The Prince Charles Hospital Human Research Ethics Committee, Metro North Health Service District is established at the Metro North Health Service District, Queensland Health (QH). It is constituted and functions in accordance with the NHMRC ‘National Statement on Ethical Conduct in Human Research’ (2007) – the National Statement (NS); complies with the ‘Australian Code for Responsible Conduct of Research (The Code; 2007; QH Research Management Policy and Framework (QHRMP; 2010) and the ICH-GCP Guidelines.

The key objectives of the ethics committee are to protect the mental and physical welfare, rights, dignity and safety of participants of research; facilitate ethical research through efficient and effective review processes; promote ethical standards of human research and ensure that all clinical and health research is conducted ethically and responsibly. The Committee is responsible in providing independent, competent and timely review of research projects in respect of their scientific merits and ethical acceptability; monitoring approved research studies; and provides advice at any time to the Executive Director TPCH (ED TPCH), through the relevant Research Governance officer (RGO) and coordinating principal investigator.

The Human Research Ethics Committee (HREC) provides independent, competent and timely review of research projects, to protect the mental and physical welfare, rights, dignity and safety of participants of research; to facilitate ethical research through efficient and effective review processes; to promote ethical standards of human research and ensure that all clinical and health research is conducted ethically and responsibly. The Committee requires the Principal Investigator (or Coordinating Principal Investigator for multicentred studies) to keep adequate research records and provide access when requested to the HREC. Provide progress reports at intervals specified by the HREC and at completion of any research but not less than annually.

As per the Australian Code for the Responsible Conduct of Research 2007 the institution has nominated a ‘designated person’ for handling research complaints, including research misconduct. The ‘designated person’ for the TPCHMNHS HREC is Philip Lee, Executive Officer. Any concern, allegations or complaints about the conduct of a project must be reported, in the first instance, to the ‘designated person’ of the institution where the approving HREC sits, to the secretariat of the approving HREC who will enter the complaint details on AU RED and to the local site RGO Processing of research complaints, including research misconduct and fraud, will be as per the QH HREC SOP.
With the support of the hospital, the Breeze Café kitchen was expanded to improve our service and allow for more external catering. The café front of house has also been revamped, with new floorings, furniture and paint. An additional outside dining area was built to provide more undercover tables for our customers.

The Foundation also renewed our own brand, introducing a new blue ribbon heart logo reflecting the excellence of care and research here at The Prince Charles Hospital. We ran two awareness campaigns, sharing the “I lived” stories of patients who have been given a second chance and spreading the word about our wonderful hospital.

You can support research at The Prince Charles Hospital by donating online at www.tpchfoundation.org.au or by calling 3139 4636.

The Foundation also formalised multi-year research funding agreements with three corporate partners. Engineering and construction company Baulderstone, financial advisors Q Invest, and entertainment venue Kedron Wavell Services Club have come on board to support research projects and care at the hospital. Through these partnerships, we attracted an additional $320,000 of support for research.

Over the year, we signed three high profile Ambassadors to help promote the excellence of our hospital and researchers. The Hon Wayne Swan MP, Sharif Deen and Rachael Bermingham have all committed to helping The Prince Charles Hospital and its Foundation find cures and save lives.

More than 1400 volunteers worked at our three stalls at the Ekka, making and selling 160,000 strawberry sundaes. Despite the weather, this was one of our best fundraising years at the Ekka and thanks to the hard work of our wonderful volunteers we raised over $147,000 to fund research.
Allied Health
Allied Health Research Collaborative

Name of Program
Allied Health

Name of Research Unit
Allied Health Research Collaborative

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History
The Allied Health Research Collaborative commenced in July 2010 with the appointment of four Research Fellow Positions. Three have been filled, Dr Petrea Cornwell (Chronic Disease), Dr Suzanne Kuys (Cardiothoracic) and Peter Lazzarini (Podiatry).

Affiliations
- 39 Existing Research Groups at TPCH and Associated Community Services
- Allied Health Workforce Advice and Coordination Unit (AHWACU)
- Griffith University
- RBWH Centre for Allied Health Research
- PAH Centre for Function, Disability and Health
- Clinical Education and Training Queensland (ClinEdQ)
- TPCH Research Foundation
- Griffith Health Institute (GHI)
- Institute of Health and Biomedical Innovation, Queensland (QUT)
- International Centre for Allied Health Evidence (iCAHE)
- University of Queensland

Currently provide supervision of five PhD students, two M Phil and several honours students.

Current Research Projects
1. Functional outcomes following stroke: a multicentre trial.
2. Treadmill training at high intensity to improve walking and cardiorespiratory fitness following stroke: a randomised controlled trial
3. Functional outcomes, exercise capacity and recovery for patients after cardiac surgery.
4. Prevalence of falls and musculoskeletal conditions in people with chronic heart failure: an observational study
5. Mobilisation of hospital patients admitted with acute exacerbation of heart failure (MOBILE-HF Study)
6. Determinants for attainment and maintenance of paid employment after Lung Transplant.
7. Facilitating successful transition of adults with traumatic brain injury (TBI) to the home, community and workplace via communication training
8. Efficacy of tai chi as a biopsychosocial intervention for pulmonary hypertension

Major Research Highlights
A Grant Writing workshop have been completed in August 2010 and a two-day Research Education and Development (RED) Program completed by 20 participants in October 2010.
### Allied Health

**Allied Health Research Collaborative**

#### Financial Details

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Project Title</th>
<th>Amount</th>
<th>Date</th>
<th>Funding Body</th>
</tr>
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<tbody>
<tr>
<td>Jack Bell, Suzanne Kuys</td>
<td>Identification of best methods of nutrition screening and assessment in fractured neck of femur patients.</td>
<td>$9830</td>
<td>2010</td>
<td>The Prince Charles Hospital Foundation Novice Researcher Project Grant.</td>
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<tr>
<td>P Polner, O Tronstad, A Clarke, B Pearse, Suzanne Kuys</td>
<td>Functional outcomes, exercise capacity and recovery for patients after cardiac surgery.</td>
<td>$13,496</td>
<td>2010</td>
<td>The Australasian Society of Cardiac and Thoracic Surgeons Research Foundation Grant</td>
</tr>
<tr>
<td>J Gesch, J Griffin, J Fleming, Suzanne Kuys</td>
<td>Investigating the effect of Nintendo Wii Fit on endurance, gait speed and balance in people with a traumatic brain injury.</td>
<td>$10,000</td>
<td>2010-11</td>
<td>QH HP Research Grant</td>
</tr>
<tr>
<td>U Dolecka, C Prescott, J Fleming, Suzanne Kuys</td>
<td>The use of spaced retrieval, errorless learning and vanishing cues in retraining sit to stand in patients with dementia during hospitalisation.</td>
<td>$10,000</td>
<td>2010-11</td>
<td>QH HP Research Grant</td>
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<tr>
<td>Hopper, J.D., Cornwell, P.L.</td>
<td>Determinants for attainment and maintenance of paid employment after Lung Transplant.</td>
<td></td>
<td></td>
<td>The Prince Charles Hospital Foundation Novice Researcher Project Grant.</td>
</tr>
</tbody>
</table>
Allied Health
Allied Health Research Collaborative

Publications


Kuys SS, Dolecka UE, Morrison CA. Appropriate seating for medical patients: an audit. Accepted Australian Health Review 28 October 2010.

Simmons NC, Kuys SS. Trial of an Allied Health Workload Allocation Model. Australian Health Review Accepted 7 October 2010.


Turner B, Fleming J, Ownsworth T, Cornwall P. Perceived service and support needs during transition from hospital to home following acquired brain injury. Accepted Disability & Rehabilitation November 2010.

Doig EJ, Fleming J, Cornwall P, Kuipers P. Comparing the experience of outpatient therapy in home and day hospital settings after TBI: patient, significant other and therapist perspectives. Accepted Disability & Rehabilitation November 2010.


Cornwell PL, Cahill LM. Acquired childhood dysarthria in a school-aged child. In S. Chabon & E. Cohn (Eds.), Communication disorders: A case-based approach, stories from the frontline 2010, Allyn & Bacon.

Doig E, Fleming J, Kuipers P, Cornwall PL. Clinical utility of the combined use of the canadian occupational performance measure and goal attainment scaling. American Journal of Occupational Therapy, 2010; 64(6), 904-904.


Leach E, Cornwall P, Fleming J, Haines T. Patient centered goal-setting in a subacute rehabilitation setting. Disability and Rehabilitation, 2010; 32(2), 159-172.


Allied Health

Mental Health Research Program

The Research Unit operates within
The Allied Health Research Collaborative

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Mental Health Research Program

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History
The Mental Health Research Program is a new initiative, commencing in July 2010 with the appointment of an Acting Principal Research Fellow (Donna Ward). Operating within the newly formed Metro North (Northern) Allied Health Research Collaborative, the mission is to build research capacity in the area’s Mental Health workforce. While the team looks forward to the recruitment of the permanent Principal Research Fellow, currently underway, the initial development of the Mental Health Research Program has successfully commenced.

The preliminary research agenda for the Mental Health Research Development Program has evolved to include three research streams within areas that align with National, State and District Mental Health Service priorities: (a) Translating Evidence into Program Delivery; (b) Improving Carer Support and Engagement, and; (c) Mental Health across the Health Care Continuum. Review of the research streams and priorities, however, continues and may involve the conduct of a service level and multi-disciplinary research planning forum that will link the National and State priorities with the unique needs and interests of the local District’s Mental Health research plan. The need for a clear research program that can attract funding and become self-sustaining will be balanced with a mission of the AHRC: to encourage clinician led research initiatives that directly build research capacity and innovation.

Currently, four clinician-led research projects have received ethical approval and are at varying stages of completion. A further three are in conceptualisation and planning phases.

Affiliations
The position of Acting Principal Research Fellow (Mental Health) underpins the Mental Health Research Program. The position functions in the newly formed Health Practitioner Resource Unit, within the Metro North Health Service district in partnership with the Queensland University of Technology (QUT) Institute of Health and Biomedical Innovation (IHB1), through a multidisciplinary adjunct appointment with the School of Psychology and Counselling, Faculty of Health at the Kelvin Grove Campus. The position, currently shared by Donna Ward and Dr Michael Radel, is a three-year position with possibility of extension until June 2014.

PhD supervision or other items of notable academic merit:
The Mental Health Research Program currently supports:

1. One PhD project in collaboration with QUT: Does Cognitive Functioning Assist in Distinguishing Subjects with Dissociative Identity Disorder from those with Schizophrenia?

Amy Wong (PI), a clinical psychologist working as the Multicultural Mental Health Coordinator with Clinical Support Services for Metro North Mental Health Services, leads this PhD research under the supervision of Professor Robert King (QUT), Professor Warwick Middleton and Dr James Scott (Queensland Health)

Aim: To explore the difference in cognitive functioning between schizophrenia and DID.

Rationale: People with dissociative identity disorder (DID) receive treatment in mental health services for six to seven years on average before receiving diagnosis of DID. During that lengthy treatment period, a number of diagnoses are often made. Due to the presentation of positive psychotic symptoms, common to both DID and Schizophrenia, previous diagnoses of Schizophrenia is most common. Although
Allied Health

Mental Health Research Program

experts in the field have posited that differences in cognitive function may distinguish the two disorders, there has been a lack of supportive research.

Method: Following formal diagnostic assessment, the researcher will assess and compare the cognitive functioning of 40 participants with DID, 40 with schizophrenia, and a community sample, also exploring potential effects of co-morbidity on cognition.

Expected Outcomes: Determining whether the presence of cognitive deficits distinguishes DID from schizophrenia; have the potential to inform diagnostic decisions, subsequently improving treatment outcomes.

2. One Clinical Doctoral student project in collaboration with QUT: Recovery from Psychosis: Learning from Lived Experience.

Melissa Connell (PI), a Clinical Doctoral student at the QUT, leads this research, supervised by Associate Professor Robert Schweitzer (QUT), Professor Robert King (QUT) and Donna Ward (Queensland Health).

**Aim:** To investigate the ways in which individuals make meaning from their experience of psychosis and how this may influence the recovery trajectory of these individuals can contribute to the development of early interventions for this population.

**Method:** The research will utilize a mixed methodology to identify themes associated with positive and negative recovery trajectories. Qualitative methods will be used to identify the main themes around participant’s subjective experiences of psychosis. Quantitative method will employ a repeated–measures design to compare participants who have made the most and least improvements in recovery, six months after initial FEP.

**Expected Outcomes:** This research will contribute to early interventions for FEP. Providing a richer understanding of how people with positive and negative recovery trajectories make meaning of their illness will inform clinicians in fostering constructive interpretations of illness and instilling a recovery orientation.

**Research Projects**

1. Impact of Cognitive Remediation Therapy for Psychosis on Core Cognitive Processes among People with Early and Chronic Stage Illness.

Olaf Handrick (PI), Advanced Clinical Psychologist working with the Medium Secure Unit, leads this research with the support of a multidisciplinary team.

**Aim:** To measure cognitive and functional impact of a computerised Cognitive Remediation Treatment (CogPac) in distinct clinical populations with different levels of chronicity and different treatment settings.

**Rationale:** Previous international studies focused on the whole group of severe mental illness and were not conducted within the social economic context of Qld. The current research was designed to gather locally grounded evidence within three clinical subpopulations aligned to different services, i.e. community and inpatient.

**Method:** This research utilizes quantitative repeated measures methodology. Following recruitment of 50 participants with enduring psychotic symptoms from four clinical locations – Medium Secure Unit, Early Psychosis Service, Mobile Intensive Support Team, Community Care, participants will be assessed using neuro-psych test battery and inventories, then administered 40 one-hour sessions of computer based CRT.

**Expected Outcomes:** Should CRT be shown as effective, implementation of CRT as standard practice in the local service setting will improve outcomes of mental health consumers with severe and enduring psychotic symptoms by remediating the impact of cognitive decline associated with this population.

2. Promoting Recovery for Early Psychosis Clients by Effectively Assisting and Supporting Caregivers in their Roles.

Roslyn Kaiser (PI), Senior Social Worker with the Medium Secure Unit, leads this project, with support from Dr Mark Brough, Director of Research, QUT Social Work and Human Services.

**Aim:** To explore the experience of carers of loved ones with early psychosis, specifically to determine: (a) carers’ unmet needs; (b) the barriers or problems in attending supportive programs, specifically the Strengthening Families Program, and; (c) how TPCH might further support caregivers.

**Rationale:** Previous research indicates the important contribution of carers to the wellbeing of individuals with early psychosis. Current intervention programs may not be meeting the needs of carers.

**Participant group:** Approximately 20 adult family members or carers of individuals with early psychosis.

**Method:** The researcher will engage participants in an interview which will include: (a) a questionnaire into the demographic and caring experiences of carers, and; (b) a qualitative interview will explore the experiences of carers in accessing supportive services, specifically the Strengthening Families Program, with emphasis on associated unmet needs, barriers and obstacles.

**Expected outcomes:** Research findings will provide a richer understanding of carers’ experience than currently exists to inform future programs to more effectively assist the well being of carers and of consumers with early psychosis.


**Major Research Highlights**

Two current projects accepted for presentation in The Allied Health Research Showcase on the 15th November 2010:

1. Impact of Cognitive Remediation Therapy for Psychosis on Core Cognitive Processes among People with Early and Chronic Stage Illness

2. Promoting Recovery for Early Psychosis Clients by Effectively Assisting and Supporting Caregivers in their Roles

**Financial Details**

Promoting Recovery for Early Psychosis Clients by Effectively Assisting and Supporting Caregivers in their Roles: Received $590 from The Prince Charles Hospital Foundation

The Mental Health Research Program has received considerable financial and in-kind support through the contributions of Mental Health Services, Allied Health Directorate and the Queensland University of Technology.
Allied Health
Nutrition and Dietetics

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Allied Health

Name of Unit
Nutrition and Dietetics

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History
The Prince Charles Hospital Department of Nutrition and Dietetics has an increasing participation in local inter-disciplinary research programs as well as discipline specific local and international research projects.

Although the research capacity of the department is still developing, 2009 and 2010 have seen an expansion of the research program. Local interdisciplinary research activities are being progressed, several successful grants for research and equipment have been received, and 2010 represented the highest ever participation by the department in national and international conference presentations. The research capacity of the department has been expanded through staff participation in grant writing workshops, active research programs and the Research, Education and Development (RED) program.

Exciting prospects for 2011 include participation in the QUT Nutrition and Dietetics vacation and honours research programs and ongoing participation in current and new areas of research.

Affiliations

Internal:
Adult Cystic Fibrosis Unit
Advanced Heart Failure & Cardiac Transplant Unit
Allied Health Research Collaborative
Allied Health Research Group
Cancer Care Services
Critical Care Research Group
Internal Medicine Services
NOFEAR - Neck of Femur Education, Administration and Research Collaborative
Queensland Centre for Pulmonary Transplantation and Vascular Disease
Queensland Heart Failure and Transplant Unit
Tissue Viability Committee
The Prince Charles Hospital Foundation

External:
Australia, New Zealand Intensive Care Research Centre
Australian Society of Enteral and Parenteral Nutrition

Cancer Council Australia
Dietitians Association of Australia
Griffith University Faculty of Health
Integrated Nutrition Working Group
Queensland Dietitian and Nutritionist Strategic Coalition Research Group
Queensland University of Technology School of Public Health and Institute of Health and Biomedical Innovation
Queensland Wound Care Association, Australian Wound Management Association
The Alfred Hospital, Melbourne
University of Queensland School of Human Movement Studies

Research Projects

An evaluation of the nutritional status of heart failure patients at The Prince Charles Hospital
This is a non randomised, non blinded, non placebo observational study of TPCH heart failure patients with the aim to provide data on the current level of nutrient intake, nutrition status and biochemical indices.

Australia and New Zealand Nutrition Care Survey
The Australasian Nutrition Care Day Survey was being conducted in 58 acute care hospitals across Australia and New Zealand in June 2010.

This pioneering survey collected information regarding patients’ nutritional status and 24-hour dietary intake and will evaluate the associations with length of stay, one month in-hospital mortality, and number of readmissions.

New Projects (ethics pending)

Audit of periprofessional and postoperative management of patients with fractured neck of femur (ethics approval pending)
This project aims to collect data on current practices by multidisciplinary teams in caring for in hospital patients who undergo surgery for fractured neck of femur and compare them with established standards published by other working parties.

Improving the Practice of Nutrition Therapy in the Critically Ill: International Nutrition Survey 2011
Allied Health
Nutrition and Dietetics

The Prince Charles Hospital is registered to participate in this multi-site, international research project in May 2011. This quality improvement project is an observational, period-prevalence survey of nutrition therapies in critically ill patients in intensive care units across the world.

Observational study of nutrition therapy in adult patients requiring Extracorporeal Membrane Oxygenation in Australia and New Zealand

This research project is still in draft format, with TPCH critical care dietitian being one of the principal investigators. ANZIC-RC is likely to be co-ordinating the multi-centre international study and data collection aims to commence in the former part of 2011 for a 12 month period.

The study aims to answer the following questions: What are the current practices in the provision of nutrition therapy to adult patients on Veno-Venous (VV) or Veno-arterial (VA) Extracorporeal Membrane Oxygenation (ECMO) in Australia & what are the patient and system factors that impact on successful delivery?

Major Research Highlights

The receipt of two new researcher grants was a major research highlight for the department.

Other highlights include establishment of local research groups such as the Allied Health Research Collaborative (AHRC) and the NOFEAR collaborative, in addition to improved collaborations with existing research groups and tertiary institutions.

Angela Matson is currently an external supervisor for a Griffith University PhD Student who is commencing studies on BMI profiles in patients with Cystic Fibrosis. The Cystic Fibrosis Dietetic Service is also currently collaborating on another project with Dr Shawn Somerset and Griffith University on "nutritional outcomes for patients with cystic fibrosis during admission for infective exacerbation".

Queensland University of Technology is being engaged through a number of participants in the QUT Nutrition and Dietetics vacation research program, for example on "The use of continuous glucose monitoring systems in patients with cystic fibrosis".

The dietetics department was also asked to present research proposals at a recent ECMO Special Interest Group forum which attracted both interstate and international attendees (mainly Intensivists) interested in collaborative research. This resulted in the aforementioned development of a multi-site, international observational study of nutritional practises in ECMO, with The Prince Charles Hospital to be one of the co-investigators.

Another highlight was a new benchmark for the department with local research initiatives showcased via more than twenty conference presentations across national and international venues in 2010 alone.

Financial Details


TPCH Foundation Small Equipment Grant: Robins, E. Quark RMR Indirect Calorimeter: $29,005.

Private Practise Funding: Robins, E. Quark RMR Indirect Calorimeter: $29,005.

Publications


Ellick J. Food Solutions: after hours access to food and fluids at The Prince Charles Hospital. Nutrition & Dietetics 2010; 67 (Suppl. 1): 22–68.


Allied Health
Occupational Therapy

Name of Program
Allied Health

Name of Research Unit
Occupational Therapy

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History
Research has been continuing within the department since the late 1990s.

Department staff, Stella Snape-Jenkinson, (now working in Community Health) and Maureen Godfrey were the second and third authors of a 2005 publication titled “Effectiveness of hospital-based smoking cessation”, which was published in Chest. The research leading to this publication was conducted within the Department of Thoracic Medicine, The Prince Charles Hospital.

PhD completed by Dr Louise Gustafsson (now lecturing and conducting research at the University of Queensland).

Several department staff have been co-investigators / participants in a range of research activity directed by University of Queensland (Occupational Therapy and Psychology projects).

Kerryn Moules was awarded a Health Practitioner Research Scheme Grant in 2008. The research supported by this grant was presented at the Smart Strokes Conference. Two papers resulting from this research are currently being finalised prior to submission for publication.

Affiliations
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School of Health and Rehabilitation Sciences
The University of Queensland

Dr Petrea Cornwell
Senior Research Fellow (Chronic Disease)
Allied Health Research Collaborative
Metro North (Northern Cluster)

PhD supervision or other items of notable academic merit
Jessica Hopper is being mentored by Dr Petrea Cornwell who is a Senior Research Fellow within the Allied Health Research Collaborative, Metro North (Northern Cluster).

Research Projects

Current Research Projects
The “Determinants for attainment and maintenance of paid employment after Lung Transplant” project has been facilitated by Dr Peter Hopkins.

Financial Details
Jessica Hopper, the chief investigator was awarded a Novice Researcher grant of $5861.51 from The Prince Charles Hospital Foundation in December 2010.

Publications
From the current research project, a journal article is proposed and will be submitted to a scientific journal and the Australian Journal of Occupational Therapy.

Conference Presentations

Poster presentation at the International Heart and Lung Transplantation Society (ISHLT) Annual meeting and scientific session in San Diego on April 15, 2011.
Allied Health
Physiotherapy

Name of Program
Allied Health

Name of Research Unit
Physiotherapy Research Unit

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History
The Physiotherapy Department has had a long interest in research since the mid 1980s however, resources and skills in this area have been limited to candidates in higher research degrees and to involvement in research projects of medical teams. Few projects other than higher degrees were physiotherapy lead.

Well established links with the universities already exist through clinical education of pre-entry physiotherapists at all current university programs and with involvement in the steering committee and course development committee of the new Physiotherapy course at Australian Catholic University, Banyo.

The Allied Health Service at TPCH was successful in attracting funding for four of the 15 centrally funded Allied Health post-doctoral research positions. The Physiotherapy Department was instrumental in developing the proposal for two of these positions and will develop strong collaborations with these: Management of Chronic Disease; and Cardiothoracic: best practice guidelines for exercise based therapy. Both of these positions are jointly funded by Griffith University Gold Coast. It has been very exciting for staff to begin working closely with the respective appointees to these posts: Petrea Cornwell (Speech Pathologist) and Suzanne Kuys (Physiotherapist) with some promising impact thus far.

Affiliations

External:
• University of Queensland Physiotherapy Department
• University of Queensland Occupational Therapy Department
• Griffith University Gold Coast Campus Physiotherapy Department
• Australian Catholic University Banyo Campus - Physiotherapy Department
• Sydney University
• Queensland Physiotherapy Clinical Networks
• The Australian Lung Foundation
• Cystic Fibrosis Association QLD

Internal:
• Critical Care Research Group
• Adult Cystic Fibrosis Unit
• QLD Centre for Pulmonary Transplantation and Vascular Disease
• QLD Heart Failure and Transplant Unit
• Heart Failure Collaborative
• Northside Primary and Community Health Services (Cardiac Rehabilitation)
• Orthopaedic Program
• Internal Medicine Program

Future Plans
The Physiotherapy Department remains committed to increasing research across all core areas of the department – specifically, Thoracic Medicine, Cardiac Medicine and Surgery, Critical Care, Orthopaedics and Internal Medicine & Rehabilitation.

In late 2010 the Prince Charles Hospital Physiotherapy Department and the Australian Catholic University were successful in our application for an Academic Fellowship grant through the office of Health and Medical Research for a professor in Physiotherapy Rehabilitation and Neurology. This is a grant of $75,000pa for five years to establish this role. Australian Catholic University. This is a great opportunity to partner with ACU and to develop a strong evidence based to our practice across TPCH and associated services.

Current Research Areas

Cardiology:
• ‘Fast-track versus traditional cardiac rehabilitation: clinical outcomes and the use of the 6-minute walk and timed up and go tests’. N Bellet, R Francis, J Jacob, K Healy, N Morris a combined community / acute Physiotherapy and Griffith University project.
• An exercise programme following hospitalisation for Heart Failure: Does it add to disease management? Alison Mudge, Charles Denaro, George Javorsky, Adam Scott et al.
Allied Health
Physiotherapy

- Inpatient mobilisation and its outcomes on patients admitted with acute heart failure. Lisa Moore, Amy Bullen, Dr Suzanne Kuys, Trent Jaques, Oystein Tronstad, Dr George Javorsky and Dr Martin Brown. HREC/10/QPCH/99
- Prevalence of Falls in Elderly Individuals with Chronic Heart Failure: An Observational Study. Julie Adsett, Rita Hwang and Amy Bullen.
- Repeated Six Minute Walk Tests in Patients with Chronic Heart Failure: Are they Clinically Relevant? Julie Adsett, Amy Hodgden, Rita Hwang, Ellen Gibson, Kylie Houlihan, Robert Mullins and Dr Alison Mudge.

Cardiothoracic Surgery:

- A retrospective chart audit to test the validity of an outcome tool in predicting the outcomes of open heart surgery. L.Caruana, N. Bellet, D. Mullany, H. Bartlett, C. Carter, S. Spencer, N. Paxman, J. Rash and E. Mair.
- Functional outcomes, exercise capacity and recovery for patients after cardiac surgery. Oystein Tronstad, Bronwyn Pearse, Dr Peter Pohlnr, Dr Andrew Clarke and Dr Suzanne Kuys. HREC/10/QPCH/130

Critical Care:

- An investigation into the effect of positional changes on the regional distribution of ventilation in healthy subjects using Electrical Impedance Tomography (EIT). L. Caruana, J. Fraser, J. Paratz, A. Chang, O. Tronstad and J. Jacob
- Determination of the effect of patient positioning and suctioning using EIT.
- Amanda Corley, J. Fraser, L. Caruana, O. Tronstad and J. Jacob.
- Assessment of the generation of positive end expiratory pressure by high flow nasal prongs (Optiflow™) using electrical impedance tomography. Amanda Corley, L. Caruana, O. Tronstad, J. Jacob, E. Ventz and J. Fraser.

Internal Medicine & Rehabilitation:

- The efficacy of physiotherapy workstations compared to “one on one” physiotherapy in improving balance and mobility of frail elderly inpatients. Paul Bew, Nancy Low Choy, Dr Jennifer Nitz and Dr Terrence Haines.
- A pilot study examining the efficacy of the Falls Intervention and Risk Screening Tool (FIRST) in a General Medical Ward. A Economidis, P Bew, S. Gilbert and T Haines.
- Functional outcomes following stroke: a multicentre trial Dr Suzanne Kuys, Associate Professor Sandra Brauer, Greg Morrison and Paul Bew.
- The effect of the Nintendo Wii™ on participation levels in therapeutic interventions in a geriatric evaluation and management (GEM) unit (low intensity rehabilitation). Sharyn Furze, Rachael Jarrett and Dr. Suzanne Kuys. HREC/10/QPCH/39

Major Research Highlights

- One oral presentation at the QRPN conference 2010.

Orthopaedic Surgery:

- MARKER Study – Maximum Recovery After Knee Replacement – The University of Sydney Marlene Fransen (Professor Ross Crawford Coord TPCH/ HSN). Aaron Lamont Physiotherapy coordinator

Thoracic Medicine:

- The effects of Nintendo Wii exercise training in adults with cystic fibrosis. Kathleen Hall, Suzanne Kuys, Michelle Wood and Robyn Cobb.
- Identifying responders to pulmonary rehabilitation: A Retrospective Review. James Walsh, Jenny Paratz, Angela Chang, Zoe McKeough and Norm Morris.
- Investigation of criteria used in participant selection of pulmonary rehabilitation programs in Australia. James Walsh, Jenny Paratz, Zoe McKeough and Norm Morris.
- Exercise Intolerance in Adult Survivors of Extreme Preterm Birth. James Walsh, Norm Morris, Peter Grey and Daniel Chambers.
- Stretching in Cystic Fibrosis: Does it improve quality of life? Michelle Wood, Dr Angela Chang, Kathleen Hall, Robyn Cobb, Helen Seale, Dr Jenny Paratz and Dr Scott Bell
- Evaluation of haemodynamic responses during incremental exercise in trained and untrained pulmonary arterial hypertension (PAH) in different subclasses of PAH disease Helen Seale, Dr Dan Chambers, Kathleen Hall, Julie Harris, Dr Fiona Kermeen, Associate Professor Norm Morris. Dr Peter Hopkins, Dr George Javorsky, Dr David Platts, Dr Richard Slaughter, Rebecca Davis, Wendy Stugwell and Cherie Franks.
Allied Health
Physiotherapy

- The relationship between the physical activity level and six minute walk distance in Chronic Obstructive Pulmonary Disease patients. N. Morris, H. Seale, N. Stroud, J. Walsh, L. Adams and P. Zimmerman.
- No change in the six day physical activity level following pulmonary rehabilitation in COPD. H. Seale, N. Morris, J. Walsh and N. Sabapathy.
- One oral and poster presentation European respiratory Society Conference Barcelona 2010
- One poster presentation European CF conference Valencia 2010
- Physiotherapy Department as site for multi-centre trial:
  - Innovations in Clinical Education for Physiotherapy Students: multi site trial: Professor G. Jull, University of Queensland (N. Bellet TPCH contact person)
  - Clinical educators’ perception of allied health students' preparation and study approaches to clinical placements: P. Buttrum, A. Mandrusiak (N. Bellet TPCH contact person)
- PhD Supervision – Ongoing:
- Identifying responders to pulmonary rehabilitation. James Walsh, Jennifer Paratz, Norm Norris and Zoe McKeough.
  - Through the University of Queensland.
- Outcome measurements in Cardiac Rehabilitation. Nicole Bellet, Norm Morris, Lewis Adams. Through Griffith University, Gold Coast
- Masters Supervision – Ongoing:

Grants

- Functional outcomes, exercise capacity and recovery for patients after cardiac surgery. Oystein Tronstad, Bronwyn Pearse, Dr Peter Pohlner, Dr Andrew Clarke and Dr Suzanne Kuys. HREC/10/QPCH/130 – $13,496 from ASCTS research foundation.
Cardiac Surgery

Cardiac Surgery Clinical Information Service

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Cardiothoracic Surgery Program

Name of Unit
Cardiac Surgical Clinical Information Service

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History
The Cardiac Surgery Research Program has supported a Clinical Information System/Service in various forms since 1969, which focused principally on clinical audit and monitoring; and clinical research; primarily related to clinical effectiveness. The Cardiac Surgery Clinical Information Service (CSCIS) was formalised around 2000 and the unit has since been continuing to support Clinical Audit, Service Management and Research Activities. While other information intensive research has been supported by the unit in providing assistance as required by the now established Cardiac Surgery Research Unit; the primary interest of the unit itself, is in Health Services Research and Informatics that help promote improved clinical and health service decision-making.

Affiliations
The CSCIS collaborates in data integration research with the Computer Science Discipline, Faculty of Science and Technology at QUT; and is currently co-supervising one Masters Research student. Outcomes Monitoring research also has links with the QUT Faculty of Science and Technology, (Math, Info and Physical Sciences), Mathematical Sciences department.

Research Projects

Current Research Projects
Impact Of A Data Warehouse Model For Improved Decision Making In Healthcare – QUT Master of Information Technology project.

Continuation of Outcomes Monitoring analysis.

Publications

Clinical Informatics: a workforce priority for 21st century healthcare. Susan E. Smith, Lesley E. Drake, Julie-Gai Harris, Kay Watson and Peter G. Pohlner. Accepted by Australian Health Review.

Cardiac Surgery
Cardiac Surgery Research Unit

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• Dr M Windsor

Cardiothoracic Registrars
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• Dr C Cole
• Dr S Fukushima
• Dr R Naidoo
• Dr A Saraswat
• Dr B Shrestha
• Dr J Choudhary
• Dr P Joshi
• Dr P Ratnayake
• Dr B Adlei

History
The Prince Charles Hospital Cardiothoracic Research Unit was originally developed by the pre-eminent Cardiac Surgeon, Dr Mark O’Brien in the 1990s. The research unit was developed as a means to bridge the gap between what is known and what is unknown, and to positively influence the clinicians’ knowledge base and therefore clinical decision making ability, as a means of improving patient care. The research team also provides a robust foundation to support the training of Cardiothoracic Registrars and Cardiac Surgeons, while underpinning the progressive health care provided at The Prince Charles Hospital.

Affiliations
Fu Wai Hospital, Beijing
Jinan Medical University Hospital Shandong Province
Dong An Hospital, Mudanjiang, Heilonjiang Province
An Hui University Medical Hospital
Southern Railway Hospital, Perambur, Chennai
Apollo Hospital, Vishakapatnam, Andra Pradesh, India

Research Projects
Current Research Projects
Comparison of Sizing, Implant Techniques and Haemodynamic Performance between the Mitroflow and the Carpentier-Edwards Magna Ease Tissue Valve in the Aortic Position

Comparison of valve types are often made according to labelled valve sizes. However, there is growing evidence that in the majority of cases the actual size and valve dimensions vary considerably from the labelled diameters, which may not be related to any haemodynamically meaningful dimension. The disagreement between the true valve dimensions and the labelled valve size may render comparisons based on labelled size meaningless.

This multicentre study aims to compare sizing and implant techniques used with two pericardial aortic prostheses and the hemodynamic performance by annulus diameter.

Long-term outcomes following aortic valve replacement using the cryopreserved allograft

The Allograft aortic valve has several clinical advantages over artificial prostheses, including excellent haemodynamics, less thrombogenicity and resistance to infection; however use of the homograft is constrained due to development of artificial prosthesis, limited availability, slightly complex insertion technique and limited durability. Among these issues, durability of homograft is the most important issue which needs to be
Cardiac Surgery

Cardiac Surgery Research Unit

addressed. This study aims to investigate long-term outcomes following aortic valve replacement (AVR) using the allograft and to identify survival and factors affecting durability. More than 900 patients who underwent AVR using cryopreserved allograft at The Prince Charles Hospital in the last 35 years are being reviewed and statistically analysed in this study.

Impacts of metabolic syndrome on early outcomes of Coronary Artery Bypass Grafting

An increasing number of patients in developed countries have metabolic syndrome and are undergoing Coronary Artery Bypass Grafting (CABG). Metabolic syndrome is reported to be an independent risk factor of early mortality after CABG, although the mechanisms responsible for this increased early mortality are not fully understood.

The aim of this prospective observational study is to identify causes of impaired surgical outcomes following CABG in patients with metabolic syndrome. More specifically there will be assessment of the clinical outcomes of those patients with and without metabolic syndrome undergoing CABG and investigation of the fluctuations in hormone like protein (cytokine) production at four points in time of those patients with and without metabolic syndrome undergoing multiple primary CABGs.

Role of high morbidity group box-1 in the pathogenesis of calcified aortic valve stenosis

Atherosclerotic calcified aortic valve stenosis (CAVS) is the leading cause of valvular heart disease in the developed countries. Although aortic valve replacement (AVR) using prosthetic valve is the standard primary treatment for atherosclerotic CAVS, surgery-related mortality and morbidity is not negligible. Moreover, use of statins to prevent progression of CAVS has failed to show consistent efficacy. Exploration of further surgical and medical treatment for CAVS requires investigation of molecular and cellular mechanisms regulating initiation and progression of CAVS.

It has been suggested that a sustained, chronic inflammatory state in the aortic valve leaflet leads to fibrosis and calcification, consequently developing atherosclerotic CAVS. Upregulation of pro-inflammatory cytokines, in the aortic valve leaflets induces recruitment of inflammatory cells from the systemic circulation and proliferation/activation of valvular interstitial cells.

High morbidity group box-1 (HMGB)-1 may play a critical role in the pathogenesis of calcific atherosclerotic aortic valve stenosis, by promoting inflammation in the valve leaflets, extracellular matrix modulation and differentiation of valvular interstitial cells into osteoblast-like phenotype.

The specific aim of this study is to comprehensively investigate role of HMGB1-related pathways in the pathogenesis of calcific aortic valve stenosis in vitro.

A Retrospective Study of the ATS Medical® Aortic Valved Graft (AVG)

Cardio-thoracic surgeons have implanted the ATS Medical® Aortic Valved Graft (AVG) in the aortic position; since 1999. The Prince Charles Hospital Cardio Surgeons see anecdotal evidence that the device is performing well. No large single centre study has been conducted to confirm the performance of this prosthesis.

This study aims to report on the 10 year experience of Cardio-thoracic Surgeons at The Prince Charles Hospital implanting the ATS Medical® AVG in the aortic position; by determining the performance of the implanted prosthesis according to the “Guidelines for Reporting Morbidity and Mortality after Cardiac Valvular Operations”; and identifying associations between patient health outcomes and device performance.

Is fluid gain following Cardiac Surgery an independent risk factor for prolonged ventilation, length of stay and adverse outcomes?

Cardiac surgery is most often performed with the assistance of cardiopulmonary bypass and involves mandatory fluid loading of the patient. The tubing that makes up the pump circuit requires 1.5 litres of fluid to be primed, and the doses of cardioplegia used to stop the heart for surgery are between 500mls and 1 litre per dose. These doses of cardioplegia are repeated several times throughout a single operation. Therefore, it is common for a patient to receive, on average, 3 to 4 litres of fluid in a routine cardiac surgical operation.

There is evidence in literature that the degree of fluid administration in the surgical and intensive care arena, correlates with mortality and morbidity. The aim of this prospective observational study is to measure the volume of fluid gain after cardiac surgery using weight as a surrogate marker, and to correlate the degree of fluid gain with several outcomes of morbidity and resource use. Results from this study may provide important information to help guide fluid management and therefore improve clinical outcomes post cardiac surgery.

Is Tranexamic Acid associated with seizures after use in cardiac surgery?

Since the withdrawal of aprotinin from the market, several antifibrinolytic agents have entered widespread use, in particular, tranexamic acid. With this extensive use, adverse events not related to postoperative bleeding are being reported. However, a retrospective review at Prince Charles Hospital, of over 1200 patients who underwent cardiac surgery, did not find a significant increase in seizure rate in patients who had received tranexamic acid but the data that was reviewed had several limitations. The first limitation was the retrospective nature of the data, and the second was that the depth of data collected about neurologic complications.

Consequently, a prospective study is being undertaken to examine the incidence of seizures and/or seizure like activity in patients undergoing cardiac surgery who have received Tranexamic Acid, compared with a control group of patients who have not.
Cardiac Surgery
Cardiac Surgery Research Unit

Functional Outcomes Following Cardiac Surgery

Cardiovascular disease CHD is a major cause of disability in Australia. In the 2003 Survey of Disability, Ageing and Carers (SDAC), 1.5% of respondents reported one or more disabling conditions associated with CHD, corresponding to about 303,500 Australians. Of these, almost half (49%) needed help or had difficulties with self-care, mobility or communication.

Cardiac surgery is a known, accepted treatment for patients with severe cardiac disease with approximately 15,000 cardiac surgical procedures completed each year in Australia. The cohort of patients are getting older and have more co-morbidities, resulting in poorer recovery and functional outcomes and with a significantly increased cost to the individual and the economy.

The aim of this study is to investigate the recovery of function, exercise tolerance, activity and quality of life following cardiac surgery.

This study is being run collaboratively by the physiotherapy department with assistance from the cardiac surgery program and aims to determine functional ability, exercise tolerance and activity in people undergoing cardiac surgery preoperatively and postoperatively including differences between patients in the elective, urgent and emergency patients cohorts. Follow up investigations will also determine differences in functional ability of those patients who attend cardiac rehabilitation versus a phone based follow up, versus no follow up.

Publications


Presentations

Identifying the causes of aortic allograft durability following valve/root replacement. (Presentation)

Fluid Administration after Cardiac Surgery and Morbidity (Presentation)

A dramatic decline in the use of Tranexamic Acid (Poster)
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Adult Congenital Heart Unit

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History
Increasing numbers of children with congenital heart disease have surgical correction of their lesions and survive into adult life. They require ongoing careful medical supervision as well as guidance through psychological stresses, reproduction and genetic considerations. The Adult Congenital Heart Unit was established to cater these adults following their surgical corrections.

Affiliations
1. Pulmonary Hypertension Unit, The Prince Charles Hospital: Dr Fiona Kermeen, currently follows about 75 of our congenital heart patients, who have concurrent pulmonary hypertension. They are treated with endothelin receptor antagonist therapy and monitored closely.

2. Interventional Cardiology; percutaneous interventions are playing a bigger part in the management of ACHU patients. Associate Professor Darren Walters, together with Dr Murgur Nicolae provide this service; and has current clinical research projects for inserting percutaneous pulmonary and aortic valves.

3. Genetics Research
   (A) Work with Dr Kim Summers, The Roslin Institute, University of Edinburgh, (previously University of Queensland) on genetic studies in inherited long QT syndrome.
   (B) Studies with Dr Gregor Andelfinger, Cardiovascular Genetics Research Centre, Sainte Justine Hospital, Montreal, on mapping familial ventricular septal defects to chromosome 10.

4. Psychology Research
   Professor Ross Young, Executive Director, Institute of Health and Biomedical Innovation, Queensland University of Technology and Dr Esben Strodl of QUT continue to liaise and supervise PhD students.

PhD supervision
Dr Liam Connor - D Clin Psych; QUT was awarded his degree in 2009 after completing his study on “Adolescents with congenital heart disease: An exploration of psychosocial development, intra-hospital and familial experiences.”

Dr Ashleigh Trinder – D Clin Psych; QUT was awarded her degree in 2010 for her thesis “Adolescent, parental and family experiences of congenital heart disease”.

Dr Qi Feng Wang – PhD; Monash University; completed “An assessment of the medical and psychosocial outcomes of adolescents with heart disease.” Dr Dorothy Radford was an examiner. The degree was awarded in 2010.

Jillian Kaisar, clinical psychologist appointed to the Adult Congenital Heart Unit continues her PhD study has a book chapter scheduled for publication in 2011.

Major research highlights
This unit produced eight publications this year. They are listed below:

Abstracts
Three abstracts from the unit were presented at the Scientific Meeting of the Cardiac Society of Australia and New Zealand in 2010. They are published in Heart Lung and Circulation vol 19, supplement 2, 2010.


Cardiology
Adult Congenital Heart Unit

Publications


Cardiology
Advanced Heart Failure and Cardiac Transplant Unit

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Ms Nikki Batty
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Jayne Bancroft
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History
The Unit has been involved in many research studies over the last 10 years in three main areas including heart transplant, heart failure and ventricular assist devices. In the transplant trials, these were national or international drug trials in new immunosuppressive agents in the prevention of rejection of the transplanted organ.

The Ventrassist was an Australian Ventricular Assist Device that was used for patients with heart failure whose own heart had deteriorated and who were awaiting a heart transplant. This trial lead to further U.S trials. More recently, Dr Martin Brown became chair of the research team which has grown to involve medical, nursing and allied health research within the unit.

Affiliations
We have professional linkages with The Royal Brisbane and Women’s Hospital, The Heart Failure Collaborative, The PROOF Centre Vancouver, The University of NSW Cancer Research Centre, TPCH Sleep Unit, TPCH Critical Care Research Group, TPCH Echocardiography Department, Physiotherapy Department, The Queensland Centre for Pulmonary Transplantation and Vascular Disease, Dietetics Department, and the Social Work Department.

Current Research Projects
There are a number of studies currently being undertaken in heart failure. As heart failure is a chronic disease, the impact can be wide ranging and management involves a multidisciplinary approach. The following studies demonstrate research being undertaken by the whole team:

- Comparison of Right Heart catheter data with echocardiographic data of cardiopulmonary haemodynamics, exploring utility of non invasive techniques in obtaining this data.

- The Ejection Heart Failure study which is further examining the impact of a disease management program including a supervised exercise programme versus disease management alone on death, readmissions, depression and functional status in patients with a recent hospitalisation for heart failure.

- Obstructive Sleep Apnoea in the heart failure population. Heart failure and sleep apnoea each in their own right confer morbidity to the population and thus need to be further assessed and managed.

- The LEphT is an international study looking at a novel new drug in the management of pulmonary hypertension secondary to left heart failure.

- The physiotherapy team has two projects involving inpatient heart failure patients: Falls in Heart Failure Patients as many of the patients can be elderly and have poor cardiac reserve. The second study is Intensive versus Standard Inpatient physiotherapy in Heart Failure Patients-Mobilise HF.

- Cachexia occurs in patients with heart failure and a study is being undertaken to assess the nutritional deficiencies in a range of heart failure patients to facilitate more research in targeted dietetic care as part of the multidisciplinary management of these patients.

- The role of Omega 3 fatty acids in Cardiovascular disease is becoming clearer and a study is underway into the Uptake and continuance with Fish Oil in heart failure patients.
In conjunction with the Social Work team, Psychosocial impact on patients with chronic heart failure in age group 40 to 67 years is being investigated.

In Cardiac Transplantation, one of the known complications is the development of malignancy. The Cancer After Transplantation is a National collaborative study through the UNSW Cancer Research Centre looking at further assessing the problem and the contributing factors.

**Major Research Highlights**

During the past 18 months, research in the Unit has been presented at National and International meetings including The Cardiac Society of Australia and New Zealand, The International Society of Heart Lung Transplantation National Meeting as well as the European Society of Cardiology Scientific Meeting.

**Financial Details**

Sue Wong, New Researcher Funding for Nutrition in Heart Failure study.

**Publications**


Published abstracts include the following:


Cardiology
Advanced Heart Failure and Cardiac Transplant Unit


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History
The Prince Charles Hospital Cardiology Clinical Research Centre (CCRC) is a very active research centre for the conduct and maintenance of numerous medication and medical device clinical trials. In addition, the Centre participates in many registry studies that review current clinical practices in the real world.

Many of these studies are international and national multi-centred clinical trials that investigate the treatment, management and follow up care of patients with a range of acute and chronic cardiac conditions and diseases. The clinical trials undertaken at this centre, range from randomised controlled unblinded; and double blinded studies. The centre is also involved in comparative medication/device studies.

The department has access to many state of the art cardiac support services; including, cardiac MRI; echocardiography, angiography, IVUS, CT, Holter monitoring, exercise stress testing and ambulatory blood pressure monitoring.

A dedicated research pharmacist is allocated to the clinical trials from the hospitals main pharmacy. Pathology services are available on site. Our department has access to a monitored -80 freezer to store research specimens.

The study co-ordinators in CCRC comprises of mainly registered nurses who have backgrounds in cardiology, cardiac surgery, critical care and experienced in clinical trials.

Associate Professor Darren Walters has an avid interest in research and was the recipient of the TPCH Award for Clinical Research Excellence in 2009. He has particular interests and expertise in novel devices for intervention cardiology; treatment for platelet aggregation and anti-thrombotic drugs. He is the Research Director of the CCRC; Medical Director of Cardiology Programme and the Clinical Director of the Cardiac Investigation Unit. He meets with the research team fortnightly to oversee the progress of all trials running in the department.

Research Projects
Current Research Projects

ADAPTIVE CRT
HREC/09/QPCH/162
Medtronic Adaptive CRT Clinical Study
Principal Investigator: Dr Russell Denman
Sponsor Company: Medtronic

ATLAS 2
EC28017
A Randomized, Double-Blind, Placebo-Controlled, Event-Driven Multicenter Study to Evaluate the Efficacy and Safety of Rivaroxaban in Subjects With a Recent Acute Coronary Syndrome.
The ATLAS ACS 2 TIMI 51 Trial (The Second Trial of Anti-Xa Therapy to Lower Cardiovascular events in Addition to standard therapy in Subjects with Acute Coronary Syndrome).
Principal Investigator: Dr Darren Walters
Sponsor Company: Janssen-Cilag Pty Ltd

CONCORDANCE
HREC/10/QPCH/84
Cooperative National Registry of Acute Coronary Care Guideline Adherence and Clinical Events (CONCORDANCE)
Cardiology
Cardiology Clinical Research Centre

CORE RE-VALVE
EC2801
An Investigator Initiated Clinical Trial using Percutaneous Aortic Valve Replacement (PAVR) with the CoreValve ReValving™ System and COREVALVE INTERNATIONAL ReValving™ REGISTRY.
Principal Investigator: Dr Darren Walters
Sponsor Company: Medtronic
First valve replacement performed on 22 August 2008.

EDWARDS
HREC/10/QPCH/177
Edwards SAPIENTM Transcatheter Heart Valve Source ANZ
Transapical Ascendra Introducer System
Principal Investigator: Dr Darren Walters
Sponsor Company: Edwards Lifesciences Pty Ltd
Principal Investigator: Dr Russell Denman
Sponsor Company: Medtronic

SOLSTICE (GSK)
HREC/09/QPCH/112
A randomized, double-blind, placebo-controlled study to evaluate the safety of 12 weeks of dosing with GW856553 and its effects on inflammatory markers and infarct size in subjects with myocardial infarction without ST-segment elevation. (SOLSTICE)
Principal Investigator: Dr Darren Walters
Sponsor Company: GlaxoSmithKline

TRIPLET (TAEH)
HREC/10/QPCH/44
TAEH: A Comparison of Platelet Inhibition Following a Prasugrel 60mg or Prasugrel 30mg Loading Dose With or Without Pretreatment with a Clopidogrel Loading Dose in Acute Coronary Syndrome Subjects who are to Undergo Percutaneous Coronary Intervention
Principal Investigator: Dr Darren Walters
Sponsor Company: Eli Lilly Australia Pty Ltd

From left to right: D. Walters, M. Grant, M. Roxas, S. Graves K. Poon and R. Rodes
History

The Echocardiography Laboratory commenced operation at TPCH in 1979 under the guidance of Dr Dorothy Radford. It is now the largest single unit lab of its type in Australasia performing 15,000 examinations annually. Clinical research has been conducted since its commencement with valvular heart disease and diastolic function assessment being the major areas of research interest. More recently, there has been extensive research on the use of LV contrast agents, clinical utility of 3D echocardiography in structural cardiac disease and the role of echo in the assessment of ventricular assist devices. Additionally, with the development of the BiVACOR artificial heart program, echocardiography plays a key role in acute and chronic animal (sheep) models for heart disease.

Affiliations

The Mayo Clinic, Rochester and Scottsdale, USA.
The Cleveland Clinic, Ohio, USA
Kings College Hospital, London, UK.
Institute of Cardiology, University of the Sacred Heart, Rome, Italy.
Major Research Highlights

The Echo Laboratory Research Unit has completed important research in the areas of 3D echocardiography, structural cardiac disease and contrast echocardiography. Research into the utility of echo assessment for ventricular assist devices, ECMO and the artificial heart is ongoing. There is growing interest in the assessment of myocardial function with Doppler myocardial imaging of various types.

Financial Details

$56,000 – Private Practice Research & Education Trust Fund. Dr David Platts, Dr Fiona Kermeen. “Hand Carried Ultrasound Device (HCUD) Evaluation of the Right Heart and Pulmonary Artery Systolic Pressure in the Outpatient Clinic Situation” – ongoing.

Awards

“MVR Index” – a breakthrough for mitral prosthetic dysfunction
DJ Burstow, CA West, J Harker, MW Ischenko, DG Platts, GM Scalia
Best Poster Abstract, Echo Singapore, October 2009

Abstracts Presented

ASM CSANZ 2010


Cardiology
Echocardiography Research Unit

Publications


Platts D, Fraser JF, Mullany D, Burstow D. Left ventricular endocardial definition enhancement using perflutren microsphere contrast echocardiography during peripheral venoarterial extracorporeal membranous oxygenation. Echocardiography. 2010 Oct;27(9):E112-4.


Cardiology
University of Queensland Cardiovascular Research Unit

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4. Professor J Simes, NHMRC Clinical Trials Centre, University of Sydney, Sydney
5. Professor S Harrap, Department of Physiology, University of Melbourne, Melbourne
6. Associate Professor K Summers, The Roslin Institute, University of Edinburgh, Edinburgh, Scotland
7. Associate Professor G Gobe, Discipline of medicine, School of Medicine, University of Queensland, Brisbane
8. Professor A Tonkin, Monash University, Melbourne
9. Professor P Thompson, University of Western Australia, Perth
10. Professor J Golledge, Department of Surgery, James Cook University, Townsville
11. Professor J Whitfield and N Martin, Queensland Institute of Medical Research

PhD Supervision
Dr D Xu PhD completed, Feb 2010
Ms S Leishman PhD Candidate UQ
Ms K Gillette PhD Candidate QUT
Mr R Phillips PhD student UQ
Dr C Hamilton-Craig PhD student UQ

Research Projects
1. Clinical studies in aortic aneurysm disease and Marfan syndrome
2. Cell biology of aortic aneurysm disease
3. Molecular genetics of Marfan syndrome
4. Biomarkers of cardiovascular disease and the LIPID Study
5. Periodontal disease and cardiovascular disease
6. Genetic risk factors for hypertension: the ANBP2 study
7. Studies human heart function – the in vitro human heart laboratory
8. The role of erythropoietin therapy in ischemic heart and renal disease
9. Studies in cardiac imaging

Funding (2010)

National Heart Foundation
West M, Walker, Dilley P, Nataatmadja
M, Semmler A. The role of TGF-beta signalling abnormalities in aortic aneurysm development. NHF ID FRC0207-06. 2008-9 (Research Project 2).
Cardiology
University of Queensland Cardiovascular Research Unit

NHMRC


The Prince Charles Hospital Research Foundation
Molenaar P. Effect of chronic administration of β-blockers on phosphodiesterase 3 enzymes. 2010-2011 (Research Project 7).

Nataatmadja M. Aortic aneurysm and atherosclerosis is associated with the presence of abnormal renin–angiotensin regulation. MS2010–19 2010-11 (Research Project 2).

West M. Large Equipment grant: Image Quant LAS 4000- digital imaging system. 2010 (Research Projects 2 and 3).

Other


Publications


M. Nataatmadja


Mussa H Tellez JO, Chandler NJ, Greener ID, Maczewski M, Mackiewicz U, Beresewicz A, Molenaar P, Boyett MR, Dobrzynski H
Cardiology
University of Queensland Cardiovascular Research Unit


Books and Book Chapters
Oral Biology. Molecular Techniques and Applications. Eds GJ Seymour, MP Cullinan, NCK Heng 2010 Springer New York, USA.