

A message from the Chair



It is my great pleasure to present this Impact Report from the Ramsay Hospital Research Foundation (RHRF) for the period 1 July 2018 – 30 December 2019.

In line with RHRF's mission and values, we are constantly striving to provide better outcomes for our patients, to investigate the diseases and illnesses which affect them, and to progress the learning and development of those who care for them. We are committed to identifying research projects that have the potential to improve outcomes and, through the development of strategically important research projects, the establishment of a Ramsay wide research network.

Over the past 18 months, the RHRF Board has been privileged to review innovative applications with significant potential. Whilst we have not been able to fund all applications, I would like to thank all of our researchers who

have taken the time to prepare and submit applications – it has been an absolute pleasure to review your great ideas. It is so rewarding to see the level of interest and scope for the development of the research in Ramsay Hospitals and collaboration with research organisations beyond Ramsay.

This has been a busy time for RHRF and a highly productive year. Thirteen applications were approved by the RHRF Board in this time and I am looking forward to seeing these projects established over the next 12 months. All of these projects and their potential to assist patients are summarized in this report and I am also pleased to give you an update on existing projects that we have funded in prior years.

The activities of the Ramsay Clinical Trials Network has continued to expand, with over 200 trials now established. We continue to see interest in the development of clinical trials and the activities of the network to support the development of research. I fully expect that this will continue in the future.

In 2020, we are reviewing the Strategic Directions of RHRF and assessing how we would like to further pursue the development of research within Ramsay Health Care and beyond. This strategic plan will guide the development of our funding resubmission to the Paul Ramsay Foundation and will allow the Directors to clearly articulate our hopes for RHRF over the next five years.

I would like to thank my fellow Directors and our CEO, Ms. Nicola Ware, for their support and engagement as we continue to develop the activities of RHRF. We said goodbye to two Directors in the last quarter of 2019, with both Kate Munnings and Professor Kathryn North stepping down from the Board. I would like to acknowledge and thank them both for their valuable contributions to RHRF, in particular those of Professor North who tirelessly provided advice and expertise as we reviewed countless applications throughout her time. I am delighted to welcome Professor Cheryl Jones who joined the Board in December, 2019. Cheryl is currently the Dean of Medicine at University of Sydney and we look forward to working with her and accepting her valuable insights in the future.

Finally, I would like to extend my heartfelt thanks to the Paul Ramsay Foundation for its continued support of the Ramsay Hospital Research Foundation. Without the funding they have provided, RHRF would be unable to support so many worthwhile projects and we would not have been able to successfully integrate research into Ramsay Health Care. When Mr. Paul Ramsay established Ramsay Health Care he wanted "People Caring for People" to be the cornerstone of the organisation. With the continued support of the Paul Ramsay Foundation, we are able to uphold Paul's legacy as we utilize research to provide world-class care for our patients.

Danny Sims

Chair, Ramsay Hospital Research Foundation

A message from the CEO



The past 18 months have been a whirl of activity as we commenced work on projects funded in prior years and developed new projects alongside investigators for consideration by the RHRF Board for funding. As a result of the hard work from a very small team, we have now developed strong connections with a variety of Medical Research Institutes, Universities, independent clinician researchers and Ramsay VMOs to cultivate research that can be conducted throughout Ramsay Health Care, and have begun to take steps toward the establishment of a broad research network within the organisation.

One of the key areas of focus during this time has been the establishment of a digital system to facilitate the collection of patient data for research and the randomisation of patients in clinical trials. Working in collaboration

with VisionTree Software, Inc., a US based company, we have now established several projects using the VisionTree Optimal Care[™] ("VTOC") platform— a system developed by them which allows for the collection of clinical data and patient reported outcomes. Importantly, as a web-based system, it has the capacity to capture data from both within and outside of Ramsay hospitals, enabling researchers to collect data beyond the point of care and beyond Ramsay. The use of this system for randomisation and blinding in clinical trials will also be explored shortly through some recently funded RHRF projects.

Another major project we have undertaken has been to reform how Research Ethics and Governance are conducted within Ramsay Health Care. One of the biggest hurdles in the establishment of research is the need for these approvals and, where the systems that support Research Ethics and Governance are not transparent and consistent, this creates problems. Over the past 18 months, RHRF have reviewed all policies relating to these functions and revised the structure of the Human Research Ethics Committees (HRECs) in operation across Ramsay. As a result of these changes, we can now identify over 850 projects under the management of a Ramsay HREC. In addition to our work with the HRECs, we have implemented a structured Research Governance process for Ramsay Health Care. This will ensure that we have sufficient oversight over all research being conducted in a Ramsay facility, as well as the opportunity to connect research teams who are conducting similar research in different Ramsay sites. Furthermore, we now have the ability to identify high quality pilot projects that have the potential to expand and develop to other sites. Through this work, I am hopeful that we now have a robust national system of Research Ethics and Governance that covers all Ramsay hospitals across Australia.

The Ramsay Clinical Trial Network has continued to grow and develop, with over 200 clinical trials and 14 trial sites now in operation. We continue to expand the network and in the coming months will focus on the development of greater centralised support functions in areas such as finance and administration to ensure all units are adequately supported and productive. Access to clinical trials is an important part of clinical care for patients and, through the work of the Clinical Trials Network, patients of Ramsay Health Care regularly have access to new and potentially life-changing therapies.

RHRF is fortunate to have the support of the Paul Ramsay Foundation and, thanks to the funding that they have provided, we have now been able to provide over \$12.5 million dollars to support 19 key research projects and the Ramsay Clinical Trials Network since we began in 2017. Each project has the potential to improve patient outcomes and we are actively working with investigators to ensure the success of these important projects.

With your continued support, we will be able to improve patient outcomes and increase research productivity within Ramsay Health Care. I look forward to seeing how research conducted by our clinicians, allied health and nursing staff can help to shape the future of health care in Australia.

Research Project #1 - ECT-CARE Network

Chief investigator: Professor Colleen Loo (University of New South Wales, The Black Dog Institute)

Project status: Awarded; National Health and Medical Research Council (NHMRC) partnership grant application pending

Expected completion: 2025

Ramsay sites: The Adelaide Clinic, Albert Road Clinic, Northside Group, Warners Bay Private Hospital

Funding provided: \$990,000 (plus a \$600,000 in-kind contribution from Ramsay Health Care)

Project overview

Depression confers a large burden of disease because of its early onset, high prevalence, and the profound disability involved. It is the second highest cause of disability globally and is the highest ranked mental disorder in Australia in the areas of severity, disability and service use. Treatment resistance is a key factor in the illness burden in addition to high economic cost, with a third of depressed patients not attaining remission despite trials of up to four different treatments.

The Clinical Alliance and Research in Electroconvulsive Therapy (ECT) and Related Treatments ("CARE") initiative provides a standardised framework for collection of quality clinical data on patient characteristics, treatment approach and clinical outcomes such as symptom improvement, side effects and quality of life. ECT has been shown to have a superior efficacy to medications and is the treatment of choice for pharmacotherapy resistant depression. However, there is substantial, unwarranted clinical variation in ECT practice and historically large gaps in data to support best practice. Ketamine has recently emerged as another treatment of comparable efficacy to ECT; however, large translational gaps remain in providing clinicians with guidance on models of care, particularly surrounding the effectiveness and safety of extended treatment courses. rTMS (Repetitive Transcranial Magnetic Stimulation) and tDCS (Transcranial direct current stimulation) have also been shown to be efficacious and safe treatments, however in clinical practice optimal treatment may differ. Further, it is possible rTMS and home-based tDCS may have similar effectiveness due to the convenience and cost savings of home-based, remotely supervised treatment. However, the relative effectiveness and cost effectiveness of rTMS and home-based tDCS for treating depression and maintaining remission are unknown.

The ECT CARE dataset was developed in 2015 in consultation with participating hospitals and data has been collected from more than 1,000 ECT patients. RHRF is providing \$240k of funding to trial the introduction of ECT CARE outcome measures into clinical practice within four RHC pilot sites. After the 12-18 month pilot project has completed, an analysis of the data collected across the pilot facilities will be performed. This analysis will examine how successful the outcome collection has been to date, the quality of data collected, and how facility staff and executives feel the process has worked within their facility. CARE is now expanding to develop and implement datasets for ketamine,

rTMS and tDCS. It aims to preserve as much commonality as possible between ECT/ketamine/rTMS/tDCS datasets to ensure optimal usability of any data collected.

Ramsay Hospital Research Foundation (RHRF) has committed a \$750,000 cash contribution to this initiative and Ramsay Health Care (Ramsay) has committed a \$600,000 in-kind contribution, bringing the support to a total of \$1,350,000. The project aims, structure and funding arrangements have been drafted in accordance with the NHMRC Partnership Grant scheme. If the application is successful, RHRF and Ramsay will provide this funding which, alongside the funding of other partners, will be matched by NHMRC up to a total NHMRC contribution of \$1.5 million.

Expected outcome

This project has three primary aims:

- To assist clinical services to improve service quality, including meeting mandatory clinical standards, by providing a framework and tools for data collection and monitoring, developing tools feasible for clinical use where needed.
- 2. To facilitate benchmarking, through collection of a common dataset, which can provide feedback at individual clinician or individual hospital level.
- 3. To examine data from real world clinical practice (versus research studies), to inform treatment guidelines and recommendations, and cost effectiveness.

These datasets will also serve to cover the data collection required for auditing and benchmarking purposes that should be done in good quality clinical services. After the above processes have been rolled out in the four pilot Ramsay hospitals, the implementation frameworks and learnings will be taken and expanded into all other Ramsay services delivering these treatments.

How will this project change health care?

This will be the first large-scale study in the world of service models across ECT, ketamine, rTMS and tDCS treatments. It is anticipated the findings from this project, including cost effectiveness analyses, will influence clinical practice and policy nationally and internationally, building on Professor Loo's established track record in this field.

Ultimately, by better understanding outcomes in these treatment areas, we will be better equipped to give the best possible care to our patients and ensure our minimum standards are exemplary.



Research Project #2 - Pharmacogenetics for Severe Mood Disorders: A Randomised Controlled Trial

Chief investigator: Professor Malcolm Hopwood

Project status: Awarded

Expected completion: Mid 2022

Ramsay sites: Albert Road Clinic, Northside Group, and The Adelaide Clinic

Funding provided: \$762,216

Project overview

Major Depressive Disorder (MDD) and Bipolar Disorder (BD) are common and highly disabling conditions with approximately 20% percent of Australians suffering from MDD and 1.3% from BD over their lifetime. In the latest World Health Organisation (WHO) Global Burden of Disease estimates, depressive disorders are the 16th leading cause of Disability Adjusted Life Years Lost (DALYs) for any health condition globally. For both MDD and BD, the highest impact is on young adults with DALYs peaking for those in their twenties and thirties.

Rates of response to current treatments for these conditions are poor. Currently, most psychiatrists prescribe treatments using a trial and error approach; a drug will be prescribed and the patient will subsequently be monitored for several weeks to see how they respond. However, studies suggest testing and identifying genetic markers could assist with determining who will or will not respond to certain medications and also help to identify the dose at which a response is likely to occur; this is an area known as "psychiatric pharmacogenetics".

For this study, approximately 1,000 participants from three Ramsay mental health facilities will be recruited and randomised 1:1 into two arms. 50% of participants will have a DNA sample taken using a cheek swab which will be processed for genotyping. The results will subsequently be used to guide their treatment. The other 50% will not undergo testing and will be prescribed medication based on current best practice. The results of this study will collect necessary data to understand the value of this type of testing and examine whether it achieves better outcomes than current treatment of severe mood disorders.

Expected outcome

This study is expected to provide insight into whether it is possible to predict how a patient will respond to a class of

drugs based on their genetic profile and assess whether this improves their treatment outcomes.

The results of this trial will provide robust estimates of genotype-guided antidepressant prescribing within this patient population and enable decision-makers to undertake informed policy changes.

The practical clinical value of this trial lies in exploring how testing for pharmacogenetic markers and utilising the available information in treatment selection will enhance current treatment methods. Effective pharmacogenetic guidance of prescription offers the prospect of more efficacious and better tolerated treatments. This approach lies in better utilising existing treatments, including increasing our currently limited capacity to personalise prescription to the individual patient, giving the greatest chance of response and lasting remission.

How will this project change health care?

This emerging field has identified a number of potential pharmacogenetic markers for antidepressant response and builds on similar successful work in other areas such as oncology and neurology. However, this approach has not yet been rigorously evaluated for utility and cost-effectiveness for severe mood disorders in the clinical setting to date. This study will initiate this analysis and respond to the demand for this work.

In addition, obtaining higher remission rates in the treatment of mood disorders like MDD and BD is a critical goal in order to reduce the burden of these terrible disorders. Given the limited pipeline of new treatment options for MDD and BD, with a number of major pharmaceutical research companies moving away from this area, better utilisation of current treatments is vital to this effort. Clinicians are particularly in need of support to manage complex and severely unwell mood disordered patients as are often seen in inpatient care.

Research Project #3 - Digital Analytics Project- Digital Health CRC

Chief investigator: Professor Tim Shaw (University of Sydney)

Project status: Project Commenced

Expected completion: March 2022 (unless extended)

Ramsay facilities: TBC

Funding provided: \$70,000 per annum for an initial three year term

Project overview

Australia's health costs as a percentage of GDP are increasing dramatically; in 2016-17, the total health care spend was \$180.7 billion. In the 10 years to 2013-14, health expenditure outstripped inflation, population growth and the rate of population aging. In an age when people expect access to advanced health care and better health outcomes, public and private health organisations alike recognise 'STEM' skills are crucial. As a result of this and the rapid digitisation of health services around the world, the demand for health data scientists, health technologists and technology-literate clinical staff has never been greater.

Digital Health Cooperative Research Centre ("Digital Health CRC") is a research collaboration with capabilities and expertise in research. The centre is a unique, multidisciplinary, collaborative taskforce of research, clinical, industry, government and educational organisations aiming to focus research and development on combining individual and collective expertise with data, information and telecommunication technologies. RHRF has partnered with Digital Health CRC, committing \$70,000 per year for the next three years to this collaboration.

The first collaborative project between Digital Health CRC and Ramsay Health Care will take the form of a PhD scholarship that is a part of a broader analytics project focused on patient reported outcomes and designed to better understand the role of patient reported measures in clinical decision making. This project will explore the value of a generic set of patient reported experience and outcome measures to inform clinical practice across key disciplines, including cardiology and mental health. The project will also explore the value of discipline-specific patient reported experience and outcome measures and patient survey data sets for informing clinical practice.

The project will likely involve exercises to map existing generic and discipline-specific measures at participating clinical sites and interviews with key stakeholders to understand the value of different measures for clinical decision making and potential behaviour change. Once the clinician-prioritised patient reported measures have been identified, a data audit will be undertaken to determine the completeness of participating organisation data for each of the measures. The project may explore different methods for feeding back these measures to individual clinicians and clinical teams for enabling reflective practice.

Expected outcome

This patient-reported outcomes project aims to optimise the actionability of patient-reported experience and outcome measures. The PhD proposal can be further refined to answer important research questions, such as: "How extensively do generic patient report outcome and experience measures need to be tailored for individual clinical disciplines and specialities?" and "What patient reported experience and outcome measures do clinicians consider valuable for informing reflective practice?" The data gathered from these activities will serve to further improve patient care and assist health care professionals with their clinical management.

How will this project change health care?

This collaboration aims to solve complex problems within health care and deliver change. Research and innovation in digital health offers Australia significant economic and business development opportunities, as well as great promise for better health within our community. Ultimately, we aim to deliver better outcomes for patients and increased efficiency of services by effectively taking advantage of a digital health market.

Knowledge gained from this initial PhD project and future collaborations with Digital Health CRC will develop solutions to improve health care within Ramsay and elsewhere across the world through providing, where possible, real-time decision support to consumers, service providers, clinicians and those charged with planning, regulating, funding and managing the system.



Research Project #4 - PainChek® and Volunteer Support: Frailty Trial (PVFrailty)

Chief investigators: Dr Rosemary Saunders (Edith Cowan University)

Project status: Project Commenced **Expected completion:** Early 2022

Ramsay facilities: Hollywood Private Hospital

Funding provided: \$734,070

Project overview

The increasing frail ageing population presents a growing challenge for health services. As the population ages more, people are becoming frail and are more likely to suffer from pain. Frailty is known to result in adverse outcomes such as falls, fractures, functional dependence, post-operative complications, increased length of stay, re-admission to hospital, and death during hospitalisation.

This study is a cluster randomised control trial (RCT) aiming to utilise pain assessment technologies and volunteer support interventions for older adults in hospital to minimise the development or progression of frailty. The study hopes to determine the effectiveness of using volunteer support interventions (Adapted Hospital Elder Life Program ["A-HELP"]) and an Australian developed, technology driven pain assessment system ("PainChek®") compared with standard care on changes in frailty and specific clinical outcomes during hospitalisation, at discharge and at 30 days after discharge. The project aims to evaluate these interventions, in addition to patient, family and staff experiences as well as cost effectiveness. A point prevalence study will also be conducted at the start of the project to determine the prevalence of frailty in the adult population at the hospital.

Researchers aim to recruit from a pool of more than 2000 patients from Hollywood Private Hospital during the study period. This project is unique in that it will utilise a cluster RCT to determine the impact of volunteer support interventions compared with a new technology for pain assessment, as well as undertake a stakeholder evaluation.

Volunteering is a long-established practice across Ramsay Health Care including at Hollywood Private Hospital. Latest research has shown the positive impact of volunteering on clinical outcomes and wellbeing for patients, staff and volunteers as well as releasing nurse time to care.

Expected outcome

The primary aim of this study is to determine the effectiveness of volunteer support interventions (A-HELP) and the use of a technology driven pain assessment system (PainChek®) on changes in frailty of hospitalised older adult patients. Introducing feasible frailty assessments at the point of admission, combined with timely and accurate pain assessment and management is known to improve clinical outcomes, including in older adults who are unable to self-report pain. There is consequently a strong expectation patient outcomes will be improved through embedding evidence-based interventions.

How will this project change health care?

In light of the growing ageing population and the prevalence of frailty in hospital, it is important hospitals have processes to identify frailty and assess pain to guide care delivery. This project will address a gap in evidence and help determine effective interventions to address inpatient frailty and pain which will ultimately improve patient outcomes. If successful, the results and resources developed from this study can also be used to guide and implement other volunteer programs and pain assessment interventions across other Ramsay hospitals.



Research Project #5 - Cohort investigation of women admitted with their infants or toddlers to Masada Private Hospital Early Parenting Centre to identify indicators of immediate- and medium-term program impact

Chief investigator: Professor Jane Fisher (Monash University)

Project status: Awarded

Expected completion: Late 2021

Ramsay facilities: Masada Private Hospital

Funding provided: \$504,707

Project overview

It is an Australian priority to provide clinically and costeffective treatments for women with mental health
problems and their infants and toddlers. In Australia,
approximately 15% of women experience a depressive,
anxiety or adjustment disorder in the first year after giving
birth. For about one woman in every thousand, this will be
the severe mental disorder of postpartum psychosis. The
postnatal mental health of women is a major determinant of
their capacity to provide sensitive responsive care for their
children and thereby optimise infant mental health and early
childhood development.

This study aims to conduct a prospective investigation of approximately 1,200 women admitted to Masada Private Hospital Early Parenting Centre with their infants or toddlers within a 12 month period. Researchers will ascertain whether completing a residential early parenting program has an impact on women's mental health, functional efficiency and parenting confidence.

The study will also gather data to determine whether completing a residential early parenting program has an impact on unsettled infant and toddler behaviours such as sleeping, crying and feeding difficulties. In addition, the study will help to identify the characteristics of sub-groups for whom the program is not associated with improvements in presenting problems. The researchers aim to digitise the pre-admission, pre-discharge and post-discharge assessments completed as part of usual care and use advanced statistics to identify and analyse the outcomes.

Expected outcome

The goal of the proposed research program is to generate comprehensive evidence about the characteristics and circumstances of the whole population of women and infants or toddlers admitted to a residential early parenting centre. The study hopes to identify the most accurate indicators of program impact in the short and medium term to inform benchmarking of current clinical services and provide a baseline comparison for new and enhanced services.

Ramsay Health Care is the main private provider of motherbaby psychiatric and residential early parenting services in Australia. Therefore, the results of this study can be used widely within the group and ultimately improve the services provided for mothers and babies.

How will this project change health care?

While there is substantial clinical experience, there is currently a limited evidence base about the health needs and outcomes of women and infants or toddlers admitted to either psychiatric mother-baby or residential early parenting services. Most data arises from other countries where health systems and services are not necessarily equivalent to Australia's, especially since residential early parenting services are unique to Australia and there are no equivalent services in other nations.

This research seeks to elucidate the social determinants of mental health problems, to apply this in evidence-informed prevention programs in high and low income settings, and to strengthen the evidence base for health services. Given the unique nature of this model of care, the outcomes of this research are likely to attract international interest and have the potential to inform best practice in this area.



Research Project #6 - Text Me Well

Chief investigator: Professor Malcolm Hopwood (University of Melbourne)

Project status: Project Commenced **Expected completion:** Late 2023

Ramsay facilities: Albert Road Clinic, Northside Group St Leonards Clinic, New Farm Clinic

Funding provided: \$834,255

Project overview

Major depression is a common, chronic, relapsing disorder that is associated with substantial impairment in functioning, presents a significant social and economic burden, and increases the risk of premature death. There is currently a lack of robust evidence testing the effects of a text messaging program in reducing depressive symptoms and improving other health outcomes when provided as an adjunct to usual treatment for major depression.

Text Me Well is a clinical trial designed to deliver text messages after inpatient treatment within a Ramsay Health Care facility. The text messages will provide advice, motivation and support to maintain mental wellbeing and a healthy lifestyle post discharge. The messages are specifically designed to promote a reduction in stress and the use of tobacco, alcohol and illicit drugs, in addition to promoting increased adherence with treatment plans.

Text Me Well was granted RHRF pilot funding of \$100,000 last year to develop the protocol and message bank for the study. RHRF has recommitted to the further development of this project in conjunction with the University of Melbourne. The study initially aims to recruit 300 adults, 50% of whom will receive four to five text messages per week over a six-month period following discharge from a Ramsay mental health facility. All participants will be assessed for depressive severity and treatment adherence at six and 12 month follow-up appointments and the outcomes of both groups will be compared.

Expected outcome

The design and hypothesis of this study is based on similar studies examining the effect of regular text messaging on the outcomes of patients with cardiovascular disease. The results of these studies demonstrated messaging does impact outcomes, so this project seeks to understand whether this improvement in outcomes can be translated for patients with major depressive disorder.

If the study is shown to be successful, the project is likely to become the standard of care for all patients following discharge from a Ramsay mental health facility.

How will this project change health care?

This study has significant potential as a low-cost, safe and simple method to improve the mental and physical wellbeing of patients with major depressive disorder after they are discharged from inpatient care. Text messaging interventions do not require a smartphone and are agnostic to the mobile operating system. In addition, most people across all income groups own a mobile phone. Therefore, a text messagebased intervention has the potential for scalability, substantial population effects and will translate rapidly into outcomes that augment and transform the practice of psychological medicine.

Research Project #7 – From service to civilian life: Development and pilot of a psychological adjustment and reintegration training program for Australian ex-service personnel

Chief investigator: Dr Madeline Romaniuk (Gallipoli Medical Research Foundation)

Project status: Preparing ethics application

Expected completion: End 2022

Ramsay facilities: Greenslopes Private Hospital

Funding provided: \$560,774

Project overview

In a military context, reintegration is a term used to describe the process of adjustment back to civilian life following transition from full-time military service, as well as the psychological outcome of that process. Reintegration has been internationally recognised as a significant challenge for a large proportion of ex-service personnel and as a period of increased risk for the development of mental disorders. Currently, there are no evidence-based programs designed to target reintegration from a psychological or cultural perspective, despite a large body of evidence underpinning the need for such a program.

A central reason for the gap in evidence-based services is historically there has been no research conducted in Australia which focuses on investigating the experience of transition itself, and the particular challenges that occur during this time. In addition, no psychometric measures have been developed to assist in the assessment of adjustment and reintegration to civilian life during the transition period. Without empirically developed measures, there is also no method to determine the factors that underpin adjustment and reintegration in this population. This has consequently limited the ability to develop targeted interventions for veterans during transition to assist with the reintegration process.

This project aims to develop and pilot a reintegration program for Australian ex-service personnel in an outpatient group setting within Greenslopes Private Hospital. The program will be evidence-based and target psychosocial domains identified through empirical research as fundamental to healthy reintegration and adjustment to civilian life following military service. A 'booster' follow-up session will be available to participants in a digital format. The researchers will assess the impact of the program on adaptation to civilian life, quality of life and mental health symptoms and look to determine the factors that lead to effective or problematic transition.

Expected outcome

It is predicted that completion of the evidence-based reintegration program will lead to improved adjustment to civilian life as well as improvements in general mental health and quality of life. Key outcomes of the study will include the development of the reintegration and adjustment program content and an examination of the utility and acceptability of the program among a veteran sample, including an evaluation of psychosocial outcomes.

This study will gather essential data to implement a largerscale controlled trial of the reintegration program, with the ultimate aim to translate this knowledge and evidence into the development of a scalable program suitable for delivery across Ramsay services.

How will this project change health care?

This project is an essential first step towards addressing a significant gap in services for ex-service personnel. It will be the first study to trial a program designed specifically to target psychological adjustment and cultural reintegration from military service to civilian life. There is currently no program in Australia that focuses on reintegration from this perspective.

An evidence-based reintegration program has the potential to lessen the substantial burden of mental illness and negative psychosocial outcomes in the veteran community that have been associated with transition difficulties. Importantly, this project is improving patient care for the veteran community by recognising a significant area of need, and initiating the process to develop an effective and evidence-based treatment to address that need.

This study is also incorporating and exploring the utility of a digital delivery element for program participants, which has notable benefits for the accessibility of program content and uptake. The pilot will also consider if the facilitator training could be delivered through video link or online rather than in-person in subsequent research or future service delivery. Digital facilitator training and program delivery would enable feasible service delivery across national Ramsay sites, also contributing to the scalability of the program.



Smaller Projects – Does Soft Tissue Balancing Using Intra-Operative Pressure Sensors Improve Clinical Outcomes in Total Knee Arthroplasty? A Multi-Centre Randomised Controlled Trial

Chief investigator: Dr Samuel MacDessi (Sydney Knee Specialists)

Project status: Project commenced **Expected completion:** April 2022

Ramsay facilities: St George Private Hospital, Wollongong Private Hospital and Kareena Private Hospital

Funding provided: \$30,000

Project overview

Total knee arthroplasty (TKA) is a successful operation in alleviating pain and improving function for the majority of people with end-stage knee osteoarthritis. However, up to 20% of patients undergoing TKA internationally report some dissatisfaction following their surgery. Soft tissue imbalance is considered to be a major surgical cause of this dissatisfaction and can lead to poor patient outcomes or the requirement for revision surgery with all its associated morbidity and economic impact.

Currently, the main surgical technique to determine knee balance is subjective intra-operative assessment. However, a recent study by Sydney Knee Specialists found surgeon-determined manual assessment of ligament tension was poor, with a positive predictive value of 59.2% and a negative predictive value of 54%. Intra-operative pressure sensors have been recently introduced for use during TKA to address this issue, however there are no published randomised controlled trials that have determined whether improvements in balance using pressure sensors actually improve knee pain and function compared to manual strategies.

This study aims to address this gap and compare the clinical outcomes of Sensor-Guided Balancing (SGB) versus Manual Balancing (MB) in patients undergoing TKA surgery. Ultimately, this data will help determine whether the use of these sensors results in clinical benefit to patients.

RHRF has contributed \$30,000 of funding to this project to address the six-month assessment phase of the study.

Expected outcome

This study hopes to find an association between the use of intra-operative pressure sensors and improved soft tissue balance that results in better knee balance and, by extension, improved patient outcomes at 12 months when compared with current manual surgical balancing techniques.

The Sensor-Guided Balancing Study is highly portable and easily scalable and, if successful, will be expanded to include other Ramsay facilities.

How will this project change health care?

If this study demonstrates an association between use of intra-operative pressure sensors and improved soft tissue balance, it is envisaged this will result in reduced rates of readmission, reoperation and revision after total knee arthroplasty. It is anticipated dissemination of the studies results will contribute to improvements in orthopaedic decision-making internationally.

This project also has the potential to lessen the economic impact of TKA by significantly reducing the need for revision surgery due to soft tissue imbalance.



Smaller Projects – Topical Treatment to decrease preoperative p acnes skin colonisation: A Randomised Controlled Trial

Chief investigator: Mr Aaron Tay and Mr Laurence Moulton (Hollywood Private Hospital)

Project status: Awarded

Expected completion: Late 2021

Ramsay facilities: Hollywood Private Hospital

Funding provided: \$19,000

Project overview

Propionibacterium acnes (p acnes) is a bacterium that resides in the pilosebaceous ducts of the skin. It can be transferred to deep tissue when making the initial skin incision of surgery and is increasingly recognised as a cause of post-operative infections and complications following soft tissue arthroscopic procedures. By decreasing the level of p acnes resident in the skin pre-operatively, this reduces the risk of deep transmission of bacteria which cause pre-operative infections. Recent studies have looked at the possibility of using novel topical agents such as benzoyl peroxide (BPO), benzoyl peroxide and clindamycin (BPOCM) or benzoyl peroxide and adapalene (BPOADA) to decrease pre-operative bacterial load of p acnes. All of these treatments have been successfully used by dermatologists to treat acne for a number of years without significant complications. However, there is currently no evidence to determine whether BPO alone is sufficient or whether the additional substances in combination with BPO are required.

This study is a single-blind randomised controlled trial which aims to assess whether BPOADA or BPOCM have any benefit to treatment over BPO alone for the preoperative decrease of p acnes colonisation in patients prior to shoulder surgery. Approximately 150 patients will be recruited and subsequently randomised equally into three trial arms, with random envelope allocation determining whether they are provided with a BPO, BPOCM or BPOADA pre-operative topical treatment.

Expected outcome

This study will allow a better understanding of the different available methods of decreasing p acnes colonisation pre-operatively. If successful, this study can be expanded and ultimately translated into best practice standards and improve patient outcomes post-surgery.

How will this project change health care?

If the results of this study demonstrate a reduction in p acnes bacteria with one or more of the topical skin treatments, this knowledge could be used to reduce the risk of prosthetic joint infections in shoulder surgery and have a substantial economic benefit. These infections often lead to costly management, including repeat surgery, prolonged antibiotic use and additional hospital stays; a periprosthetic infection requiring revision surgery can cost in excess of \$50,000.

Additionally, if results demonstrate BPOADA is as effective as BPOCM, this will provide an effective antibiotic free treatment – an important step towards minimising antibiotic usage and decreasing antibiotic resistance.

Smaller Projects – Investigation of the rate of psychotropic polypharmacy in Australian patients with post-traumatic stress disorder upon admission to an in-patient mental health facility

Chief investigator: Dr Sarah McLeay (Gallipoli Medical Research Foundation)

Project status: Project Commenced

Expected completion: Mid 2021

Ramsay facilities: Greenslopes Private Hospital, New Farm Clinic

Funding provided: \$195,000

Project overview

"Polypharmacy" refers to the concomitant administration of multiple medications affecting mental state and brain function. It is associated with an increased risk of adverse drug events, drug-drug interactions, and drug-disease interactions which can in turn contribute to falls, cognitive impairment, hospital admissions and overall morbidity. Psychotropic polypharmacy (i.e. polypharmacy relating to medication used for the treatment of mental health conditions) is of particular concern due to the lack of evidence supporting the safety and effectiveness of certain drug combinations. In the general Australian population, the prevalence of any psychotropic polypharmacy was found to be approximately 15%, with the most common drug combinations including benzodiazepines. Long-term use of benzodiazepine medication is associated with physical dependence, increased risk of falls and fractures, and a negative impact on cognitive function including an increased risk of dementia. In addition, there is a significant economic burden; problematic psychotropic prescribing has been associated with an estimated cost of over \$21 million.

Currently, the treatment of post-traumatic stress disorder (PTSD) in Australia is often challenging due to limited clinical pharmacotherapy guidelines, a lack of trialled and approved medications, and high prevalence of comorbid illnesses. These factors combined result in the increased likelihood of general and psychotropic polypharmacy. With approximately 6% of the general Australian population and 25% of recently transitioned Australian Defence Force members estimated to experience PTSD in their lifetime, PTSD-related psychotropic polypharmacy is of significant concern. In Australia, anecdotal clinical evidence indicates a trend of overprescribing in patients with PTSD, however there is currently limited data on PTSD-related psychotropic prescribing patterns.

This study aims to investigate the incidence of psychotropic polypharmacy in patients with PTSD upon admission to Greenslopes Private Hospital and New Farm Clinic inpatient mental health treatment facilities. Additionally, this study aims to investigate and characterise potential risks associated with polypharmacy and potentially inappropriate prescribing patterns, including potential drug-drug or drug-disease interactions.

Expected outcome

This study is an essential first step towards understanding current psychotropic prescribing patterns for PTSD in Australia. It is expected the incidence of psychotropic polypharmacy and any observed inappropriate prescribing patterns in Australian patients with PTSD will be comparable to rates observed in the US where over a third of veterans with PTSD have been found to be on two or more sedative psychotropic medications.

How will this project change health care?

Evidence from the proposed study will be used to inform future studies aiming to improve pharmacotherapeutic treatment of PTSD, such as medication management programs, development of clearer prescribing guidelines, and educational campaigns. Ultimately, this study will be of benefit to all patients with PTSD through improving medication-based outcomes, decreasing the inappropriate prescription of multiple psychotropic medications and reducing adverse drug reactions. Reduced adverse drug reactions may help to improve PTSD symptomology, reduce hospital admissions, and reduce associated medical costs.



Smaller Projects - ADAPTS: Antibiotic Dysbiosis and Probiotics Trial in Infants

Chief investigator: Dr Jason Tan and Dr Ravisha Srinavas Jois (Joondalup Health Campus)

Project status: Project Commenced **Expected completion:** June 2020

Ramsay facilities: Joondalup Health Campus

Funding provided: \$111,700

Project overview

Early life exposure to antibiotics causes significant imbalance to the healthy intestinal flora, known as dysbiosis. Dysbiosis of gut flora has been shown to increase the risk of chronic, non-communicable childhood conditions such as allergic disease, asthma and obesity, and can even alter the vaccine response.

This study is a double-blind, randomised controlled trial conducted within the Neonatal Intensive Care Unit (NICU) at Joondalup Health Campus (JHC). The aim of the project is to determine whether probiotics will correct antibiotic-induced dysbiosis in term newborns after early life antibiotic exposure. The researchers will recruit a 70 late pre-term and term infants admitted to JHC who received antibiotics within the first seven days of life. 35 infants will receive a probiotic and 35 will receive a placebo for one month. The intervention will be started after antibiotics have been ceased and will continue post-discharge. Infant stool samples will be collected just after completion of antibiotics (baseline), at four to six weeks, at six to eight months and 12 months for analysis.

Expected outcome

This novel study aims to investigate the link between antibiotic exposure in early life and subsequent imbalances to the gut flora, in addition to examining the length of dysbiosis. This study will assist in answering whether probiotics have a positive effect on intestinal dysbiosis after antibiotic exposure in an at-risk group. Based on these results, this study will subsequently help to answer whether correcting this dysbiosis will improve infant gastrointestinal symptoms such as reflux and colic.

How will this project change health care?

If the outcomes of this study are as expected, this research can be easily translated into routine clinical practice to drastically improve patient outcomes and would have a significant national and international impact.

Another major benefit of this study will be to guide future research in the infant microbiome which is a growing area of interest worldwide. Particularly of interest is whether correcting dysbiosis early in infancy helps to improve the immune function and vaccine effectiveness at one year of age. The research group has already begun to design a secondary, longer-term study to assess whether probiotics will improve effectiveness of childhood vaccinations as a follow-up of this initial study.

Smaller Projects - Spinal cord stimulation in cerebral palsy to reduce pain and spasticity in children and adults

Chief investigator: Dr Joe Dusseldorp

Project status: Awarded

Expected completion: Mid 2022

Ramsay facilities: North Shore Private Hospital

Funding provided: \$180,000

Project overview

Cerebral palsy (CP) is an incurable disease with spasticity being a key symptom, causing chronic pain and involuntary and unpredictable limb movements. It is the most common cause of physical disability in children worldwide, affecting more than 17 million people. Current therapies used offer relief from symptoms but provide little or no functional improvement and patients often suffer a number of side effects.

Previous clinical reports suggest spinal cord stimulation may have clinical benefits in CP patients. The same reports noted fine tuning of stimulation parameters was the key to success of therapy, including programming for each posture/body movement. Since cerebral palsy patients suffer from involuntary and unpredictable body movements, appropriate settings cannot be maintained for any period. Thus, existing spinal cord stimulators are unsuitable for this application.

This project is a prospective study aimed at evaluating the efficacy of closed-loop neurostimulation, using the Saluda Medical Evoke Spinal Cord Stimulation System to treat chronic pain and relieve spasticity in cerebral palsy. This stimulator can measure neural activity and automatically adjust stimulation to remain in a therapeutic range, meaning it is not subject to the same limitations as other devices which require manual adjustment and programming. 30 patients will be implanted with the Evoke Spinal Cord Stimulation System at North Shore Private Hospital and evaluated over a 24-month period.

Expected outcome

This study hopes to demonstrate closed loop spinal cord stimulation will reduce pain and spasticity, improve sleep and, with intensive physical therapy, reduce disability in children and adults living with cerebral palsy.

It has been previously shown that electrical stimulation provides beneficial therapeutic effects to spasticity sufferers. However, to be effective, the stimulation levels have to be continuously adjusted for each individual patient and for each posture, making it impractical in clinical applications. As the implant system used in this study features a closed feedback loop, it enables measurement of neural activity and instantaneous self-adjustment of electrical stimulation parameters to deliver optimal therapeutic dosages for each patient. Such self-adjusting implants will provide improved therapeutic benefits to spasticity suffers, minimising spastic events and pain level, and improving functionality of affected body parts.

How will this project change health care?

Cerebral palsy patients require life-long care comprised of pharmacological treatment such as botulinum injections or a baclofen pump, physiotherapy and neurosurgical/orthopaedic procedures to lengthen muscles and tendons or permanently divide nerves.

If this study is successful, it offers a novel treatment which would serve to reduce drug intake and associated costs (currently \$4,000 per annum for Botulinum Toxin-A or \$17,000 for baclofen pump), minimise the need for physiotherapy, reduce the number of hospital admissions and ultimately increase independence and improve patient outcomes.

Enabling Research Grants - Successful Projects

In line with RHRF's mission and values, we are constantly striving to provide better outcomes for our patients, to investigate the diseases and illnesses which affect them, and to progress the learning and development of those who care for them. To promote these values across the Ramsay group, we launched the "Enabling Research" Grant Scheme in September 2019.

The "Enabling Research" Grant Scheme provides \$100,000 of funding to successful Ramsay sites to support and develop research ideas which can be tested in small pilot projects. If a pilot project is deemed to have merit, additional funding can be sought from RHRF to support its expansion into larger, more ambitious research programs that may eventually involve multiple Ramsay facilities.

The funding may be used to support research activities in many ways, including:

- Employing staff to support the development and conduct of research;
- Backfilling positions to enable staff to dedicate some more time to the development of research projects; or
- · Providing staff with access to training to support the development of research projects

RHRF are happy to announce the following three winners from our first round of applications:

Hollywood Private Hospital

Hollywood Private Hospital has a strong research governance structure in place and established their Research Executive Governance Committee in 2016 to develop research priorities for the hospital, support staff involvement in research and disseminate research outcomes. Hollywood has existing links with Edith Cowan University, who currently sponsors a research fellow position within the facility, and other links with Curtin and UWA.

HPH aims to utilise this funding to engage research staff members to lead projects and increase research capacity on site. As part of their application, HPH cited the following pilot projects as ones they would like to undertake or explore:

- Expand a project already completed at HPH examining the non-technical skills of rapid response teams (RRT) to our other RHC WA hospitals. The non-technical skills of RRTs are a critical part of a coherent and competent response in a medical emergency.
- Evaluate a staff support program to address the identified needs of staff caring for dying patients and supporting their families and carers, whether in a palliative care context or sudden/unexpected deaths. This is project would expand an existing project examining end of life care across the hospital.
- Undertake an audit to establish what percentage of the patients at HPH, particularly in the medical and rehabilitation wards, could be classified as frail. There is good evidence that early intervention with the frail population in an acute hospital setting will mitigate some of the risk of long lengths of stay, and prevent deconditioning (which often impacts on discharge planning).
- Pilot to evaluate a newly developed process to identify people admitted to HPH who may die in the current hospitalisation or within the next year, and validate the associated communication tool which has been developed to take appropriate clinical and communication steps with them and their families relating to this possibility.

All of the projects identified will be a collaboration between all of the WA Ramsay hospitals who are committed to working together to develop multi-site research projects.

Lake Macquarie Private Hospital

Lake Macquarie has existing affiliations with the University of Newcastle and the Hunter Medical Research Institute (HMRI) and an active Clinical Trial Unit.

Lake Macquarie's application highlights how they would use the grant funding to appoint a 0.6 FTE Research Project Manager to support research development within the facility, focussing on implementation and measuring results and producing required outcomes in within a specific timeframe.

LMPH identified the following research projects to be developed with this funding:

- Development of a management pathway for patients with cognitive impairment, to assist staff in early detection and management in order to improve patient outcomes.
- Development of an education strategy to raise the profile of research and clinical trials at LMPH, including an audit of the current understanding of the services available, to improve clinical outcomes.

Mt Wilga Rehabilitation Hospital

Mt Wilga already has an established collaboration with Western Sydney University to supervise Honours Students completing research at Mt Wilga and the site is in discussions with Australian Catholic University regarding potential support of Honours Research Students.

Mt Wilga's application successfully demonstrated their intention to identify the best ways to develop research within their facility, and to use this funding to support the salary for a Research Assistant or Clinician for Research and to provide staff education and training.

The following three pilot projects were identified as part of their grant application which will be developed alongside RHRF in the coming months:

- "Exploring the factors which influence patient adherence to independent practice programs for upper limb rehabilitation" (Neurological Rehabilitation)
- "Exploring the benefits of Mt Wilga's unique multidisciplinary team approach to pain management on patient outcomes"
- "Does providing an Occupational Therapy training program to nursing staff which promotes independence in patient's self-care, lead to a faster rate of FIM change and greater independence at discharge?".



Western Australian Health Translational Research Network (WAHTN)

RHRF has provided \$28,875 of funding to support the continued participation of all Ramsay's WA hospitals in the Western Australian Health Translational Research Network (WAHTN).

The WAHTN is one of only seven accredited advanced health translational research centres established in Australia. These centres are recognised by the National Health and Medical Research Council (NHMRC) as leading centres of collaboration in Australia that excel in the provision of research-based health care and training. All seven centres have been established to advance the translation of research into health care practice.

Ramsay Health Care is a member of WAHTN and, as a result, any researchers based in Ramsay hospitals in Western Australia are eligible to access services provided by WAHTN. The group has established programs to support Good Clinical Practice (GCP) training and other services that support the development of research projects, including giving researchers access to permanent advisors in health economics and statistics.

WAHTN has also established a grants program with a particular funding scheme available to researchers based in the private system. These grants award \$250,000 to successful projects and their focus is the translation of research to improve patient outcomes. A number of researchers from Ramsay's WA hospitals have already applied for funding, with their applications currently undergoing peer review. If researchers are awarded funding, this may be an opportunity for RHRF to provide some matched funding to support the projects, as required. There may also be an opportunity to work with WAHTN and its academic partners to extend the existing Ramsay PhD program to WA.

Clinical Trial Units – Site Summaries for the Year

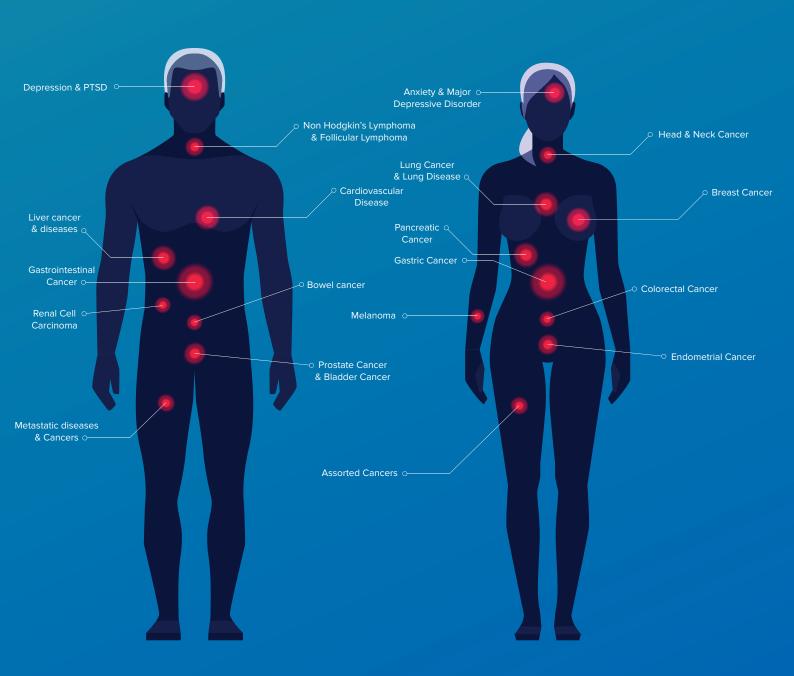
Facility	State	No. of Active Trials ¹	No. of Trials Closed ²	Types of Diseases
		Jun '18 – Dec '19	Jun '18 – Dec '19	
Greenslopes Private Hospital	QLD	54	11	Melanoma, Non-Small Cell Lung Cancer, Solid Tumours, Hepatocellular Carcinoma, Prostate
(Gallipoli Medical Research Foundation)^				Cancer, Biliary Tract Cancer, Non-Cystic Fibrosis Bronchiectasis, Cutaneous Squamous Cell Carcinoma, Haemachromatosis, Fatty Liver Disease, Non-oncology Respiratory Diseases with/without infections
John Flynn Private Hospital		8	2	Urothelial Cancer, Malignant Ascites, Non-Small Cell Lung Cancer, Pancreatic Ductal Adenocarcinoma, Gastric/Gastroesophageal Junction Adenocarcinoma, Non-Hodgkin's Lymphoma, Prostate Cancer, Head and Neck Squamous Cell Carcinoma, Solid Tumours
Pindara Private Hospital		9	4	Breast Cancer, Cervical Cancer, Hepatocellular Carcinoma, Ovarian Cancer, Prostate Cancer, Hepatocellular Carcinoma, Lymphoma, Non-Hodgkin's Lymphoma, Cutaneous Squamous Cell Carcinoma, Mesothelioma
Sunshine Coast University Private Hospital*		2	0	Kidney Disease, Melanoma, Urothelial Cancer
Border Cancer Hospital	. NSW	83	16	Breast cancer, gastrointestinal cancer, lung cancer, leukaemia, melanoma, ovarian cancer,
(Border Medical Oncology Research Unit)^				pancreatic cancer, solid cancers, renal cell carcinoma, acute myeloid leukaemia, prostate cancer
Lake Macquarie Private Hospital		10	0	Breast cancer, BRCA1 germline mutation, colorectal cancer, colon cancer, rectal cancer, pancreatic cancer, melanoma
North Shore Private Hospital°		0	0	Cutaneous Squamous Cell Carcinoma trials due to commence in 2020
Southern Highlands Private Hospital		7	2	Breast Cancer, Non-Small Cell Lung Cancer, Colon Cancer, Renal Cell Carcinoma
St George Private Hospital		6	0	Advanced Solid Tumours,
Wollongong Private Hospital		2	0	Prostate Cancer, Non-Small Cell Lung Cancer
Albert Road Clinic	VIC	3	0	Bipolar Disorder, Major Depressive Disorder
Peninsula Private Hospital		7	0	Rectal Cancer, Follicular Lymphoma, Marginal Zone Lymphoma, Renal Cell Carcinoma,
Warringal Private Hospital		2	0	Hepatocellular Carcinoma, Colorectal Cancer
Hollywood Private Hospital	WA	4	0	Renal Cell Carcinoma, Prostate Cancer, Lymphoma
Total		197	35	

¹Denotes trials which are open to patient recruitment or where patients are receiving active treatment/follow-up as part of a trial ²Denotes trials which are closed to activity and/or archived

[^]Border Medical Oncology Research Unit and Gallipoli Medical Research Foundation are both external not for profit groups that coordinate clinical trials within a Ramsay facility. Both groups are a welcome addition to the Ramsay Clinical Trials Network and we value their engagement and feedback.

[°]Site note yet opened for new trials

Clinical trials: types of diseases under investigation





Clinical Trial Units – Site Details for the Year

Hollywood Private Hospital

continues to be an active and growing site, with four actively recruiting trials and a further three likely to open in 2020. Hollywood Private Hospital continues to work to engage with new doctors and to expand the role of the clinical trial unit to a multitude of disciplines including lymphoma, prostate cancer, renal cell carcinoma and bipolar disorder.

John Flynn Private Hospital

is a very busy site with eight clinical trials currently in operation. The site continues to grow and expand and remains focused on the development of oncology clinical trials. John Flynn Private Hospital is also successfully collaborating with other groups co-located in the hospital, including Genesis Care, to provide further trials to patients.

Gallipoli Medical Research Foundation (based at Greenslopes Private Hospital)

is a not-for-profit group which "aims to investigate, translate, educate and integrate new and innovative treatments, interventions and educational programs to enhance the health and wellbeing of veterans and their families.". RHRF is very fortunate to work with such an experienced trials unit as GMRF, and as a result, the patients at Greenslopes Private Hospital can access a nationally recognised clinical trials unit that continues to offer excellence in research and clinical care. GMRF was awarded the 2019 ARCS "Investigator site of the year" award again - a well-deserved award for the unit. GMRF continues to offer clinical trials in oncology, lung and liver diseases and is very experienced in the delivery of clinical trials in melanoma. As a result, the site is very well-versed in the use of new and emerging immunotherapies.

Pindara Private Hospital

has progressed significantly over the past year, opening several new trials in a variety of oncology and haematology disorders and is continually working hard to recruit patients. This unit continues to develop interest in clinical trials across a range of clinical areas and has an active pipeline of new trials.

Albert Road Clinic

is a dedicated mental health facility focused on trialling novel treatments for mood disorders and other mental health conditions. It has one trial open and a number of others in start-up.

Warringal Private Hospital

has been an active site this year following the appointment of a new coordinator in March 2019. The site has an active trials pipeline with one study opening last year and two new studies due to commence in 2020 and is dedicated to pursuing new opportunities in the coming months.

Peninsula Private Hospital

has continued to progress well over the past 12 months, successfully conducting a number of oncology and haematology trials. Over this period, Peninsula Private Hospital was one of the highest recruiting sites in the world for a Beigene trial for patients with chronic lymphocytic leukemia (CLL) or small Lymphocytic Lymphoma (SLL) and was the first site to open another Beigene study for patients with relapsed/refractory marginal zone lymphoma (R/R MZL).



Southern Highlands Private Hospital

has been an active clinical trials site for many years, with a strong focus on novel collaborative clinical trials. The facility has opened several new trials in the past 18 months and continues to manage a large number of patients who have proceeded into long-term follow-ups for a variety of different cancers.

St George Private Hospital

has a dedication to phase 1 oncology trials, which has provided treatment options to patients with a range of different advanced cancers. It continues to work with industry partners to explore and develop treatment options for cancer.

Lake Macquarie Private Hospital

has been an active clinical trials site over the past 12 months, establishing new clinical trials and working collaboratively with other hospitals and clinical trial groups in the region to develop and deliver a range of treatment options to patients. This site was the first to open the BRCA-P clinical trial which is testing the effectiveness of using a drug called Denosumab to decrease or prevent the risk of developing breast cancer in women who carry a BRCA1 gene mutation.

Border Medical Oncology Research Unit (based at The Border Cancer Hospital)

is a not-for-profit group which has been in operation since 1998. RHRF is very fortunate to work with such an experienced trials unit and, as a result, provide patients at The Border Cancer Hospital with access to a wide variety of treatment options. BMORU's work is especially important in delivering novel treatments to patients who would otherwise not be able to access these services in a regional setting.

Wollongong Private Hospital

has continued to progress with its clinical trials in prostate and lung cancer throughout this year. The site hopes to engage more doctors and to increase the number of opportunities to establish clinical trials at this site.

North Shore Private Hospital

has recently joined the clinical trials network and appointed a clinical trials coordinator for the unit in October 2019. The site has two trials in start-up already and has developed a collaborative relationship with the clinical trials unit at Royal North Shore Public Hospital.

Sunshine Coast University Private Hospital

has had a brilliant first year of operation, opening two trials with two others currently in start-up. It has been an active site, with representatives attending conferences throughout the year and continuously engaging with clinicians within the hospital to build a research pipeline.

2017-2018 Project Updates

PATHways (Professor David Hunter and Professor Manuela Ferreira)

The PATHways project has commenced recruitment, with the first patients now enrolled at Mt Wilga, Hunters Hill and Laurence Hargrave. The investigators are working with RHRF to resolve potential issues for recruitment of patients following lower back surgery. These patients are not referred to a rehab facility and, as such, we are now approaching surgeons directly and exploring their interest in participating in the clinical trial.

ICHOM Depression & Anxiety (Professor Mal Hopwood)

The ICHOM Depression & Anxiety study has been successfully running for over 12 months, recruiting over 100 patients from three Ramsay facilities. This project aims to compare patient reported outcome measures at set points, from initial hospitalisation until 1 year post, to examine whether patients see a treatment benefit. Limited initial data is promising, suggesting that patients experience a decrease in severity of symptoms at one year, and is due to expand to further Ramsay facilities in 2020.

Rehabilitation Outcomes Database (Margie Schache and Amanda Timmer)

The purpose of this study is to establish a database for outcome measure data storage and determine if the outcome measures included in the data set are responsive to improvements in the patients' conditions in inpatient and day rehabilitation. Ethical approval for the study was given on the 19th June, 2019 and data collection activities commenced on 14th July, 2019. The study has been conducted as per the study protocol with no adverse events, data collection is complete and in the process of analysis. An amendment to the ethics application was approved on the 8th November, 2019, in anticipation of the digitalisation of this project, using VisionTree Optimal Care™ (VTOC) database to collect outcome data in the near future. Ramsay are now aiming to take the results of this research national, introducing the collection of consistent outcome measures as a part of standard care in rehabilitation settings by the end of 2020.

Testing Risk Genes in Depression (Professor Phillip Mitchell)

The Genes, cLinical Assessment and Depression ("GLAD") study is one of the first studies in the world that is attempting to link polygenic risk profiling to patient outcomes in mental illness. If the genetic risk profile of a patient can be linked to an outcome, particularly in mental health it will result in quicker and easier diagnosis for patients and ultimately more accurate treatment. Led by Professor Phil Mitchell, this project received \$678,994 and commenced recruitment at Northside Clinic in early 2019 after receiving ethics approvals. The project has now recruited over 130 patients and will be expanding to other sites in Ramsay Health Care in 2020.

New 'precision rehabilitation' research for knee replacement patients (Professor Michael Nilsson)

The "SuPeR Knee" Clinical Decision Support tool project aims to understand and predict recovery in patients undergoing total knee replacement surgery. This project has successfully achieved their funding milestones to date, having performed beta testing of the Clinical Decision Support tool and commenced recruitment at Lake Macquarie Private Hospital. The study is also now approved to commence activities at Kareena Private.

Evaluating the Implementation of Delirium Education Intervention (Professor Victoria Traynor)

This pilot project has now been successfully completed at St George Private. The investigators applied to extend the ethics application to include Kareena Private and Wollongong Private. The project has now been successfully completed at Kareena and was launched at Wollongong in February 2020. The project is being supervised by the Ramsay Clinical Governance Unit, who will assess whether the training will subsequently be extended to other facilities

Thank you to the Paul Ramsay Foundation



Ramsay Hospital Research Foundation would like to thank its major supporter, the Paul Ramsay Foundation, for its ongoing commitment to the advancement of health and medical research.

About the Paul Ramsay Foundation

Paul Ramsay Foundation, Australia's largest philanthropic foundation, was established from the Estate of the late Paul Ramsay AO who passed away in 2014.

Paul Ramsay Foundation is committed to addressing the root causes of disadvantage in the Australian community, specifically as they relate to health and education, and has a strong commitment to changing the

status quo and improving the lives of Australians.

With a focus on multidisciplinary collaboration, the Foundation invests in the development and implementation of practical solutions that empower communities and result in long-term, systemic change. They work as a catalyst for change, seeking out and partnering with the brightest minds to unlock evidence, build momentum and maximise impact.

How to get involved

Contact Nicola Ware CEO, Ramsay Hospital Research Foundation Ph: (02) 9433 1402 WareN@rhrf.org.au

