



Mercy Public Hospitals Inc Research Report 2010



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Prepared by the
Academic Research and Development Committee,
Mercy Health

Mercy Health is a Catholic provider of health, community and aged care services. Founded by the Sisters of Mercy, we offer acute and subacute hospital care, aged care, mental health programs, specialist women's health, early parenting education and support, palliative care, home and community care, and health worker training and development.

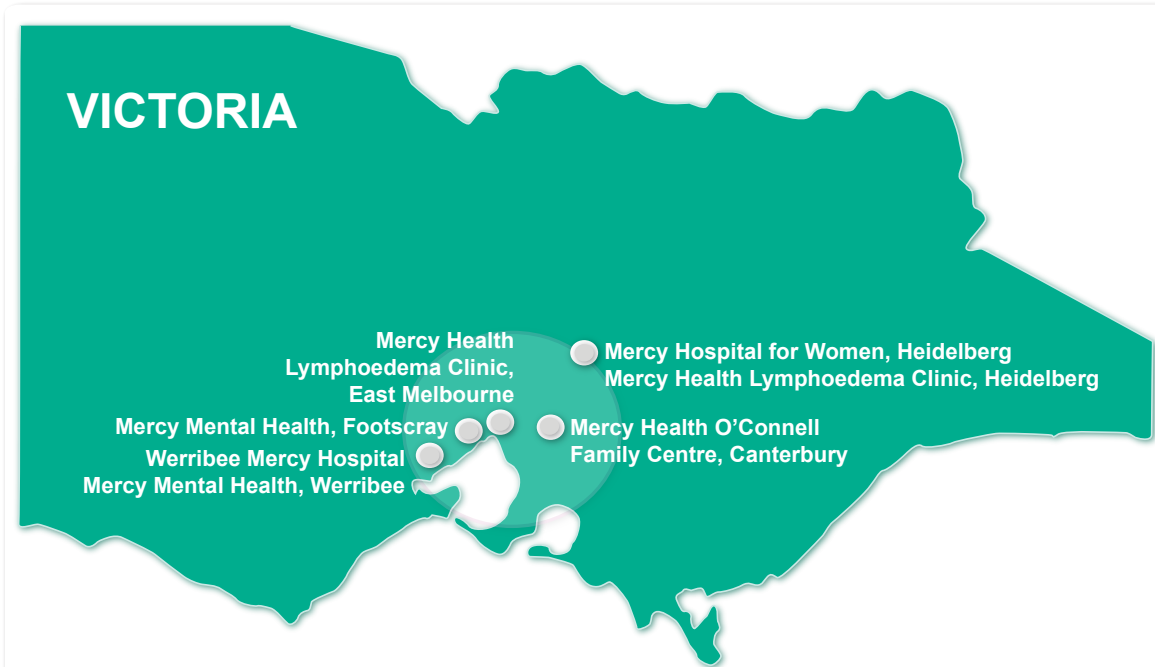
Each year Mercy Health cares for nearly half a million people across Victoria, southern New South Wales and the Australian Capital Territory.

Our priority is always to care first.

Mercy Public Hospitals Inc was established in 1986 by the Sisters of Mercy under Schedule 2 (Denominational Hospitals) of the Victorian Health Services Act 1988 (Vic). Mercy Public Hospitals Inc operates public health services in Victoria on behalf of Mercy Health.

These include:

- Mercy Hospital for Women, Heidelberg
- Werribee Mercy Hospital, Werribee
- Mercy Health O'Connell Family Centre, Canterbury
- Mercy Mental Health, Werribee and Footscray
- Mercy Health Lymphoedema Clinic, East Melbourne and Heidelberg



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Our commitment to research, teaching and training

On behalf of the Mercy Health Board and management team of Mercy Public Hospitals Inc I am pleased to commend this research report.

It covers key clinical research undertaken during 2010. The volume, calibre and diversity of the research completed within Mercy Health are significantly greater than our scale would suggest and displays great dedication to improve health outcomes for all members of our community. This is further demonstrated by the number of projects conducted in collaboration with other organisations.

Our research endeavours have been generously supported by Mercy Health Foundation, which focuses on developing philanthropic support for research, teaching training and development within Mercy Health.

The research content in this report covers work conducted in 2010. Much work was also performed in 2010 to improve our research capacity. One of our organisational highlights was the appointment of Professor Sue Walker to the newly founded Sheila Handbury Chair of Maternal Fetal Medicine, which is a first for Australia. The opening of Mercy Health Breastmilk Bank early in 2011, in collaboration with The University of Melbourne, will be a first for Victoria. Another significant initiative was the agreement to establish a Chair of Aged Care jointly with the Australian Catholic University.

Mercy Health's priority is to always care first. We seek to achieve this by drawing on a diverse range of specialist skills and technologies to support patients, residents and clients at all stages of life.

I sincerely congratulate our researchers, and their clinical partners, for their achievements and am confident that Mercy Health's research program will continue to expand to improve care outcomes and scientific learning.

Dr John Ballard
Chief Executive Officer, Mercy Health



Focused on the best methods of care

It is a great honour to present the *2010 Mercy Public Hospitals Inc Research Report*.

Research achievement continues to increase at Mercy Health and has a broad base of activity reaching throughout the organisation.

The research and academic involvement of our employees is supported by Mercy Health's values and has become integral to our leadership in the public health sector. We are committed to providing the best possible care to the patients and communities we serve, and our academic and research efforts help us to achieve this.

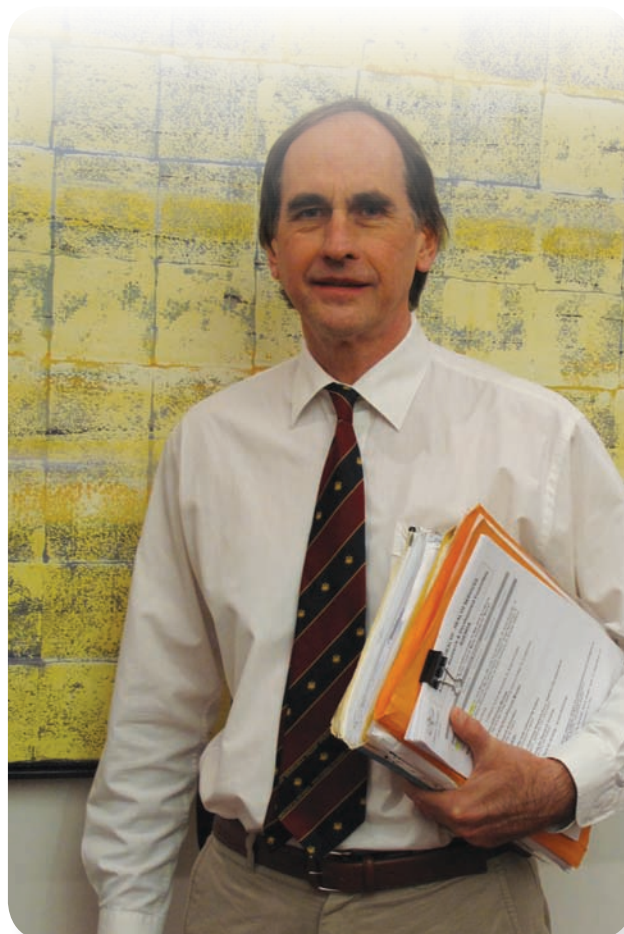
Our researchers have achieved much in 2010, and 2011 promises even more.

The University of Notre Dame Australia School of Medicine Clinical School at Werribee Mercy Hospital had its first intake of third year medical students in 2010. The opening of an education and research facility is anticipated late in 2011. Congratulations to everyone involved in making this a reality.

We are grateful to the funding sources that support our research. Some of these are specifically acknowledged in the body of the report. The Human Research Ethics Committee, Mercy Health reviews many projects each year and their contribution to research at Mercy Health is also acknowledged.

I also thank my executive assistant, Vicky Karitinos for her coordination of the research contributions for this report.

*Associate Professor David Allen
Chairman, Academic Research and
Development Committee, Mercy Health*



University of Notre Dame Australia

School of Medicine Clinical School

The University of Notre Dame Australia School of Medicine Clinical School in partnership with Werribee Mercy Hospital received its first class of 34 graduate entry third year students in February 2010. Most of their five week clinical placements rotated through clinical departments at Werribee Mercy Hospital with gynaecology and paediatric placements at Western Health and GP placements in the local community.



Professor of Medicine, Haydn Walters, began student teaching at Werribee Mercy Hospital in February 2010 and continues to lead the Respiratory Research Group at the Menzies Research Institute.

At the end of 2010 work began on the new education and research building at Werribee Mercy Hospital, which is due to be occupied in late 2011. This will be a substantial resource for undergraduate and postgraduate training.

Research activity

The Respiratory Research Group (at Menzies Research Institute University of Tasmania, also extending to the University of Notre Dame Australia School of Medicine Clinical School) has approximately eight core chief investigators with an equal number of close collaborating chief investigators in different project areas in Australia and the United Kingdom. We employ 10 postdoctoral fellows and currently have five PhD students. In 2010 we held four NHMRC project grants and four NHMRC fellowships with a total value of approximately \$1 million income from NHMRC and a total research income in excess of \$1.5 million.

Research projects

Project Title: Exploring Essential Medicine software and ebooks; Exploring Essential General Practice ebooks.

Investigators: Dr Gerry Aherne, Senior Lecturer, GP discipline leader and Fourth Year Coordinator, University of Notre Dame Australia School of Medicine Clinical School at Werribee Mercy Hospital, appointed November 2010; Mr Maurice Brygel Adjunct Associate Professor and Surgeon.

Previous Achievements: Exploring Essential Surgery software and ebooks (sold to McGraw-Hill USA).

Project Outline: To produce educational electronic media in regard to common medical and general practice problems and to test the media in various groups of potential undergraduate and postgraduate students.

Goals: To use the testing to produce a set of software programs and ebooks for student use in the second half of 2011.

Purpose: To ensure that students, residents and registrars are better prepared to manage common medical and GP problems.

Funding Source: Self funded.

Publications

Matheson MC, Walters EH, Abramson M, Carlin J, Jenkins M, Hopper J, Dharmage SC. Childhood immunisation and atopic disease into middle age: a prospective cohort study. *Pediatric Allergy Immunol* 2010; 21 (2/1): 301-6. Epub Dec 2009.

Mezaros D, Dharmage SC, Matheson MC, Venn A, Wharton CL, Johns DP, Abramson MJ, Giles GG, Hopper JL, Walters EH. Poor lung function and tonsillectomy in childhood are associated with mortality from age 18 to 44. *Respir Med* 2010; 104(6): 808-15. Epub January 15.

Spagnolo P, Del Giovane C, Luppi F, Cerri S, Balduzzi S, Walters EH, D'Amico R, Richeldi L. Non-steroid agents for idiopathic pulmonary fibrosis. *Cochrane Database Syst Rev* 2010; 9:CD003134.

Soltani A, Reid DW, Sohal SS, Wood-Baker R, Weston S, Mueller HK, Walters EH. Basement membrane and vascular remodelling in smokers and chronic obstructive pulmonary disease: a cross-sectional study. *Respir Res* 2010; 11:105.

Sohal SS, Reid D, Soltani A, Ward C, Weston S, Mueller HK, Wood-Baker R, Walters EH. Reticular basement membrane fragmentation and potential epithelial mesenchymal transition is exaggerated in the airways of smokers with chronic obstructive pulmonary disease. *Respirology* 2010; 15(6):930-8. Epub 2010 July 12.

Walters JA, Turnock AC, Walters EH, Wood-Baker R. Action plans with limited patient education only for exacerbations of chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 2010; 5:CD005074.

Bennett CM, Dharmage SC, Matheson M, Gras JL, Markos J, Mészáros D, Hopper J, Walters EH, Abramson MJ. Ambient wood

smoke exposure and respiratory symptoms in Tasmania, Australia. *Sci Total Environ* 2010; 409(2):294-9. Epub 2010 November.

Wen Y, Reid DW, Zhang D, Ward C, Wood-Baker R, Walters EH. Assessment of airway inflammation using sputum, BAL and endobronchial biopsies in current and ex-smokers with established COPD. *Int J Chron Obstruct Pulmon Dis* 2010; 5:327-34.

Cummings E, Robinson A, Pratt HC, Cameron-Tucker H, Wood-Baker R, Walters EH, Turner P. Pathways home: comparing voluntary IT and non IT users participating in a mentored self management project. *Stud Health Technol Inform* 2010; 160(1):23-7.

Austin MA, Wills KE, Blizzard L, Walters EH, Wood-Baker R. Effect of high flow oxygen on mortality in chronic obstructive pulmonary disease patients in prehospital setting: randomised controlled trial. *BMJ* 2010; 341:c5462; October 18.

Academic achievements

Postgraduates

- Sohal Sukhinder Singh, PhD: "Presence of active epithelial mesenchyme transition in smoker and COPD airways" – supervisor Professor Haydn Walters
- Amir Soltani, PhD: "Studies of vascularity in relation to chronic airway inflammation in COPD" – supervisor Professor Haydn Walters

Awards

- Dr G Ahern Australian – Lecturer of the Year (2010)

Allied Health Department

Allied health services include physiotherapy, social work, dietetics and nutrition, occupational therapy, pharmacy and pastoral care services. The Allied Health Department provides services to inpatients, outpatients, the Community Rehabilitation Centre (CRC) and the Hospital Admission Risk Program (HARP).

Research activity

Research projects

Project Title: R10/40W: Exploring the role of occupational therapists in oncology and palliative care.

Investigators: Leesa Musarra, Occupational Therapist.

Project Outline:

(a) Capture details of the current role of occupational therapists working in oncology and palliative care in health services based in Melbourne, Victoria;

(b) allow comparison of services provided between health providers; (c) identify gaps in services when compared to current evidence base.

Funding Source: Occupational Therapy Department.

Amount Funded: Nil.

Publications

Keur T. A pastoral carer reflects on "Longing for God's Mercy". *Listen*, Vol 28 2010; No1:26-28.

Oral and poster presentations

Topic: Spiritual care in a maternal and neonatal context.

Presenters: Sr Trudy Keur, Ms Mary Klasen.

Conference: "Continuing Education Extended Conference for Spiritual Carers and Chaplains", St John's Church Southgate, Melbourne, 12 May 2010.



Operating Theatres

Werribee Mercy Hospital offers a range of elective surgical services including general surgery, endoscopy (gastroscopy and colonoscopy), otolaryngology, vascular surgery, plastic surgery, urology and ophthalmology. Emergency surgical services at Werribee Mercy Hospital comprise general surgery and emergency caesarean sections.



Oral and poster presentations

Topic: The role of clinical coordination in a Post Anaesthesia Care Unit.

Presenter: Simon Howe, Assistant Nurse Unit Manager, Operating Suite, Werribee Mercy Hospital, National President ASPAAN (Australian Society of Post Anaesthetic and Anaesthetic Nurses).

Conference: "Nursing, Body and Soul", Post Anaesthetic Nurses of NZ, PACU Conference, Dunedin, New Zealand, 14-16 October 2010.

Topic: ASPAAN – Who we are, what we do and suggestions of where to for PACU nurses in New Zealand.

Presenter: Simon Howe, Assistant Nurse Unit Manager, Operating Suite, Werribee Mercy Hospital, National President ASPAAN (Australian Society of Post Anaesthetic and Anaesthetic Nurses).

Conference: "Nursing, Body and Soul", Post Anaesthetic Nurses of NZ, PACU Conference, Dunedin, New Zealand, 14-16 October 2010.

Academic and industry achievements

- Postgraduate Certificate Perioperative Nursing awarded to:
 - Karolina Necovski, RN
 - Selina Cowling, RN
 - Ruby Camling, RN
- Simon Howe, Assistant Nurse Unit Manager, Operating Suite, Werribee Mercy Hospital: National President of ASPAAN (Australian Society of Post Anaesthetic and Anaesthetic Nurses).
- Simon Howe, Assistant Nurse Unit Manager, Operating Suite, Werribee Mercy Hospital: Host – National ASPAAN Conference: "Challenging the Boundaries: A National Approach", Bond University, Gold Coast, Queensland, 5-6 November 2010.

Emergency Department

The Emergency Department services a wide variety of adult and paediatric patients with over 36,000 presentations per annum. There are 23 cubicles, including three resuscitation areas and an isolation room. The area is equipped with large waiting areas for adults and children as well as private triage and assessment areas. The Emergency Department is also a gazetted Mental Health Emergency Centre.

A new 10 bed short stay unit was opened in April 2011, which includes paediatric beds.

Research activity

Projects

Project Title: Implementation of the National Emergency Care Pain Management Initiative.

Investigators: John Stafford, Associate Nurse Manager, Emergency Department; Lynn O'Neill, Nurse Unit Manager, Emergency Department.

Project Outline: Werribee Mercy Hospital's Emergency Department participated in the two year National Emergency Care Pain Management Initiative through the National Institute of Clinical Studies. Pain from medical conditions or injuries is one of the primary reasons for presentation to the Emergency Department.

The NHMRC – National Institute of Clinical Studies invited expressions of interest to participate in a study that involved the implementation of a number of tailored quality improvement interventions applied together to improve pain management in the Emergency Department. A local project officer was trained in guideline implementation.

The mandatory activities included development of an organisational policy that supports pain management in the Emergency Department as a clinical priority, audit and feedback of pain management performance, local barrier and enabler analysis to develop locally relevant interventions.

Funding Source: Werribee Mercy Hospital.



Oral and poster presentations

Topic: Pain management in the Emergency Department.

Presenter: John Stafford, Associate Nurse Manager, Emergency Department.

Conference: "National Forum on Safety and Quality in Healthcare", Canberra, ACT, 25-27 October 2010.

Academic and industry achievements

- Sharon Green, Postgraduate Certificate in Emergency Nursing
- Michelle Reginio, Postgraduate Certificate in Emergency Nursing
- Khym Barber, Postgraduate Certificate in Emergency Nursing
- Danielle Van Den Nouwelant, Postgraduate Certificate in Emergency Nursing
- Michele Wharrie, Graduate Certificate in Criminology and Forensic Mental Health
- Param Ramanathan, Primary Exams for Australasian College of Emergency Medicine
- Manoj Samuel, Fellowship Australasian College of Emergency Medicine



Dr John Pasco, Director of Emergency Medicine at Werribee Mercy Hospital is on the committee of management for the Emergency Life Support course in Australia and is a lecturer for these courses biannually. The two day course teaches skills to doctors to help them manage patients with medical emergencies safely and effectively. A group of Australian emergency medicine specialists (including Dr John Pasco) created the Emergency Life Support course and course manual.

The Emergency Department conducts mortality and morbidity studies every three months. Deaths and any adverse outcomes are reviewed in order to improve quality processes and patient outcomes.

Maternity and Neonatal Services

The Childbirth Unit is a 24 bed integrated unit that managed 2,137 births in 2010. Our aim is to provide woman centred care in collaboration with obstetricians and midwives. This busy unit is currently undergoing a major building redevelopment to expand its beds from 24 to 32. Completion is anticipated in 2011.

The Special Care Nursery is a 12 cot “high dependent” Level 2 nursery. In 2010 it had 407 admissions. The Special Care Nursery will move to a new purpose built area by late 2011, which will expand the nursery to 16 cots to meet increasing demand.

Research activity

Research projects

Project Title: How parents cope and adjust with the transfer of their infants from Level 3 Neonatal Intensive Care Units to Level 2 Special Care Nurseries in Victoria, Australia.

Investigators: Ms Louisa Ramudu, Doctor of Nursing Candidate, La Trobe University.

Supervisor: Professor Susan McDonald, La Trobe University/Mercy Hospital for Women.

Co-Supervisor: Professor Shane Thomas, Monash University.

Associate Researchers: Laura Bignell, Mercy Hospital for Women; Kathy Marshal, The Women's; Sheri Waldron, Royal Children's Hospital; Fay Presbury, NETS; Helen Jenkin, The Northern Hospital; Lee Hopper, Sunshine Hospital; Alyson Smith, Geelong Hospital.

Project Outline: This project aims to investigate how well parents of ill newborns who have significantly recovered from their illness and are ready to be moved, cope with and adjust to the transfer of their infant from the Neonatal Intensive Care Unit (NICU) to a Special Care Nursery (SCN); how the period from the NICU to an SCN (transition phase) affects parents adjusting to a new environment; how the responses and reactions of staff at the NICU and SCN influence parents' acceptance to the transfer; and how and what parents adopt (coping strategies) in their effort to relieve their stress while adjusting to the new environment.



Funding Sources: 2007 Royal College of Nursing “Bequest Fund for Research” Scholarship of \$10,000.

Postgraduate support grant

- La Trobe University: \$600 to undertake NVivo Course

Publications

Sciberras E, Iyer S, Efron D, Green, J. Information needs of parents of children with attention-deficit/hyperactivity disorder. *Clinical Pediatrics (Phila)* 2010; 49; 150.

Oral and poster presentations

Topic: Promoting developmental care in a Level 2 Special Care Nursery: a case study presentation.

Presenter: Ms Rosemary Clemens, Paediatric Physiotherapist, Werribee Mercy Hospital.

Authors: Ms Rosemary Clemens, Ms Louisa Ramudu, Ms Anne Harrison, Werribee Mercy Hospital.

Conference: Australian College of Neonatal Nurses Conference, 5th Annual Conference, Canberra, ACT, 21 May 2010.

Topic: How parents cope and adjust with the transfer of their infants from Level 3 Neonatal Intensive Care Units to Level 2 Special Care Nurseries in Victoria: research progress update.

Presenter: Ms Louisa Ramudu, Doctor of Nursing Candidate, La Trobe University/ Werribee Mercy Hospital.

Authors: Ms Louisa Ramudu; Professor Susan McDonald, La Trobe University/Mercy Hospital for Women; Professor Shane Thomas, Monash University.

Conference: Victorian Association of Neonatal Nurses 3rd Annual Symposium, Melbourne, Victoria, 9 October 2010.

Topic: Poster presentation: “Implementing ARC newborn resuscitation guidelines in a Level 2 hospital”.

Presenter: Ms Louisa Ramudu, Nurse Unit Manager, Special Care Nursery, Werribee Mercy Hospital.

Authors: Helen Patterson; Megan Griffin; Louise Thompson, Nurse Unit Manager, Childbirth Centre; Louisa Ramudu, Nurse Unit Manager, Special Care Nursery.

Conference: Victorian Association of Neonatal Nurses 3rd Annual Symposium, Melbourne, Victoria, 9 October 2010.

Collaborations

- Ms Jacinta Knell, Volunteer Midwifery Mentor, Yayasan Bumi Sehat Clinic, Bali – 12 months

Academic achievements

- Ms Karen McClay, Postgraduate Diploma of Midwifery
- Ms Sherryn Pickering, Postgraduate Diploma of Midwifery
- Ms Kara Ewins, Postgraduate Diploma of Midwifery
- Ms Sarah Young, Postgraduate Diploma of Midwifery
- Ms Jacquie Wright, Postgraduate Diploma of Midwifery
- Ms Naomi Kiata, Postgraduate Diploma of Midwifery
- Ms Candice Huygen, Postgraduate Diploma of Midwifery

Education Unit

Werribee Mercy Hospital's Education Unit facilitates education and professional development throughout the hospital, which is affiliated with several universities for the provision of the clinical component for postgraduate tertiary courses. These include disciplines such as emergency, perioperative, palliative, midwifery, mental health, management and clinical teaching.

In 2010 there were over 5,500 clinical placement days for health professional students at Werribee Mercy Hospital and

28 staff completed formal postgraduate tertiary qualifications – an increase of 30 per cent on the previous year.

Werribee Mercy Hospital is accredited with the relevant specialist colleges to provide specialist medical training for doctors in the areas of emergency, medicine, surgery, psychiatry and palliative medicine, with obstetrics training to follow in 2011.



Publications

Patterson H, Griffin M, Thompson L, Ramudu L. Implementing ARC newborn resuscitation guidelines in a Level 2 hospital. *Journal of Paediatrics and Child Health* Vol 46, Supplement 1, 2010, P109, 83.

Oral and poster presentations

Topic: Implementing ARC newborn resuscitation guidelines in a Level 2 hospital.

Presenter: Ms Helen Patterson, Registered Nurse/Registered Midwife/Neonatal Intensive Care Nurse.

Conference: Perinatal Society of Australia and New Zealand Annual Congress, Wellington, New Zealand, 28-31 March 2010.

Topic: Applying incident command system principles to manage outbreaks in multiple healthcare settings.

Presenter: Ms Janine Malcolm, Infection Control Coordinator; Ms Heather Cochrane, Emergency Coordinator.

Conference: 6th Biennial Australian Infection Control Association Conference, Perth, Western Australia, 4-6 October 2010.

Topic: Contact tracing: why prevention is better than a phone call during your holidays.

Presenter: Ms Janine Malcolm, Infection Control Coordinator; Ms Julie Kernaghan, Infection Control Nurse.

Conference: 6th Biennial Australian Infection Control Association Conference, Perth, Western Australia, 4-6 October 2010.

Academic awards and industry achievements

- Ms Janine Malcolm, Infection Control Coordinator, recipient of the Ronald Hepburn Professional Development Scholarship
- Ms Helen Patterson, RN/RM/Neonatal Intensive Care Nurse, Neonatal Educator, regularly presented lectures for Critical Visions Pty Ltd, a provider of seminars and workshops for nurses and midwives throughout Australia and the Pacific. Topics included neonatal abstinence syndrome, neonatal hypoglycaemia, neonatal thermoregulation and exchange transfusion.
- Ms Megan Griffin (RN, RM, Grad Dip Educ, Cert IV TAA), Midwifery Educator, is a member of the Department of Health steering committee for the Victorian Newborn Resuscitation Project
- Susan Marks (RN, Cert Anaes/Recovery, Master Education), General Educator, completed a Postgraduate Certificate in Clinical Simulation with Monash University. This course is the first of its kind in Australia. Susan plays a key role in facilitating state-of-the-art clinical skills training for the University of Notre Dame Australia School of Medicine Clinical School at Werribee Mercy Hospital. Susan also completed a Certificate IV in Workplace Training and Assessment at Mercy Health Training Institute.

Division of Clinical Medicine

The Division of Clinical Medicine at Werribee Mercy Hospital is headed by its Clinical Director, Dr David O'Neil.

Inpatient medical services are provided for a range of acute and chronic medical conditions. There are currently 46 inpatient medical beds and four monitored beds for patients requiring short term cardiac monitoring. A team of six physicians are employed on a sessional basis to provide inpatient care.

Publications

Jenkins AJ, Krishnamurthy B, Best JD, Cameron FJ, Colman PG, Farish S, Hamblin PS, O'Connell MA, Rodda C, Rowley K, Teede H, O'Neal DN. Evaluation of an algorithm to guide patients with Type 1 diabetes treated with continuous subcutaneous insulin infusion on how to respond to real time continuous glucose levels: a randomised controlled trial. *Diabetes Care* 2010; 33:1242-8.

Jenkins AJ, Kilmartin G, Kilmartin J, Bora S, O'Neal, DN. Upskilling healthcare professionals in CSII. *InfuSystems Asia* 2010.

O'Neal D, Jenkins A. Real time glucose monitoring. *InfuSystems Asia* 2010.

Jenkins A, O'Neal D. The legacy effect in Type 2 diabetes. *Diabetes Management* 2010.

Palliative Care

Palliative care is an approach that improves the quality of life of patients and their families who are facing the issues associated with life threatening illness through the prevention and relief of suffering. The palliative care approach includes early identification, assessment and treatment of pain and recognises the needs of the whole person: physical, emotional, social and spiritual.

Palliative care services are provided through inpatient and community services. At Werribee Mercy Hospital the inpatient unit, the Gabrielle Jennings Centre, currently has 12 beds in which specialist palliative care services are provided. In addition, there is a hospital based consultancy team to provide outreach across the hospital so that all patients have access to specialist palliative care advice. Dr Maria Pisasale is the Senior Palliative Care Consultant, Werribee Mercy Hospital.

Werribee Mercy Hospital participates in statewide quality evaluation and palliative care research. The unit is linked into the North West Metropolitan Palliative Care Consortium.

Publications

Jackson K, Ashby M, Howell D, Petersen J, Brumley D, Good P, Pisasale M, Wein S, Woodruff R. The effectiveness and adverse effects profile of “burst” ketamine in refractory cancer pain: the VCOG PM 1-00 study. *Journal of Palliative Care* 26:3/2010; 176-183.

Academic achievements

- Ms Kirsten Mitchener, Graduate Diploma Palliative Care
- Ms Joanah Pefianco, Graduate Diploma Palliative Care



Lactation Department

The Lactation Department continues to provide expert advice for mothers who are experiencing early and ongoing breastfeeding challenges. Families with babies in the nursery environment now have increased access to assistance from a lactation consultant who is available five days a week. The continuation of joint projects with other facilities increases opportunities for larger scale research activities.

Research activity

Ms Kerri McEgan, Nurse Unit Manager, Lactation Department and Mercy Health Breastmilk Bank, is involved in the following research projects.

Project Title: Diabetes and antenatal milk expressing (DAME).

Chief Investigators: Dr Della Forster, Dr Susan Jacobs, Dr Lisa Amir, Professor Peter Davis, Professor Sue Walker, Ms Kerri McEgan, Dr Gillian Opie.

Project Outline: Exploring the safety of antenatal expressing in women with diabetes requiring insulin and the infant outcomes.

Funding Source: NHMRC.

Funding Amount: \$491,321 over four years.

Project Title: MILC (maternal infant lactation cohort).

Chief Investigators: Ms Helene Johns, Dr Della Forster, Dr Lisa Amir, Dr Helen McLaughlin, Ms Anita Moorhead, Ms Kerri McEgan.

Project Outline: Exploring the impact on breastfeeding outcomes at key stages when mothers leave hospital not attaching their babies. The recruitment of 1,003 mothers across three sites (Mercy Hospital for Women, The Women's and Frances Perry House) is almost complete.

Funding Source: La Trobe University, The Women's.

Oral and poster presentations

Poster Presentation: Which act? Which bank? Regulatory challenges encountered in establishing a breastmilk bank in Australia.

Presenters: Ms Kerri McEgan, Dr Gillian Opie.

Conference: "100 years of Milk Banking: Looking Back and Reaching Forward", Boston, USA, 12-13 April 2010.

Poster Presentation: Which bank? Which act? Challenges encountered in establishing a donor breastmilk bank.

Presenter: Ms Kerri McEgan.

Conference: "A Healthy Tomorrow Starts Today", Women's Hospitals & Children's Hospitals Australasia, Melbourne, Victoria, November 2010.

Oral presentations

- Mercy Health Board, February 2010, update on the Mercy Health Breastmilk Bank, Dr Gillian Opie
- Mercy Hospital for Women, perinatal meeting, 22 April 2010, Dr Gillian Opie

Topic: Milk banking.

Presenter: Dr Gillian Opie.

Conference: Perinatal Society Australia and New Zealand (PSANZ), Carlton, Victoria, 21 June 2010.

Topic: New and old: Breastmilk banking in Victoria within the context of HMBANA centennial experience.

Presenters: Ms Kerri McEgan, Dr Gillian Opie.

Conference: "Clinical Conundrums: Challenges in Clinical Practice", Lactation Consultants of Australia and New Zealand (LCANZ), Darebin, Victoria, 23 October 2010.

Topic: Donor milk banking.

Presenter: Ms Kerri McEgan.

Conference: “Cool Topics in Neonatology”,
Carlton, Victoria, 17 November 2010.

Topic: A breastmilk bank for Victoria.

Presenter: Dr Gillian Opie.

Conference: Australian Breastfeeding
Association (ABA) State Counsellors meeting,
Melbourne, Victoria, 18 April 2010.



Visits to other centres

Dr Gillian Opie and Ms Kerri McEgan travelled to Boston, USA in April 2010 to attend the “Human Milk Banking Association of North America” conference, celebrating 100 years of milk banking in North America.

During this trip they visited the Mothers Milk Bank in San Jose, California, which has been in operation for over 30 years.

In a subsequent study trip in 2010, Dr Opie visited the Mothers Milk Bank at Austin, Texas, USA.

Department of Anaesthesia

The Department of Anaesthesia provides anaesthesia, analgesia and consultative services for obstetric and gynaecology patients. Particular areas of expertise include high risk pregnancy management, regional anaesthesia and analgesia, perioperative care for day surgery, specialist gynaecology, endosurgery and gynaecological oncology. It is accredited for the ANZCA Fellowship and is affiliated with The University of Melbourne. There are close clinical ties with Austin Hospital, which includes adult intensive care.

Additionally, the department has an active training and research program focused on several areas including clinical system redesign, consumer centred care and the physiological changes in pregnancy.

Research activity

- Time points audit for improving the provision of analgesia in labour was investigated by Dr Hannah Barker, Dr Richard Hiscock, Clinical Associate Professor Scott Simmons, Dr Allan Cyna: The time from maternal request to satisfaction via regional analgesia in labour is not clearly defined in published



data. Consequently, labouring women and their care providers may have unrealistic expectations regarding the timing for regional analgesia. The project sought to evaluate this time course prospectively. Regional analgesia provided satisfaction in over three quarters of parturients and out-of-hours service and insurance status did not impact on time to achieve this. No obvious delays were identified and no patient factors predicted time to satisfaction.

- Clinical Associate Professor Scott Simmon; Dr Alicia Dennis; Dr Richard Hiscock: This group has continued previous research into the cardiac changes of pregnancy and particularly the use of echocardiography as a bedside diagnostic aid for the management of critically ill obstetric patients. They have conducted several prospective and retrospective observational studies in relation to anaesthesia management of placenta praevia and of the indications for the use of general anaesthesia for caesarean section.

Publications

Simmons SW. Administrators. In: Cyna A, Andrew M, Tan S, Smith A (eds). Handbook of communication in anaesthesia and critical care: a practical guide to exploring the art. *Oxford: Oxford University Press* 2011; 230-248.

Oral and poster presentations

- The ROSE (rapid obstetric screening echocardiographic) examination. Transthoracic echocardiography for cardiovascular diagnosis and monitoring in obstetric anaesthesia and obstetric critical illness. Dr Alicia Dennis. ANZCA ASM, Christchurch, New Zealand, May 2010.

Visiting speakers

- Dr Allan Cyna, Women's and Children's Hospital, Adelaide was invited to present results of work on the ethics of placebo groups in research trials and published in the peer reviewed journal, *Anaesthesia*
- Dr Scott Simmons was invited to present work on the massive haemorrhage protocol design developed at Mercy Hospital for Women at the Women's and Children's Hospital, Adelaide

Collaborations

- A prospective observational study was run in collaboration with the Women's and Children's Hospital, Adelaide to identify factors that influence delays in the provision of epidural analgesia to women in labour
- There is an ongoing project with the Women's and Children's Hospital, Adelaide to develop an early warning chart and escalation protocol for obstetric patients. It is envisaged this work across the two sites will be published in 2011.

Academic achievements

- Dr Alicia Dennis, PhD, University of Melbourne, Department of Pharmacology

Awards and industry achievements

- Dr Alicia Dennis received the Obstetric Anaesthetists' Association prize for best oral presentation at the annual scientific meeting in Newcastle, United Kingdom, May 2010: "Left ventricular systolic and diastolic function and structure using transthoracic echocardiography in women with untreated pre-eclampsia"

Department of Obstetrics and Gynaecology, University of Melbourne, Mercy Hospital for Women

There were a number of new developments within the Department of Obstetrics and Gynaecology at Mercy Hospital for Women. The most notable event in early 2011 was the appointment of Professor Sue Walker to the new Sheila Handbury Chair of Maternal Fetal Medicine at Mercy Hospital for Women. This represents a landmark achievement for the hospital, the university, Mercy Health Foundation and, above all, for Professor Walker.

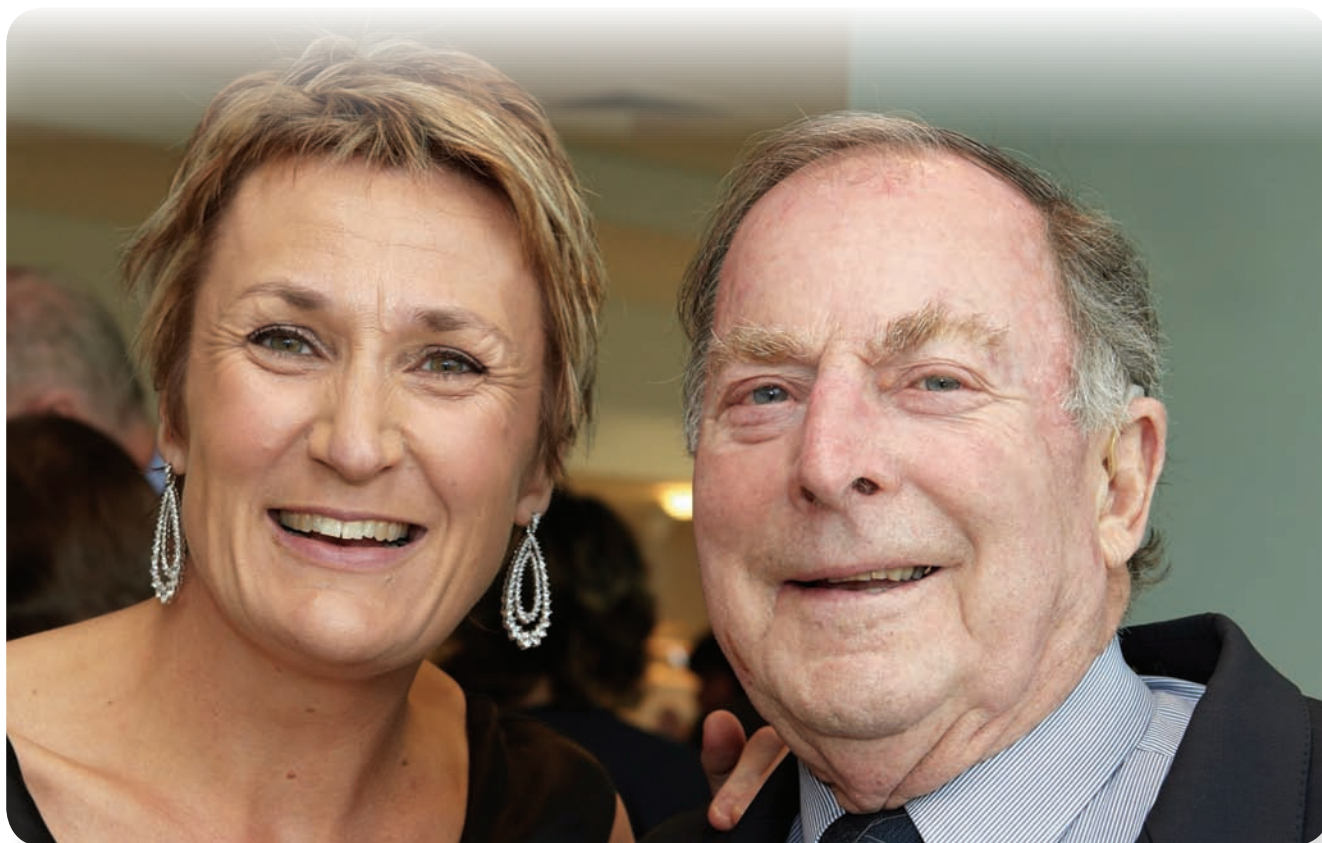
The department would like to thank the Human Research Ethics Committee, Mercy Health under the chairmanship of Emeritus Professor Peter Carpenter and secretary, Ms Carole Branch. Research applications are processed expeditiously and with a thoroughness and fairness that greatly assists the research effort within the hospital.

Research activity

Professor Sue Walker research group

Professor Sue Walker, Dr Elizabeth McCarthy, Dr Alexis Shub, Dr Alison Fung.

“Sleep disorders and perinatal outcomes”: In collaboration with the Institute for Breathing and Sleep, Austin Health a number of projects have been developed regarding the potential impact of sleep disordered breathing in pregnancy on important perinatal outcomes. This is particularly important since the incidence of obstructive sleep apnoea is increasing in parallel with the increasing incidence of obesity. It is therefore plausible that obstructive sleep apnoea may explain some of the excess stillbirths observed in obese women. A questionnaire administered to over 300 women in mid-pregnancy has identified



Professor Sue Walker and benefactor Mr Geoff Handbury AO

a cohort of women at high risk of obstructive sleep apnoea. These women have had serial examinations of fetal growth through the third trimester and a formal sleep study, which has included continuous electronic fetal monitoring. Preliminary data analysis suggests a “flattened growth trajectory” in the third trimester among women with obstructive sleep apnoea compared to control women. The study is continuing, with publication of results expected in 2011. Dr Alison Fung was invited to present these findings at PSANZ in April 2011.

“Obesity and pregnancy”: The perinatal medicine research group has also undertaken a number of studies examining gestational weight gain and obesity in pregnancy. They have demonstrated that pregnant women have a poor appreciation of their own body mass index in pregnancy and poor knowledge of recommended weight gain targets. Dr Emily Huning, Obstetric Registrar was invited to present this data at the International Society of Obstetric Medicine meeting in 2010.

Dr Martha Lappas research group

*Dr Martha Lappas, Dr Ratana Lim,
Ms Amberlee Mitton, Mr Clyde Riley,
Ms Gillian Barker, Ms Karen Oliva,
Ms Nicole Dellios.*

*PhD students: Ms Sarah Holdsworth-Carson,
Ms Michelle Colomiere, Ms Mahalia Chai.*

“The identification of new therapeutic targets for the prevention of preterm labour”: Preterm birth (less than 37 weeks’ gestation) with its attendant morbidity and mortality remains among the most significant healthcare issues in the developed world. In Australia in 2008 there were 296,925 babies born and, of these, 8.2 per cent (~24,000) were born preterm. Of clinical significance, 40 to 45 per cent is a result of idiopathic preterm labour. The mechanisms that control uterine quiescence and labour associated activation are

incompletely understood, which has resulted in an inability to prevent the birth of extremely small preterm babies. This is the major focus of this research group. In 2010 the group published some significant findings. They were the first to establish the presence and role of two regulatory proteins in the processes of human labour. Further study on these proteins will provide new opportunities for developing more effective therapeutic approaches so that the incidence of preterm birth and related perinatal morbidity and mortality will be reduced.

“Proteins released from maternal fat as a target to stop the current obesity cycle”: There is no disputing the extent of the worldwide obesity epidemic. In parallel with the general population, the proportion of women who are obese at the beginning of pregnancy has also markedly increased. In 2010 at Mercy Hospital for Women, an alarming 45.8 per cent of women were overweight and 17.6 per cent of women were obese. Infants born to overweight and obese mothers are often very large with increased fat deposits. Perhaps of greatest importance for the health system is that these infants are at increased risk of later metabolic disease, including obesity, diabetes, cardiovascular disease and certain cancers. Effective control of the current obesity epidemic may well have to begin with the appropriate management of the fetal environment. We have recently identified a number of proteins that are secreted from the fat of obese mothers that may play a role in regulating fetal growth. This may provide the basis for the development of intervention strategies to reduce birth weight in pregnancies of obese women and ameliorate the genesis of the paediatric obesity epidemic and the development of adult diseases (such as diabetes and cardiovascular disease). Dr Lappas was invited to present this work at the Victorian Obesity Consortium, December 2010.

Dr Harry Georgiou research group

*Dr Harry Georgiou, Dr Megan Di Quinzio,
Dr Yujing Jan Heng, Ms Connie Louizos,
Professor Greg Rice.*

“Predicting term and preterm birth”: Preterm birth (<37 weeks’ gestation) is a significant problem occurring in about 10 per cent of all deliveries. Being born too early is the major cause of perinatal morbidity and mortality and accounts for the majority of neonatal deaths. Although survival rates for the extremely premature baby have increased, the associated morbidity for these survivors remains significant where up to one quarter will have at least one major disability. Healthcare costs for the short and long term care of these infants is enormous.

Currently there are no reliable tests for the prediction of preterm labour. This project seeks to validate a number of candidate protein biomarkers found in human cervicovaginal fluid that are predictive of impending term and preterm labour. An early detection test would represent a major advance to the discipline and afford the opportunity to evaluate alternate treatment and clinical management strategies. This would not only directly benefit the immediate pregnancy, but will also help mitigate the longer term ramifications of this condition for the mother and baby.

Over the past three years, PhD student Ms Jan Heng had identified and evaluated a number of putative biomarkers of labour found in the cervicovaginal fluid of pregnant women. Jan’s PhD thesis was passed in 2010 and she has now taken up a postdoctoral fellowship at the prestigious Samuel Lunenfeld Research Institute, Mount Sinai Hospital in Toronto, Canada. During 2010, PhD student Ms Stella Liong continued this work with a focus on newly identified biomarkers. Ms Liong has incorporated new technologies and hopes to evaluate a number of novel biomarkers that

may improve our predictive capacity for preterm labour. Ms Liong presented her work at the Austin Life Sciences Research Week.

“Gestational diabetes follow up project”: This project is an adjunct to the well known Gestational Diabetes Follow Up Program, which is Australia’s longest running clinical service and epidemiological study into the development of Type 2 diabetes among women with a history of gestational diabetes mellitus. The project has been funded over several years by the Medical Research Foundation for Women and Babies and acknowledges the previous work of Emeritus Professor Normal Beischer who made enormous contributions to our knowledge of gestational diabetes and its later consequences.

Our research has demonstrated that women who experience diabetes during pregnancy are almost 10 times more likely to develop Type 2 diabetes later in life, with nearly one half of participants developing the condition within 15 years of the index pregnancy. Ms Connie Louizos has made an enormous effort in ensuring that women who previously experienced a gestational diabetes mellitus pregnancy are regularly followed up so that their blood sugar and fatty acid levels are monitored. The group is now evaluating several blood borne biomarkers that are thought to precede the onset of Type 2 diabetes. The early detection of Type 2 diabetes would allow early intervention strategies to be implemented so that the common debilitating complications of diabetes (cardiovascular disease, kidney disease, blindness, etc) can be prevented or delayed.

“First trimester aetiology of obstetric disease”: The aim of this project is to identify blood borne biomarkers that may be used at the first antenatal visit to identify pre-symptomatic women who are at risk of developing complications of pregnancy. Complications

such as pre-eclampsia, intrauterine growth restriction and preterm birth represent the major causes of fetal and neonatal morbidity and mortality, and potentially affect childhood and adult susceptibility to cardiac and metabolic diseases. As these complications of pregnancy are often not diagnosed and clinically overt until third trimester, little opportunity is afforded to implement preventative strategies that may ameliorate their impact on mother and baby, and long term health outcomes.

This project has used a number of sophisticated technologies that have allowed the group to identify several blood borne proteins that are differentially expressed early in pregnancy, long before the complication(s) become clinically evident. These “protein profiles” can be used to identify at risk women by developing multivariate classification models that will help improve our diagnostic and predictive ability for various complications. The early detection of

women who are at risk of developing late onset complications will allow them to be triaged into appropriate models of care and antenatal surveillance.

Research projects

Project Title: Gestational diabetes mellitus follow up program.

Investigator: Dr Harry Georgiou.

Funding Source: Medical Research Foundation for Women and Babies, research grant for 2011.

Amount Funded: \$50,000.

Project Title: Screening for early markers of Type 2 diabetes in an at risk population.

Investigators: Dr Harry Georgiou, Ms Connie Louizos.

Funding Source: Medical Research Foundation for Women and Babies, Research Grant for 2011.

Amount Funded: \$25,000.

Project Title: Ascertaining the utility of putative biomarkers in the human cervicovaginal fluid to predict impending preterm labour.

Investigators: Ms Stella Liong, Dr Harry Georgiou, Dr Megan DiQuinzio, Professor Michael Permezel.

Funding Source: Medical Research Foundation for Women and Babies, Research Grant for 2011.

Amount Funded: \$25,000.

Project Title: Investigating the link between early pregnancy and obstetric diseases.

Investigators: Professor Greg Rice, Dr Stephen Tong, Dr Harry Georgiou.

Funding Source: NHMRC project grant 2008-10.
Amount Funded: \$461,625.

Project Title: Ascertaining the utility of putative biomarkers in the human cervicovaginal fluid to predict impending preterm labour.



Investigators: Dr Harry Georgiou,
Dr Martha Lappas.

Funding Source: Medical Research Foundation
for Women and Babies, Research Grant
for 2011.

Amount Funded: \$25,000.

Project Title: Understanding what triggers birth.

Investigators: Professor Greg Rice,
Dr Martha Lappas, Professor Michael Permezel.

Funding Source: NHMRC project grant.

Amount Funded: \$426,600.

Project Title: Understanding the mechanisms
that regulate the onset of human labour
and delivery.

Investigators: Dr Martha Lappas.

Funding Source: NHMRC RD Wright Career
Development Award for Dr Martha Lappas.

Project Title: Facts, figures and feelings
about weight in pregnancy: a randomised
controlled trial.

Investigators: Dr Alexis Shub,
Dr Elizabeth McCarthy, Dr Martha Lappas.

Funding Source: Medical Research Foundation
for Women and Babies, Research Grant
for 2011.

Amount Funded: \$48,000.

Project Title: Prediction of pre-eclampsia in
women with diabetes.

Investigators: Dr Alexis Shub,
Dr Christine Houlihan, Dr Martha Lappas.

Funding Source: Medical Research Foundation
for Women and Babies, Research Grant
for 2011.

Amount Funded: \$5,000.

Project Title: Maternal sleep apnoea and
pregnancy outcomes.

Investigator: Professor Sue Walker.

Funding Source: Medical Research Foundation
for Women and Babies, Research Grant
for 2010.

Amount Funded: \$22,000.

Project Title: Diabetes and milk expressing
(DAME) trial.

Investigator: Professor Sue Walker.

Funding Source: NHMRC.

Amount Funded: \$491,000.

Publications

Lappas M, Mitton A, Permezel M. In response
to oxidative stress, the expression of
inflammatory cytokines and antioxidant
enzymes are impaired in placenta, but not
adipose tissue, of women with gestational
diabetes. *Journal of Endocrinology*
204(1):75-84, 2010.

Colomiere MA, Permezel M, Lappas M.
Gestational diabetes mellitus and obesity alter
insulin signalling and glucose metabolism in
skeletal muscle and adipose tissue. *Journal of
Molecular Endocrinology* 44(4):213-223, 2010.

Holdsworth-Carson S, Lim R, Mitton A,
Whitehead C, Rice GE, Permezel M, Lappas M.
Peroxisome proliferator activated receptors are
altered in pathologies of the human placenta:
gestational diabetes mellitus, intrauterine
growth restriction and pre-eclampsia. *Placenta*
31(3):222-229, 2010.

Gantier MP, Tong S, Behlke MA,
Irving AT, Lappas M, Nilsson UW, Latz E,
McMillan NA, Williams BR. Rational design
of immunostimulatory siRNAs. *Molecular
Therapies* 18(4):785-795, 2010.

Dellios NL, Lappas M, Young RI, Palliser
HK, Hirst JJ, Oliva K, Ayhan M, Rice GE.
Increased expression of alpha-enolase in

cervicovaginal fluid during labour. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 153(1):16-22, 2010.

Lappas M, Lim R, Riley C, Menon R, Permezel M. Expression and localisation of FoxO3 and FoxO4 in human placenta and fetal membranes. *Placenta* 31(12):1043-1050, 2010.

Hodges R, Salvador L, D'Antona D, Georgiou HM, Wallace EM. Activin A as a marker of intrauterine infection in women with preterm prelabour rupture of membranes. *J Perinatol* 30:22-26, 2010.

Heng YJ, Di Quinzio MKW, Permezel M, Ayhan M, Rice GE, Georgiou HM. Temporal proteomic analysis of human cervicovaginal fluid with impending labour. *J Proteome Res* 9:1344-1350, 2010.

Heng YJ, Di Quinzio MKW, Permezel M, Rice GE, Georgiou HM. Temporal expression of antioxidants in human cervicovaginal fluid associated with spontaneous labour. *Antioxid Redox Signal* 13:951-957, 2010.

Heng YJ, Di Quinzio MKW, Permezel M, Rice GE, Georgiou HM. Cystatin A protease inhibitor and cysteine proteases in human cervicovaginal fluid in term pregnancy and labour. *Am J Obstet Gynecol* (accepted 13 October 2010).

Georgiou HM, Thio YS, Russell C, Permezel M, Heng YJ, Lee S, Tong S. Association between serum immune cytokine profiles at 7-10 weeks' gestation and low birthweight. *Am J Obstet Gynecol* (accepted 3 December 2010).

Said JM, Higgins JR, Moses EK, Walker SP, Borg AJ, Monagle PT, Brennecke SP. Inherited thrombophilia polymorphisms and pregnancy outcomes: a prospective cohort study in an asymptomatic antenatal population. *Obstet Gynecol* 2010 January; 115(1):5-13.

Galbally M, Snellen M, Walker S, Permezel M. Management of antipsychotic and mood stabilising medication in pregnancy: recommendations for antenatal care. *Aust NZ J Psychiatry* 2010; 44 (2); 99-108.

Hewagama S, Walker SP, Stuart R, Gordon C, Johnson P, Friedman D, O'Reilly M, Cheng A. Swine influenza A/H1N1/2009 and pregnancy outcomes in Victoria, Australia. *Clin Infect Dis* 2010; 50(5):686-90.

Said JM, Ignjatovic V, Monagle PT, Walker SP, Higgins JR, Brennecke SP. Altered reference ranges for Protein C and Protein S during early pregnancy: implications for the diagnosis of Protein S and Protein C deficiency during pregnancy. *Thrombosis and Haemostasis* 2010; 103 (5):984-8.

Walker SP, Chow Y, Ugoni A, Smith C, Holberton J, Permezel M. The lamellar body concentration in amniotic fluid as a marker of fetal lung maturity at term elective caesarean section. *Aust N Z J Obstet Gynaecol* 2010 August; 50(4):358-62.

Walker SP. Magnesium sulphate in women at risk of preterm birth for neuroprotection. *O and G Magazine*, Winter 2010.

Walker SP, Lee S. The role of ultrasound in the diagnosis and management of the growth restricted fetus. *ASUM Bulletin* 2010 May.

Oral and poster presentations

Topic: Glucose metabolism, in response to oxidative stress, is unaltered in placenta obtained from women with gestational diabetes: implications for fetal growth and development.

Presenter: Lappas M.

Conference: Australian Health and Medical Research Congress, Melbourne Exhibition & Convention Centre, Melbourne, Australia, 14-18 November 2010.

Topic: Effect of maternal obesity on the human placenta: implications for fetal growth and development.

Presenter: Lappas M.

Conference: Victorian Obesity Consortium Early Career Development Symposium, 8 December 2010.

Topic: Differentially expressed plasma peptides in heart failure.

Presenters: Wang BH, Reisman S, Bailey MJ, Ayhan M, Lappas M, Elsik M, Krum H, Rice GE.

Conference: 58th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand (CSANZ), Adelaide, Melbourne, 5-8 August 2010.

Topic: Novel splice variants of Flt1 are upregulated in the placenta in severe early onset pre-eclampsia.

Presenters: Whitehead C, Palmer K, Nilsson U, Gao Y, Saglam B, Lappas M, Tong S.

Conference: XVII ISSHP World Congress, Melbourne, Australia, 3-6 October 2010.

Topic: Expression of FoxO4 in human placenta and fetal membranes: effect of human labour at term.

Presenters: Lappas M, Riley C, Barker G, Rice GE, Permezel M.

Conference: The 16th IFPA Conference, Santiago, Chile, 19-22 October 2010.

Topic: Novel splice variants of Flt1 are upregulated in the placenta in severe early onset pre-eclampsia.

Presenters: Whitehead C, Palmer K, Nilsson U, Gao Y, Saglam B, Lappas M, Tong S.

Conference: Pregnancy Hypertension (Suppl 1):S12, 2010.

Topic: Increased concentration of Tissue Inhibitor of Metalloproteinases-1 (TIMP-1) in cervicovaginal fluid precedes spontaneous human labour.

Presenters: Liong S, Heng YJ, Permezel M, Di Quinzio MKW, Georgiou HM.

Conference: Austin Hospital Research Week, Heidelberg, Victoria, October 2010.

Topic: Proteomics as a tool for prediction of cell dysfunction in pregnancy.

Presenters: Rice GE, Lappas M, Oliva K, Illanes S, Sobrevia L, Ayhan M, Bailey M, Georgiou HM, Tong S, Di Quinzio MKW, Barker G, Dellios N, Permezel M, Mitchell M.

Conference: Chilean Society of Physiological Sciences, Santa Cruz, Chile, 23-25 October 2010.

Academic achievements

- Yujing Jan Heng, PhD: "Identification of novel biomarkers in human cervicovaginal fluid to predict labour". University of Melbourne. Supervised by Dr Harry Georgiou and Dr Megan Di Quinzio. Thesis passed 2010.
- Carson Sara: "Role of peroxisome proliferators activated receptors in the processes of human labour". Supervised by Dr Martha Lappas, Associate Professor Greg Rice and Professor Michael Permezel. PhD thesis submitted 2010.
- Colomiere Michelle. "Understanding the molecular mechanisms that regulate the onset of GDM". Supervised by Dr Martha Lappas, Associate Professor Greg Rice and Professor Michael Permezel. PhD thesis submitted 2010.

Scholarships awarded

- Ms Stella Liong: "Cervicovaginal fluid biomarkers associated with preterm birth." Australian Postgraduate Award for PhD studies at the University of Melbourne. Supervised by Dr Harry Georgiou and Dr Megan Di Quinzio.

Perinatal Mental Health

The Department of Perinatal Mental Health at Mercy Hospital for Women provides a comprehensive consultation liaison service to women booked in for their antenatal care and delivery at the hospital and up to three years postpartum. The department has a commitment to research that will enable the evaluation and further development of improved treatment options, pharmacological and psychological, in the perinatal context.

Research activity

The Department of Perinatal Mental Health consists of consultant psychiatrists Dr Megan Galbally, Dr Gaynor Blankley, Dr Martien Snellen; clinical psychologists Ms Helen Janson and Dr Rhiannon Mulcahy; and the psychiatric registrars for 2010 Dr Josh White and Dr Mohammad Zahedi.

Research projects

Project Title: Victorian psychotropic registry.

Investigators: Dr Megan Galbally, Professor Anne Buist, Associate Professor Andrew Lewis, Dr Gillian Opie, Dr Jarrad Lum.

Project Outline: This project aims to study the use of psychotropic medications in pregnancy and examine for cognitive, motor and other developmental effects on infants exposed to these medications in utero. The study began in 2004 and has six timepoints for assessment: pregnancy, delivery, one month postpartum, 18 months old, four years of age and five years of age. The final assessment at five years of age will be undertaken in 2011.

Funding Source: Pat and Toni Kinsman Scholarship, Neuroscience Research Grant.

Amount Funded: \$100,000.

Project Title: The neurodevelopmental outcomes of children exposed to antipsychotic medication in pregnancy.

Investigators: Dr Jo Power, Dr Megan Galbally, Professor Anne Buist, Associate Professor Andrew Lewis.

Project Outline: The proposal is to conduct a prospective controlled study of the development of a cohort of 30 infants of mothers who were treated with antipsychotic medication during their pregnancies. A matched control group of 30 infants of mothers who did not take antipsychotics will be recruited to act as a comparator. The proposed study will examine birth outcomes after delivery and then motor, language and cognitive at 12 months to determine whether there is any significant difference in cognitive development between infants of mothers taking antipsychotic medication and those whose mothers did not.

Project Title: Perinatal psychotropic review.

Investigators: Investigators for the mood stabiliser component of review: Dr Megan Galbally, Dr Matthew Roberts, Professor Anne Buist.

Project Outline: This review aims to systematically examine the available literature on psychotropic medication in pregnancy and form consistent recommendations across the perinatal mental health centres of Melbourne. The purpose of the group is to try and have more consistent understanding and practice regarding the recommendations for use of psychotropic medication in pregnancy across the major perinatal mental health services in Melbourne. The review includes The Women's, Werribee Mercy Hospital's Mother-Baby Unit, St John of God Perinatal Mental Health, Monash Medical Centre, Austin/Northpark Mother-Baby Units and Mercy Hospital for Women.

Project Title: The role of neuropeptides in the regulation of maternal mood and bonding.

Investigators: Dr Megan Galbally,
Professor Michael Permezel,
Professor Marinus van IJzendoorn,
Associate Professor Andrew Lewis.

Project Outline: This proposed project is a prospective cohort study examining the relationship between neuropeptide functioning and maternal mood, behaviour and mother-infant attachment.

Publications

Journal articles

Galbally M, Snellen M, Walker S, Permezel M. Management of antipsychotic and mood stabiliser medication in pregnancy: recommendations for antenatal care. *Australian and New Zealand Journal of Psychiatry* 2010; 44(2);99-108.

Galbally M, Roberts M, Buist A. Mood stabilisers in pregnancy: a systematic review. *Australian and New Zealand Journal of Psychiatry* 2010; 44(11);967-977.

Gentile S, Galbally M. Prenatal exposure to antidepressant medication and neurodevelopmental outcomes: a systematic review. *Journal of Affective Disorders* 2010; 1-2,1-9.

Lewis A, Galbally M, Opie G, Buist A. Neonatal growth outcomes at birth and one month postpartum following in utero exposure to antidepressant medication. *Australian and New Zealand Journal of Psychiatry* 2010; 44,5,482-487.

Lewis A, Galbally M. Antidepressants in pregnancy. *Good Practice*, Issue 9:4; December 2010.

Book chapters

Bilitza J, Galbally M, Buist A. Bipolar disorder and puerperal psychosis in pregnancy and the postpartum: managing sleep and medication. In Hansson W, Olsson E, eds *New Perspectives on Women and Depression* New York, Nova; 109-132.

Collaborations

- Dr Gaynor Blankley, Anna Freud Centre to undertake mentalisation based training

Midwifery Professorial Unit / Professional Development & Research Unit (Nursing and Midwifery), Mercy Hospital for Women, La Trobe University

The Midwifery Professorial Unit encourages and facilitates multidisciplinary clinical research and higher degree education opportunities and works closely with the Professional Development & Research Unit (Nursing and Midwifery).

The Professional Development & Research Unit is also responsible for the coordination and running of Graduate Nurse and Graduate Midwife Programs Employment Model of Midwifery Program, Neonatal Intensive Care Master's Course, Graduate Certificate/ Diploma in Perioperative Care Course, Employment of Bachelor of Nursing/Bachelor of Midwifery Double Degree 4th year students as Division 2 Nurses in ante/postnatal/Special Care Nursery areas and Re-Entry/Refresher Midwifery clinical placement programs.

Research activity

Professor Susan McDonald, Dr Wendy Pollock, Ms Jackie Keane, Ms Anna Seaborn, Ms Leanne Owen.

Project Title: Investing in our future: employment of Bachelor of Nursing/Bachelor of Midwifery Double Degree students as Division 2 Nurses at Mercy Hospital for Women.

Investigators: Ms Jackie Keane, Professor Susan McDonald, Mrs Theresa Bowditch, Ms Rosetta Moores, Dr Wendy Pollock.

Project Outline: The aim of this study was to evaluate the Bachelor of Nursing/Bachelor of Midwifery Division 2 Nurse employment program in the light of encouraging midwifery graduates to make their career midwifery. Specifically, the objectives were to evaluate (1) if this new model increased opportunities for learning for final year Bachelor of Nursing/Bachelor of Midwifery students while being employed as Division 2 Nurses within their profession of choice; and (2) the feasibility and

appropriateness of this employment model for recruitment of our future midwives within the hospital setting, providing safe care under the supervision of a midwife while assisting with current workforce issues.

Funding Source: Victorian Department of Health.

Amount Funded: \$30,000.

Project Title: Midwifery student fellowship model of employment.

Investigators: Professor Susan McDonald, Ms Jackie Keane, Dr Wendy Pollock.

Project Outline: This project follows on from the Bachelor of Nursing/Bachelor of Midwifery students as Division 2 nurses at Mercy Hospital for Women. Final year Bachelor of Nursing/Bachelor of Midwifery students as well as final year Bachelor of Midwifery students will be employed in a student fellowship model working to a pre-designated set of competencies commensurate with their midwifery education status. Students will be subsequently evaluated in the short and longer term (five years) to ascertain the appropriateness of this employment model for recruitment of our future midwives within the hospital setting, provision safe care under the supervision of a midwife while assisting with current workforce issues, cost effectiveness and long term retention in the profession.

Funding Source: Victorian Department of Health.

Amount Funded: \$31,000.

Project Title: Mechanical ventilation in pregnant women with H1N1 influenza.

Investigators: Dr Wendy Pollock, Dr Ian Seppelt, Dr Steve Webb, Ms Belinda Howe, Ms Siouzy Morrison, Professor Rinaldo Bellomo, Dr Andrew Davies, Associate Professor Elizabeth Sullivan, Associate Professor Marie Gertz.

Project Outline: This case control study will describe the mechanical ventilation of pregnant and postpartum women admitted to the intensive care unit with H1N1 influenza and examine the impact of pregnancy on ventilation needs by comparing them with a control group of non pregnant childbearing aged women admitted to the intensive care unit with H1N1 influenza. This study will, for the first time, collect detailed ventilation specific data on pregnant and postpartum women and will provide an evidence base to inform intensive care practice with the potential to improve outcomes for ventilated pregnant and postpartum women.

Funding Source: Helen Macpherson Smith Trust.

Amount Funded: \$21,637.

Publications

McDonald SJ, Henderson JJ, Faulkner S, Evans S, Hagan R. Effect of an extended midwifery postnatal support program on the duration of breastfeeding: a randomised controlled trial. *Midwifery* 2010; 26:88-100.

Pollock W, Rose L, Dennis C-L. Pregnant and postpartum admissions to the intensive care unit: a systematic review. *Intensive Care Med*. Published online 15 July 2010. (doi: 10.1007/s00134-010-1951-0). Print copy: 2010; 36(9):1465-1474.

The ANZIC Influenza Investigators and the Australasian Maternity Outcomes Surveillance System: Seppelt I, Sullivan E, Bellomo R, Ellwood D, Finfer S, Howe B, Knight M, McArthur C, McDonnell N, McLintock C, Morgan T, Morrison S, Nguyen N, Peek M, Pollock W, Vaughan G, Webb S, Wang A. Critical illness due to influenza A (H1N1) 2009 in pregnant and postpartum women. *Br Med J* 2010; 340:c1279 (doi:10.1136/bmj.c1279).

Webster CJ, Holberton J, Moors R, McDonald S, Opie G. Introducing FM85®: are there any complications? 14th Annual Congress of The Perinatal Society of Australia and New Zealand, 28-31 March 2010, Wellington, New Zealand. *Journal Paediatric and Child Health* Volume 46; P150 S1; March 2010.

Vaughan G, Sullivan EA, Pollock W on behalf of the Australasian Maternity Outcomes Surveillance System (AMOSS investigators). Tales from the field: lessons learnt from the implementation of AMOSS – an Australian and New Zealand multisite epidemiological research system. 14th Annual Congress of The Perinatal Society of Australia and New Zealand, 28-31 March 2010, Wellington, New Zealand. *Journal Paediatric and Child Health* Volume 46; P145 S1; March 2010.

Oral and poster presentations

Topic: Introducing FM85®: are there any complications?

Presenters: Webster CJ, Holberton J, Moors R, McDonald S, Opie G.

Conference: 14th Annual Congress of The Perinatal Society of Australia and New Zealand Wellington, New Zealand, 28-31 March 2010.

Topic: Tales from the field: lessons learnt from the implementation of AMOSS – an Australian and New Zealand multisite epidemiological research system.

Presenters: Vaughan G, Sullivan EA, Pollock W on behalf of the Australasian Maternity Outcomes Surveillance System (AMOSS investigators).

Conference: 14th Annual Congress of The Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 28-31 March 2010.

Topic: “Investing in our future: employment of Bachelor of Nursing/Bachelor of Midwifery Double Degree students as Division 2 Nurses” pilot program at Mercy Hospital for Women in conjunction with La Trobe University.

Presenters: Poster presentation – Ms Jackie Keane and Professor Susan McDonald.

Conference: Women’s and Children’s Hospitals Australia, National Conference, Melbourne, Victoria, 9 November 2010.

Twilight Seminar series

This year continued to be very successful for our Twilight Seminars. Seminars on topical issues organised over the year were in high demand averaging over 100 clinicians from across the state at each of the three seminars. The evaluations were extremely positive and provided us with feedback for future seminar topics of interest.

- April 2010: “It’s Not What We Expected” Supporting parents through diagnosing fetal abnormalities – Ms M Graetz, Dr A Watkins, Ms I Adamson, Ms M McCarthy

- July 2010: “The Great Debate” Should women be able to elect a caesarean section? – Ms S Hay, Ms M Carrucan, Professor S Walker, Dr M Rasmussen
- November 2010: “Postnatal Care” Can we do better? – Ms A Seaborn, Ms K McEgan, Dr M Snellan

We thank the staff of Mercy Hospital for Women for their enthusiasm and generosity of time in presenting at the seminars.

Collaborations

Professor Susan McDonald took study leave for six months. She spent time at the Cochrane Collaboration Centre in Liverpool, England; the Liverpool Women’s Hospital working in the Midwifery High Dependency Unit; the Robinson Unit (University of Adelaide); and the School of Nursing and Midwifery at the University of South Australia.

Academic achievements

- Ms Mary McCarthy, Master of Midwifery
- Ms Elizabeth Thomas, Master of Midwifery
- Ms Genevieve Rohrlach, nominated for the State Nurse Excellence Awards, 2010

Department of

Urogynaecology

*Professor Peter L Dwyer (Head),
Dr Yik Lim (Deputy Head),
Dr Alison De Souza (Consultant Urogynaecologist),
Dr Lore Schierlitz (Consultant Urogynaecologist),
Dr Joe Lee (Urogynaecology Fellow),
Dr Fay Chao (Urogynaecology Fellow),
Dr Gerry Agnew (Urogynaecology Fellow),*

*Ms Elizabeth Thomas (Unit Manager and
Continence Nurse Advisor),
Ms Christine Murray (Continence
Nurse Advisor),
Ms Christine Conway (Continence
Nurse Advisor),
Ms Christine Turville (Office Manager).*



The clinical management of patients and research in urogynaecology are closely aligned in the Department of Urogynaecology to offer best possible outcomes for women with urinary incontinence and pelvic floor disorders. Research into patient outcomes helps us understand what causes pelvic floor problems and how to manage them more effectively and safely.

Publications

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim Y, Lee J. Repeat synthetic mid-urethral sling for women with recurrent stress urinary incontinence. *J Urol* 2010; 183; 241-246.

Lim Y, Dwyer PL. Effectiveness of mid-urethral slings in the treatment of intrinsic sphincteric related stress urinary incontinence. *Current Opin Obstet Gynecol* 2009; 21(5):428-33.

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Lee J. Risk factors of treatment failure of mid-urethral sling procedures for women with urinary stress incontinence. *Int Urogynecol J Pelvic Floor Dysfunct*; 21(2):149-55; 2010.

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Lee J. Mid-urethral sling procedures for women over 80 years. *Neurourol Urodynam* 2010; 29,5,1262-66.

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim Y, Lee J. Long term outcomes of women who failed to attend following mid-urethral sling surgery: a comparative study and analysis of risks factors for non attendance. *Aust NZ J Obstet Gynaecol* 2010; 50:173-178.

Vanspauwen R, Semen E, Dwyer PL. Survey of current management of prolapse in Australia and New Zealand: current management of prolapse in Australia and New Zealand. *Aust NZ J Obstet Gynaecol* 2010 50(3):262-7.

Lee J, Dwyer PL. Surgery for stress urinary incontinence in Australia: current trends from Medicare data. *Med J Aust* 2010; 192(7):422.

Lim YN, Dwyer PL, Muller R, Rosamilia A, Lee J, Stav K. Do the Advantage slings work as well as the tension free vaginal tapes? *Int Urogynecol J Pelvic Floor Dysfunct* 2010; 21; 9, 1157-62.

Dwyer PL. Urinary tract injury; medical negligence or unavoidable complication? *Int Urogynecol J Pelvic Floor Dysfunct* 2010; 21(8):903-10.

Lee J, Dwyer PL. Trends in stress urinary incontinence surgery in elderly females in Australia – Medicare data 94 – 09 *Aust NZ J Obstet Gynaecol* 2010; 50; 543-9.

Presentations

Topic: Intra-operative cystoscopy in the diagnosis and prevention of urinary tract injury.

Presenter: Dwyer PL.

Conference: Danish/Nordic Urogynecological Society Joint Annual Scientific Conference, Copenhagen, Denmark, 2010.

Topic: Chronic pelvic pain in women.

Presenter: Dwyer PL.

Conference: Danish/Nordic Urogynecological Society Joint Annual Scientific Conference, Copenhagen, Denmark, 2010.

Topic: Cystoscopy in urogynaecological surgery. Stress incontinence and pelvic organ prolapse. Surgical treatment of post-hysterectomy prolapse. Vaginal repair with mesh versus colporrhaphy. Pelvic floor disorders: from scientific knowledge to clinical knowledge.

Presenter: Dwyer PL.

Conference: Thai Urogynecological Society and Mahidol University, Bangkok, Thailand, 2010.

Topic: A prospective randomised controlled study comparing vaginal prolapse repair with and without tension free vaginal tape (TVT) in women with severe genital prolapse and occult stress incontinence: three year follow up.

Presenters: Schierlitz L, Dwyer PL, Rosamilia A, Murray C, Thomas E, Taylor N, Hiscock R, Lim Y, Ahtari A, DeSouza A.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Topic: A randomised controlled study to compare tension free vaginal tape (TVT) and Monarc trans-obturator tape in the treatment of women with urodynamic stress incontinence and intrinsic sphincter deficiency: three year follow up.

Presenters: Schierlitz L, Dwyer PL, Murray C, Thomas E, Taylor N, Hiscock R, Lim Y, De Souza A, Rosamilia A.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Topic: Complications of mid-urethral slings: how to diagnose MUS infections and erosions.

Presenter: Dwyer PL.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Topic: Recurrence after transvaginal mesh repair: what should we do?

Presenter: Dwyer PL.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Topic: Prediction of de novo overactive bladder symptoms following mid-urethral slings.

Presenters: Lee J, Dwyer P, Rosamilia A, Lim Y, Polyakov A, Stav K.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Topic: Risk factors for persistent overactive bladder symptoms after mid-urethral slings.

Presenters: Lee J, Dwyer P, Rosamilia A, Lim Y, Polyakov A, Stav K.

Conference: International Continence Society and International Urogynecological Association, Toronto, Canada, 2010.

Industry achievements

- Professor Peter Dwyer, appointed Editor in Chief of the *International Urogynecology Journal*, 2010

Department of Gynaecological Oncology

The Department of Gynaecological Oncology has an increasing demand on clinical service provision but continues to have a very active role in research and education. Many of the research projects and publications are part of national or international collaboration and members of the department are sought after speakers for local, national and international meetings.



Research projects

Project Title: R08/48: Establishment of a tissue bank to collect, store and distribute data, blood and tissue for ethically approved research projects.

Investigator: Associate Professor Peter Grant.

Project Title: Multimedia laser treatment consent module. Trial to assess patient perceptions of pre-treatment information provided in a conventional vs multimedia format.

Investigators: Associate Professor Peter Grant, Associate Professor David Allen, Ms B Murray, Ms A Freyne.

Project Title: The oncogenic risk of human papillomavirus (HPV) in children and adolescents: risk factors for early onset cervical carcinoma and high grade dysplasia.

Investigators: Professor Susan Garland, Associate Professor Peter Grant, Associate Professor Sonia Grover, Ms Yasmin Jayasinghe, Dr Jan Pyman, Dr Sepehr Tabrizi, Professor Michael Quinn.

Project Title: Ovarian cancer patterns of care survey in Australia. Australian Ovarian Cancer Study (AOCS) project.

Investigators: Dr Penny Webb, Associate Professor Peter Grant.

Project Title: A randomised, open label Phase IIb trial of maintenance therapy with a MUC1 dendritic cell vaccine (CVac) for epithelial ovarian cancer patients in first or second remission. Multicentre trial.

Investigators: Associate Professor Paul Mitchell, Associate Professor Peter Grant, Associate Professor David Allen, Dr Simon Hyde.

Project Title: TRIPOD: intraperitoneal chemotherapy in advanced ovarian cancer. National ANZGOG study.

Investigators: Associate Professor Peter Grant, Dr Serene Foo.

Project Title: AZD2281: multinational Phase II randomised study evaluating a PARP inhibitor for recurrent ovarian cancer.

Investigator: Dr Linda Mileshekin.

Project Title: MORAb-003: multinational randomised study using Paclitaxel +/-MORAb (farletuzimab) in refractory relapsed ovarian cancer.

Investigator: Dr Linda Mileshekin.

Project Title: AGO-OVAR16 study: multinational randomised study to evaluate pazopanib vs placebo following first line treatment of advanced ovarian cancer.

Investigators: Associate Professor Danny Rischin, Associate Professor Peter Grant.

Publications

Tan J, Farrell L, Allen DG. The attitudes of Australian gynaecologists to HPV vaccination: an ASCCP survey. *Aust N Z J Obstet Gynaecol* 2010 Oct; 50(5):472-477.

Allen DG. The management of epithelial ovarian cancer: neoadjuvant chemotherapy and interval surgery. *South Afr J Gynaecol Oncol* 2010; 2(2):67-68.

Edgell T, Martin-Roussety G, Barker G, Autelitano DJ, Allen D, Grant P, Rice GE. Phase II biomarker trial of a multimarker diagnostic for ovarian cancer. *J Cancer Res Clin Oncol* 2010 Jan 16.

Rathi V, Hyde S, Newman M. Well differentiated papillary mesothelioma in association with endometrial carcinoma: a case report. *Acta Cytol* 2010 Sep-Oct; 54(5 Suppl):793-7.

Friedlander M, Hancock KC, Rischin D, Messing MJ, Stringer CA, Matthys GM, Bo Ma, Hodge JP, Lager JJ. A Phase II, open label study evaluating pazopanib in patients with recurrent ovarian cancer. *Gynecol Oncol* 2010; 119:32-37.

Nagle CM, Kolahdooz F, Ibiebele TI, Olsen CM, Lahmann PH, Green AC, Webb PM, Australian Cancer Study (Ovarian Cancer) and the Australian Ovarian Cancer Study Group. Carbohydrate intake, glycemic load, glycemic index, and risk of ovarian cancer. *Ann Oncol* 2010 Dec 3.

Beesley VL, Price MA, Webb PM. Australian Ovarian Cancer Study Group. Australian Ovarian Cancer Study – Quality of Life Study Investigators. Loss of lifestyle: health behaviour and weight changes after becoming a caregiver of a family member diagnosed with ovarian cancer. *Support Care Cancer* 2010 Dec.

Gordon LG, Scuffham PA, Beesley VL, Green AC, DeFazio A, Wyld DK, Clavarino AM. Australian Ovarian Cancer Study Group, Webb PM. Medical costs and outcomes for Australian women with ovarian cancer: a patient level analysis over 2.5 years. *Int J Gynecol Cancer* 2010 Jul; 20(5):757-65.

Fearnley EJ, Marquart L, Spurdle AB, Weinstein P, Webb PM. Australian Ovarian Cancer Study Group and Australian National Endometrial Cancer Study Group. Polycystic ovary syndrome increases the risk of endometrial cancer in women aged less than 50 years: an Australian case control study. *Cancer Causes Control* 2010 Dec; 21(12):2303-8. Epub 2010 Oct 17.

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of epithelial ovarian cancer. *Australia. Med J Aust* 2010 Sep 20; 193(6):326-30. Erratum in: *Med J Aust* 2010 Nov 15; 193(10):577.

Bolton KL, Tyrer J, Song H, Ramus SJ, *et al* incl Australian Ovarian Cancer Study Group. Common variants at 19p13 are associated with susceptibility to ovarian cancer. *Nat Genet* 2010 Oct; 42(10):880-4.

Goode EL, Chenevix-Trench G, Song H, *et al* incl. Australian Ovarian Cancer Study Group. A genome wide association study identifies susceptibility loci for ovarian cancer at 2q31 and 8q24. *Nat Genet* 2010 Oct; 42(10):874-9.

Beesley VL, Price MA, Butow PN, Green AC, Olsen CM, Webb PM. Australian Ovarian Cancer Study Group; Australian Ovarian Cancer Study – Quality of Life Study Investigators. Physical activity in women with ovarian cancer and its association with decreased distress and improved quality of life. *Psycho-oncology* 2010 Aug 26.

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Kelemen LE, Goodman MT, McGuire V, Rossing MA, Webb PM. Australian Cancer Study (Ovarian Cancer) Study Group, Köbel M, Anton-Culver H, Beesley J, Berchuck A, Brar S, Carney ME, Chang-Claude J, Chenevix-Trench G, Australian Ovarian Cancer Study Group, *et al*. Genetic variation in TYMS in the one carbon transfer pathway is associated with ovarian carcinoma types in the Ovarian Cancer Association Consortium. *Cancer Epidemiol Biomarkers Prev* 2010 Jul; 19(7):1822-30. Epub 2010 Jun 22.

Kolahdooz F, van der Pols JC, Bain CJ, Marks GC, Hughes MC, Whiteman DC, Webb PM. Australian Cancer Study (Ovarian Cancer) and the Australian Ovarian Cancer Study Group. Meat, fish and ovarian cancer risk: results from two Australian case control studies, a systematic review and meta-analysis. *Am J Clin Nutr* 2010 Jun; 91(6):1752-63.

Phelan CM, Tsai YY, Goode EL, Vierkant RA, *et al* incl. Australian Ovarian Cancer Study Group. Polymorphism in the GALNT1 gene and epithelial ovarian cancer in non Hispanic white women: the Ovarian Cancer Association Consortium. *Cancer Epidemiol Biomarkers Prev* 2010 Feb; 19(2):600-4.

Doherty JA, Rossing MA, Cushing-Haugen KL, *et al* incl. Australian Ovarian Cancer Study Management Group. ESR1/SYNE1 polymorphism and invasive epithelial ovarian cancer risk: an Ovarian Cancer Association Consortium study. *Cancer Epidemiol Biomarkers Prev* 2010 Jan; 19(1):245-50.

Price MA, Zachariae R, Butow PN, deFazio A, Chauhan D, Espie CA, Friedlander M, Webb PM. Australian Ovarian Cancer Study Group, Australian Ovarian Cancer Study – Quality of Life Study Investigators. Prevalence and predictors of insomnia in women with invasive ovarian cancer: anxiety a major factor. *Eur J Cancer* 2009 Dec; 45(18):3262-70.

Ahmed AA, Lu Z, Jennings NB, Etemadmoghadam D, Capalbo L, Jacamo RO, Barbosa-Morais N, Le XF, Australian Ovarian Cancer Study Group, *et al*. SIK2 is a centrosome kinase required for bipolar mitotic spindle formation that provides a potential target for therapy in ovarian cancer. *Cancer Cell* 2010 Aug 9; 18(2):109-21.

Verderio P, Pizzamiglio S, Southey MC, Spurdle AB, Hopper JL, Chen X, Beesley J, Australian Ovarian Cancer

Study Group, KConFab, Schmutzler RK, Engel C, Burwinkel B, Bugert P, Ficarazzi F, Manoukian S, Barile M, Wappenschmidt B, Chenevix-Trench G, Radice P, Peterlongo P. A BRCA1 promoter variant (rs11655505) and breast cancer risk. *J Med Genet* 2010 Apr; 47(4):268-70.

Gorringe KL, George J, Anglesio MS, Ramakrishna M, Etemadmoghadam D, Cowin P, Sridhar A, Williams LH, Boyle SE, Yanaihara N, Okamoto A, Urashima M, Smyth GK, Campbell IG, Bowtell DD, Australian Ovarian Cancer Study Group. Copy number analysis identifies novel interactions between genomic loci. *Ovarian cancer.PLoS One* 2010 Sep 10; 5(9).

Fletcher O, Johnson N, dos Santos Silva I, *et al* incl AOCS Group. Missense variants in ATM in 26,101 breast cancer cases and 29,842 controls. *Cancer Epidemiol Biomarkers Prev* 2010 Sep; 19(9):2143-51.

Krypuy M, Ahmed AA, Etemadmoghadam D, Hyland SJ. Australian Ovarian Cancer Study Group, DeFazio A, Fox SB, Brenton JD, Bowtell DD, Dobrovic A. High resolution melting for mutation scanning of TP53 exons 5-8. *BMC Cancer* 2007 Aug 31; 7:168.

Invited speakers

Associate Professor Peter Grant:

- DRANZCOG Revision Course – Overview of management of gynaecological cancer, 3 February 2010
- Northern Division of General Practice – What is new in ovarian cancer management? 7 September 2010
- Mercy Hospital for Women GP Update Lecture – What is new in ovarian cancer management? 7 September 2010

Simon Hyde and Associate Professor Peter Grant:

- ASGO Scientific Conference – Interval cytoreduction in the management of advanced ovarian cancer, May 2010

Associate Professor David Allen:

- Hong Kong Society for Colposcopy and Cervical Pathology, Kowloon, Hong Kong, 10 December 2010
- Obstetrical and Gynaecological Society of Hong Kong, Causeway Bay, Hong Kong, 9 December 2010
- Hong Kong College of Family Physicians, Kowloon, Hong Kong, 9 December 2010
- 34th National Congress SASOG, Sun City, 31 October-3 November 2010

Conferences attended

Associate Professor David Allen:

- International Gynaecologic Cancer Society (IGCS), Prague, 23-26 October 2010
- British International Congress of Obstetrics and Gynaecology, Belfast, 20-23 June 2010

Expert committees

- Vulvar Cancer Structured Reporting Guidelines. Royal Australian College of Pathologists. The development of uniform reporting guidelines for vulvar cancer in Australia. J Scurry, C Stewart, P Grant, N Hacker.
- Endometrial Cancer Structured Reporting Protocol. Royal Australian College of Pathologists. The development of uniform reporting guidelines for endometrial cancer in Australia. J Scurry, C Stewart, P Grant, N Hacker, D Allen, D Ellis, K Narayan, K Ireland-Jenkin, L Mileshekin, M Newman, N Mulvany, P Russell.
- National Breast and Ovarian Cancer Centre. Ovarian cancer guidelines high risk working group. Chair P Grant.

- Chemoprevention for women at increased risk of breast cancer due to family history. National Breast and Ovarian Cancer Centre Expert Advisory Committee. P Grant.
- Board President. Victorian Cytology Service until February 2010. P Grant.
- Cancer Council Victoria Medical Scientific and Research Committee. P Grant.
- North Eastern Melbourne Integrated Cancer Service; Gynaecological Oncology Group. P Grant, D Allen, S Hyde.
- Member, Victorian Surgical Consultative Council, Department of Health, Victoria. D Allen.
- Safety Monitoring Committee for Cervical Cancer in Australia, Department of Health and Ageing (Federal). D Allen.
- Executive (Governance) Committee, North East Metropolitan Integrated Cancer Service (Chair until June 2010). D Allen.
- President, Committee of Management, Australian Society of Colposcopy and Cervical Pathology. D Allen.
- Chair, Steering Committee for Introduction of Colposcopy Quality Improvement Program (C-QulP) in Australia and New Zealand, in conjunction with RANZCOG and DoHA. D Allen.
- Expert Committee, National Structured Pathology Reporting for Cancer Project. D Allen.

Poster presentations

Topic: Rapid localisation of sentinel lymph nodes in vulvar lymphoscintigraphy.

Presenters: Farrell C, Grant P.

Conference: Australian and New Zealand Society of Nuclear Medicine Annual Scientific Meeting, Auckland, New Zealand, 23-26 April 2010.

Department of Endosurgery

The Department of Endosurgery aims to provide expertise in the practice of minimal access surgery as it applies to gynaecology. It is a department that has been born out of successive graduates of our training Fellowship (the first in Australia) joining the staff of Mercy Hospital for Women. Members of the team are actively involved in clinical research and have presented at national and international meetings and have been published in peer reviewed journals.



Research activity

Research projects

Project Title: Feasibility and patient tolerance of Novasure endometrial ablation under local anaesthetic: a review of clinical practice.

Investigators: Dr Kate McIlwaine, Dr Jagasia, Dr Melissa Cameron, Dr Emma Readman, Associate Professor Peter Maher, Dr Janine Manwaring.

Project Outline: To determine the logistical efficacy, patient tolerability and cost effectiveness of performing Novasure endometrial ablation under local anaesthetic and sedation at Mercy Hospital for Women.

Project Title: Endometrial nerve fibres in endometriosis and their response to surgical and hormonal therapy: a prospective randomised controlled trial.

Investigators: Dr Emma Readman, Dr Kate McIlwaine, Associate Professor Peter Maher.

Project Outline: The purpose of this study is to try and develop a test of cure for endometriosis that is outpatient based, thus sparing women potentially risky further surgery and streamlining those who should get a repeat laparoscopy. It will also expand our understanding of the influence of hormones on the disease process and whether they will be a confounding factor for the outpatient test.

Funding Source: Medical Research Foundation for Women and Babies.

Project Title: The effect of timing of menstrual cycle on interpretation of pelvic MRI and prediction of disease severity in patients with deep pelvic endometriosis.

Investigators: Dr Kate McIlwaine, Dr Jagasia, Dr Melissa Cameron, Dr Emma Readman, Associate Professor Peter Maher, Dr Janine Manwaring.

Project Outline: To determine if the pelvic MRI appearance in patients with deep endometriosis differs at various times of the menstrual cycle, and to determine whether such differences increase the accuracy of predicting disease severity and the extent of surgery required.

Funding Source: Medical Research Foundation for Women and Babies; AGES Research Fund.

Project Title: The effect of BMI on surgical difficulty in laparoscopic gynaecological surgery.

Investigators: Dr Kate McIlwaine, Dr Jagasia, Dr Melissa Cameron, Dr Emma Readman, Associate Professor Peter Maher, Dr Janine Manwaring.

Project Outline: The objective of this pilot study was to evaluate the extent to which laparoscopic gynaecological surgery could be completed as planned in overweight and obese patients versus patients of normal weight. A prospective surgical audit was conducted of 64 women undergoing laparoscopy for benign gynaecological conditions.

Funding Source: Medical Research Foundation for Women and Babies; AGES Research Fund.

Oral and poster presentations

Topics: POGI (Indonesian Society of Obstetrics and Gynecology): Training of the trainers, Bandung, Indonesia Faculty; Laparoscopic hysterectomy.

AGES/ISGE Annual Scientific Meeting
“Gynecologic endoscopy – has it come of age?”
Sydney, Australia, Honorary Chair – Keynote lecture.

Asia Pacific Association Gynecological Endoscopy ASM, Singapore, Faculty;
Urological injuries during laparoscopic surgery.

AAGL Global Congress of Gynecological Endoscopy, Las Vegas, USA, Impact of BMI on the success of gynecological laparoscopy.

Presenter: Associate Professor Peter Maher.

Topics: Planning the surgical approach to severe endometriosis; The place of second look laparoscopy; Complications to the urinary tract during laparoscopic surgery.

Presenter: Associate Professor Peter Maher, keynote speaker.

Conference: National Congress for Gynecological Endoscopy, Beijing, China.

Collaborations

- Visit to Beijing Obstetrics and Gynecological Hospital, Capital University, Beijing, Associate Professor Peter Maher

Division of

Allied Health

The **Social Work Department** at Mercy Hospital for Women provides a professional and proactive service to women and their families who attend the hospital. The social workers undertake a wide range of social work interventions from a large and diverse range of referrals.

Research activity

Project Title: Vital family support to welcome new life: How effective are hospital social workers' letters supporting pregnant immigrant women's family members who apply for visitor visas?

Investigators: Ms Suleeqa Hussein, Ms Jaime Williams, Ms Jane Middleton.

Project Outline: Social workers at Mercy Hospital for Women advocate for many women from numerous countries around the world. One example of the support they provide to women is writing support letters for them to include in the application form for their relatives to visit them in Melbourne.

The purpose of this study was to investigate the usefulness of the letters written by social workers at clients' request. These letters are designed to advocate for women as to why their relative should be allowed to visit during the later stages of their pregnancy and after giving birth.

This study is needed in order for social workers at Mercy Hospital for Women to give effective advocacy to their clients. This is the first study of its kind. The benefit of this is to investigate what improvements could be made in the way the support letters are written. This study may also be useful to social workers in other Australian hospitals.

Mercy Health Lymphoedema Clinic provides services to men, women and children who are at risk of lymphoedema or are diagnosed with lymphoedema. The outpatient service, which is staffed by a multidisciplinary team, is based at East Melbourne and provides clinics at Mercy Hospital for Women. The clinic offers assessment, education treatment and management for patients and administers the statewide Lymphoedema Compression Garment Program. The clinic has a valued role in the community in supporting and advising other professionals working in the field of lymphology. This has led to the development of a collaborative Paediatric Clinic at the Royal Children's Hospital for lymphoedema.



Research activity

Ms Sally James, Registered Nurse and Lymphoedema Practitioner completed her research project as the perceived barriers that prevent patients with lymphoedema from continuing optimal skin care, which resulted in achieving her Master of Wound Care. Ms Jane Phillips has continued with the Graduate Certificate in Health (Chronic Self Management) providing the clinic with significant resources in the delivery of care.

Research projects

Project Title: Mentoring for lymphoedema therapists in the NEMICS region.

Investigator: Ms Judith Purbrick.

Project Outline: To provide a formal mentoring program for 12 months to new lymphoedema therapists working in the NEMICS region and to assist the professional development of new lymphoedema therapists so that new skills can be consolidated, the network of lymphoedema therapists strengthened and workforce retention promoted.

Funding Source: NEMICS Professional Development Grants 2010.

Amount Funded: \$4,000.

Publications

Book review

Sanderson P. One hundred questions and answers about lymphoedema. *Australasian Lymphology Association Newsletter* March 2010.

Review article

James S. Report on the National Lymphoedema Network Conference. *Australasian Lymphology Association Newsletter* November 2010.

Oral and poster presentations

Topic: Engaging young people: challenges for clinicians.

Presenter: Ms Penelope Sanderson.

Conference: 2nd International Lymphoedema Framework Conference, March 2010.

Topic: Impact of lymphoedema on skin.

Presenter: Dr Yvonne Zwar.

Conference: 8th Australasian Lymphology Association Conference, Melbourne, Victoria, May 2010.

Topic: Delivering best practice in compression garment supply.

Presenters: Ms Sherry Rasmussen, Ms Penelope Sanderson, Ms Pauline Young.

Conference: 8th Australasian Lymphology Association Conference, Melbourne, Victoria, May 2010.

Topic: The changing nature of practice in a generalist lymphoedema clinic.

Presenter: Dr Fiorella Alberico.

Conference: 8th Australasian Lymphology Association Conference, Melbourne, Victoria, May 2010.

Topic: The use of education groups for women with breast oedema.

Presenter: Ms Susan Grabsch.

Conference: 8th Australasian Lymphology Association Conference, Melbourne, Victoria, May 2010.

Topic: Developing a paediatric service.

Presenter: Ms Penelope Sanderson.

Conference: 8th Australasian Lymphology Association, Melbourne, Victoria, May 2010.

Topic: Self management: what do I have to do?

Presenter: Ms Jane Philips.

Conference: 8th Australasian Lymphology Association, Melbourne, Victoria, May 2010.

Visiting speakers and researchers

- Ms Jane Wigg: United Kingdom Intermittent Compression Therapy Professional Development Workshop
- Mr Alex Munnoch: Consultant Plastic Surgeon, Ninewells Hospital Dundee, Scotland: Surgical Advances in Lymphoedema
- Dr Julian Kelly: Consultant Paediatrician, Department of General Medicine Royal Children's Hospital Paediatric and Lymphoedema
- Mr Hans Zimmerman: Jobst Germany Paediatric Management of Lymphoedema
- Visits to overseas departments
- Ms Penelope Sanderson attended a paediatric clinic with Professor Peter Mortimer, dermatologist at St Georges Hospital, London
- Ms Sally James attended the National Lymphoedema Network Conference in Orlando, USA
- Ms Jane Philips attended the British Lymphology Society Conference in Manchester, United Kingdom

Academic and industry achievements

- Sally James, PhD: Master of Wound Care
- Ms Penelope Sanderson: President of Australasian Lymphology Association
- Ms Jane Philips: Australasian Lymphology Association Victorian representative
- Ms Gillian Buckley, Convenor; Ms Jane Philips: Member Conference Australasian Lymphology Association 2010, organising committee
- Ms Judith Purbrick: Scientific Committee for the Australasian Lymphology Association 2010
- Ms Judith Purbrick: Lymphoedema Practitioners Education Group, Victorian President
- Ms Gillian Buckley: LPEGV Secretary
- Ms Jane Philips: LPEGV Committee Member
- Ms Joan Symth: Lymphoedema Association of Victoria Victoria, committee member
- Ms Penelope Sanderson: BreaCan Advisory Group, member
- Ms Judith Purbrick: Professional Development Presentation at the Australian Podiatry and Orthotic Association
- Dr Yvonne Zwar: AGM presentation at the Australian Wound Care Nurses Association
- Ms Penelope Sanderson, Judith Purbrick: At Risk of Lymphoedema Program held at Royal Melbourne Hospital

Department of Paediatrics

Research projects

Mercy Hospital for Women single centre trials

Project Title: CPAP versus high flow nasal cannula in preterm infants post extubation.

Investigators: Dr Clare Collins, Dr Jim Holberton, Dr Kai König.

Project Outline: Randomised controlled trial to study two modes of non invasive ventilation (CPAP and high flow nasal cannula) post extubation in preterm babies born less than 32 weeks gestation. The study also investigates two types of protective dressings to reduce nasal irritation and compares at the amount of sleep and rest in both study groups.

Funding Source: Medical Research Foundation for Women and Babies, East Melbourne.

Amount Funded: \$20,000 (2008);
\$25,100 (2009).

Project Title: Infrared premmie temperature trial.

Investigators: Ms Melanie Jarvis,
Ms Emma Carabott, Dr Dan Casalaz,
Dr Kai König.

Project Outline: Observational study to investigate the accuracy of three infrared (non touch) thermometers versus axillary temperature monitoring (current routine practice).

Funding Source: Lyn Tuttle scholarship (Melanie Jarvis).

Project Title: Correlation between plasma B-type natriuretic peptide and cardiac output in newborn infants.

Investigators: Dr Kai König, Sandra Drew, Dr Clare Collins, Dr Charles Barfield, Dr Andrew Watkins.

Project Outline: Observational study to investigate if B-type natriuretic peptide may play a role in the assessment of circulatory status in preterm infants.

Funding Source: Medical Research Foundation for Women and Babies, East Melbourne.

Amount Funded: \$29,650 (2008).



Project Title: Biomarkers of chronic lung disease and pulmonary hypertension in preterm infants.

Investigators: Dr Kai König, Sandra Drew, Dr Dan Casalaz, Dr Charles Barfield.

Project Outline: Observational study to investigate if biomarkers (BNP, troponin, pCO₂) may be suitable as a screening marker for extremely preterm infants with chronic lung disease +/- pulmonary hypertension.

Funding Source: Medical Research Foundation for Women and Babies, East Melbourne.

Amount Funded: \$24,098 (2009).

Mercy Hospital for Women participation in multicentre trials

Project Title: The use of probiotics to reduce the incidence of sepsis in premature infants.

Investigators: Dr Gillian Opie, Ms Chelsea Webster.

Project Outline: This international multicentre trial started in Melbourne at Mercy Hospital for Women, The Women's and Monash Medical Centre. The trial aims to determine the effect of probiotics on late onset sepsis in preterm infants, and if probiotics reduce allergy in the first year of life following preterm birth.

Funding Source: NHMRC.

Mercy Hospital for Women participation in multicentre trials (follow up of patients in Mercy Hospital for Women's Growth & Development Clinic):

- VICS 91/92 cohort, CAP trial (including CAP Sleep), ACTORDS, INIS, Premie Start – Dr Gillian Opie, Ms Heather Woods

Publications

Squires K, Watkins A, König K. H1N1 influenza in an extremely premature baby with chronic lung disease. *Pediatric Pulmonology* 2010; 45(4):409-410.

Gelbart B, Hiscock R, Barfield C. Assessment of neonatal resuscitation performance using video recording in a perinatal centre. *J Paediatr Child Health* 2010; 46:378-83.

Lewis AJ, Galbally M, Opie G, Buist A. Neonatal growth outcomes at birth and one month postpartum following in utero exposure to antidepressant medication. *Aust N Z J Psychiatry* 2010; 44:482-7.

Garland SM, Jacobs SE, Tobin JM, Opie GF, Donath SM. ProPrems study group. A cautionary note on instituting probiotics into routine clinical care for premature infants. *Pediatrics* 2010; 126:e741-2.

Walker SP, Chow YY, Ugoni AM, Holberton JR, Smith CL, Permezel MJ. Amniotic fluid lamellar body concentration as a marker of fetal lung maturity at term elective caesarian delivery. *Aust N Z J Obstet Gynaecol* 2010; 50:358-62.

Squires K, Watkins A, König K. H1N1 influenza in an extremely premature baby with chronic lung disease. *Pediatric Pulmonology* 2010; 45:409-10.

Thurman RH, König K, Watkins A, Weerasiri T, Permezel M. Fulminant herpes simplex virus hepatic failure in pregnancy requiring liver transplantation. *Aust N Z J Obstet Gynaecol* 2010; 50:492-4.

Ringe H, Varnholt V, Zimmering M, Luck W, Gratopp A, König K, Reich S, Bockenkamp B, Sauer IM, Bertram H, Amthauer H, Gaedicke G, Querfeld U. Continuous veno-venous single pass albumin haemodiafiltration in children with acute liver failure. *Pediatric Critical Care Medicine* 2010 Oct 1. (Epub ahead of print.)

Oral and poster presentations

Topic: Routine cranial ultrasound screening in preterm babies and the incidence of intraventricular haemorrhage.

Presenters: König K, Barfield CP.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (oral presentation).

Topic: Introducing FM85: are there any complications?

Presenters: Webster CJ, Opie GF, Holberton J, Moors R, McDonald S.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (poster).

Topic: Accuracy of “no touch” thermometers in preterm infants in incubators.

Presenters: Jarvis MR, Carabott EL, Casalaz DM, König K.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (poster).

Topic: Accuracy of “no touch” thermometers in newborns nursed in open cots.

Presenters: Carabott EL, Jarvis MR, Casalaz DM, König K.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (poster).

Topic: Pulse oxygen saturation levels and arterial oxygen tension values in preterm infants <32 weeks gestation: is 80 per cent as lower limit acceptable?

Presenters: König K, Holberton JH.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (poster).

Topic: Swine flu in premature babies in the Neonatal Intensive Care Unit.

Presenters: Squires K, König K, Watkins A.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington, New Zealand, 2010 (poster).

Topic: A weight based formula for estimation of neonatal gastric tube insertion length.

Presenters: Freeman D, Saxton V, Holberton J.

Conference: Annual meeting, Perinatal Society of Australia and New Zealand, Wellington New Zealand, 2010 (poster).

Topic: Pregnancy in a woman with primordial dwarfism.

Presenters: Vance CE, Desmond M, Robinson A, Johns J, Zacharin M, Savarirayan R, König K, Warrilow S, Walker SP.

Conference: International Society of Obstetric Medicine, Melbourne, Victoria, 2010.

Mercy Mental Health

Mercy Mental Health is a psychiatric hospital and community service that provides a range of mental health services to adults in western Melbourne, predominately in Wyndham, Hobsons Bay and Maribyrnong. Some specialist services are also provided to mothers throughout western Victoria.

Mercy Mental Health provides quality care and treatment of mental illness with services delivered via specialist teams, and pays particular attention to the differing cultural groups within our community.

Research activity

The Mercy Mental Health Research Unit is based at the Wyndham site and has been part of Mercy Mental Health since 2003. The primary focus of the Research Unit is psychosocial research. Ms Cheri Huggins is the Manager of the Research Unit, and Ms Kelly Gray has been a Research Assistant with the Unit for seven years. The focus of the Research Unit for the first half of 2010 was presenting at conferences. Six research focused abstracts were submitted to local and international conferences. All were accepted and well received. The focus for the second half of 2010 and early 2011 was writing a number of papers for possible publication as a means of formalising the Unit's work.

Research projects

Project Title: Mother-Baby Unit: former patient follow up study.

Investigators: Ms Helen Janson, Clinical Psychologist – Mother Baby Services and Mercy Hospital for Women.

Project Outline: The aim of this project was to make contact with former inpatients of the Mother-Baby Unit approximately six months after discharge to assess whether clinical gains during admission had been maintained. Specific indicators evaluated were depression, anxiety

and self esteem using standardised measures, administered routinely at admission and discharge. Further evaluation was conducted six months post discharge comparing the self reports with those completed at admission and discharge. A total of 104 former patients were successfully followed up. Data has now been analysed and the researcher plans to write a paper detailing findings.

Funding Source: Mother Baby Services.

Amount Funded: In kind contribution of staff and equipment.

Project Title: A randomised controlled trial of CONSTA compared to CONSTA and collaborative therapy in a naturalistic setting.

Investigators: Ms Monica Gilbert, Professor David Castle, Dr James Chamberlain, Mr Brendan Pawsey, Ms Carolynne Holdsworth, Ms Cathy Bunton, Ms Gail Carroll (Manager, Community Care Units Mercy Mental Health).

Project Outline: The aims of this project are to (1) compare the effectiveness of a psychosocial intervention plus medication, to medication alone, to improve the engagement of people who have been started on CONSTA and (2) to understand reasons why consumers who have started on CONSTA choose to terminate treatment. This project began in August 2008 and is due to be completed in 2011.

Funding Source: Janssen-Cilag.

Amount Funded: \$392,000.

Project Title: A case control study to identify risk factors for myocarditis with clozapine.

Investigators: Dr John McNeil, Dr Paul Fitzgerald, Dr Andrew Taylor, Dr Kathryn Ronaldson, Dr Dean Stevenson.

Project Outline: The purpose of this study is to identify patient intrinsic (sex, age, features developing early in treatment, genetic markers) and extrinsic (specifically rate of dose escalation) risk factors for the

development of myocarditis. The project began in June 2007 and the expected completion date is December 2011.

Funding Source: Department of Epidemiology and Preventive Medicine, Monash University.

Project Title: Evaluation of a psychoeducational group known as “Reflections”.

Investigators: Consultation & Partnerships Team – Mercy Mental Health, Ms Deborah Gant, Dr Anita Govidan, Ms Cheri Huggins, Dr Kirthi Kumar, Mr Matt Needham.

Project Outline: This project involves the development and evaluation of a six week psychoeducational group for clients presenting with symptoms of anxiety and depression. Content is based on a combination of psychoeducation, cognitive behavioural therapy and acceptance and commitment therapy techniques. A group ran successfully in 2009, and mid-2010; however, having encountered difficulties recruiting participants, in addition to staffing issues, future groups have been put on hold.

Funding Source: Mercy Mental Health Consultation & Partnerships Team.

Amount Funded: In kind contribution of staff and equipment.

Project Title: Evaluation of a psychoeducational group known as “Rediscover”.

Investigators: Consultation & Partnerships Team – Mercy Mental Health; Ms Deborah Gant, Dr Anita Govidan, Ms Cheri Huggins, Dr Kirthi Kumar, Mr Matt Needham.

Project Outline: The project involves the development and evaluation of an eight week psychosocial group aimed at clients with low prevalence disorders such as schizophrenia spectrum disorders. The aims of the group are to promote a person’s understanding of their illness and assist participants to develop adaptive coping strategies to improve social

skills. The first group ran successfully in late 2009; however, having encountered difficulties recruiting participants, in addition to staffing issues, future groups have been put on hold.

Funding Source: Mercy Mental Health Consultation & Partnerships Team.

Amount Funded: In kind contribution of staff and equipment.

Publications

Jayathilake I, Mordia A, Gray K. Clozapine induced pericarditis. *Asia Pacific Psychiatry*. 2010; 2:223-224.

Oral and poster presentations

Topic: Barriers of assessing the effectiveness of community treatment orders: experience at Mercy Mental Health.

Presenter: Dr Adegoke Okedara.

Conference: RANZCP Congress, Auckland, New Zealand, 2-6 May 2010.

Topic: Compliance to depot antipsychotic medication and factors associated with compliance among patients with schizophrenia attending the depot clinic of two Community Treatment Program teams at a Melbourne metropolitan adult mental health service.

Presenter: Dr Indika Jaythilake.

Conference: RANZCP Congress, Auckland, New Zealand, 2-6 May 2010.

Topic: Identifying the needs of low prevalence clients within primary care.

Presenters: Dr Anita Govidan, Ms Deborah Gant.

Conference: RANZCP Congress, Auckland, New Zealand, 2-6 May 2010.

Topic: Complexity in at risk children and young people: systemic issues for families involved with mental health and child protection services (poster).

Presenters: Ms Leanne McGain,
Mr David Watkins.

Conference: 11th Australian Institute of Family
Studies Conference, Melbourne, Victoria,
7-9 July 2010.

Topic: Clients and their treating clinicians'
perspectives regarding deliberate self harming
behaviours (poster).

Presenter: Dr Anita Govindan.

Conference: International Congress of
Applied Psychology, Melbourne, Victoria,
11-16 July 2010.

Topic: After hours coordinators in mental health:
helpful or hindrance?

Presenter: Ms Judy Foord, Ms Chris Bennet.

Conference: 11th Victorian Collaborative
Psychiatric Nursing Conference, Melbourne,
Victoria, 12-13 August 2010.

Topic: A comparison of compassion satisfaction,
compassion fatigue and burnout amongst
country fire authority support volunteers against
levels reported by a sample of professional
caregivers.

Presenter: Mr Dermot Moynihan.

Conference: Australian Conference of
Traumatic Stress, Brisbane, Queensland,
2-4 September 2010.

Topic: A psychotherapeutic group program for
low prevalence disorders in primary care.

Presenter: Ms Deborah Gant.

Conference: 20th Annual The MHS
Conference, Sydney, New South Wales,
14-17 September 2010.

Academic achievements

- Ms Yvette Mackley, Senior Clinician,
Mother Baby Services – Mercy Mental
Health: Graduate Diploma/Advanced Training
in Infant Parent Mental Health, at The
University of Melbourne

Mercy Palliative Care

Mercy Palliative Care is a community based palliative care service providing specialist home based palliative care for people living in the western suburbs of Melbourne. We aim to support people and their families affected by a terminal illness to live in their choice of place providing quality care that meets the physical, psychological, social and spiritual needs of people at the end of life. Care is provided for people with cancer and non cancer diagnosis in settings that include home, aged care facilities, hostels and other supported accommodation.

Research activity

Research projects

Project Title: "The experience of music for paediatric palliative care patients and their parents, who come from diverse cultural backgrounds".

Investigator: Ms Lucy Forrest.

Project Outline: The aims of the research are to examine (1) how paediatric patients and families use music in their lives; (2) how cultural beliefs and practices are associated with care of the child, engagement with palliative care, and use of music; and (3) paediatric patients' and parents' experiences of music therapy in home based palliative care. Semi-structured interviews will be used to gain an indepth understanding of the perspective of patients, parents and music therapists. It is anticipated that the research will improve access to and provision of paediatric palliative care music therapy services for a culturally diverse community.

Publications

Quayle C. "Life threatening illness: family support" in *Encyclopedia of Family Health*. Martha J. Craft-Rosenberg and Shelley-Rae Pehler, Editors. Chapter entry (in press) 2010.

Oral and poster presentations

Topics: Multidisciplinary team communication: is it possible to document psychosocial information in a home based record? Multidisciplinary or interdisciplinary? Sole practitioner or team member? The challenges of allied health working in palliative care.

Presenter: Ms Carol Quayle.

Conference: Dublin, Ireland, 27 June-2 July 2010.



Topics: “Supportive cancer care at the end of life: Mapping the cultural landscape of music therapy in palliative care” (paper)

“The interplay of attachment and withdrawal in the parent child relationship in paediatric cancer care at the end of life: A role for music therapy” (paper).

Presenter: Ms Lucy Forrest.

Conference: “Music Therapy and Supportive Cancer Care: New Horizons in Care Across the Lifespan”, international symposium, Windsor, Canada, 26-28 March 2010.

Topic: “Creative music experiences at the end of life” (paper).

Presenter: Ms Lucy Forrest.

Conference: Monash University Symposium: “Using the Arts in Death, Dying and Bereavement”, 17 May 2010.

Collaborations

- Ms Carol Quayle: Mercy International and Our Lady’s Hospice, Dublin, Ireland

Academic achievements

- Ms Kirsten Mitchener: Graduate Certificate in Palliative Care (Flinders University, South Australia)

Medical Research Foundation for Women and Babies

Funding awarded to Mercy Hospital for Women researchers in 2010 for work to be performed in 2011.

1	S Walker, S Tong, C Whitehead Measuring hypoxia regulated RNA of placental origin in maternal blood as a novel approach to monitor wellbeing of the growth restricted fetus.	\$28,000
2	H Georgiou, C Louizos Screening for early markers of Type 2 diabetes in an at risk population.	\$75,000
3	S Liong, H Georgiou, M Di Quinzio Ascertaining the utility of putative biomarkers in the human cervicovaginal fluid to predict impending preterm labour.	\$25,000
4	S Walker, A Fung Maternal sleep health and fetal outcomes (purchase of Monica AN24 fetal monitor).	\$22,000
5	C Webster, G Opie Comparing the osmolality and bacterial cultures of three commercially available human milk fortifiers over a 24 hour period.	\$27,255
6	E McCarthy, A Shub, M Lappas Facts, figures and feelings about weight in pregnancy.	\$47,352
7	M Chai, M Lappas, G Rice, S Walker Unique insights into rupture of fetal membranes.	\$11,686
8	M Lappas Short and long term biochemical implications of gestational diabetes.	\$100,000
Total (ex GST)		\$336,293

Mercy Health Foundation

Scholarship Recipients

Name	Scholarship Sponsor	Facility
Louise Alexander	Mercy Health Foundation	Mercy Hospital for Women
Hayley Anderson	Diana Morgan Scholarship	Mercy Hospital for Women
Shelly Baxter	Mercy Health Foundation	Werribee Mercy Hospital
Akua Bioh	Mercy Health Foundation	Mercy Hospital for Women
Jill Buffy	Mercy Health Foundation	Werribee Mercy Hospital
Kerrie-ann Godfrey	Health Super Scholarship	Mercy Place Wyndham
Catherine Harding	Mercy Health Foundation	Mercy Hospital for Women
Anne Harrison	Mercy Health Foundation	Werribee Mercy Hospital
Pauline Heath	Mercy Health Foundation	Mercy Place Albury
Marina Keenan	Mercy Health Foundation	Mercy Hospital for Women
Jemma Lane	Diana Morgan Scholarship	Mercy Hospital for Women
Alison Lay	Mercy Health Foundation	Werribee Mercy Hospital
Sue Mayne	Mercy Health Foundation	Werribee Mercy Hospital
Christine Murray	Mercy Health Foundation	Mercy Hospital for Women
Catherine Owen	Mercy Health Foundation	Mercy Health, Corporate Office
Magdalena Pliszka	Covidien Scholarship	Mercy Hospital for Women
Sarah Pollard	Mercy Health Foundation	Mercy Palliative Care
Jamie Richardson	Mercy Health Foundation	Mercy Health Care on Call
Reena Singh	Mercy Health Foundation	Mercy Place Parkville
Jonathon Smith	Mercy Health Foundation	Salt Water Clinic
Anne Stapleton	Mercy Health Foundation	Mercy Place Rice Village
Bernadette Walters	Health Super Scholarship	Mercy Place Colac
Melissa Wellington	Mercy Health Foundation	Werribee Mercy Hospital
Rebecca Campher	Mercy Health Foundation	Mercy Hospital for Women

Total: \$71,857

Mercy Health projects

funded by Austin Pathology

2009/10 financial year

- BNP in very low birthweight premature infants: does BNP correlate with poor cardiac function assessed by echocardiography? (Dr K Konig – \$4,000)
- Investigating the link between early pregnancy and obstetric disease (Dr H Georgiou, Dr G Rice – \$2,500)
- Prediction pre-eclampsia in diabetes (Dr A Shub – \$4,050)
- Identification of novel biomarkers to predict impending term and preterm labour (Dr M Di Quinzio, Dr H Georgiou – \$1,445)
- The gestational diabetes follow up project: screening for early markers of Type 2 diabetes in an at risk population (Dr H Georgiou, Professor M Permezel – \$1,000)
- Molecular mechanisms controlling human pregnancy and labour (Dr M Lappas – \$500)
- Biomarkers of chronic lung disease and pulmonary hypertension (Dr K Konig – \$2,714)
- Maternal sleep health and fetal outcomes (Professor S Walker – \$5,144)

2010/11 financial year

New applications

- Establishment for reference ranges for gonadotrophins and androgens in extremely premature infants (Dr Margaret Zacharin – \$1,250)
- FFF: Facts, figures and feelings about weight gain in pregnancy (Dr Alexis Shub – \$1,800)

Ongoing funding (continuing from 2009/10)

- Biomarkers of chronic lung disease and pulmonary hypertension in preterm infants (BICEPS) follow up study (Dr K Konig – \$2,500)
- The Gestational Diabetes Follow up Project: screening for early markers of Type 2 diabetes in an at risk population (Dr Harry Georgiou – requested \$1,750 over two years; approved \$1,000 for one year)
- Investigating the link between early pregnancy and obstetric disease (Dr Harry Georgiou – \$2,500)
- Identification of novel biomarkers to predict impending term and preterm labour (Dr Megan Di Quinzio – \$1,500)
- Prediction of pre-eclampsia in diabetes (Dr Alexis Shub – \$2,500)

New Projects approved by the Human Research Ethics Committee, Mercy Health



*Professor Peter Carpenter
Chairman, Human Research Ethics Committee,
Mercy Health*

Membership of the Human Research Ethics Committee 2010:

*Emeritus Professor Peter Carpenter (Chairman),
Ms Christine Childs, Ms Geraldine Gray,
Sr Helen Monkivitch rsm AO,
Associate Professor Michael McKay,
Rev'd Cormac Nagle OFM, Dr Linda Mellors,
Professor Michael Permezel,
Dr Andrew Watkins, Professor Sue Walker,
Mr Paul Drinkwater, Professor Susan McDonald,
Mr Kevin Fell, Ms Susan Phillips.*

R09/46: Australian and New Zealand Neonatal Network Register for Clinical Audit

The Australian and New Zealand Neonatal Network (ANZNN) was first established in 1994. It is a collaboration of all neonatal intensive care units within Australia and New Zealand which provides information that is analysed to improve the quality of care and safety of high risk neonates. The perinatal data set is being rehoused and in order to continue this important research ethics permission is sought for the continuation of data supply from Mercy Hospital for Women to this collection.

Principal Investigators: Associate Professor Elizabeth Sullivan, Dr Andrew Watkins.

R09/47: Perinatal mortality by birthweight ventile

The aim of this two year study is to determine what ideal growth is. This will involve an analysis of data collected by the Victorian Perinatal Data Collection on all births in Victoria over a 10 year period. The study will examine smaller subsets to determine exactly what size babies, smaller and larger than average, are at increased risk.

Principal Investigators: Dr Julia Francis, Professor Michael Permezel, Professor Sue Walker.

R09/49: What are the perceived barriers that prevent patients with lymphoedema from continuing optimal skin care?

In this pilot study, eight patients at Mercy Health Lymphoedema Clinic, East Melbourne will be interviewed with an aim to identify any barriers that prevent patients continuing optimal skin care. It has been found that the treatment most beneficial for lymphoedema is self treatment of skin care. The interview data will be analysed for recurrent and common themes. The project will also investigate whether patients feel the expectation of skin care, as provided in the education program, is achievable for them.

Principal Investigators: Mrs Sally James, Mr Paul Drinkwater.

R09/50: Ovarian cancer patterns of care survey

All women diagnosed with ovarian cancer in Australia in the year 2005 will be identified and the basic socio-demographic and treatment (primary and adjuvant) information for these women will be analysed to describe patterns of patient management and relate it to patient

survival. Approximately 50 records from Mercy Hospital for Women will be included in this nationwide survey.

Principal Investigators: Associate Professor Penelope Webb, Associate Professor Peter Grant.

R10/02: Free mRNA of fetoplacental origin in the maternal circulation: biomarker of in utero hypoxia/stress in growth restricted fetuses

This 12 month project is looking at a new technique for identifying the fetus with placental insufficiency in the latter part of pregnancy. The study involves collecting a small blood sample from 50 women with small babies (identified in routine ultrasound) and 50 pregnant women controls who have babies within the normal growth parameters, until delivery. A molecule called RNA is released from fetal and placental cells into the mother's blood during pregnancy and may be very different in fetal placental units that are very hypoxic or under stress compared to pregnancies that are well. It is hoped that a test can be developed from this research to complement fetal monitoring techniques and further optimise the timing of delivery. It could be a powerful tool in improving perinatal outcomes.

Principal Investigators: Dr Stephen Lee, Professor Sue Walker.

R10/01: A focus group to adapt an instrument to measure disenfranchised grief in neonatal nurses

The aim of this 12 month research is to adapt a validated instrument (the Social Support for Grief in Healthcare [SSGH] scale) to measure these aspects of caregiver suffering in neonatal nurses caring for dying babies. Mercy Hospital for Women was one of three focus group sites.

Principal Investigators:

Dr Victoria Cain, University of Queensland;
Ms Carolyn Morrissey, Neonatal Services Educator.

R10/03: Paget's disease of the vulva

The primary objective of this study is to discover, through medical records, if the recurrence rate and prevalence of associated malignancies in vulvar Paget's disease differs between the patients from Mercy Hospital for Women to previously published literature. Previous recurrence rates have been reported to range anywhere from 12 per cent to 58 per cent.

Principal Investigators: RM Smits, Professor David Allen.

R10/04: Does simulation training and teaching improve the perceived clinical performance of junior doctors at simulated neonatal resuscitation scenarios?

This observational study on a small group of new registrars aims to assess whether regular weekly simulation scenario teaching has an impact on resuscitation skills of junior doctors. Each group of participants will get a scenario and will be scored by the principal investigator. There will be a lapse of three to four weeks after the teaching then the principal investigator will give the same scenarios as used in the orientation/induction week and score the individuals on their clinical performance during the scenarios. Because it will be a small group, with no control group, there is limited statistical merit in this research. However, the research hopes to show that the introduction of regular simulated teaching and training into postgraduate training is of benefit.

Principal Investigators: Dr Ethel Ryan, Dr Charles Barfield.

R10/05: Contributing an Australian context to prenatal risk assessment aimed at identifying unborn children at increased risk of future child protection involvement

This research forms part of a three year PhD study. It firstly involves the completion of a survey by hospital staff at the Transitions Clinic. The survey is anonymous; only demographic information is collected. The second part is an optional extension where hospital staff at the Transitions Clinic may be interviewed. The interviews comprise general questions relating to the practices of group based decision making regarding prenatal risk assessment of future child welfare. The identity of participants will remain confidential.

Principal Investigators: Professor Mairead Dolan, Dr Dan Casalaz.

R10/06: Adjuvant sequential chemotherapy and pelvic radiotherapy in FIGO Stage II epithelial ovarian cancer – a retrospective review

The aim of this retrospective study is to review the outcomes of women who have been treated for FIGO Stage II epithelial ovarian cancer via their medical records. The researcher plans to determine the proportion of women whose cancer reoccurs after this treatment, recurs in the pelvis (where the radiotherapy was directed) or elsewhere, and who remains alive. The researcher will then compare those outcomes for patients receiving radiotherapy against those who did not. The researcher will also identify the side effects and their severity and tabulate the findings for publication.

Principal Investigators: Dr Jeremy Powers, Associate Professor David Allen.

R10/07: Retrospective review/audit of cranial ultrasound reports of preterm babies born between 2005 and 2008

This research is an audit of cranial ultrasound reports of all preterm babies born between January 2005 and December 2008 which aims to identify the incidence and grade of intraventricular haemorrhage in Mercy Hospital for Women's Neonatal Intensive Care Unit and to review the current institutional practice of three routine CUS examinations (3, 14 and 42 days post delivery). The audit includes the review of medical files and ultrasound reports only. A publication will be produced should the audit reveal information that is of importance to the neonatal community.

Principal Investigators: Dr Kai König, Dr Charles Barfield, Dr Dan Casalaz.

R10/08: The feasibility of blood transfusion through narrow gauge peripherally inserted central catheters (PICC)

The aim of this research is to show that blood transfusion through small intravenous central catheters is feasible and does not damage the transfused red cells. No patient is involved in this experiment and the red cells are being sourced from Austin Hospital's blood bank's expired units. This research is required because many babies require red cell transfusions in the Neonatal Intensive Care Unit. Currently babies have an existing peripherally inserted central (28G PICC) line as their only intravenous access, but these are not used for transfusion of packed cells due to concerns over line blockage and haemolysis of the transfused red blood cells. It is hoped this research will lead to fewer insertions of needles/catheters and thereby reduce the incidence of infection and painful procedures on babies.

Principal Investigators: Dr Hamish Jackson, Dr Charles Barfield, Dr Dan Casalaz.

R10/09: Does examination with traction on the cervix pre-operatively increase the reproducibility of the degree of uterine prolapse intra-operatively?

This 12 month research study wishes to increase the accuracy of pre-operatively prolapse findings on 40 women. It aims to get this information by using a speculum and grasping the cervix with a Vulsellum prior to anaesthesia. A secondary aim is to assess the degree of discomfort associated with this procedure. Current pre-operative examination is performed with a speculum, and digitally, and the patient performing a bearing down manoeuvre. This current procedure generally underestimates the true extent of the prolapse.

Principal Investigators: Dr Fay Chao, Professor Peter Dwyer.

R10/10: Acceptability of chewing gum for postoperative nausea and vomiting in high risk patients: a pilot study

This proposed four month research project aims to assess the acceptability of chewing gum in the recovery room, to guide future research examining its efficacy as a therapy directed against post-operative nausea and vomiting. (PONV). Chewing gum has been evaluated in the healthcare setting and has shown promise as a means to hasten bowel function after major abdominal surgery. To date, however, no studies have attempted to extrapolate this to the treatment or prevention of PONV.

Principal Investigators: Dr Jai Darvall, Associate Professor Scott Simmons, Associate Professor David Allen.

R10/11: Clinical audit/review of clinical practice: review of endotracheal tube position of babies incubated in delivery suite and operation theatre

This clinical audit aims to evaluate the accuracy of current endotracheal intubation practice of newborns who are intubated in delivery suite

and operation theatre. Approximately 600 CVC X-ray reports, medical files, observation charts will be reviewed to assess current estimates of tube position.

Principal Investigators: Dr Kai König, Dr Dan Casalaz.

R10/12: Retrospective review/audit of central venous catheter complications in newborns in the Neonatal Intensive Care Unit

This audit will review complications associated with central venous catheters (CVC) in neonates in the Neonatal Intensive Care Unit during the period January 2004 to December 2008. The audit's aim is to (a) identify what CVC position is less likely to cause premature non functioning of the catheter; (b) review the results of microbiology testing of those catheter tips that have been sent to pathology; and (c) review management of catheter complications where appropriate.

This will involve approximately 800 X-ray reports and medical files.

Principal Investigators: Dr Kai König, Dr Dan Casalaz.

R10/13: New oxygen saturation limits audit

In 2009 the oxygen saturation limits in the Neonatal Intensive Care Unit at Mercy Hospital for Women were changed to lower limits (80-92 per cent) for preterm babies <32 weeks birth gestation as there was growing evidence that too much oxygen might harm preterm organ systems; in particular, the developing brain. Now that one year of new saturation limits has been completed, the researcher wishes to review the past year's results and compare the data with previous years and (a) identify if the new saturation limits have changed the range of the partial pressure of oxygen in the arterial blood in this population and (b) review clinical outcomes and compare to previous years.

Principal Investigators: Dr Kai König,
Dr Andrew Watkins.

R10/14: Safe management of expressed breast milk – a clinical audit

A student nurse, as part of her Master of Nursing course requirement, is undertaking a clinical audit “safe management of expressed breast milk” to determine whether the current practice of checking expressed breast milk matches the hospital clinical practice guidelines. The audit sample will involve 45 episodes of checking and administering expressed breast milk to randomly selected babies over a period of a week.

Principal Investigators: Ms Elena Kouzmenko,
Ms Theresa Bowditch.

R10/15W: Neurobiology of parenting – fMRI study of post natal depression

The aim of this 18 month research project is to further understand the brain pathways involved in parenting when a mother experiences post natal depression or post natal depression and a history of childhood trauma. Understanding the brain activity that makes it difficult for mothers to bond with their babies may help researchers develop more effective early parenting interventions, specifically addressing attachment difficulties. The study is to be undertaken at Werribee Mercy Hospital’s Mother-Baby Unit and Monash Medical Centre. Three groups of mothers with infants aged three to 11 months will be invited to participate in this study. The first two groups will be comprised of mothers who are experiencing the mental health issues noted above. The third group is the control group and have no mental health issues. Only right handed participants will be invited to join this research. From the 60 participants to be recruited, five will be from Werribee Mercy Hospital’s Mother-Baby Unit. All mothers will complete a questionnaire eliciting background information

about themselves, their mental health, early experiences and demographic and social data. They will participate in two semi-structured interviews carried out by trained mental health clinicians. They will be asked to supply a small sample of blood for the purpose of assessing hormone levels thought to be involved in social interaction bonding. Participating mothers will undergo a brain scan (fMRI) while viewing photos of their own infant and infants unfamiliar to them. A small sample of saliva will be elicited from the infants to assess levels of a stress hormone. Mothers will be asked to interact with their babies and this will be videoed and subsequently coded and analysed.

Principal Investigators: Professor Louise Newman,
Mr Mario Blandin de Chalain.

R10/18: Women’s knowledge of pregnancy weight gain

This research plans to interview 400 pregnant women at Mercy Hospital for Women via a questionnaire. The answers from the questionnaire will determine whether pregnant women understand their own weight category, whether they acknowledge issues regarding the management of weight in pregnancy and also register if there is any awareness within the women of possible complications in pregnancy from obesity or excessive weight gain. After completing this questionnaire, women will be given information on their own BMI, IQM guidelines for weight gain in pregnancy and advised to discuss their personal care further with their treating carer if they have any questions or concerns. Recruitment to the study is expected to take approximately four weeks and analysis of the data will take a year.

Principal Investigators: Dr Alexis Shub,
Dr Bernadette White.

R10/19: An exploration of health professionals' views about a genetic counselling service providing support for families with an unexpected postnatal diagnosis of Down syndrome

Research has shown that families who receive an unexpected diagnosis of Down syndrome do not receive structured support. This qualitative project will be asking the three genetic counsellors at Mercy Hospital for Women their views on providing or offering genetic counselling. Currently genetic counsellors provide support to families with prenatal diagnoses. This study explores health professionals' views about the possibility of increasing support to families following postnatal diagnosis. Participants take part in a 30 to 60 minute semi-structure interview, answering questions and elaborating on their perceptions of a genetic counselling role (currently and in future) following an unexpected postnatal diagnosis of Down syndrome.

Principal Investigators: Ms Sarah Borrie, Dr Sue White.

R10/20: Palliative care outcomes collaboration – quality assurance survey

Palliative care patients and carers from Mercy Care Centre, Young during the period May to July 2010 will be asked to participate in a 15 minute questionnaire/survey with the aim to improve patient and carers outcomes. Palliative Care Outcomes Collaboration will work with Mercy Care Centre, Young and other palliative care services to summarise the results. These results (which will not identify individual sites) will be given back to the clinical managers to assist them in continuing to improve the quality of service provided.

Principal Investigators: Ms Chris Keogh, Mary-Lou Cusack, Mercy Care Centre, Young.

R10/21: The experience of a tertiary hospital in Victoria implementing the use of magnesium sulphate for prevention of cerebral palsy – an audit

Cerebral palsy is a major disability for which there is no cure and carries a huge emotional and financial cost to the patient, their family and the wider community. Rates of survival for very low birth weight infants have increased dramatically with better perinatal and neonatal intensive care. However the rates of major neurologic abnormalities, including moderate/severe cerebral palsy, have not diminished but are more common than in term infants. Previous research examining the impact of magnesium sulphate (MgSO₄) on cerebral palsy has suggested significant benefits and, given this evidence together with new protocol implementation at Mercy Health, an audit of the use of MgSO₄ at Mercy Hospital for Women over a six month period is proposed.

Principal Investigators: Dr Lin Li Ow, Professor Sue Walker.

R10/22: Anaesthesia for placenta praevia and accreta at Mercy Hospital for Women: a retrospective analysis of five years' experience

This is a retrospective case note review of those women with the diagnosis of placenta praevia and/or placenta accreta. Cases will be identified by interrogation of the BOS database for key terms "placenta praevia" and "placenta accreta". A second search will be conducted using the HIS coding database in iPM for ICD-10AM terms, 043.2 morbidly adherent placenta and 044.0 and 044.1 placenta praevia. The histories will then be manually searched for the predetermined patient demographic data, interventions used and clinical outcomes. Specific analyses will be performed seeking any possible association between types of interventions and clinical outcomes in relation to different clinical risk factors such as the need

for transfusion in relation to BMI, the type of anaesthetic used and the grade of placenta praevia or the admission and length of stay in relation to BMI, type of anaesthetic and grade of placenta praevia. Also analysed will be the neonatal Apgar score and unplanned admission to nursery in relation to the type of anaesthetic.

Principal Investigators: Associate Professor Scott Simmons, Associate Professor David Allen.

R10/23: Midwifery assessment for obstetric triage in a women's Emergency Department, Mercy Hospital for Women

Current literature on triage reveals a need for triage descriptors for pregnant women presenting to Emergency Departments to improve the triage decisions for these women. The aim of this quality assurance activity is to assess whether the introduction of triage algorithms and education can improve assessment and documentation of pregnant women triaged in Mercy Hospital for Women's Emergency Department. Initially, Emergency Department midwives will use the audit tool to evaluate samples of presenting problems. They hope to observe what "standard practice" is and assess the variations. Then Emergency Department midwives will be invited to attend an education session on triage by a well recognised expert on triage in Emergency Departments. Next, the Emergency Department midwives will attend an in-service on the two conditions being audited and be advised of the expected standard of assessment and documentation. Finally, a post intervention audit will be performed to observe an improvement in the triage assessment and documentation processes.

Principal Investigators: Ms Mary McCarthy, Ms Melissa McDonald.

R10/24: Uptake of pandemic H1N1 vaccination in pregnancy at Mercy Hospital for Women

It has been recognised that pregnant women are a high risk group for severe influenza in the second half of their pregnancy. These risks have been documented, accounting for pregnant women being over 13 times more likely to be admitted to an intensive care unit with pandemic "swine flu" infection than non pregnant women. The objective of this study is to identify key reasons that influence a woman's decision for influenza vaccination during pregnancy.

Principal Investigators: Dr Wendy Pollock, Professor Susan McDonald.

R10/25: Retrospective review/audit of Gentamicin dosing in preterm and term babies born between March 2006 and February 2010

This audit will review 1,600 pathology results in relation to Gentamicin dosing and trough levels in preterm and term babies admitted to the Neonatal Intensive Care Unit and Special Care Nursery over a four year period (March 2006 to February 2010). The aims of the study are to:

1. Identify the proportion of babies with high trough levels following standard Gentamicin dosing (4mg/kg daily) in gestational age categories.
2. Review the current literature about Gentamicin dosing and trough levels in preterm and term babies.

This audit will only include a review of medical files, drug charts and pathology results.

Principal Investigators: Dr Charles Barfield, Dr Dan Casalaz.

R10/26: Maternal obesity as a risk factor for obstetric anal sphincter injury

The aim of this research study is to investigate the rate of obstetric anal sphincter injury in obese pregnant women compared to normal weight pregnant women. The hypothesis is that the rates of obstetric anal sphincter injury are increased in obese women compared to normal weight pregnant women because of the increased risk of instrumental delivery and larger birth weight neonates. Also, it has been found obstetric anal sphincter injury is linked to morbidity. This study hopes the data collected will link associations between maternal obesity and the risk factors for obstetric anal sphincter injury.

Principal Investigators: Dr Stephen Lee, Professor Michael Permezel.

R10/28: Physiological, psychological and endocrine changes in postpartum depression

The project aims to examine the interplay between certain psychological and biological aspects of caregiving in women diagnosed with postpartum depression and two groups of control women. The first control group will consist of women who have recently given birth but do not have postpartum depression and the second control group, women of the same age group who have not recently given birth. It is proposed that there will be differences in “stress reactivity” between the control groups and the postpartum depression group indicated both physiological (heart rate and galvanic skin response) and endocrinal (hormonal variations, ie oxytocin and cortisol levels) in reaction to infant crying. In total, 120 participants will be recruited, including 40 from Werribee Mercy Hospital and Mercy Hospital for Women’s Mother-Baby Unit. The procedure of this research consists of collecting demographic information from participants and administering five questionnaires – standardised measures

of attachment style, anxiety, depression and defence style. The experimental (manipulated) component of the research involves testing all the participants on two occasions for heart rate and galvanic skin response while listening to one of two stimuli: either the sound of an infant crying or a neutral control sound (counterbalanced to control for order effects).

Principal Investigators: Ms Emma Gould, Deakin University Geelong Campus; Dr Rhiannon Mulcahy, Werribee Mercy Hospital Mother-Baby Unit.

R10/29: Incidence of necrotising enterocolitis associated with blood product transfusions in the Neonatal Intensive Care Unit at Mercy Hospital for Women

This audit will review the incidence of necrotising enterocolitis associated with blood product transfusions in the Neonatal Intensive Care Unit since 2004. Its aim is:

1. For a case controlled retrospective analysis of the incidence of necrotising enterocolitis associated with blood product transfusions.
2. Examine other associated risk factors leading up to the cases of necrotising enterocolitis.
3. Compare and contrast the clinical outcome of necrotising enterocolitis in patients who had blood transfusions to those who did not require transfusions.

Due to the potentially life threatening outcome of necrotising enterocolitis, identifying the risk factors could assist in preventing and early detection of the onset of necrotising enterocolitis. This two year study will be a review of approximately 60 medical files and associated blood bank laboratory reports.

Principal Investigators: Dr Kai König, Dr Dan Casalaz.

R10/30: Exploration of opinions of staff and families, in a nursery setting, as to the use of donor breast milk and breast milk banks

The aim of this one month survey is to evaluate the current attitudes of staff and families in the use of donor breast milk and in the establishment of a breast milk bank prior to the service becoming available at Mercy Hospital for Women.

Principal Investigators: Ms Kerri McEgan, Dr Bernadette White.

R10/31: Surgical management of 1B cervical cancer in Victoria – survival and cancer recurrence

Cervical cancer is a clinically staged cancer with over half of all patients presenting Stage 1 disease. Stage 1B cervical cancer includes clinically visible lesions limited to the cervix or preclinical lesions greater in size than 1A cancers. This 12 month study is an audit of all cases of 1B cervical cancer managed with surgery only, presenting to three women's tertiary hospitals in Victoria (Mercy Hospital for Women, The Women's and Monash Medical Centre) between January 1996 and January 2006 and will determine survival and recurrence rates in these patients. It is hoped this information will contribute to future reviews on the outcomes of 1B cervical cancer in Victoria by treatment modality including radiotherapy. Dr Saunder is undertaking this as part of her registrar training.

Principal Investigators: Dr Naomi Saunder, Associate Professor David Allen.

R10/33: Survey of Australian and New Zealand neonatal units on human breast milk fortification use

The aim of this survey is to compare the use of three commercially available human breast milk fortifiers in Australian and New Zealand neonatal units. Each manufacturer allows their fortifier to be added to milk prior to feeding for

differing time frames (from immediately before a feed to up to 24 hours prior). Mercy Hospital for Women has recently changed practice following an internal audit, with a re-audit currently underway. Through verbal communication with staff at other hospitals, it appears to be common practice for neonatal units to allow fortifiers to be added to breast milk for 24 hours. However, this is not documented. This study hopes to do this.

Principal Investigator: Ms Chelsea Webster.

R10/34: Establishment of a perineal clinic in a tertiary women's hospital – enhancing staff learning while listening to mothers

Perineal injury occurs when a woman sustains third or fourth degree anal sphincter tears during childbirth. This can often result in bleeding, infection, pain, urinary and faecal incontinence, and sexual dysfunction. Fear of perineal damage amongst childbearing women has been suggested as an important factor in the rising caesarean section rate. It is hoped that by providing education sessions on perineal trauma to medical, allied and midwifery staff, and then subsequent analysis of an evaluation sheet after the sessions, improved clinical outcomes, increased patient satisfaction and better risk management for patients and the hospital will be achieved.

Principal Investigators: Ms Elizabeth Thomas, Professor Susan McDonald.

R10/35: An audit of the vitamin D status of neonates and infants at Mercy Hospital for Women 2005-2009, and the efficacy of vitamin D supplementation

This one year project constitutes essential quality review of practice for Mercy Hospital for Women's efforts to address vitamin D deficiency in pregnant women and their newborn babies. Current supplementation practice for women and babies is based on expert opinion rather than evidence from

clinical trials. Optimal supplementation is a current medical controversy. Therefore, a retrospective analysis of all vitamin D levels in neonates and infants from blood collected between January 2005 and August 2009 is relevant and imperative. Vitamin D deficiency of sufficient severity can cause infantile rickets which is re-emerging as a clinical entity in Melbourne and even moderate deficiency has been linked to multiple sclerosis, Type 1 diabetes, mood disorders, asthma severity, risk of childhood respiratory disease and cancers such as prostate and breast cancer.

Principal Investigators: Dr Charles Barfield, Dr Dan Casalaz.

R10/36: Effects of previous surgery on detection of sentinel nodes in women with vulvar cancer

Vulvar cancer is a rare disease with an annual incidence of two to three per 100,000 women. Current standard treatment consists of radical excision of the tumour with elective inguinofemoral lymphadebectomy. However, with this, a substantial number of patients have experienced postoperative complications. Another treatment option is now adopted at Mercy Hospital for Women, which involves the sentinel lymph node. Sentinel lymph node dissection is a promising new technique that is currently being adopted by hospitals extensively. The aim of this six month study is to evaluate the number of sentinel node procedures performed and the sentinel node detection rate at Mercy Hospital for Women during the period January 2000 and August 2010, and to establish whether previous surgery in the inguinofemoral area affects length of sentinel node mapping and sentinel node detection rates in women with vulvar cancer. It is estimated that the number of patients included in this study will be approximately 60. Dr Tessa Ennik is a medical student undertaking this elective research project.

Principal Investigators: Dr Tessa Ennik, Associate Professor David Allen.

R10/37: Enhancing staff skills in providing palliative care for persons experiencing dementia and/or mental health issues in later life

Funded through a grant from the Department of Health and Ageing this one year project aims to:

1. Identify staff training needs around palliative care for residents with dementia and/or mental health issues.
2. Develop, deliver and evaluate (pilot) staff training and education programs (based on the findings from 1) for three residential aged care facilities.
3. Full rollout of staff training programs to all residential aged care facilities in the project.

Principal Investigators: Mr Francis Icasianc, Mr Rob McCarthy.

R10/38: A weight based formula for the estimation of gastric tube insertion length in newborn infants – an audit

Tubes inserted into infants' stomachs from their nose or mouth are frequently used in the neonatal nursery in order to feed infants. These tubes are inserted by estimating the distance to the infant's stomach and this estimation can sometimes lead to incorrect positioning and complications. For this two year study, every routine chest or abdominal X-ray on an infant which has a gastric tube in place, the current weight and length and type of tube will be noted on the X-ray form. From these observations a report will be drawn up noting whether the tubes were in an appropriate position or not. Data arising from this report will then be analysed to see if a regression formula could be found.

Principal Investigators: Dr James Holberton, Dr Dan Casalaz.

R10/39: Perioperative temperature audit in caesarean section patients

A decrease in body temperature (hypothermia) immediately, before, during or after surgery is an unpleasant side effect and may lead to complications or prolonged recovery. There are various methods available to help prevent this problem, such as the use of blankets, warmed intravenous fluids and devices that blow warm air over the patient. Over a two month period the researcher intends to measure body temperature in women before and after caesarean section operations as well as documenting the methods currently being used to minimise this, and then see if improvements are needed to keep patients at an optimum temperature around the time of their surgery.

Principal Investigator: Associate Professor Scott Simmons.

R10/40W: Exploring the role of occupational therapists in oncology and palliative care

Currently, there is little literature describing the role of occupational therapists working in oncology and/or palliative care in Australia. This online survey will run for a month and will be used to collect data on health services. It will include team composition, service size plus interventions provided. It is hoped this research will create a platform for clinicians to review their own practice and determine what changes need to be made to improve the outcomes for patients.

Principal Investigators: Ms Leesa Musarra, Ms G Evans.

R10/42: Infrared preemie temperature trial

The researcher is undertaking a six month infrared “preemie” temperature trial to compare measurements obtained from three infrared thermometers, (No Touch™, Thermofocus® and ExergenScanner™) compared to “standard” digital axillary thermometers currently being used in the Neonatal Intensive Care Unit at Mercy Hospital for Women. This project aims to highlight the importance of seeking less invasive methods for measuring temperature in preterm neonates and minimising the impact that nursing interventions have on the low birth weight neonatal population.

Principal Investigators: Ms Melanie Jarvis, Dr Kai Konig.



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