



WAIKATO DISTRICT HEALTH BOARD

RESEARCH ANNUAL REPORT 2019-2020



Health equity
for high need
populations
Oranga



Safe, quality
health services
for all
Haumaru



People centred
services
Manaaki



Effective and
efficient care and
services
Ratonga a iwi



A centre of
excellence in
learning, training,
research, and
innovation
Pae taumata



Productive
partnerships
Whanaketanga



Waikato District Health Board

Waikato DHB Strategy



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Ross Lawrenson
Chair
Research Advisory Group

Introduction

We are delighted to be able to report on the research undertaken at Waikato District Health Board (DHB) in the latest financial year.

One of the key priorities in Waikato DHB's Strategic Framework is to be "A centre of excellence in learning, training, research and innovation". Being research active means that we are constantly aiming to improve the services we provide for patients. Increasingly our research is focussed on reducing inequities and we are fortunate to have a strong cadre of Māori clinicians engaged in research in the DHB. Ensuring Māori participation in research in an appropriate and safe environment is a key priority going forward. We also have an active clinical trials group, which means there are many opportunities for our patients to have access to the newest treatments available.

Continuing to increase the number of participants in clinical trials is another part of our ongoing research strategy. The DHB continue to support the New Zealand Health Research Strategy through the development of clinical researchers, ensuring a supportive environment for all our research staff and in findings ways of translating research findings into practice.

We hope that you find this report of interest and we would welcome feedback as to where there are further opportunities for investing in research.



Highlights

A variety of research projects are being undertaken at WaikatoDHB, including commercial sponsored clinical trials, investigator led projects (funded and unfunded) and collaborative studies.

This year the National Ethics Advisory Committee released their revised National Ethical Standards, which are consistent with the strategic priorities in the New Zealand Health Research Strategy. Māori values are integrated into the standards. Ethical and governance considerations around the use of data are also a focus of the new standards.

In the 2019-2020 financial year

- 150 research projects were registered at Waikato DHB. These projects encompassed clinical drug trials, investigator led research and research for attainment of a qualification
- 153 clinical trials were underway during this financial year
- Approximately 2745 participants have been recruited to these clinical trials to date
- 476 participants on these active clinical trials identified as Māori
- Over 180 peer reviewed publications were published

Priority areas for the coming year include

- Increasing Māori participation in clinical trials
- Increasing health literacy around clinical trial research methodology
- Emphasising respectful analysis that avoids deficit framing
- Awareness of the role of kaitiaki in providing cultural support as required for research participants

New Zealand Health Research Strategy

The Ministry of Health and Ministry of Business Innovation and Employment produced a New Zealand Health Research Strategy 2017-2027 document in June 2017. Following that the Health Research Council, in conjunction with the Ministry of Health and Ministry of Business, Innovation and Employment formulated a framework for prioritising and guiding research efforts through to 2027. Public consultation was undertaken firstly on the best process for setting these priorities and then on the priorities themselves.

The framework was published in December 2019.

In December 2019, in response to Action 5 (see below) the Health Research Council announced new funding streams focussed on health providers, the Health Delivery Research Investment Round. The purpose of this round is to enable and grow more health delivery research in the settings where it is needed most.

This round of funding included several streams:

- **Health Delivery Research Activation Grants:** Up to \$30,000 to enable established or prospective researchers/ research providers to establish their health delivery evidence needs or research opportunities before applying for larger-scale funding.
- **Health Delivery Research Project Grants:** Up to \$1.4 million for research projects connected to health delivery evidence needs.
- **Health Sector Research Collaboration Grants (Pilot):** Negotiated funding focused on upskilling and empowering health care or health service delivery organisations to engage in health delivery research, intensify research in health delivery settings, and ensure research adequately responds to health sector, patient and community needs. This pilot will start off with DHBs, with a view to expanding to other health providers in the future, including primary care and community, and Māori and Pacific providers.
- **Health Delivery Research Career Development Awards:** A development opportunity for health professionals (clinical or non-clinical) and academic health researchers to undertake a funded placement in a health delivery research team or health sector setting. Designed as an alternative pathway into health delivery research.

Waikato DHB has submitted applications for the Activation Grant and Collaboration Grant. The outcomes of this will be available in late 2020.

What does the Health Research Strategy mean for the Waikato Region?

The vision is: By 2027 New Zealand will have a world-leading health research and innovation system that, through excellent research, improves the health and wellbeing of all New Zealanders.

The four principles which will guide the priorities are:

- Research excellence
- Transparency
- Partnership with Māori
- Collaboration for impact

The document outlines how the Ministry of Health, Health Research Council and Ministry of Business Innovation and Employment will work together to achieve these goals at the high level.

The supporting actions focus on research that advances the priorities of NZ Health Strategy; improves outcomes and addresses the burden of disease, improves the understanding of the various determinants of health and contributes to health equity.

These strategic priorities and the vision align closely with the priorities and vision the Waikato Region Research Advisory Group has outlined. The table below summarises the Government actions outlined in the Strategy and lists actions that Waikato DHB can take to align with the strategy.

	Action to be taken by Government	Action to be contributed locally
Strategic Priority 1	Invest in excellent health research that addresses the health needs of all New Zealanders.	
Action 1	Prioritise investments through an inclusive priority-setting process	
	The Health Research Council will develop a priority setting process to advise the Minister of Health and the Minister of Science and Innovation on health research priorities in NZ. This will involve wide consultation (consumers, researchers, health sector agencies, health practitioners, iwi, Pacific peoples, community organisations, disabled people and government agencies. The priorities identified will form the basis of the Health Research Council's three-yearly investment plan and will guide other areas of government funded research.	Waikato DHB will develop priorities for research from Annual Plan, Māori Health Plan and input from Primary Health Organisations (PHOs) and Māori stakeholders. (Research Advisory Group). These will be communicated to researchers.
Action 2	Invest in research for healthy futures for Māori	
	The Government and Māori will work in partnership to improve Māori health outcomes through investments in research.	Waikato DHB will continue to strengthen its research connections with Te Puna Oranga and external Māori stakeholders and researchers. The Consumer Council will also assist in strengthening connections.
Action 3	Invest in research that results in equitable outcomes for Pacific peoples and helps them to lead independent lives	
	The Government and Pacific peoples will collaborate to improve health of Pacific peoples through investments in research.	Waikato DHB will strengthen connections with the Consumer Council to link with local Pacific peoples.
Action 4	Develop and sustain a strong health research workforce	
	The Government will put appropriate mechanisms in place to support, attract and retain the health research workforce (Health Research Council will take the lead).	Waikato DHB will develop ideas on what would assist the region to attract and retain this workforce (Research Advisory Group).
Strategic Priority 2	Create a vibrant research environment in the health sector	
Action 5	Strengthen health sector participation in research and innovation	
	Ministry of Health will consider funding models and infrastructure requirements – investment in infrastructure and effective governance of research is needed.	Waikato DHB can prepare information to contribute this process.
Action 6	Strengthen the clinical research environment and health services research	
	Ministry of Health will work with DHBs and others to strengthen the clinical research environment and health services research.	Waikato DHB can prepare information to contribute to this process (Research Advisory Group).

	Action to be taken by Government	Action to be taken by Waikato DHB
Strategic Priority 3	Build and strengthen pathways for translating research findings into policy and practice	
Action 7	Enable and embed translation across the health sector	
	Government will ensure work is well-coordinated across relevant institutions; mechanisms for translating knowledge from offshore work well, data assets are linked, accessible and well governed, investment plans for funding agencies reflect the importance of translation.	Waikato DHB Research Office can focus on following up on research completed, share results of the research projects, and encourage services to determine whether outcomes from research can/should be translated. Investigate funding for adoption and sustaining of innovative ideas/research findings.
Strategic Priority 4	Advance innovative ideas and commercial opportunities	
Action 8	Support transformative and innovative ideas	
	The Government will increase the share of funding for supporting transformative and innovative ideas across the research spectrum; and will ensure appropriate support and effective governance for big data and genomics.	Waikato DHB will investigate funding for adoption and sustaining of innovative ideas/research findings.
Action 9	Create more industry partnerships	
	The Government will seek to increase the number of partnerships between industry, research institutes and health sector agencies. They will also seek to form partnerships with iwi, hapu and communities and others to address Māori health needs	Waikato DHB has commenced work in this area with the creation of the Research Advisory Group.
Action 10	Strengthen platforms for commercialising innovations	
	The Government will strengthen platforms for commercialising new innovations and strengthen connections internally to tap into capital and specialist expertise.	

Research at Waikato DHB

Research governance

Most research at Waikato is driven from the clinical services and by the clinicians, with some very research active departments encouraging research. The chief medical officer has the executive oversight for the research portfolio in the DHB.

Research encompasses a wide variety of both topics and studies – including clinical drug trials sponsored by pharmaceutical companies, investigator led studies, studies reviewing notes and data retrospectively, and studies/theses involving interviewing staff and/or patients.

The number of participants in research studies varies, with larger numbers often involved in retrospective data reviews. Clinical drug trials typically involve 2-4 patients at Waikato DHB, and they are usually world-wide studies.

Ethnicity of participants is collected for all clinical trials and for most other research studies. The Māori Research Review Committee has a focus on improving our ethnicity data collection within the organisation, on eliminating inequity in healthcare, and on encouraging Māori participation in research.

Most disciplines and services within Waikato DHB undertake research. A summary of the various research units is included below.

The role of the Research Office

All research occurring at Waikato DHB is registered with the Research Office. This can be done on the Waikato DHB website, allowing for studies to be registered by non-DHB staff.

The Research Office reviews the information provided, gives guidance on the National Ethics Advisory Committee (NEAC) requirements for ethics approval, ensures that researchers apply for Māori consultation, and any other relevant approvals (such as finance, procurement, privacy, data security). Approval from the relevant services and departments is then sought. Legal agreements are reviewed by legal services. To complete the Locality Approval process, once all these things are in place, the study and the legal agreements are signed off by the director of Quality and Patient Safety on behalf of the Waikato DHB.

The Research Office also collates data on clinical drug trials and prepares the research annual report.

Recently, the research office has been investigating options for more efficient and effective ways of registering and completing sign-off as well as considering issues around access to data by external parties, and liaising with legal team to enhance our current process; and developing briefing notes on the National Ethics Advisory Committee standards and topics such as equity and data security.

In time we would anticipate the research office will expand and to be able to offer assistance to researchers with grant applications, Health and Disability Ethics Committee (HDEC) applications, and access to a biostatistician, for example.

Māori consultation at the Waikato DHB

In alignment with the Waikato DHB Strategy, which has an increased emphasis on health equity for high need populations, the Māori Research Review Committee (MRRC), encourages researchers to consider how they can maximise the potential for Māori health gain from their research. This may include oversampling of Māori participants if possible to get equal or adequate explanatory power¹. The MRRC seeks to ensure that ethnicity is collected and recorded appropriately for all clinical trials and stipulates that the census ethnicity question is used correctly. Guidance on research questions and analyses is provided on an as-required basis.

Waikato DHB has endorsed the Te Mana Raraunga², Māori Data Sovereignty Charter, and has a focus on data governance and sovereignty, particularly where data looks to compare Māori to non-Māori, to ensure we meet our obligations. In particular

Manaakitanga : Reciprocity

The collection, use and interpretation of data shall uphold the dignity of Māori communities, groups and individuals. Data analysis that stigmatises or blames Māori can result in collective and individual harm and should be actively avoided.

Researchers are encouraged to seek advice from the MRRC when framing their discussion in relation to Māori health findings and conclusions.

Current year

A number of exciting and innovative research projects are underway at the Waikato DHB, some of which are mentioned later in this report. These projects include collaborative studies involving key stakeholders from other institutions such as Universities.

The 2019-2020 financial year saw 150 studies registered at Waikato DHB and 116 studies completing the approval process at Waikato DHB.

National Ethics Advisory Committee released its updated National Ethical Standards document, combining both observational and interventional research, with clear guidance included in the document.

HDEC (Māori) will be updating their online tool in the near future to reflect changes in the NEAC standards and to improve the ethics approval process.

The future

Priority areas for the coming year include:

- Developing a set of Key Performance Indicators and a dashboard for Research activity.
- Increasing Māori participation in clinical trials.
- Increasing health literacy around clinical trial research methodology.
- Emphasising respectful analysis that avoids deficit framing.
- Awareness of the role of kaitiaki in providing cultural support as required for research participants.

¹ Robson B. Mana Whakamārama - Equal Explanatory Power: Māori and non-Māori sample size in national health surveys. Wellington (NZ): Te Rōpū Rangahau Hauora a Eru Pōmare, Wellington School of Medicine and Health Sciences, University of Otago for Public Health Intelligence, Ministry of Health, New Zealand; 2002 November.

² Te Mana Raraunga: Principles of Māori Data Sovereignty. Brief #1 | October 2018. <https://static1.squarespace.com/static/58e9b10f9de4bb8d1fb5ebbc/t/5bda208b4ae237cd89ee16e9/1541021836126/TMR+Ma%CC%84ori+Data+Sovereignty+Principles+Oct+2018.pdf> (Accessed August 2019)

Research statistics

Research at Waikato DHB encompasses clinical drug trials, investigator led research and research for attainment of a qualification.

Research evaluates practice or compares alternative practices, with the purpose of contributing to a body of knowledge by asking what we should be doing.

Research proposals are classified into one of four categories:

Audit or evaluation	<p>Audit or related activity refers to studies to improve delivery of the health service. Audits involve the systematic evaluation of aspects of health service delivery by considering measurable indicators of performance and/or quality. Evaluation studies aim to determine the relevance, effectiveness and impact of activities in light of their objectives.</p> <p>At this DHB, most clinical audits will be done through the Clinical Audit Support unit, part of the clinical effectiveness team; however occasionally they are registered under research, where clinical service led audits involve more than one DHB or involve sharing identifiable data.</p>
Clinical/Interventional (drug/device)	<p>In an intervention study, the investigator intervenes and then studies the effects of the intervention. This is usually done before a new intervention is approved for clinical use. A clinical trial of a new blood pressure medicine is an example of an intervention study. Through intervention studies, investigators can exercise the sort of critical thinking, innovation and evidence-based development of practice that improves patient care.</p> <p>This means that high-quality intervention studies are good for patient care. Studies such as an exercise programme will also be classed as an interventional study.</p>
Observational: qualitative/epidemiological	<p>Observational studies give us vital evidence about our health and how best to protect and improve it. They do this by using personal information for public good. To do it well they must meet high ethical standards. In these studies, the investigators observe and analyse information about health or disability but do not alter the care or services that people receive</p>
Other	<p>While much research is hypothesis driven and attempts to measure differences and outcomes in different groups – qualitative research is often used to identify health needs or problems that can be addressed. Increasingly we are also emphasising co-design progress programmes, often adapting a kaupapa Māori approach to ensure the needs of Māori are properly acknowledged and addressed.</p> <p>This category also includes those studies which involve interviewing or surveying staff members for their view on a particular topic.</p>

There were 150 studies registered in the 2019-2020 financial year.

	Financial year				
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Number of research projects registered	141	169	169	139	150

Research type	Number
Investigator led	93
Pharmaceutical sponsored clinical trial	37
For qualification	20
Other	0
Total	150

The table below shows the studies registered between 1 July 2019 and 30 June 2020 divided into the above categories, by service:

Service	Audit or evaluation	Clinical/ interventional: drug/device	Observational: qualitative/ epidemiological	Other	Total
Allied Health	3		4	1	8
Child Health		1	6		7
Community and Clinical Support			3		3
Corporate		1	5	2	8
CMA			1	1	2
Medicine	3	24	13	2	42
Mental Health and Addictions			1		1
Nursing and Midwifery			2	1	3
Older Persons and Rehabilitation			2		2
Oncology	1	10	6	1	18
Quality and Patient Safety			1		1
Surgical and Critical Care	4	8	35	2	49
Thames			1		1
Women's and Children's Health		4	1		5
Grand total	11	48	81	10	150

Research participants

The majority of studies registered in 2019/20 sought to recruit less than 100 participants. 31 of the 150 studies had less than 10 participants. The median number of participants across all studies was 37; the median for pharmaceutical sponsored clinical trials was 5.

Clinical support (Pharmacy, Laboratory, Radiology)

The process of registering research includes requiring approval from various clinical support services, to ensure they are aware of the commitments of research projects. Improved methods of capturing this information mean we are moving to be able to report on the number of studies using these clinical support services. Generally the clinical support services will be required for Clinical/Intervention trials.

For a number of the clinical trials sponsored by pharmaceutical companies, the laboratory and radiology tests are performed by external agencies, in some cases, overseas.

Pharmacy	Number of participants per trial			
	1-9	10-50	51-120	Total
Medicine	9	2		11
Oncology	2			2
Women's Health			1	1
Grand total	11	2	1	14

Laboratory	Number of participants per trial			
	1-9	10-50	200-400	Total
Community and Clinical Support			2	2
Medicine	2	1		3
Oncology	1	1		2
Surgical and Critical Care		1		1
Grand total	3	3	2	8

Radiology

None of the research projects registered this year required extra input (above usual standard of care) from the Waikato DHB radiology service.

Māori Research Review Committee

An important aspect of research in the Waikato is ensuring that the research focuses on equity of outcomes for Māori and ensuring participation and partnership with Māori. A total of 105 studies (of the 150 registered) were reviewed by the Māori Research Review Committee. Studies not requiring review (24) include those involving staff members only; evaluating products, or extension studies. The remaining studies are either yet to be reviewed or did not proceed.

Clinical trials

Pharmaceutical company sponsored clinical trials account for approximately one quarter of research registered each year. Waikato DHB has ten clinical trials units, which employ clinical trial nurses/coordinators. In addition, an agreement is in place with Clinical Trials NZ to undertake trials at Waikato DHB in cases where the Principal Investigator is employed by Waikato DHB.

The 10 clinical trials units are:

- Anaesthesia
- Breast Cancer
- Cancer and Blood
- Cardiology
- Cardiothoracic Surgery
- Critical Care/ICU
- Respiratory & Gastroenterology
- Neurology
- Rheumatology
- Renal

In the ten clinical trials units at Waikato DHB there are 58 staff members (almost 40 FTE) involved in the smooth running of clinical trials. The clinical trials revenue covers the cost of the salaries of most of these staff.

Clinical Trials Units reported 152 clinical drug trials underway during the 2019-2020 financial year. As at 30 June 2020 57 clinical drug trials were open; 38 studies closed to recruitment, but had patients on active treatment (or rolled over to an extension study) and 13 studies were in follow up with patients off active treatment. There were also two studies which were closed to recruitment, but patients remain on compassionate supply. Forty-two trials were closed during this financial period.

Recruitment to clinical trials

Year	Number of clinical trials active during the year	Number recruited	Number of Māori recruited	Number withdrawn	Number declined	Screening failure
2016-2017*	166	3419	181	50	140	363
2017-2018 **	168	4091	690	12	422	466
2018-2019	171	3276	550	45	509	649
2019-2020***	153	2745	476	66	271	667

Note: * Figures for 2016-2017 do not include Anaesthesia.

** Figures for 2017-2018 do not include Renal Service. Also four large registry studies (involving 15466 patients) have been excluded from the table above.

*** Figures for 2019-2020 do not include Renal service.

As at 30 June 2020 the following numbers of clinical trials per unit were open for recruitment.

Service	Clinical Trials Open to Recruitment
Anaesthesia	7
Breast Cancer Research	3
Cardiology Clinical Trials	7
Cardiothoracic Surgery	2
Critical Care	7
Gastroenterology	9
Haematology	3
Medical Oncology	6
Neurology	2
Respiratory	7
Rheumatology	4
Grand Total	57

During the 2019-2020 year	
New Trials Started	27
Recruiting Trials	57
Closed to Recruitment, patients on active treatment	36

Profiles of researchers and research units

Research at Waikato DHB covers a range of activities from post-graduate descriptive studies to large clinical trials funded by international pharmaceutical companies. They involve a variety of staff from across many departments.

As evidenced in the list of research at the end of this report, there are a number of researchers within the Waikato DHB. Many of these researchers are experienced, well-known researchers in their field, and there are a number of emerging researchers. A number of Waikato DHB staff also hold employed or honorary academic positions within tertiary institutions, such as University of Auckland, University of Otago and University of Waikato. *For the purposes of this report, researchers are referred to by their title at Waikato DHB.*

There are 10 dedicated clinical trial research units within Waikato DHB (see page 13). In addition to those units, research is undertaken across the breadth of the services at Waikato DHB.

Below are profiles of a few of our staff who have undertaken research in the last year

Profiles of researchers

.Research / Clinical Trials Nurses



Wendy Thomas

Wendy Thomas is retiring after 18 years of working in Cancer and Blood Trials at Waikato DHB, firstly as a nurse coordinator, then Charge Nurse Manager since 2007. The clinical trial environment has matured and changed significantly over that time, moving from paper-based to electronic systems. Ethical, regulatory, financial and contractual requirements have

become more sophisticated and challenging. The world of clinical trials has seen an exponential growth globally and brings with it mergers, acquisitions of biotech companies and pharmaceutical companies. Development of novel agents and treatment modalities in cancer care has offered our patients an opportunity to trial new drugs and therapies to assess efficacy and side effects. Our patients and families have always been at the centre of why we strive to improve care for them.

Wendy says working in clinical trials is rewarding and frustrating at the same time. Staff require the ability to work well within a team, knowledge and a lifelong passion for learning, attention to detail, resilience, and not be afraid of constant change. She has valued the collaboration amongst the clinical trials units at Waikato DHB, who have worked together to develop processes and documentation to benefit all of the research groups. Furthermore, Wendy has been fortunate to be included in DHB working parties within the research sphere as well Ministry of Health Medical Oncology Working Party, Cancer Treatment Advisory Group, and Cancer and Blood Research Managers Group. Collaboration and sharing information is a key component to the future of clinical trials.

Wendy has worked with some outstanding clinicians, nurses and many colleagues from other disciplines, and is proud of what we have achieved as a team over the years.

Looking towards the future, Wendy believes our institution needs to commit to investing in staff development, creating a research culture that is an integral part of clinical care for patients and investigating partnering with others. Without investment we settle for mediocrity and this risks us been left behind on the national and global stage.

Nursing

Cherish Aimusu

Cherish Aimusu trained as a nurse at the Waikato Institute of Technology, Hamilton and Graduated 2017. She worked as a New Graduate in Cathlab in 2017 before joining the Cardiothoracic and Vascular team in 2018. The Cardiothoracic unit specialises on Thoracic and Cardiac surgery, working in close relationship with Cardiology.

Cherish's research explored frailty and its assessment in older people, particularly prior to Cardiac surgery such as Coronary Artery bypass Graft and Valve replacements. Key findings of her research have established that, when frail older people with comorbidities undergo surgery, they experience negative outcomes and have a high risk of morbidity and mortality.

This research explored other less invasive procedures that could be performed, to improve older people's outcomes. This research also explored the unique perspectives of health professionals in relation to routinely employing a frailty screening tool in the preoperative phase. The aim was to encourage uptake into practice, since the benefit of utilising a screening tool prior to surgery is well established.

Allied Health

Shannon Tisbury

Allied Health Bupa Research Report 2020

The Bupa Allied Health research team continues to operate at the Waikato DHB and has received funding for a further three years to the end of 2022. The team is made up of Associate Professor John Parsons (Bupa Fellow in Allied Health Research and Academic Lead) and Shannon Tisbury (Bupa Allied Health Research Associate) who has been covering Laura Stratton's maternity leave. Laura will be returning to her role in July 2020.

They work across both Waikato DHB and Bupa NZ to initiate and provide leading edge research programmes that support the advancement of care delivery. Within Bupa there are two large projects currently underway. The first is a nationally strategic project to develop and test care pathways for older people entering Aged Residential Care (ARC). This is funded by CHT Aged Care Fund and follows on from previous work by the team in relation to the development of a case-mix funding model for ARC. This work has informed the national ARC Funding Review.

A Health Research Council (HRC) project application has been funded with Associate Professor Parsons as an investigator. This seeks to determine the effect of a falls prevention initiative specifically designed for older people in aged residential care facilities with cognitive impairment and will involve both Bupa and Summerset facilities in Auckland and Waikato.

Within Waikato DHB the Bupa roles are currently coordinating and assisting with 22 studies that have been either identified and prioritised by Allied Health clinicians or have been specified as key strategic projects by DHB Allied Health leadership. Education sessions have been provided to Allied Health clinicians to assist them to develop research skills.

Haematology

Myra Ruka



Dr Myra Ruka is of Raukawa and Ngā Puhi Decent and a specialist in haematology at Waikato Hospital. Dr Ruka was successful in receiving funding from Waikato Bay of Plenty Cancer Society 2019 to work on a research project looking at multiple myeloma in the Midland region and identifying the equity pressure points for Māori patients along the cancer care pathway.

Dr Ruka's research will help in practical applications informing the cancer care model in Midlands and national standards for multiple myeloma patients. It will also inform her PhD studies which is focusing on redesign of cancer services in the hospital system so that they are geared towards achieving equity gain for Māori.

Cardiothoracic Surgery

Adam El Gamel



Professor Adam El Gamel is a leading adult cardiothoracic surgeon and has a special interest and expertise in the fields of beating heart coronary artery bypass, valve replacement surgery and aneurysm management, atrial

fibrillation. Professor El-Gamel

trained in all aspects of adult cardiothoracic surgery and transplantation through the UK and the USA before moving here to NZ.

He holds an Honorary Chair with the University of Waikato and is a keen researcher, recognised nationally and internationally, supported by more than 80 peer reviewed publications. He is always seeking to enhance operative skills, theoretical knowledge and is an innovator, holding patents for surgical appliances.

Adam encourages opportunities for research in the cardiothoracic surgery and cardiology department. He is recognised as an excellent teacher in anatomy, physiology and added areas such as biomedical engineering.

Endocrinology

Marianne Elston

Dr Marianne Elston leads the endocrinology research group at the Waikato DHB. She is a specialist in endocrinology and a Senior Lecturer at the University of Auckland. Marianne completed her medical degree at the University of Otago and then undertook her endocrinology training in the Waikato and Auckland regions. After completing her FRACP, Marianne was awarded her PhD by the University of Sydney for her work into gene expression changes in pituitary tumours. Marianne is passionate about her research with special interests in pituitary, thyroid and adrenal disease, as well as familial endocrine disorders. In addition to her local research into thyroid disease with Dr Jade Tamatea, Marianne has collaborations nationally and internationally researching neuroendocrine and pituitary diseases.

She is delivering high quality publications and has over 60+ peer review articles and ensures her department delivers continual active research to maintain and improve our health services

Marianne is a keen teacher of both undergraduate (University of Auckland, FMHS) and postgraduate students.

Profiles of research units

Surgical and Cardiovascular

The Department of Surgery researches in a number of areas including breast surgery, endocrine surgery, vascular, cardiothoracic surgery, trauma and paediatric surgery.

As a tertiary centre our surgical services are at the forefront in delivering high quality care to patients with complex conditions. As a leading cancer care centre this includes cancer surgery including in breast, lung, bowel and urology. In addition our cardiothoracic unit is rapidly becoming recognised as one of the busiest and most innovative in Australasia. Our vascular unit is also recognised for its excellent work and is one of only three teaching centres in Australasia that provides specialist vascular training to registrars

Vascular Department

Mr Manar Khashram joined the vascular surgery department last year as a consultant and is also affiliated with the University of Auckland. He currently supervises two Master's students, has several ongoing research projects in vascular diseases and is involved with several industry sponsored clinical trials. The team has been successful in obtaining an HRC grant and international grants to fund prospective studies.

Cardiothoracic Department

To embrace the opportunity to improve outcomes for our cardiothoracic surgical patients, a research unit has been recently established to facilitate translational research. The unit is led by Mr Adam El-Gamel (University of Waikato) and Dr Nishith Patel, and supported by Mr David McCormack, Mr Paul Conaglen, Mr Nand Kejriwal, Mr Nick Odom, Dr Felicity Meikle, Mr Francesco Pirone, Mr Zaw Lin and Mrs Kelly Henderson (Clinical Trials Coordinator).

The domains of aortic disease, rheumatic heart disease, improving post-operative organ dysfunction/myocardial protection and understanding the inequities for Māori who present for cardiothoracic surgery are of particular interest to the group.

The Cardiothoracic Department has several research projects in progress. These include a partnership study with Fisher and Paykel Healthcare, and a clinical trial investigating intraoperative CO₂ and air embolism. Projects over the past year include the utility of VAC dressing as an adjunct to pain management post thoracotomy and collaboration with the Anaesthetics team on the QRK-309 Study.

A number of presentations have been made at national and international conferences. Mr El-Gamel was an invited speaker to several international conferences, including The Houston Aortic Symposium, International coronary artery congress, the societies of thoracic surgeons Annual Meeting to name a few. The team regularly verbally present and present posters at the ANZCTS meetings, unfortunately these were impacted by the pandemic.

Breast Surgery and Breast Cancer Research

Breast Cancer Research is undertaken by breast surgeons (Mr Ian Campbell, Mr Adam Stewart, Ms Lou Hayes, Mr Daniel Cocker, Ms Janice Chen), breast physicians (Drs Linda Gilbert and Colette Torrance), a surgical trainee and research fellow (Dr Melissa Edwards) and research nurses (Jenni Scarlett and Heather Flay). Research is also underway in collaboration with other units such as Oncology, Radiology, Plastic Surgery and the Waikato Medical Research Centre.

Over the past year the team has been working on three trials that are recruiting patients, five trials that are in follow up (recruitment is completed) and five observational studies. In November 2019 Waikato breast specialist staff presented to national attendees at the Breast Cancer Care Conference in Hamilton.

Ian Campbell, now an Honorary Professor has had teaching and research roles, alongside his clinical role. He has enabled multiple clinical trials over the past 26 years, supervised three PhD students and mentored other researchers. Dr Melissa Edwards was one of five global award recipients of the 'Clinical Scholar Award' at the San Antonio Breast Cancer Symposium. She presented on her PhD thesis 'The impact of Breast Cancer Treatment Concordance on Survival in Relation to Comorbidity Burden' and received the award for her quality research.

Midland Trauma

The Research Centre completed a very busy year which included publishing and presenting research on cycling related injuries, injuries due to quad bike use, injury on the farm and variation in volumes and characteristics of trauma patients admitted to a level one trauma centre during national level 4 lockdown for COVID-19. Collaborative research included finishing (and publishing) the motorcycle crash study with Waka Kotahi (NZ Transport Agency) and working with trans-Tasman colleagues to publish on trauma system design, priorities for trauma quality improvement and the challenges faced by trauma clinicians in the delivery of care. This year presented a number of opportunities to engage with the media on trauma topics, including the Whaakari / White Island mass casualty, the introduction of the Lime scooter trial in Hamilton City and the important issue of car restraints for children. A highlight of the year for the entire Midland Trauma team (across the Midland region) was the 2019 Kudos Awards where we won the Medical Science award sponsored by the Waikato DHB (we had previously been finalists).

Dermatology

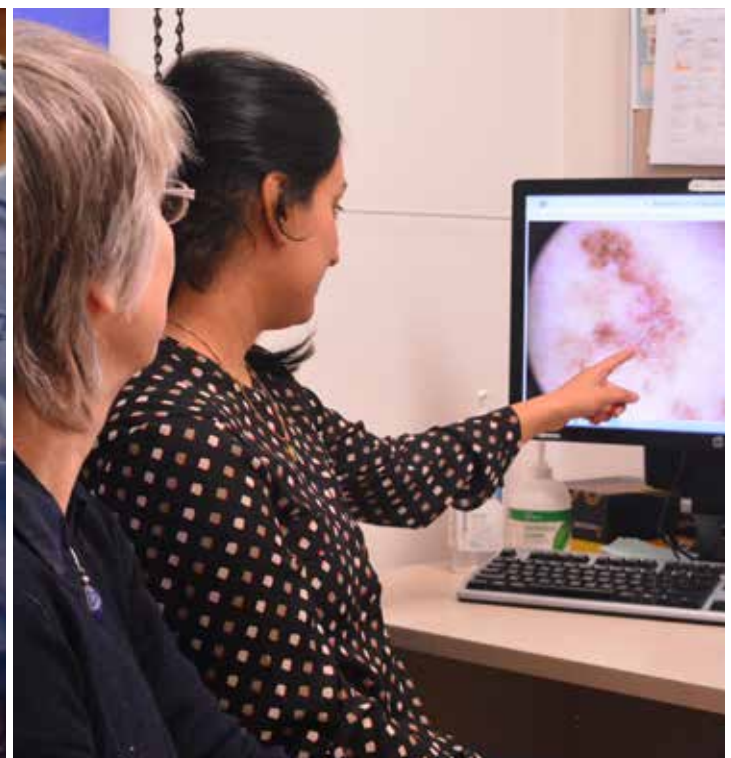
Dr Amanda Oakley continues to lead research in dermatology at Waikato DHB, and encourage students to undertake research on topics such as teledermatology, dermoscopy and psoriasis. The high workload of the two specialists has impacted time for research, however several studies are underway or in the planning stages. A number of audits and research projects have been completed by registrars and two non-training registrars are planning Master's projects.

ENT

The research activity in the ENT department continues to grow. Recent and ongoing research topics have included medical student career planning, equity of access, Rhinology and Head and Neck surgery. Patients are being recruited to both industry funded and grant funded clinical trials with grant funding obtained in the last 12 months from both the Waikato Medical Research Foundation and the Brian Johns Trust. Mr Andrew Wood is encouraging research within the team.

Ophthalmology

Dr James McKelvie, Hamza Ali, Stephen Ng, and Sarah Oh in the Ophthalmology department have been undertaking research on several eye conditions, including strabismus, ageing eye and lesion excision surgery. They are also part of a collaborative project with University of Auckland to look at visual changes in aging eye diseases.





Orthopaedic Surgery

Joe Baker continues to lead research on conditions such as spinopelvic morphology; osteoarticular infection; spinal column infection; and musculoskeletal metastatic disease, and has had a number of publications in the past year. The service has collaborated with Auckland Bioengineering Institute at University of Auckland and Faculty of Health, Sport and Human Performance at University of Waikato.

Dr Sarah Hunter's paper "External Validation of an Algorithm Predicting Treatment Failure in Spinal Epidural Abscess" was accepted for presentation at the American Academy of Orthopaedic Surgeons 2020 Annual Meeting. Summer students 2019-2020: James Willoughby and William Cook completed projects in the fields of metastatic disease and spinal morphology, respectively.

Oral and Maxillofacial Surgery

The service has made good research progress over the last few years, with increased efforts to encourage staff to be active with publications and audit. Eddie Nguyen, Simon Lou and Thasvir Singh have lead research in the service, with a focus on oral cancer, facial trauma and head and neck pathology. Highlights over the last year include a number of research papers completed (see Publications section) and a poster presentation at Australia and New Zealand Head and Neck Cancer Society meeting in Adelaide. Current research projects include 'A Retrospective Review of Oral and Maxillofacial Surgery Free Flap Reconstruction at the Waikato Hospital' and case series of Maxillofacial Chronic Osteomyelitis.

Anaesthesia and Pain Medicine

The Anaesthesia and Pain Medicine service has a strong research structure, led by Professor Jamie Sleight supported by Dr Logan Voss and Dr Kelly Byrne, and a clinical trials unit. Others involved in research within the unit are Jono Termaat, Gay Mans, Amir Irani, Amy Gaskell, Rebecca Pullon, Nicola Whittle, Scott Robinson and Tim Starkie. The service has taken part in seventeen studies over the past year, including a range of topics from regional anaesthesia, cardiac surgery, depth of anaesthetic/postoperative delirium, Monitoring intraoperative coagulation/anaesthesia concentrations, perioperative studies, mechanisms of anaesthesia and emergence from anaesthesia. Members of this team have published a number of papers, presented papers in Canberra, Phoenix and Bern, and supervised seven university students. They have also worked in collaboration with a number of universities around the world – Waikato, Oxford, Columbia, Munich, Adelaide, Bern, Wisconsin/Sydney.

Intensive Care Unit

Intensive Care Unit research is led by Dr Robert Martynoga, Dr Rajesh Nair and three research coordinators Kara Trask, Amelia Butler and Livia Schischka with a focus on conditions including acute respiratory distress syndrome, sepsis, oxygenation, fluids, antibiotics, steroids, pneumonia, trauma and early mobilisation. The service has had seven clinical trials running during the past year and they have participated in the Point Prevalence day studies. The unit has collaborated with Fisher and Paykel trialling a new therapeutic respiratory device, the physiotherapy department on the Treatment of invasively ventilated adults with early activity and mobilisation trial and with anaesthetics on the QUARK trial.

The last few months of this financial year saw preparation, during uncertain times, for the potential for COVID related research in critically ill patients.



Medicine

As a tertiary referral centre, Waikato Hospital provides a comprehensive range of medical subspecialties. Staff are recognised for their expertise in their field and a number of the units complete research and clinical trials.

Cardiology

The Cardiology team is active in research, with a Clinical Trials unit consisting of eight study coordinators (led by Liz Low), nine cardiologists and two administrative staff. Sanjeevan Pasupati, Martin Stiles, Madhav Menon, Rajesh Nair, Spencer Heald, Janice Swampillai, TV Liew and Mark Davis are currently undertaking research. A local general practitioner, Dr Fraser Hamilton is also an integral part of the research team. Research topics include diseases of cardiology including acute coronary syndrome, heart failure, lipid therapies, structural heart disease conditions such as aortic stenosis and other heart valve diseases, cardiac amyloidosis.

A highlight of the last year has been a new study for Amyloid Cardiomyopathy, which has made a promising medication available for patients who previously had no treatment options. This study has been run in collaboration with Dr Goodman, a haematologist and expert in this field and cardiologist Mark Davis.

Endocrinology and Diabetes

Endocrinology research at Waikato Hospital is now led by Dr Marianne Elston, supported by Dr Jade Tamatea and endocrine surgeon Mr Win Meyer-Rochow. Following the recent retirement of Dr John Conaglen, Dr Veronica Boyle has joined the team. Dr Boyle has a strong interest in neuroendocrine tumours and with her neuroendocrine clinical research fellowship will continue to strengthen the team's research into these tumours. In addition, the team are continuing their research into thyroid disease and have established a new collaboration with Dr Richard Carroll at Capital and Coast Health to set up national registries for familial and rare endocrine disorders.

Three clinical trials were closed this year, but the diabetes research team continues work on a number of investigator led projects. Dr Ryan Paul has recently started a randomised parallel arm open label clinical trial comparing automated insulin delivery using an open-source algorithm (AnyDANA-loop), with sensor augmented pump therapy in type 1 diabetes.

Rheumatology

The Rheumatology department (Dr Alan Doube, Dr Douglas White, Dr Kamal Solanki, Dr Uri Arad, Dr Vicki Quincey, Anna Schollum, Lorraine Hartley, Denise Darlington and Rachel Campbell) is researching several rheumatological conditions and currently has 15 clinical drug trials in progress in rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis and giant cell arteritis. The team have produced a number of journal publications, had a poster presented at the NANZ meeting in 2019 and five posters accepted for the 6th World Congress in Systemic Sclerosis in March 2020.

Respiratory

The respiratory unit is renowned internationally for its quality research and produces approximately 25 publications annually. The unit take part in both pharmaceutically sponsored clinical trials and investigator led research. The team consists of two study coordinators (Chris Tuffery and Sandra Hopping); lead researchers Cat Chang, Bob Hancox and Rain Shafuddin, research fellow (Dr Kathryn Gracie) and a summer student Sarah Fairweather. They research conditions such as asthma, COPD, Bronchiectasis, Idiopathic Pulmonary Fibrosis, Influenza, Lung cancer, Alpha1 Antitrypsin, Cystic Fibrosis plus infectious diseases C.Diff infections, M. Avium infections, TB.

Dr Bob Hancox (thru UoOtago) received a \$1.4m Health Research Council grant for an academic study using beta blockers in adults with COPD, as detailed later in this report.

Gastroenterology

Clinical trials coordinators Sherryl Hayett and Heather Logan support a number of research projects undertaken in the gastroenterology service by Frank Weilert and James Brooker, along with Dara De Las Heras, Melissa Haines, Liz Phillips. The service is pleased to have research fellow Sam Seleq join the team. Clinical Trials cover a number of conditions: Ulcerative Colitis, Crohn's, Hepatitis B, Primary Biliary Cholangitis, Primary Sclerosing Cholangitis, Nonalcoholic Steatohepatitis.

One of the highlights of the last year is an Ulcerative colitis trial that enrolled 10 patients with severe Ulcerative Colitis – nine of these patients' quality of life has improved dramatically allowing them to socialise and live normal lives.

Neurology

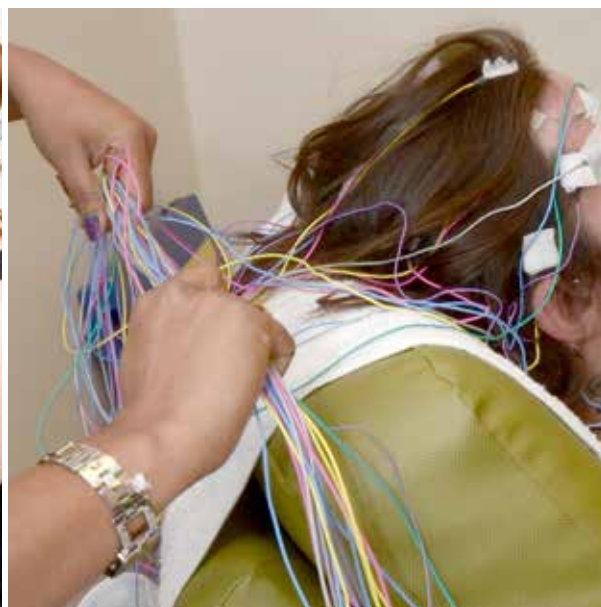
Research on conditions such as stroke, multiple sclerosis, epilepsy and motor neurone disease is being conducted by Dr Lynch, Dr Schepel, Dr Romero Ferrando, Dr Wright, Dr Oh and Dr McManus. Dr Phillips has continued his ketogenic diet research, widening it to include Huntington's disease. Clinical trials are coordinated by Ruth Mylchreest and Mary Demopoulos.

Renal

Research projects commenced this year range from clinical trials to a study looking at targeted education approach to improve peritoneal dialysis outcomes. The renal service team involved in research includes Drs Kannaiyan Rabindranath, Eddie Tan, Lai Wan Chan, Dr Andrew Henderson, Dr Peter Sizeland, Dr Angus Turnbull and Dr Gerald Waters; nursing staff Julie Woodman-Neill and Kathryn Eggleton, plus Tania Smith and Deborah Peek in the clinical trials area.

Mental Health and Addictions

The Mental Health and Addictions service has an extensive research track record. Graham Mellisop and David Menkes have published a number of papers in 2019. The service continues to encourage researchers in the mental health and addictions area.



Oncology

The regional cancer centre continues to be very involved in research, and has strong links with a variety of collaborative clinical trial groups i.e. TROG, ANZUP, AGITG, BCT AGITG, universities and other academic institutions. The Cancer and Blood Research Trials Unit employs 10.4 FTE and undertakes clinical trials in Medical Oncology, Radiation Oncology, Haematology and Palliative Care. Patient recruitment onto clinical trials has increased in the last year, and the unit has been busy.

Many of the specialists in the service are involved in research, from clinical trials to collaborations and investigator-led studies. The team was delighted to welcome Natalie Briggs, Oncology Research Fellow for a 12-month tenure. Natalie was awarded a Waikato Medical Research Foundation grant to study the effect of doxycycline on cancer stem cells in patients undergoing radiation treatment for rectal cancer. Natalie is studying towards a Master of Health Sciences through the University of Auckland.

The Inaugural research grant awarded to Michael Taylor, Team Leader, Radiation Therapy, Waikato DHB, for his project on "The Sustainability of the New Zealand radiation therapy workforce and the factors that influence it". The results have been presented to the Cancer Control Agency and the Radiation Therapy Advisory Panel, and work has commenced to action the recommendations which focus on both enhanced and advanced practice frameworks for RTs.

Older Persons and Rehabilitation and Allied Health

Older Persons and Rehabilitation and Allied Health both continue to work with the Bupa (Allied Health) research fellow (John Parsons) and Bupa (Allied Health) research associate Shannon Tisbury to foster a culture of research within the service.

Research studies cover a number of different topics, including Driving post stroke; Physiotherapy and Occupational Therapy knowledge and experience relating to amputee rehabilitation; High risk infant pathway; Implementation PREP2 algorithm in acute stroke services; Acute medical physiotherapy role; Enteral feeding in persons with advanced dementia; Conservative management of trigger finger.

Several collaborations have been underway during the year, such as a collaboration of physiotherapy clinicians with AUT undergraduate final year physiotherapy students in conducting systematic reviews on topics relevant to Waikato DHB; a collaboration with University of Auckland to investigate the concepts of 'Thriving at Work' within the allied health profession and a collaboration with University of Queensland and University of Auckland on Early parenting acceptance and commitment therapy for parents of infants with / at risk of cerebral palsy.





Women and Children

The Women's and Children's Health service has been encouraging research within the service and research activity is now increasing.

Obstetrics and Gynaecology

Drs Narena Dudley, Isabel Camano, Joy Marriot, Victoria Carlsen, Nerida Titchiner and T Williams have taken part in several research studies over the last year, including OBLIGE (outpatient balloon induction of labour) (Dr Nerida Titchiner/Dr Joy Marriott and Research Midwife Jessica Jordan); C*steroids feasibility study (Dr Victoria Carlsen and Research Midwife Tracey Williams), and the CIN3 study. There are several more studies in the pipeline, including Emily Twidale's Medroxyflurane analgesia for conscious hysteroscopy RCT. The service was awarded a 2019 Waikato Medical Research Foundation Grant to support local implementation of the OBLIGE trial.

As well as those research projects, the service has initiated a number of clinical audits such as Management of hypertensive disease in pregnancy; Epilepsy in pregnancy; Post-operative haemoglobin testing following major gynaecological and caesarean section surgeries.

Paediatrics/Child Health

The child health /NICU/paediatrics services have increased its research activity, and have taken part in a number of research studies recently, some of which included funding which also allowed them to employ a part-time research nurse. Drs Alex Wallace, Hamish McCay, Jutta van den Boom and Deepika Singh have been involved in trials such as Nasal High Flow Therapy, Bronchiolitis in Infants, Improving long term outcomes in preterm infants with late on-set sepsis or necrotizing enterocolitis and a study of paediatric palliative and supportive care interventions.

Paediatric Surgery

The Paediatric surgery team have had several publications during the year, and continue to work on research studies such as RURAL Regional and Urban Risks of Appendicitis CompLications. The team contributed to the Global Health Study which has completed data collection and is due to be published this year. Recently funding was received from Waikato Medical Research Foundation for a joint paediatrics/paediatric surgery placebo controlled trial "Transabdominal electrical stimulation for treatment of chronic intractable constipation in children".

Neonatal services (WaiKids)

The Neonatal service has taken part in several multi-centre trials this year, looking at conditions such as neonatal encephalopathy, chronic lung disease, hypoglycaemia, sepsis and respiratory distress. The research team includes Phil Weston, Arun Nair, Jane Pope, Jutta van den Boom, Aira Javier, Alana Cumberpatch and Anja Hale. Some of these studies have enabled the service to fund a research nurse, which has in turn contributed to their activity.



Māori Health Research

Waikato DHB continues its focus on eliminating inequity in health care and encouraging research that will assist in this goal.

Nina Scott (Ngāpuhi, Ngāti Whatua and Waikato) is nearing completion of the Harti project “Does a whānau ora approach improve outcomes for hospitalised tamariki?” – a Health Research Council funded study, looking at improving health outcomes for Māori children by addressing holistic needs of families. The Harti study used a kaupapa Māori co-design process, following the He Pikinga Waiora Framework. Final data analysis and collection is near complete looking at hospital readmission rates and a number of other key secondary outcomes such as GP and oral health enrolment, referral to smoking cessation services and Whare Ora (Healthy home initiative) and up to date status of Well Child Tamariki Ora (WCTO) checks and immunisation schedule. The final report for this study is due 31 March 2021.

Nina also continues her work on a range of fronts to advance Māori health, and encourage Māori researchers. This has included developing a version of the Harti project for kaumatua during covid which saw the development of WHIRI – a model of care – delivered over the phone during COVID-19 lockdown, that links whānau with health and wellbeing services including a nurse led case management programme. The DHB has since received Ministry of Health funding and further research funding from HRC to develop and test WHIRI models for long term conditions and for maternal health for Māori.

There are several other researchers working in the Māori Health space, including (but not limited to) Jade Tamatea, Myra Ruka, Ryan Paul, and Clarence Kerrison. And we have seen a number of research projects focussed on Māori Health in the past year. It is gratifying to see the Māori research workforce gaining momentum.

Nursing

Nursing research often classified under the service, rather than nursing.

Several observational studies have been registered in the last year, often by nurses working towards a qualification. Two of these nursing studies are profiled in this report.

Primary Care, Rural Health, and Telehealth

Thames Hospital has a core team of researchers who have been involved in research around equity, cardiovascular health and looking at issues for rural hospitals and rural health services such as patient transfers. Projects underway or commenced in the last 12 months include studies looking at evaluation of an accelerated chest pain pathway, equity in acute coronary syndrome, change in patient length of stay and after hours callbacks for laboratory staff following introduction of point of care troponin, and several studies following the COVID-19 pandemic lockdown period. The studies include collaborations with the University of Otago, University of Auckland, Emergency Care Foundation, Pinnacle PHO and ANZACS-QI.

Rory Miller continued work on the Accelerated Chest Pain Pathways in Rural Hospitals and Primary Care project, for which he received a grant from the Heart Foundation.

All the PHOs have been included in research collaboration in primary care. These include studies in cancer, diabetes and genomics which have resulted in a number of publications.

Collaborations

Some of the research completed at Waikato DHB is done in collaboration with other organisations, key examples being:

- University of Waikato
- University of Auckland
- University of Otago
- Auckland University of Technology
- Liggins Institute
- Institute of Healthy Ageing
- Wintec
- BUPA
- Pinnacle PHO
- Oxford University
- Columbia University
- University of Wisconsin
- Bern University
- University of Melbourne
- University of Sydney
- Monash University, Melbourne
- Waka Kotahi (NZ Transport Agency)
- Waikato Regional Council
- Hamilton City Council



Honours, awards and grants

Summer studentships

Each year Waikato DHB funds 10 summer studentship scholarships through the Waikato Clinical School to support hypothesis-driven research projects that can be completed in a 10 week period over the student's summer break are encouraged.

An important part of the project is to encourage the student to develop an interest in research. The supervisor must be available over the time-frame of the studentship to ensure direct regular supervision. Students will work under the supervision of a project supervisor who will take responsibility not only for the project's completion but also for completing the appropriate approval processes. The applicant/supervisor must obtain ethical approval through the Health and Disability Ethics Committee where required and have Waikato DHB authorization.

Waikato Clinical School summer studentships 2018-2019

Supervisor/s	Project title	Student Name
Dr Francoise Jean-Louis Dr Kumanan Selvarajah	An audit of Indications for tonsillectomy: Sleep disordered breathing vs Tonsillitis and development of educational materials for primary care.	Erin Parker
Dr Fouzia Ziad Dr Ziad Thotathil AP Michael Jameson	Retrospective review of meningioma treated at Waikato Hospital during period 2010 - 2019.	David Wang
Mr Joe Baker	Outcomes analysis of surgery for metastatic disease of the femur; prognostic factors for survival in a New Zealand population.	James Willoughby
Dr Douglas White	Isolated Antibodies Against Ro52 and their Significance in the Waikato Hospital Systemic Sclerosis Cohort.	Phoebe Bardoul
Dr Etuini Ma'u Dr Sarah Fowler Dr Elizabeth Fussell	Cognitive impairment pathways and the role of the Memory service in Waikato DHB.	Fitree Fadzilullah
Dr Manar Khashram	Using a discrete event simulation model to predict survival of patients with an abdominal aortic aneurysm	Su-Ann Yee
Dr Cat Chang Dr Henry Gallagher Dr Eskandarain Shafuddin	Assessing the utility of pregnancy-adapted YEARS algorithm in the suspected pulmonary embolism at Waikato Hospital.	Sarah Fairweather
Mr Joe Baker	Morphometric analysis of the lumbar spine in a New Zealand population using computed tomography (self funded)	William Cook
Dr Daniel Ninin	Incidence, pathological spectrum and long term outcome of glomerulonephritis in Midland Regional Renal Centre.	Chris Wang
AP Michael A Holmes	Effectiveness of upper tract stone therapy in Waikato April 2017 - March 2019.	Gabriella Donaldson

Kudos Awards

The Kudos Science Trust established the Kudos Awards in 2009 to recognise and celebrate the achievements of the region's world class scientists and researchers.

In 2019 the overall supreme award, the University of Waikato Lifetime Achievement Award went to Dr Amanda Oakley. Dr Oakley has spent most of her working life at Waikato Hospital and has worked tirelessly in the Dermatology department. Dr Oakley has worked in private practice at the Tristram Clinic, is a contractor for MoleMap, and is an Associate Professor in Medicine at the University of Auckland. She has also undertaken research in teledermatology. One of her goals is to recruit and retain more dermatologists into the profession to address the ongoing shortage. She created DermNetNZ, a world renowned resource for skin disease information in 1995, and is continuing work on early detection of skin cancers.

The Midland Trauma Research Centre (MTRC) won the Waikato DHB Medical Science award. Other finalists in this category included Dr Douglas White (Waikato DHB) and Ruth Martis (Wintec). The MTRC was profiled in last year's Annual Report.

Health Research Council grants

The Health Research Council have opened several new funding opportunities this year, with a focus on encouraging Health Delivery Research. Waikato DHB has submitted applications for some of this new funding.

No new HRC grants were gained directly by Waikato DHB in the 2018/2019 year. However Professor Bob Hancox (University of Otago) was awarded a \$1.4m grant by the HRC in 2019 for 'A randomised controlled trial of beta-blockers in COPD'. Dr Hancox is also a specialist at Waikato DHB, in the Respiratory service. This randomised, placebo-controlled trial of the cardio-selective beta-blocker bisoprolol for patients with COPD to assess the effects of beta-blockers on cardiac and respiratory health and overall survival will be conducted at multiple centres in New Zealand and Australia.

Work continues on the projects for which HRC grants were received in the 2017/18 year:

- "Does a Whanau Ora approach improve outcomes for hospitalised tamariki?" (Dr Nina Scott)
- Improving early access to lung cancer diagnosis for Māori and rural communities, (Professor Ross Lawrenson)
- Reducing delay and increasing access to early diagnosis for colorectal cancer, (Professor Ross Lawrenson)

Waikato Medical Research Foundation

The following grants were made by the Waikato Medical Research Foundation to researchers in the Waikato region during 2019.

Studies registered at Waikato DHB:

Award	Recipient	Organisation	Project
309	Dr Lynne Chepulis	University of Waikato	Barriers to screening for diabetes in Pregnancy in the Waikato Region.
310	Stephen Evans	Waikato DHB	Identifying the safest, most effective selenium compound for use in cancer patients.
311	Dr Joy Marriot	Waikato DHB/ University of Auckland	Extending the OBLIGE trial, Outpatient Balloon vs Inpatient Gel for Induction of ??
312	Dr Kelly Jones	University of Waikato	Ten-year outcomes following Traumatic Brain Injury (TBI) in childhood.

Waikato Medical Research Foundation - Emerging Researcher Grants

Recipient	Organisation	Project
Natalie Briggs	Waikato DHB	Clinical Validation of Doxycycline as an Inhibitor of Rectal Cancer Stem Cells.
Elizabeth Lewis-Hills	Waikato DHB	Ngā Hua o te Kōpū - Improving health outcomes for Māori wāhine with diabetes in pregnancy.
Dr Vivek Rajasekaran	Waikato DHB	Transabdominal electrical stimulation for treatment of chronic intractable constipation in children.
Dr Andrew Wood	Waikato DHB University of Auckland	A pilot study of the impact of topical tranexamic acid at the conclusion of endoscopic sinus surgery for chronic rhinosinusitis on patient recovery.
Shemana Cassim	University of Waikato	Exploring Muslim migrant women's experiences of accessing primary healthcare.

NZ Society for the Study of Diabetes

2019/20 Studentship awarded: University of Waikato / Waikato DHB : Evaluating Adherence to Diabetes Medication in Primary Care

Plus 2019 research award to Shiva Reddy *"Defects in exocytosis of insulin from persisting beta cells in type 1 diabetes: molecular identification and therapeutic strategies to restore insulin secretion, improve glucose homeostasis and avert secondary complications"*

Research projects registered

A list of research projects approved at the Waikato DHB Research Office between 1 July 2019 and 30 June 2020 is included as Appendix A.

List of publications

A list of publications listed have been in Medline in relevant peer reviews journals in calendar year 2019 follows as Appendix B. Please note that this list may not be complete.

Appendix A

Studies Approved 1 July 2019 – 30 June 2020, Service – with PI name listed

The table below shows the titles of research that was approved in the period 1 July 2019 to 30 June 2020, by department, service and the Principal Investigator at Waikato DHB. Some of these projects were registered in prior years (the registration process can be protracted for a number of reasons). A number of these principal investigators may also be working on other research/trials that commenced before 1 July 2019 and are still underway.

Where the research is being done by a principal investigator outside of Waikato DHB, and there is no Waikato DHB investigator, these are noted as “External PI”.

Note: Some research undertaken by nursing staff is listed in the service in which the research was done, rather than under the heading ‘Nursing and Midwifery’.

Allied Health

Professor Ross Lawrenson

Assessing the Use of Cancer Psychological Support Services in the Waikato Region.

(External PI)

Are we on the same page” perceptions of Allied Health managers and frontline clinicians on clinical leadership in quality within a DHB Hospital.

Child Development Centre

Karli Joll

Capture: Cerebral Palsy – evaluating current diagnostic practice for translating research on early identification.

Tania Johnstone

Early Parenting Acceptance and Commitment Therapy ‘Early PACT’ for parents of infants with/at high risk of cerebral palsy.

Dietetics

Sue Henderson

To investigate the efficacy of community dietetics in the care of the elderly.

Physiotherapy

Shannon Tisbury

Good4work – Physiotherapy staff perspective on wellbeing at the Waikato Hospital in 2020.

(External PI)

Preparing People Who Have Undergone CABG Surgery to Engage in Physical Activity Following Discharge From Hospital: A Survey of Current Practice in Australasia.

Child Health

NICU

Robyn Hills

An Ethnography of Infant Feeding in New Zealand Neonatal Intensive Care Units.

Paediatric Surgery

Askar Kukkady

Comparison of anatomic severity of acute appendicitis in rural and urban paediatric patients: a multicentre, prospective cohort study. (RURAL)

Paediatrics

Deepika Singh

A prospective observational study of paediatric palliative and supportive care interventions - understanding the burden of the adverse effects. (RAPID Paediatric Program)

CMA

Chief Medical Officer

(External PI)

Oral Anticoagulant Management Practices in New Zealand.

Clinical Education Training Unit

Helen Clark

Development and implementation of a tool to assess resident medical officers (RMOs) perceptions and experiences around prescribing at Waikato DHB.

Community and Clinical Support

Laboratory

Dr Matthew Mackey

Agreement of intraosseous aspirate and peripheral blood samples for select biochemistry and haematology tests – a prospective observational study.

Fouzia Ziad

Retrospective review of meningioma treated at Waikato Hospital during the period 2010 - 2019.

Pharmacy

Rajan Ragupathy

Addiction by opioid prescription- how good is our opioid prescribing post discharge?

Corporate

Human Resources

(External PI)

Impact of technology on Human Resources practices: A case study of organisations in New Zealand.

Nursing and Medical Staff

(External PI)

Preparation for Palliative Care: New Zealand medical and nursing graduates' preparation, self-efficacy and attitudes towards providing palliative and end of life care.

Strategy and Funding

VP Singh

The Fertility, IVF and Intrauterine Insemination trial in couples with unexplained infertility (the FIIX Study)

(External PI)

Expanding clinical pharmacy services in the primary health care setting: perspectives of district health board pharmacy and primary care portfolio managers in New Zealand.

Te Puna Oranga

(External PI)

Māori co-designed intervention to refocus New Zealand health service delivery for improved engagement and responsiveness with Māori māmā hapū and pēpi: Investigate the development, use and impact of the Harti Hauora Māmā Hapū (HHMH) holistic assessment tool within a Kaupapa Māori antenatal programme context.

Medicine

Diabetes

Dr Ryan Paul

Randomised parallel arm open label clinical trial comparing automated insulin delivery using an open-source algorithm (AnyDANA-loop), with sensor augmented pump therapy in type 1 diabetes.

CREATE (Community deRivEd AutomaTEd insulin delivery) trial

Screening Rates for Diabetes in Pregnancy in the Waikato Region

Emergency Department

Dr Christine Brabyn

Concussion Recovery Assessment of New Zealanders in Adolescence and Childhood (Craniac)

Dr Christine Zollo

Lung Ultrasound in COVID-19 in emergency Department (LUC ED)

Jules Schofield

Emergency Department Staff Wellbeing (WoWe@NZED 2020)

Endocrinology

Dr Marianne Elston

New Zealand Rare Endocrine Disorder Registry (RED Registry)

The prevalence of germline mutations by exome wide sequencing in patients with biochemically or surgically proven primary hyperparathyroidism.

Gastroenterology

Clarence Kerrison

The Narratives of Māori Referred for Colonoscopy.

Dr Frank Weilert

A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Safety, Tolerability, and Efficacy of GS-9674 in Non-Cirrhotic Subjects with Primary Sclerosing Cholangitis.

Dr James Brooker

A Multicenter, Randomized, Double-Blind, Placebo-Controlled Induction Study to Evaluate the Efficacy and Safety of Risankizumab in Subjects with Moderately to Severely Active Ulcerative Colitis Who Have Failed Prior Biologic Therapy (M16-067)

Dr James Fulforth

Validation of a Disease Severity Index for Crohn's Disease and ulcerative colitis (DSI Validation)

Dr Jim Brooker

A Multicenter, Randomized, Double-Blind, Placebo-Controlled 52-Week Maintenance and an Open-Label Extension Study of the Efficacy and Safety of Risankizumab in Subjects with Ulcerative Colitis Who Responded to Induction Treatment in M16-067 or M16-065

A Phase 2 Multi-Center, Randomized, Double-Blind, Placebo- Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of Induction Therapy with 2 Doses of TD-1473 in Subjects with Moderately-to-Severely Active Crohn's Disease 0173 TD-1473 DIONE

A Phase 3 Long-term Safety Extension Study of SHP647 in Subjects with Moderate to Severe Ulcerative Colitis or Crohn's Disease (AIDA) SHP647-304

A Phase 3 Randomized, Double-blind, Placebo-controlled, Parallel-group Efficacy and Safety Study of SHP647 as Induction Therapy in Subjects with Moderate to Severe Crohn's Disease (CARMEN CD 306)

A Phase 3 Randomized, Double-blind, Placebo-controlled, Parallel-group Efficacy and Safety Study of SHP647 as Induction Therapy in Subjects with Moderate to Severe Ulcerative Colitis (FIGARO UC 302) SHP647-302

A Phase 3 Randomized, Double-blind, Placebo-controlled, Parallel-group Efficacy and Safety Study of SHP647 as Maintenance Therapy in Subjects With Moderate to Severe Crohn's Disease (CARMEN CD 307)

A Phase 3 Randomized, Double-blind, Placebo-controlled, Parallel-group Efficacy and Safety Study of SHP647 as Maintenance Therapy in Subjects With Moderate to Severe Ulcerative Colitis (FIGARO UC 303) SHP647-303

Samir Seleg

Inflammatory Bowel Disease in the North Island: prevalence and incidence in a unique population.

Neurology

Dr Daniel Oh

The New Zealand National Stroke Registry.

Matthew CL Philips

The Ketogenic Diet In Huntington's Disease: A Case Series.

(External PI)

Fasting and Anxiety in Parkinson's Disease: a Correlational Study.

Renal

Dr Kannaiyan Rabindranath

A phase 3 Randomised, Double-Blind, Placebo-Controlled, Parallel Group, Multicenter study Evaluating the Efficacy and Safety of Selonsertib in Subjects with Moderate to Advanced Diabetic Kidney Disease

A randomized, multicenter, double-blind, parallel, active-control study of the effects of Sparsentan, a dual endothelin receptor and angiotensin receptor blocker, on renal outcomes in patients with primary focal segmental glomerulosclerosis (FSGS)

Lai Wan Chan

Presternal peritoneal dialysis catheter: 16-year experience in a single centre.

Respiratory

Cat Chang

National Asthma Registry.

Dr Cat Chang

A multi-center, randomized, double-blind, parallel-group, placebo-controlled study of mepolizumab 100 mg SC as add-on treatment in participants with COPD experiencing frequent exacerbations and characterized by eosinophil levels (Study 208657)

Australasian COVID-19 Trial (ASCOT)

Demographic and Clinical Predictors of COVID-19 Severity in New Zealand (COHESION)

Preventing Adverse Cardiac Events (PACE) in Chronic Obstructive Pulmonary Disorder (COPD)

Randomized, Double-Blind, Placebo-Controlled, Dose-Ranging, Efficacy and Safety Study with Inhaled RVT-1601 for the Treatment of Persistent Cough in Patients with Idiopathic Pulmonary Fibrosis (IPF) (Scenic Study)

Rheumatology

Dr Alan Doube

A phase 3, randomised, double-blind, placebo and Adalimumab-controlled study to evaluate the efficacy and safety of Filgotinib in subjects with active Psoriatic Arthritis who are naive to Biologic DMARD Therapy (Penguin1)

Dr Douglas White

A phase 2 study to investigate the safety and efficacy of ABBV-105 and Upadacitinib given alone or in combination (ABBV-599 Combination) in subjects with moderately to severely active Systemic Lupus Erythematosus (SLE) M19-130

A Phase 3 Randomised, Placebo-Controlled, Double-Blind Program to Evaluate Efficacy and Safety of Upadacitinib in Adult Subjects with Axial Spondyloarthritis

A phase 3, randomised, double-blind study comparing Risankizumab to placebo in subjects with active Psoriatic Arthritis including those who have a history of inadequate response or intolerance to Biologic Therapy(ies) (M15-998)

A Phase 3, Randomized, Double-blind, study comparing Risankizumab to Placebo in subjects with active Psoriatic Arthritis (PsA) who have a history of inadequate response to or intolerance to at least one disease modifying anti-rheumatoid drug (DMARD) therapy.

Sujatha Kamalaksha

5 years Incidence rate of Giant cell arteritis in Waikato region – a retrospective observational study of multi-ethnic population.

Vicki Quincey

COVID-19 Global Rheumatology Alliance Registry.

Mental Health and Addictions

Community Alcohol and Drug

Dr Matthew Jenkins

Iatrogenic help or harm? A study of causation in patients with Opioid use disorders.

(External PI)

Ngā ara tautoko: Service user and their whānau experience of continuity of care for substance use and related problems.

Mental Health and Addictions

Tracy Eccleston

What are the enablers for whanau of mental health service users to access whanau support services.

Nursing and Midwifery

Nursing

Lynette Lennox

Retrospective study of 311 cases of Staphylococcus aureus bacteraemia (SAB) with vascular access devices (VAD) compared to ethnicity: Incidence in Waikato New Zealand from 2008-2018.

Prof Development Unit

Lisette Ingram

New Graduate Nurses' experience in their first year of practice.

Nicky Nelson

What does Momoho (thriving) in a tertiary hospital look like from a Māori nurse's worldview? A Kaupapa approach to thriving in the workplace.

Older Persons and Rehabilitation

Older Persons and Rehab

Shannon Tisbury

Patients understanding of driving restrictions following minor stroke and transient ischaemic attack (TIA)

(External PI)

Tele-Wheelchair and Seating Assessment Stakeholder Consultation: A Mixed Methods Study.

Oncology

Adolescent and Young Adult Cancer Service

Ellyn Proffit

New Zealand Adolescent and Young Adult Cancer Incidence and Survival 2008-2018.

Haematology

Dr Matthew Mackey

The influence of patient and disease characteristics on clinical outcomes in diffuse large B-cell lymphoma in a New Zealand population - a ten year (2010-2019) retrospective analysis.

Medical Oncology

A/Prof Michael Jameson

Phase Ib randomised, placebo controlled, double blinded trial using Cimetidine to prevent the Oto, Nephro and neurotoxicity of Cisplatin by OCT2 inhibition in patients undergoing chemoradiation for head and neck cancer (CONCOCT)

Dr Alvin Tan

A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of Talazoparib with Enzalutamide in Metastatic Castration-Resistant Prostate Cancer (Talapro-2)

Midland Cancer Registry

(External PI)

Factors determining ethnic differences in lung cancer survival outcomes in the Midland region.

Oncology

Dr Alvin Tan

A Randomized, Double-Blind, Controlled Phase 3 Study of Cabozantinib in Combination with Nivolumab and Ipilimumab versus Nivolumab and Ipilimumab in Subjects with Previously Untreated Advanced or Metastatic Renal Cell Carcinoma of Intermediate or Poor Risk (COSMIC)

INSIGHT-FULL

Quality and Patient Safety

Woundcare

(External PI)

Tū Kaha: He mōhio ki ngā Māori o te kōmaoa waewae (Stand Strong: A study of Māori with leg ulcers)

Surgical and Critical Care

Anaesthesia

Dr Kelly Byrne

Does erector spinae block (ESB) effect somatosensory evoked potentials (SSEPs)

Perioperative Ischemic Evaluation-3 Trial (POISE-3)

Michael Nottingham

Perioperative oxygen administration in patients undergoing major non-cardiac surgery under general anaesthesia in Australia and New Zealand: study protocol for a prospective multi-centre observational study. PRospective Observational Study of perioperative OXYgen administration (PROSOX)

Scott Robinson

Drug Allergies Reported by Patients.

NMBD anaphylaxis in New Zealand – incidence with different agents and the association with pholcodine.

Cardiology

Dr Hugh Goodman

A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of the Efficacy and Safety of AG10 in Subjects with Symptomatic Transthyretin Amyloid Cardiomyopathy (ATTRIBUTE-CM)

Dr Rajesh Nair

GATE Atrioventricular Valved Stent for Replacement in Tricuspid Regurgitation: Feasibility Trial (GATER)

Dr TV Liew

Do patients understand inpatient cardiac education? A New Zealand study.

Robert Blaikie

Cardiology Electronic Referral and Patient Management Study.

Cardiothoracic Surgery

Adam El Gamel

An environmental study of surgical theatre airborne particle counts.

David McCormack

The impact of frailty, defined by sarcopenia, on the outcome of aortic valve replacement in elderly.

Isoken Cherish Aimusu

Frailty assessment in older people before surgery. "A mixed method study".

Minsesh Prakash

Utility of VAC dressing as an adjunct to pain management post thoracotomy.

Critical Care

Dr Robert Martynoga

Severe Acute Respiratory Distress Syndrome : generating Evidence in Australia and New Zealand (SAGE-ANZ)

Dermatology

Islay Dickie

Dermatomyositis in the Waikato- A Retrospective Review

Karen Koch

A retrospective review of monitoring methotrexate-induced liver fibrosis in patients with psoriasis: Waikato Hospital transient elastography experience

Global cross-sectional burden-of-illness study in adolescent and adult patients with atopic dermatitis (MEASURE-AD)

Ken Ip

Multiple primary melanomas in Waikato region.

(External PI)

The epidemiological, clinical, pathological and genetic characteristics of epidermolysis bullosa in New Zealand.

ENT

Dr Andrew Wood

A 24-Week Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Multicenter Study Evaluating the Efficacy and Safety of Intranasal Administration of 186 and 372 µg of OPN-375 Twice a Day (BID) in Subjects with Chronic Sinusitis Without the Presence of Nasal Polyps (REOPEN)

A pilot study of post-operative antibiotics in Endoscopic Sinus Surgery (Antibiotic prophylaxis in ESS)

A pilot study of the impact of topical tranexamic acid at the conclusion of endoscopic sinus surgery for chronic rhinosinusitis on patient recovery.

(External PI)

Effect of early childhood ear infections on language cognition and behaviour (Growing up in NZ)

General Surgery

A/Prof Ian Campbell

Development and Application of Risk Prediction Tool for Emergency Laparotomy.

Dr Magnus Cheesman

Comparing Surgical Training Opportunities in Tertiary and Rural Centres.

Jasen Ly

Management of COMPLICATED intra-abdominal collectionS after colorectal Surgery (COMPASS).

Intensive Care Unit

Dilip Jayasimhan

The association of Non-invasive Ventilation use in de-novo acute hypoxaemic respiratory failure and ventilator-free days: A single centre retrospective propensity-matched cohort study.

Maxillofacial and Dental

Dr Simon Lou

International, multicenter, prospective registry to collect data of patients treated with alloplastic total temporomandibular joint (TMJ) replacements (TMJ Registry)

Midland Trauma System

Dr Grant Christey

Falls: Injuries requiring hospital admission in the Midland Region, 2012-2018

The cost of road trauma: inpatient care in the Midland Region, 1 January 2012- 30 June 2019

Neerja Singh

Mountain biking injuries requiring hospitalisation in the Midland Region from 2012-2019.

Ophthalmology

Dr James McKelvie

Visual changes in ageing eye diseases.

Orthopaedics

Joseph Baker

Burnout amongst Spinal Surgeons

Unstable Intertrochanteric Neck of Femur Fractures in the Geriatric Population: Short or Long Proximal Femoral Nail (PFN)?

Otolaryngology

Dr Andrew Wood

A retrospective study of the use, safety and effectiveness of tranexamic acid in sinonasal surgery.

Plastic Surgery

Young Lee

Cleft palate width in New Zealand and correlation with incidence of post-operative palatal fistula.

Urology

Dr Li Sian Low

Ethnic Disparities in Presentation, Management and Outcome of Testicular Cancer.

Vascular

Mr Thodur Vasudevan

A Prospective, Multi-Center, Single-Arm Study Assessing the Clinical Use of the CATERPILLAR™ Arterial Embolization Device System for Arterial Embolization in the Peripheral Vasculature (Chrysalis)

The Randomized And Controlled Noninferiority Trial to Evaluate Safety and Clinical Efficacy of the SurVeil™ Drug-Coated Balloon in the Treatment of Subjects with Stenotic Lesions of the Femoropopliteal Artery Compared to the Medtronic IN.PACT® Admiral® Drug-Coated Balloon (Transcend)

Vascular Surgery

Dr Magnus Cheesman

Detection, Surveillance, Intervention and Follow up of Peripheral Aneurysms in NZ (DSIF-PANZ)

Thames

Oncology

Deepa Areekkarayil Sahadevan

Outcomes of Women who received adjuvant chemotherapy for Breast cancer at Waikato and Midland regional hospitals from 2009 to 2011.

Women's and Child Health

Child Development Centre

Dr Kate Wallace

Experiences of Transition to Adult Health Care from Young Adults with Cystic Fibrosis.

NICU

Dr Jutta van den Boom

Can Pentoxifylline improve long-term outcomes in preterm infants with late-onset sepsis or necrotizing enterocolitis? A pragmatic, randomised, placebo controlled trial (PROTECT the preterm brain) Protocol CTC 0139.

Obstetrics and Gynaecology

Dr Victoria Carlsen

The C*STEROID Feasibility Study: Corticosteroids before planned caesarean section from 35+0 to 39+6 weeks.

Paediatrics

Dr Alexandra Wallace

Bronchiolitis in Infants Placebo versus Epinephrine and Dexamethasone Study (BIPED Study)

Studies registered but not approved 1 July 2019 to 30 June 2020

The table below shows the research projects that were registered in the period 1 July 2019 to 30 June 2020, but had not yet been approved as at 30 June 2020, by department, service and the principal investigator at Waikato DHB.

Where the research is being done by a principal investigator outside of Waikato DHB, and there is no Waikato DHB investigator, these are noted as "External PI".

Allied Health

Hand Therapy

Aarti Parekh

A comparison of metacarpophalangeal joint blocking splint with relative motion extension splint for trigger finger.

Physiotherapy

Susan Haywood

What is the efficacy of Community OT as evaluated using TOMs outcome measure?

Speech Language Therapy

Kate McGaw

Health Professionals' knowledge and attitudes regarding enteral feeding in advanced dementia.

Child Health

Newborn Intensive Care Unit

Robyn Hills

An Ethnography of Infant Feeding in New Zealand Neonatal Intensive Care Units.

Corporate

Corporate

Ross Lawrenson

End of life and homelessness in Aotearoa New Zealand: Barriers and challenges to access care prior to death.

Strategy and Funding

(External PI)

Māori co-designed intervention to refocus New Zealand health service delivery for improved engagement and responsiveness with Māori māmā hapū and pēpi: Investigate the development, use and impact of a holistic assessment tool within a Kaupapa Māori antenatal programme context.

Medicine

Gastroenterology

Clarence Kerrison

The Narratives of Māori Referred for Colonoscopy.

Regional Diabetes Services

Elizabeth Lewis-Hills

Ngā Hua o te Kōpū - Improving health outcomes for Māori wāhine with diabetes in pregnancy.

Renal

Dr Eddie Tan

A Targeted Education ApproaCH to improve Peritoneal Dialysis outcomes (TEACH PD)

Rheumatology

Dr Kamal Solanki

A phase IIa, double-blind, randomised, intracohort, placebo-controlled, multi-centre study to evaluate the safety, tolerability and preliminary efficacy of EHP-101 in patients with Diffuse Systemic Sclerosis.

Older Persons and Rehabilitation

Older Persons and Rehab

Shannon Tisbury

What are the experiences of healthcare assistants working in a community stroke rehabilitation service?

Oncology

Medical Oncology

Dr Alvin Tan

A Phase 3 Randomized, Double-Blind Study of Nivolumab or Placebo in Combination with Docetaxel, in Men with Metastatic Castration-resistant Prostate Cancer (CheckMate 7DX: CHECKpoint pathway and nivolumab clinical Trial Evaluation 7DX) CA2097-DX.

Dr Marion Kuper

A Randomised phase II trial evaluating the efficacy of a nivolumab monotherapy lead in “window” or commencement of nivolumab concurrently with paclitaxel and carboplatin as neoadjuvant therapy in early stage triple negative breast cancers BCT1902 / Neo-N.

Jaden Wong

Epigenomic profiling to predict patient response to melanoma immunotherapy.

Michael Jameson

A Phase 2 study of REGN2810, a fully human monoclonal antibody to programmed death – 1 (PD-1), in patients with advanced cutaneous squamous cell carcinoma (R2810-ONC-1540).

Surgical and Critical Care

Cardiothoracic Surgery

Minesh Prakash

Accuracy of pre-operative aortic annulus measurement in determining aortic valve size for aortic valve replacement surgery.

Smartphone walking apps use in inpatients awaiting cardiac surgery.

Socioeconomic status and severity of cardiac disease in Waikato cohort.

Usefulness of thoracic aorta ratio for aortic root replacement.

Dermatology

Amanda Oakley

Preliminary assessment of artificial intelligence for decision support for suspected skin cancers (Skin lesion AI)

Psoriasis Area and Severity Index: A comparison of Patient-Oriented PASI (PO-PASI) with PASI scored by health professionals.

Intensive Care Unit

Minsesh Prakash

Propofol infusion and hypertriglyceridaemia.

Midland Trauma System

Dr Grant Christey

What's happening on the footpath: injury events in the Midland Region, 2012-2019.

Neurosurgery

Shriranshini Satheakeerthy

Radiological predictors of outcome after posterior cervical foraminotomy based on pre-operative MRI.

Ophthalmology

Nancy Wang

Diagnostic Criteria for Neuroimaging in Acute Paediatric Strabismus at Waikato DHB.

Women's and Child Health

NICU

Dr Phil Weston

Multicentre randomised controlled trial of surfactant plus budesonide to improve survival free of bronchopulmonary dysplasia in extremely preterm infants (PLUSS).

Obstetrics and Gynaecology

Dr Joy Marriott

Current practice in the treatment of postpartum anaemia in New Zealand: an observational study

Appendix B

List of publications 2019

Mental Health and Addictions

1. **Dey S, Mellsop G**, Diesfeld K, Dharmawardene V, Mendis S, Chaudhuri S, Deb A, Huq N Ahmed H, Shuaib M, Khan F R. Comparing Legislation for Involuntary Admission and Treatment of Mental Illness in Four South Asian Countries. *Int J Ment Health Syst*. 2019 Oct 24;13:67. doi: 10.1186/s13033-019-0322-7. eCollection 2019.
2. **Mellsop GW, Tapsell R**. A hypothesis arising from the epidemiology of schizophrenia in Māori. *Aust N Z J Psychiatry*. 2019 Jan;53(1):13-14. doi: 10.1177/0004867418810180.
3. Lexchin J, **Menkes DB**. Can direct-to-consumer advertising of prescription drugs be effectively regulated? *N Z Med J*. 2019 Jun 7;132(1496):59-65.
4. Brailion A, Lexchin J, Noble JH, **Menkes D**, M'sahli L, Fierlbeck K, Blumsohn A, Naudet F. Challenging the promotion of antidepressants for nonsevere depression. *Acta Psychiatr Scand*. 2019 Mar;139(3):294-295. doi: 10.1111/acps.13010.
5. Nauta K, Boenink AD, Wimalaratne IK, **Menkes DB, Mellsop G**, Broekman B. Attitudes of general hospital consultants towards psychosocial and psychiatric problems in Netherlands. *Psychol Health Med*. 2019 Apr;24(4):402-413. doi: 10.1080/13548506.2018.1546020.
6. Wang J, Zhang SM, Zhong SL, **Mellsop G**, Guo HJ, Li QG, Zhou JS, Wang XP. Gender differences among homicide offenders with schizophrenia in Hunan Province, China. *Psychiatry Res*. 2019 Jan;271:124-130. doi: 10.1016/j.psychres.2018.11.039.
7. Zhong S, Zhu X, **Mellsop G**, Guo H, Chen Y, Luo C, Li Q, Zhou J, Wang X. Mental Health Problems, History of Drug Use, and Violent Offending Are Associated With Increased Suicide Risk in Imprisoned Females. *Front Psychiatry*. 2019 Jun 6;10:395. doi: 10.3389/fpsy.2019.00395.

Vascular

8. **Chiang N, Rodda O, Oldham S, Sleight J, Vasudevan T**. Effects of compression therapy and venous surgery on tissue oxygenation in chronic venous disease. *Phlebology*. 2019 Aug;34(7):474-480. doi: 10.1177/0268355518822582.
9. Wild J, **Kos X**, Delasau I. Rare case of superior mesenteric artery pseudoaneurysm and arteriovenous fistula following blunt abdominal trauma. *ANZ J Surg*. 2019 Sep 14. doi: 10.1111/ans.15428.
10. **Hart O, Holdaway C**. Optimising in-patient stays for surgical patients-an analysis utilising the Red and Green Bed Days management system. *N Z Med J*. 2019 Aug 16;132(1500):29-39.

Cardiothoracic

11. **El Gamel A**. Medical 3D Printing. Is This Just The Beginning? *Heart Lung Circ*. 2019 Oct;28(10):1457-1458. doi: 10.1016/j.hlc.2019.08.004.
12. **El Gamel A**, Cochrane AD.. On and Off Pump: The Marriage of Opposites With Potential Long-Term Rewards. *Heart Lung Circ*. 2019 Aug;28(8):1141-1143. doi: 10.1016/j.hlc.2019.05.173.
13. **El Gamel A**. Sternal Closure: The Elusive Holy Grail. *Heart Lung Circ*. 2019 Mar;28(3):358-359. doi: 10.1016/j.hlc.2019.01.003.
14. **Gimpel D, Fisher R**, Khan Z, **McCormack DJ**. Primary care management of chest pain after coronary artery bypass surgery. *BMJ*. 2019 Apr 12;365:l1303. doi: 10.1136/bmj.l1303.
15. **El Gamel A**. Ascending Aortic Aneurysm Wrapping: The Renaissance of an Old Technique. *Heart Lung Circ*. 2019 Dec;28(12):1770-1772. doi: 10.1016/j.hlc.2019.10.003.
16. **El Gamel A**. The Destructive Power of Microorganisms: Aortic Root Endocarditis Continues to Be a Threat to the Patient and a Challenge for the Surgeon. *Heart Lung Circ*. 2019 Jul;28(7):984-985. doi: 10.1016/j.hlc.2019.05.002.

17. **EI Gamel A.** Minimal Access Aortic Root Surgery: An "Elite Sport" or Is it for Everyone? *Heart Lung Circ.* 2019 Dec;28(12):1767-1769. doi: 10.1016/j.hlc.2019.10.002.
18. **Singh N, Gimpel D, Parkinson G, Conaglen P, Meikle F, Lin Z, Kejriwal N, Odom N, McCormack DJ, EI-Gamel A.** Assessment of the EuroSCORE II in a New Zealand Tertiary Centre. *Heart Lung Circ.* 2019 Nov;28(11):1670-1676. doi: 10.1016/j.hlc.2018.09.004.
19. Myles PS, Smith JA, Kasza J, Silbert B, Jayarajah M, Painter T, Cooper DJ, Marasco S, McNeil J, Bussi eres JS, McGuinness S, **Byrne K**, Chan MTV, Landoni G, Wallace S, Forbes A; ATACAS investigators and the ANZCA Clinical Trials Network. Tranexamic acid in coronary artery surgery: One-year results of the Aspirin and Tranexamic Acid for Coronary Artery Surgery (ATACAS) trial. *J Thorac Cardiovasc Surg.* 2019 Feb;157(2):644-652.e9. doi: 10.1016/j.jtcvs.2018.09.113.
20. **EI Gamel A.** Aortic Valve Repair: The Unfulfilled Destiny. *Heart Lung Circ.* 2019 Jul;28(7):986-987. doi: 10.1016/j.hlc.2019.05.003.
21. **Gimpel D, Ni Leathlobhair N, Conway J, Magoye T, Macemon J, Macleod M, Nixey K, Odom N, McCormack DJ, Kejriwal N, Meikle F, EI-Gamel A, Lin Z.** External stabilisation with vacuum assisted contrivance (ES-VAC) for chest wall injuries sustained from cardiopulmonary resuscitation. *Resuscitation.* 2019 Apr;137:49-51. doi: 10.1016/j.resuscitation.2019.01.028.
22. **Gimpel D, Shanbhag S,** Srivastava T, **MacLeod M, Conaglen P, Kejriwal N, Odom N, Lin Z, McCormack DJ, EI-Gamel A.** Early Discharge From Intensive Care After Cardiac Surgery is Feasible With an Adequate Fast Track, Stepdown Unit: Waikato Experience. *Heart Lung Circ.* 2019 Dec;28(12):1888-1895. doi: 10.1016/j.hlc.2018.11.002.
23. **Singh N, Gimpel D, Zaman Z, French R, Conaglen P.** A novel treatment option in the management of traumatic hemothorax. *J Trauma Acute Care Surg.* 2019 Feb;86(2):374-375. doi: 10.1097/TA.0000000000002122
24. Kelleher R, **Gimpel D, McCormack DJ, EI-Gamel A.** Does the use of an in situ or Y-configuration for bilateral internal thoracic arteries influence long-term survival, patency or repeat revascularization in coronary bypass surgery? *Interact Cardiovasc Thorac Surg.* 2019 Feb 1;28(2):222-226. doi: 10.1093/icvts/ivy195.
25. **Gimpel D, Conway J, Meikle F, Lin Z, McCormack DJ, EI-Gamel A.** Acute shortness of breath due to reoccurrence of an intrapericardial bronchogenic cyst. *Respirol Case Rep.* 2019 May 17;7(5):e00431. doi: 10.1002/rcr2.431.
26. **Gimpel D, Magoye T, McCormack DJ, EI-Gamel A, Kejriwal N.** Inadvertent puncture of right ventricle during chest tube insertion. *ANZ J Surg.* 2020 Mar;90(3):376-378. doi: 10.1111/ans.15132.

Breast Surgery

27. **Lao C, Lawrenson R, Edwards M, Campbell I.** Treatment and survival of Asian women diagnosed with breast cancer in New Zealand. *Breast Cancer Res Treat.* 2019 Sep;177(2):497-505. doi: 10.1007/s10549-019-05310-z.
28. **Lawrenson R, Lao C, Ali A, Campbell I.** Impact of radiotherapy on cardiovascular health of women with breast cancer. *J Med Imaging Radiat Oncol.* 2019 Apr;63(2):250-256. doi: 1
29. **Lawrenson R, Lao C,** Jacobson G, Seneviratne S, **Scott N,** Sarfati D, Elwood M, **Campbell I.** Outcomes in different ethnic groups of New Zealand patients with screen-detected vs. non-screen-detected breast cancer. *J Med Screen.* 2019 May 8;969141319844801. doi: 10.1177/0969141319844801. 0.1111/1754-9485.12838.

Endocrine Surgery

30. Woodhouse B, Pattison S, Segelov E, Singh S, Parker K, Kong G, Macdonald W, Wyld D, **Meyer-Rochow G**, Pavlakis N, Conroy S, Gordon V, Koea J, Kramer N, Michael M, Wakelin K, Asif T, Lo D, Price T, Lawrence B; Commonwealth Neuroendocrine Tumour Collaboration (CommNETs). Consensus-Derived Quality Performance Indicators for Neuroendocrine Tumour Care. *J Clin Med*. 2019 Sep 12;8(9):1455. doi: 10.3390/jcm8091455.
31. Ioannou LJ, Serpell J, Dean J, Bendinelli C, Gough J, Lisewski D, Miller JA, **Meyer-Rochow W**, Sidhu S, Topliss D, Walters D, Zalcborg J, Ahern S. Development of a binational thyroid cancer clinical quality registry: a protocol paper. *BMJ Open*. 2019 Jan 28;9(1):e023723. doi: 10.1136/bmjopen-2018-023723.

General Surgery

32. Lurvink RJ, Villeneuve L, Govaerts K, de Hingh IHJT, Moran BJ, Deraco M, Van der Speeten K, Glehen O, Kepenekian V, Kusamura S; **Ly Jasen**; List of PSOGI collaborators et al. The Delphi and GRADE methodology used in the PSOGI 2018 consensus statement on Pseudomyxoma Peritonei and Peritoneal Mesothelioma. *Eur J Surg Oncol*. 2019 Mar 23;S0748-7983(19)30337-3. doi: 10.1016/j.ejso.2019.03.012.

Trauma

33. Dalziel SR, Borland ML, Furyk J, Bonisch M, Neutze J, Donath S, Francis KL, Sharpe C, Harvey AS, Davidson A, Craig S, Phillips N, George S, Rao A, Cheng N, Zhang M, Kochar A, **Brabyn C**, Oakley E, Babl FE; PREDICT research network. Levetiracetam versus phenytoin for second-line treatment of convulsive status epilepticus in children (ConSEPT): an open-label, multicentre, randomised controlled trial. *Lancet*. 2019 May 25;393(10186):2135-2145. doi: 10.1016/S0140-6736(19)30722-6.
34. O'Brien S, Borland ML, Cotterell E, Armstrong D, Babl F, Bauert P, **Brabyn C**, Garside L, Haskell L, Levitt D, McKay N, Neutze J, Schibler A, Sinn K, Spencer J, Stevens H, Thomas D, Zhang M, Oakley E, Dalziel SR; Paediatric Research in Emergency Departments International Collaborative (PREDICT) Network, Australasia. Advanced airway management during adult cardiac arrest: A systematic review. *Australasian bronchiolitis guideline*. *J Paediatr Child Health*. 2019 Jan;55(1):42-53. doi: 10.1111/jpc.14104.
35. Granfeldt A, Avis SR, **Nicholson TC**, Holmberg MJ, Moskowitz A, Coker A, Berg KM, Parr MJ, Donnino MW, Soar J, Nation K, Andersen LW; International Liaison Committee on Resuscitation Advanced Life Support Task Force Collaborators. Resuscitation. 2019 Jun;139:133-143. doi: 10.1016/j.resuscitation.2019.04.003.
36. McCarthy **E**, **McClain**. Methamphetamine-Induced Lung Injury. *Eur J Case Rep Intern Med*. 2019 Jun 17;6(6):001067. doi: 10.12890/2019_001067.
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