupuncture Battlefield (ear) Acupuncture as an adjunct to treat pain of the abdomen. limb trauma and lower back pain in the ED – a randomised controlled study. Jan AL. SJGHC Research Ethics Presentation Series. Perth, Western Australia. March 2020.
- Teaching, trials and tribulations in utilising acupuncture for emergency department analgesia: Ready to go? Jan AL. Emergency Medicine Australasia National 36th Annual Scientific Meeting, Hobart, Australia. November 2019.

- Teaching, trials and tribulations in utilising acupuncture for emergency department analgesia: Ready to go? Jan AL. Australian College for Emergency Medicine National 36th Annual Scientific Meeting. Hobart, Australia. November 2019.
- Patient attitudes to acupuncture and non-pharmacological analgesia in the ED. Jan AL. Australian College for Emergency Medicine National 36th Annual Scientific Meeting. Hobart, Australia. November 2019.
- Teaching, trials and tribulations in utilising acupuncture for emergency department analgesia: Ready to go? Jan AL. International Congress of Medical Acupuncture and Associated Therapies. Gold Coast, Queensland. October 2019.
- Patient attitudes to acupuncture and non-pharmacological analgesia in the ED. Jan AL. International Congress of Medical Acupuncture and Associated Therapies. Gold Coast, Queensland. October 2019.
- Role of Acupuncture for pain in the ED or emergency setting. Jan AL. Australian Medical Acupuncture College (WA) Annual General Meeting and Seminar. Perth, Western Australia. August 2019.

### **Intensive Care Unit Research Group**

### Publications

- Angus DC, Berry S, Lewis FJ et al. (2020) The REMAP-CAP (Randomized Embedded Multifactorial Adaptive Platform for Community-acquired Pneumonia) Study. Rationale and Design. Annals of the American Thoracic Society. 17, 879-891. DOI:org/10.1513/ AnnalsATS.202003-192SD.
- Angus DC, Deride L, Al-Beidh F et al. (2020) Effect of hydrocortisone on mortality and organ support in patients with severe COVID-19. The Journal of the American Medical Association. 324, 1317-1329. DOI:10.1001/jama.2020.17022.

- Burrell AJC, Serpa Neto A, Trapani T et al. (2020) Rapid translation of COVID-19 preprint data into critical care practice. American Journal of Respiratory and Critical Care Medicine. 203, 368-371. DOI:org/10.1164/rccm.202009-3661LE.
- Burrell AJC, Pellegrini B, Salimi F et al. (2021) Outcomes of COVID-19 patients admitted to Australian intensive care units during the first four months of the pandemic. Medical Journal of Australia. 214. 23-30. DOI: 10.5694/mja2.50883.
- Das A, Anstey M, Bass F et al. (2019) Internet health information use bu surrogate decision makers of patients admitted to the intensive care unit: a multicentre survey. Critical Care and Resuscitation. 21(4):305-10.
- Deane AM, Little L, Bellomo R. et al (2020) Outcomes six months after delivering 100% or 70% of enteral calorie requirements during critical illness (TARGET). A randomized controlled trial. American Journal of Respiratory and Critical Care Medicine. 201, 814-822. DOI: 10.1164/ rccm.201909-18100C.
- De Bus L, Depuydt P, Steen J et al. (2020) Antimicrobial de-escalation in the critically ill patient and assessment of clinical cure: the DIANA Study. Intensive Care Medicine. 46, 1404-1417. DOI: 10.1007/ s00134-020-06111-5...
- Gordon AC, Mouncey P, Al-Beidh F et al. (2021) The effect of IL6 receptor antagonists in critically ill patients with COVID-19. New England Journal of Medicine. 384, 1491-1502. DOI: 10.1056/ NEJMoa2100433.
- Hammond NE, Finfer SR, Li Q, et al. (2020) Health-related quality of life in survivors of septic shock: 6-month follow-up from the ADRENAL trial. Intensive Care Medicine, 46, 1696-1706, DOI: 10.1007/s00134-020-06169-1.
- Litton E, Anstey M, Broadhurst D et al. (2021) Early and sustained Lactobacillus Plantarum probiotic therapy in critical illness: the randomised. placebo-controlled. restoration of gut microflora

in critical ill ness trial (ROCIT). Intensive Care Medicine. 47, 307-315, DOI: 10.1007/s00134-020-06322-w.

- Litton E. Currie A. Raby E et al. (2021) Probiotics and sepsis: separating the signal from the noise. Intensive Care Medicine. 47, 924-925. DOI: 10.1007/s00134-021-06427-w.
- Maiden MJ, Bone A, Fitzpatrick M, et al. (2021) Physical restraint of patients in Australia and New Zealand intensive care units. Intensive Care Medicine, 47. 234-236. DOI: 10.1007/s00134-020-06287-w.
- Mackle D, Bellomo R, Bailey M et al. (2020) Conservative oxygen therapy during mechanical ventilation in the ICU. New England Journal of Medicine. 382, 989-998. DOI: 10.1056/NEJMoa1903297.
- Plummer MP, Pellegrini B, Burrell AJC et al. (2020) Smoking in critically ill patients with COVID-19: the Australian experience. Critical Care and Resuscitation. 22, 281-283.
- Rickard CM, Marsh NM, Larsen EN et al. (2021) Effect of infusion set replacement intervals on catheterrelated bloodstream infections (RSVP): a randomised, controlled, equivalence (central venous access device) - non-inferiority (peripheral arterial catheter) trial. The Lancet. 397, 1447-58. DOI:10.1016/S0140-6736 (21)00351-2.
- Russotto V, Myatra SN, Laffey JG et al. (2021) Intubation practices and adverse peri-intubation events in critically ill patients from 29 countries. Journal American Medical Association, 325, 1164-1172, DOI:10.1001/jama.2021.1727.
- Serpa Neto A, Burrell AJC, Bailey M et al. (2020) Comparison of critical care occupancy and outcomes of critically ill patients during the 2020 COVID-19 winter surge and 2009 HINI influenza pandemic in Australia. American Thoracic Society. 18, 1380-1389. DOI: 10.1513/ AnnalsATS.202010-13110C.
- Ramanan M, Burrell AJC, Udy A et al. (2020) Should critically ill patients with COVID-19 be

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managed in high-volume ICUs? Critical Care and Resuscitation, 22. 394-396. DOI:10.3316/ informit.564020058612166

- Yarad E. O'Connor A. Meyer J et al. (2021) Prevalence of pressure Ipinjuries and the management of support surfaces (mattresses) in adult intensive care patients: A multicentre point prevalence study in Australia and New Zealand. Australian Critical Care. 34, 60-66.
- Young P. Mackle D. Bellomo R et al. (2020) Conservative oxygen therapy for mechanically ventilated adults with suspected hypoxic ischaemic encephalopathy. Intensive Care Medicine. 46, 2411-2422. DOI:10.1007/ s00134-020-06196-y.

### Murdoch Centre for Orthopaedic Research

### Publications

- Lianzhi C, Wang A, Leys, T, Landao-Bassonga E, Zhen, Q, Wang T, Zheng M. (2021) Intramuscular injection of botox induces tendon atrophy and senescence of tendon derived stem cells. Stem Cell Research and Therapy. 12, 38-50. DOI: 10.21203/rs.3.rs-70180/v1
- Edwards P. Ebert J. Joss B. Ackland T, Wang A. (2020) A randomised trial comparing two rehabilitation approaches following reverse total shoulder arthroplasty. Journal of Shoulder and Elbow Surgery. DOI: 10.1177/1758573220937394
- Edwards PK, Ebert JR, Morrow MM, Goodwin BM, Ackland T, Wang A. (2020) Accelerometry evaluation of shoulder movement and its association with patientreported and clinical outcomes following reverse total shoulder arthroplasty. Journal of Shoulder and Elbow Surgery. 29, 2308-2318. DOI: 10.1016/j.jse.2020.03.030.
- Green C; Wang A; Henderson J; Ebert J; Edwards, P. (2020) Successful surgical repair of a full thickness intramuscular rupture of pectoralis major.

DOI:10.1016/j.aucc.2020.04.153.

• Chen P, Chen Z, Mitchell C, Gao J,

Journal of Shoulder Elbow Surgery International. 4, 91-94. DOI: DOI: 10.1016/j.ses.2019.10.006

- Hurworth M, Evans J, Gibbons R, Mackie K. Edmondston S. (2021) Cycle sprint test for the evaluation of lower limb muscle power after total knee arthroplasty: a proofof-concept study. Arthroplasty Today. 9, 118-121. DOI: 10.1016/j. artd 2021.05.007
- Jones CW. Parsons R. Yates PJ. (2020). Increased incidence of venous thromboembolism following hip or knee arthroplasty in winter. Journal of Orthopaedic Surgery. 28, 1-5. DOI: 10.1177/2309499020920749
- Joseph Z, Calvert N, Salmona M, Harper M, Swann A, Tan R, Blades K, Yates P. (2020). Enhanced recovery principles applied to revision hip and knee arthroplasty leads to better patient outcomes. Journal of Orthopaedics. 22, 543-547. DOI:10.1016/j.jor.2020.11.004
- Ross-Adjie GM, Cranfield AA, Yates P J, Monterosso, L. (2021). Bowel management post major joint arthroplasty: A randomised controlled trial to test two pre-admission bowel regimens. International Journal of Orthopaedic and Trauma Nursing, 41. DOI: 10.1016/j.ijotn.2020.100816
- Waters G, D'Alessandro P, Yates P. (2020). Functional navigation in hip resurfacing. ANZ Journal of Surgery. 91, 168-173. DOI:10.1111/ ans 16312
- Wang A, Mackie K, Hayes A, Gibbons R. (2020) Computer navigation in reverse total shoulder arthroplasty: Measuring the learning curve. Journal of Shoulder and Elbow Surgery. 29, 617-623. DOI: 10.1016/j.jse.2019.08.012
- Wang T, Chen P, Chen L, Zhou Y, Wang A, Zheng Q, Mitchell CA, Leys T, Tuan R, Zheng MH. (2021) Reduction of mechanical loading in tendons induces heterotopic ossification and activation of the -catenin signalling pathway. Journal of Orthopaedic Translation. 29, 42-50. doi:10.1016/j. iot.2021.03.004

- Wang T, Wagner A, Gehwolf R, Yan W, Passini FS, Thien C, Weissenbacher N, Lin Z, Lehner C. Teng H. Wittner C. Zheng Q. Dai J. Ni M. Wang A. Papadimitriou J. Leys T, Tuan RS, Senck S, Snedeker JG, Tempfer H, Jiang Q, Zheng MH, Traweger A. (2021) Load-induced regulation of tendon homeostasis by SPARC, a genetic predisposition factor for tendon and ligament iniuries.
- Science Translational Medicine. 13. DOI:10.1126/scitranslmed.abe5738 Feb 2021
- Wang A, Goebel S, Wang K, Raubenheimer K. Greene AT. Verstraete M. (2021) Intraoperative joint load evaluation of shoulder postures after reverse total shoulder arthroplasty: A cadaveric study using a humeral trial sensor. Journal of Shoulder and Elbow Surgery: Seminars in Arthroplasty. In press. DOI:10.1053/j. sart.2021.05.022

### Presentations

- Adductor canal block vs intraarticular catheter in TKA: a double-blinded randomised clinical trial. Yates P. Arthroplasty Society, Noosa, 2019.
- An independent multicentre outcome study for a unique medially stabilised knee. Yates P. Arthroplasty Society. Noosa, 2019.
- Assessing comparability of clinical joint registries for the monitoring of early performance. Yates P. Australian Orthopaedic Association National Conference, Canberra, ACT, 2019.
- ATTUNE revision making your complex cases simple. Yates P. Depuy Knee Revision Meeting. Sydney, NSW, 2019.
- ATTUNE Revision Making your complex cases simple. Yates P. Japanese Complex Primary and Revision Knee Symposium. Tokyo, 2019.
- ATTUNE knee. Yates P. Taiwan Orthopaedic Association. Taipai, 2019.

- ATTUNE RP tips and tricks. Yates P. Taiwan Orthopaedic Association. Taipai. 2019.
- ATTUNE vs PFC knee arthroplasty. Comparison of existing and new total knee arthroplasty implant systems from the same manufacturer. A large, prospective, multicentre study. Yates P. Australian Orthopaedic Association National Conference. Canberra, ACT, 2019.
- Evolution of fixation in my practice. Yates P. Depuy Knee Revision Meeting. Sydney, NSW, 2019.
- Improving functional outcomes in revision TKA. Yates P. Depuy Knee Revision Meeting, Sydney, NSW, 2019.
- Improving functional outcomes in revision TKA. Yates P. Asia Pacific Complex Primary and Revision Knee webinar, 2020.
- Knee revision made simple. Yates P. Global Orthopaedic and Medtech Summit. 2021.
- Severe Cases. Yates P. Japanese . Complex Primary and Revision Knee Symposium. Tokyo, 2019.
- Spontaneous recovery trajectories of muscle power, physical and patient-reported function following total knee arthroplasty. Hurworth M, Gibbons R, Mackie K, Edmondston S. Evans J. Australia Orthopaedic Association WA Annual Scientific Meeting, Fremantle, 2020.
- SROM hip. Depuy Masterclass. Yates, P. Australian Orthopaedic Association National Meeting, Canberra, ACT, 2019.
- The evolution of fixation in my practice Yates P Japanese Complex Primary and Revision Knee Symposium. Tokyo, 2019.
- The evolution of fixation in my practice. Yates P. Asia Pacific Complex Primary and Revision Knee webinar, 2020.
- The painful hip resurfacing. Yates P. Resurfacing International webinar. 2021

- Trends and outcomes in TKA both primary and revision knee. Yates P. Japanese Complex Primary and Revision Knee Symposium. Tokyo, 2019
  - TXA use should be routine in TJR. Yates P. Arthroplasty Society, Noosa, 2019.
  - Work-up and diagnostic algorithm (revision TKA). Yates P. Depuy Knee Revision meeting, Sydney, NSW, 2019

### **Oncology Clinical Trials**

### Publications

- Kelly R, Ajani J, Kuzdzal J, Zander T, Van Cutsem E, Piessen G, Mendez G, Feliciano J, Motoyama S, Lievre A, Uronis H, Elimova E, Grootscholten C, Geboes K, Zafar S, Snow S, Ko A, Feeney K, Schenker M, Kocon P, Zhang J, Zhu L, Lei M, Singh P, Kondo K, Cleary J, Moehler M. (2021) Adjuvant Nivolumab in Resected Esophageal or Gastroesophageal Junction Cancer. New England Journal of Medicine. 384, 1191-1203. DOI: 10.1056/ NEJMoa2032125.
- Janjigian Y, Shitara K, Moehler M, Garrido M, Salman P, Shen L, Wyrwicz L, Yamaguchi K, Skoczylas T, Bragagnoli A, Liu T, Schenker M, Yanez P, Tehfe M, Kowalyszyn R. Karamouzis M. Bruges R, Zander T, Pazo-Cid R, Hitre E, Feeney K, Cleary J, Poulart V. Cullen D. Lei M. Xiao H. Kondo K. Li M. Aiani J. (2021) First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastrooesophageal junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. The Lancet. DOI: 10.1016/S0140-6736(21)00797-2.
- Reck M. Schenker M. Lee KH. Provencio M. Nishio M. Lesniewski-Kmak K, Sangha R, Ahmed S, Raimbourg J, Feeney K, et al. (2019). Nivolumab plus ipilimumab versus chemotherapy as first-line treatment in advanced non-small-

cell lung cancer with high tumour mutational burden: patientreported outcomes results from the randomised, open-label, phase III CheckMate 227 trial. European Journal of Cancer. 116, 137-147. DOI:10.1016/j.ejca.2019.05.008.

- Clarke S, Burge M, Feeney K, Gibbs P. Jones K. Marx G. et al. (2020) The prognostic role of inflammatory markers in patients with metastatic colorectal cancer treated with bevacizumab: A translational study [ASCENT]. PLoS One. 2020, 15, e0229900. DOI:10.1371/journal.pone.0229900
- Rudin CM, Awad MM, Navarro A. Gottfried M. Peters S. Csőszi T, et al. (2020) Pembrolizumab or placebo plus etoposide and platinum as first-line therapy for extensive-stage small-cell lung cancer: randomized, double-blind, phase III KEYNOTE-604 study. Journal of Clinical Oncology. 38, 2369-2379. DOI:10.1200/ JC0.20.00793.
- De Marinis F, Laktionov K, Poltoratskiy A, Egorova I, Hochmair M, Passaro A, Migliorino M, Metro G, Gottfried M, Tsoi D, et al. (2021) Afatinib in EGFR TKI-naïve patients with locally advanced or metastatic EGFR mutation-positive non-small cell lung cancer: Interim analysis of a Phase 3b study. Lung Cancer. 152, 127-134. DOI: 10.1016/j.lungcan.2020.12.011.
- De Marinis F, Laktionov K, Poltoratskiy A, Egorova I, Hochmair M, Passaro A, Migliorino M, Metro G, Gottfried M, Tsoi D, et al. (2019) 1472P - Afatinib in EGFR TKI-naïve patients with EGFR mutationpositive (EGFRm+) NSCLC: Interim analysis of a phase IIIb, multinational, open-label study. Annals of Oncology. 30, 598-v599. DOI: 10.1093/annonc/mdz259.015.
- Chan A, Lomma C, Chih H, Blackely E, Woodward N, Tsoi D, et al. (2021) Incorporation of eribulin in the systemic treatment of metastatic breast cancer patients in Australia. Asia-Pacific Journal of Clinical Oncology. 17, e70-e76. DOI: 10.1111/ajco.13576.

- Boyle F, Clarke K, Cuff K, Green M, Malik L. Mok K. Murray N. Nott L. Nottage M. Tafreshi A. Tsoi D. Yeo B. Gibbs P. De Boer R. (2020) Abstract OT2-02-01: A 'real world' experience of CDK4/6 inhibition with ribociclib and endocrine therapy in hormone receptor positive metastatic breast cancer in Australia. Cancer Research. 80 (4 Supplement). DOI: 10.1158/1538-7445.SABCS19-OT2-02-01
- Janjigian YY, Shitara K, Moehler M, Garrido M, Salman P, Shen L, Wyrwicz L, Yamaguchi K, Skoczylas T. Bragganoli A. Liu T. Schenker M. Yanez P. Tehfe M. Kowalyszyn R. Karamouzis M, Bruges R, Zander T, Pazo-Cid R, Hitre E, Feeney K, et al. (2021) First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastro-oesophageal junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. Lancet. On-line ahead of print. DOI:10.1016/S0140-6736(21)00797-2.
- Kelly R. Aiani J. Kuzdzal J. Zander T, Van Cutsem E, Piessen G, Mendez G, Feliciano J, Motoyama S. Lievre A. Uronis H. Elimova E. Grootscholten C, Geboes K, Zafar S, Snow S, Ko A, Feeney K, Schenker M, Kocon P, Zhang J, Zhu L, Lei M, Singh P, Kondo K, Cleary J, Moehler M. (2021) Adjuvant Nivolumab in Resected Esophageal or Gastroesophageal Junction Cancer. New England Journal of Medicine. 384, 1191-1203, DOI: 10.1056/ NEJMoa2032125
- Feeney K. Kelly R. Lipton L. Chao J. Acosta-Rivera M. Earle D. Lei M. Kollia G. Tebbutt N. (2019) CA224-060: A randomized, open label, phase II trial of relatlimab (anti-LAG-3) and nivolumab with chemotherapy versus nivolumab with chemotherapy as first-line treatment in patients with gastric or gastroesophageal junction adenocarcinoma. Journal of Clinical Oncology, 37, 15 suppl. DOI: 10.1200/ JC0.2019.37.15 suppl.TPS4143

• Lok S, Baron-Hay S, Lim E, Blum R, • Wainberg Z, Feeney K, Lee M, Martin A, Cubillo G, Lonardi S, Ryoo B-Y, Hung A, Lin Y, Bendell J, Hecht J.R. (2019) Meta-analysis of OS for pancreatic cancer patients receiving 5FU and oxaliplatinbased therapy after failing first-line gemcitabine-containing therapy. Journal of Clinical Oncology. 37, 202-202. DOI: 10.1200/ JC0.2019.37.4\_suppl.202

> • Paz-Ares L, Ciuleanu TE, Cobo M, Schenker M, Zurawski B, Menezes J, Richardet E, Bennouna J, Felip E, Juan-Vidal O. Alexandru A. Sakai H, Lingua A, Salman P, Souquet PJ, De Marchi P, Martin C, Pérol M. Scherpereel A. Lu S. John T. Carbone DP. Meadows-Shropshire S, Agrawal S, Oukessou A, Yan J, Reck M. (2021) First-line nivolumab plus ipilimumab combined with two cycles of chemotherapy in patients with non-small-cell lung cancer (CheckMate 9LA): an international, randomised, open-label, phase 3 trial. Lancet Oncol. 22:198-211. doi: 10.1016/S1470-2045(20)30641-0



St John of God Murdoch Hospital Barry Marshall Parade, Murdoch WA 6150

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