

Liverpool and Macarthur  
Cancer Services

ANNUAL REPORT  
2007—2008

SYDNEY SOUTH WEST  
AREA HEALTH SERVICE  
NSW  HEALTH

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This report highlights the achievements and aspirations of the many people who have contributed to the care of patients and their families in the South Western region of Sydney who have been affected by cancer. The modern age of cancer care is becoming increasingly complex and requires the input of expertise from a broad range of professionals. Our challenge is to unite this expertise within a coordinated and comprehensive cancer service in our region such that our patients will have ready access to the best quality of care.



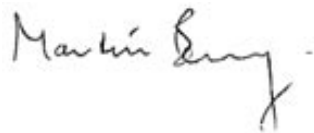
Associate Professor  
Martin Berry  
MBBS, FRANZCR, FRCPC

The focus of this report is on activities within the “hub” Cancer Therapy Centres at Liverpool and Macarthur, while we acknowledge that the scope of cancer services in our region includes other hospitals and community based services. At our joint planning day in May 2008, we re-affirmed our commitment to continue our collaboration and mutual support to develop common treatment pathways, policies and protocols aimed at a seamless transition of services from the patients’ perspective. We were also mindful of the need to align our plans with the broader frameworks that will impact on our services such as the Area Cancer Plan, the NSW Cancer Plan and the Area and Hospital programs. Among the priority issues that we agreed should be included in our planning were:

- Building a stronger sense of local identity within our communities and amongst the people working in our organisation;
- Placing a greater emphasis on developing the cancer site-specific tumour programs and multidisciplinary teams and promoting a greater sense of ownership by the community-based health professionals;
- Expanding our resources in information technology that will build on and sustain our current systems that have placed us amongst the leaders in the good use of information systems for cancer services in Australia; and
- Exploring the feasibility of establishing a Foundation that would provide advocacy from the community and be a resource for building new services, research and education.

Planning for re-building the Cancer Therapy Centre continues in conjunction with the Phase 2 Re-development of Liverpool Hospital. This has provided us with an opportunity to review how best to organise our services to meet future needs, and particularly in the context of a rapidly changing environment of health care delivery.

I hope that from reading this report you will join me in congratulating the efforts of the people in our organisation who have worked together with a strong sense of commitment and enthusiasm. Their energy and drive is testimony to the quality of care and strength of our service, and will help us reach our goals in the year ahead.



**Associate Professor Martin Berry**  
*Director, Liverpool Cancer Therapy Centre*  
*Conjoint Associate Professor, UNSW*



2008 saw the fifth year of operation at the Macarthur Cancer Therapy Centre, culminating in a 5<sup>th</sup> anniversary function in February where patients, staff, volunteers and the community gathered to celebrate the improvements in cancer care that our unit provides the community. Growth in activity continues, particularly in medical oncology at Campbelltown and Bowral, and palliative care at Campbelltown and Camden. The Macarthur and Southern Highlands Cancer Service remains the third busiest cancer unit in Sydney South West Area Health Service.



*Associate Professor  
Stephen Della-Fiorentina*  
MBBS (Hons), FRACP

The 2007 NSW Cancer Institute Patient Satisfaction Survey showed excellent results for our service with above average scores in all measurements, with areas of excellence in treating patients with dignity and respect, co-ordination of care and waiting times. This is a tremendous result for our unit and will guide our service to develop new services and programs to further help our patients and families.

Broader cover of inpatient care allows care of cancer patients by their treating cancer specialists. The implementation of the Oncology Nurse Assessment Unit within the Macarthur Cancer Therapy Centre, funded by an innovation grant from the NSW Cancer Institute, has allowed patients to avoid presentations to emergency department and allow staff best trained in managing cancer problems to treat them and reduce time waiting for a hospital bed. Education of other medical and nursing staff within the hospital and emergency departments continues. Training attachments for nursing, radiation therapy and allied health students has increased, with our staff passing on their knowledge to the next generation of specialists in cancer care. Together with my colleagues, Dr Diana Adams, Dr Lorraine Chantrill, Dr Denise Lonergan and Dr Amanda Walker we have been preparing the oncology curriculum for 3<sup>rd</sup> Year University of Western Sydney Medicine in 2009, and we all teach Year 1 and 2 students.

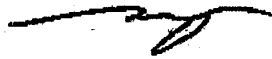
The "24 Hour Fight Against Cancer, Macarthur" was held again in October, raising \$179,000, with music, art and diversional therapy services commencing as a result. A dedicated area for our complementary therapy unit will be funded by the donations as well as enhanced paediatric cancer services.

The centre remains a popular place for training, our registrars presenting at international and national conferences. Visitations from other cancer units to view our electronic medical record allow us to share the

innovative practices that the units at Campbelltown and Liverpool continue to develop.

Our volunteers continue their excellent and selfless work; their work is invaluable and greatly appreciated by patients, families and staff. Our donors are recognised on our honour board.

I would like to thank all of the staff who commit to the Macarthur Cancer Therapy Centre; their dedication to improving the care of patients, their carers and families within the communities of Macarthur, Wollondilly and Wingecarribee areas is inspiring and has been recognised through the feedback from the NSW Cancer Institute Patient Satisfaction Survey.



**Associate Professor Stephen Della-Fiorentina**  
*Director, Macarthur Cancer Therapy Centre*



## CLINICAL DEPARTMENTS

### GYNAECOLOGIC ONCOLOGY

The unit faced another challenging year of clinical working, training and research. The number of new patients and follow up visits continue to rise in response to demand of the local population.

The team has been involved in the diagnosis, management and psychosocial support of women with gynaecological malignancies. Ovarian, endometrial and cervical cancers are the commonest gynaecological cancers we manage. We are also involved in the care of patients with other genital tract malignancies such as vaginal, vulval and gestational trophoblastic disease. The unit provides a consultative service to patients with familial cancer syndrome and facilitates the delivery of prophylactic surgery.

The unit has weekly multi-disciplinary team meetings to discuss the management of patients. The pathology of patients who are newly diagnosed, received recent surgery or developed recurrent disease are discussed. This management plan is established and on-going psychosocial follow up is carried out. A teleconferenced morbidity and mortality meeting is carried out between the western and the eastern zone every month to discuss the management of complex cases. With the growing number of patients with complex health problems who presents with gynaecological cancer, this poses an ongoing challenge to the team in the future to come. Ongoing psychological support is paramount to ensure the patient recovers from the emotional impact of the diagnosis and treatment.

The patient support group has been meeting monthly, facilitated by experts to empower patients to help and support each other during this difficult time. The number of attendees to this meeting continues to grow. Our social worker also assists them to access community services and financial assistance available from the government. Clinical training and research is strongly encouraged within the unit. With the retirement of Professor Houghton, the unit is actively looking for a suitable replacement to cope with the workload.

An end of the year party was held in December at the Thomas and Rachael Moore Education Centre. It was well attended by patients and



*Dr Felix Chan*  
MBBS, FRANZCOG, MRCOG,  
CGO  
*Director of  
Gynaecologic Oncology*

staff to celebrate another year of success. This is an opportunity to meet in a non-clinical setting to nourish a caring culture. The patients were very appreciative of the staffs dedication of time and energy looking after women with gynaecological malignancies.

The Liverpool Gynaecological Oncology service has become part of the Area Cancer Service with an office now located in the Liverpool Cancer Therapy Centre. This allows opportunity for future development and research.

The unit looks forward to another busy and challenging year and further opportunities to develop the service with the support of our many colleagues, patients, families and friends.

<b>Dr Diana Adams</b> Medical Oncologist	<b>Dr Amanda Goldrick</b> Medical Oncologist	<b>Mariad O’Gorman</b> Clinical Psychologist
<b>Susan Cao</b> Physiotherapist	<b>Dr Shalini Vinod</b> Radiation Oncologist	<b>Residents</b>
<b>Dr Lorraine Chantrill</b> Medical Oncologist	<b>Dr Sonal Karia</b> Clinical Fellow	<b>Registrars - Rotating</b>
<b>Rosemary Craft</b> Clinical Nurse Consultant	<b>Dr Jacqueline Kerfoot</b> Palliative Care Physician	<b>Dr Leonardo Santos</b> Gynaecological Pathologist
<b>Dr Louise Elliott</b> Palliative Care Physician	<b>Deborah McCauley</b> Social Worker	<b>Victor Ye</b> Data Manager
<b>Dr Allan Fowler</b> Radiation Oncologist	<b>Parimalam Mohanvelu</b> Administrative Officer	



## HAEMATOLOGY

Haematology has had recent recruitment issues, but is starting to replace our departed staff with a new haematologist starting initially at the end of September with further advertising underway. Planning of the new Marrow Transplant and Haematology Ward is underway for the new building and further expansion of the laboratory facilities. We have our full complement of advanced trainees so the future is looking very promising for the service.



*Dr David Rosenfeld*  
MBBS, FRACP, FRCPA  
*Director of Haematology*



*Lindsay Dunlop*  
Haematologist  
Senior Staff Specialist  
MBBS, FRACP, FRCPA



*John Giannoutsos*  
Locum Staff Haematologist  
MBChB, FC.Path FRCPA



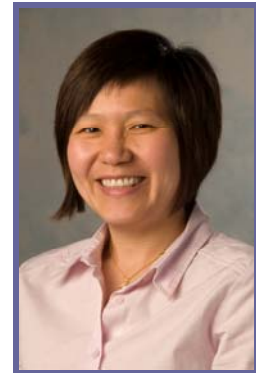
*Penelope Motum*  
Haematologist  
Senior Staff Specialist  
MBBS, PhD, FRACP, FRCPA



*Anne-Marie Watson*  
Haematologist  
Senior Staff Specialist  
MBBS, FRACP, FRCPA

## MEDICAL ONCOLOGY - LIVERPOOL

The Department of Medical Oncology, Liverpool Cancer Therapy Centre has undergone several changes in 2007/2008 but remains a strongly networked service providing consultative and treatment services from Bankstown to Bowral. Dr Eugene Moylan, a key player in the establishment of the centre, has left to pursue his career at the University of Cork, Ireland, after approximately 20 years of service.



*Dr Patricia Kho*  
MBBS, FRACP  
*Acting Director of  
Medical Oncology*

The Medical Oncology Senior Medical staff currently consists of 3.4 FTE positions and they include Dr Patricia Kho, Dr Amanda Goldrick, Dr Michelle Harrison and Dr Bahram Forouzesh (locum). There are 2.0 FTE permanent staff specialists positions to be filled and we are in the process of active recruitment. We have four Advanced Trainees (Drs Shom Goel, Dr Victoria Bray, Dr Sandra Harvey and Dr Sayed Ali), with all four positions accredited by the RACP for 12 months of core training in Medical Oncology. Dr Weng Ng is a Medical Oncology Fellow, who has undertaken a PhD at CCORE and continues to play an active role in the clinical and educational activities in the Department of Medical Oncology. We continue to supervise a Basic Physician Trainee in the care of Medical Oncology inpatients at Liverpool (usually 8-12 inpatients and 6-8 consultations per week) as well as a JMO position (in conjunction with the Radiation Oncologists). The Basic Physician Trainee is scheduled to participate in one outpatient clinics per week and provides acute medical support to nursing staff in the Cancer Day Centre.

Another physical change is the move of the department offsite to 20-22 Bigge Street, Liverpool, as part of the orderly expansion of Cancer Services prior to the Stage 2 Development of Liverpool Hospital. This move has been successful in providing more clinic space for all departments thus allowing more patients to be seen, shortening waiting time for appointments and improving the education of the registrars. It has also led to further integration of other cancer services such as Gynaecological Oncology into Liverpool Cancer Therapy Centre. We were also able to develop the role of a clinic nurse to help our cancer patients navigate their complex treatment journeys. Another enhancement is the recruitment of a senior oncology pharmacist which has improved the workload of the current oncology pharmacy staff and has enabled them to provide a new pharmacy counselling service to patients prior to the start of the chemotherapy. It is an excellent initiative in improving patient care and has led to positive feedback from the patients.

With the move off-site in conjunction with a global move towards electronic medical records, we are now performing electronic chemotherapy bookings. We would ultimately hope to have e-prescribing as this would lead to improving patient care in the event of late or misplaced prescriptions.

The Medical Oncology Department continues to deliver a strong clinical service with approximately 940 new patient consultations, 5,500 follow-up consultations and 5,400 occasions of treatment per annum. These figures continue to reflect increases in the delivery of services.

The Department of Medical Oncology staff strongly support the educational activities of Liverpool Cancer Therapy Centre and the hospital and provides education in various forms (inservices, lectures, bedside tutorials etc) to nursing, allied health, medical undergraduates and junior medical staff. Our Advanced Trainees are encouraged to undertake research projects and this has led to numerous presentations at national and international meetings.

We continue to have an active involvement in clinical trials and have approximately ten multi-centre clinical trials open to active recruitment with many others in the follow-up phase. It has been a challenging year of changes with modifications in ethics approval and clinical governance. Pleasingly, we are now able to move forwards and the year ahead would be filled with increased clinical trial activity. As recruitment for two clinical trials nurses get under way, we are hopeful to be able to expand our portfolio to include studies for most cancer types and stages.

The challenges we face in 2008/2009 are:

1. Recruitment and retention of staff
2. Recruit a Medical Oncology CNC as a full-time position
3. Further increasing clinical trial activity
4. Develop a proposal for a Professorial appointment/Head of Department (UNSW/SSWAHS)



**Dr Eugene Moylan**  
MBBS, FRACP  
Director of Medical Oncology  
Left October 2007



**Dr Richard Eek**  
MBChB (SA), MMed (Int), FCP (SA)  
FRACP  
Medical Oncologist  
Left 14 March 2008



**Dr Amanda Goldrick**  
MMBS, FRACP  
Medical Oncologist



**Dr Michelle Harrison**  
BSc, MBBS (Hons), FRACP  
Medical Oncologist

<b>Locum Staff Specialist</b>		<b>Medical Fellow</b>	
Dr Bahram Forouzesh MD, FRACP		Dr Weng Ng	
<b>Medical Oncology Registrars 2007</b>			
2007		2008	
Dr Steven Kao	Dr Georgina Long	Dr Sayed Ali	Dr Victoria Bray
Dr Belinda Kiely	Dr Kate Mahon	Dr Shom Goel	Dr Sandra Harvey

## MEDICAL ONCOLOGY - MACARTHUR

The Department of Medical Oncology, Macarthur Cancer Therapy Centre, continues to increase its activities over the year. This year saw our fifth year of operation with growth in activity continuing at 20%, and in November 2007 we welcomed Dr Lorraine Chantrill to the senior medical staff. Due to the increase in staffing this allowed the oncologists to provide inpatient care in Campbelltown Hospital to patients undergoing chemotherapy and requiring inpatient management of symptoms related to malignancy. At Campbelltown the department saw 516 new patients, 3,239 follow-ups and 3,195 chemotherapy occasions of service.

2.7 medical oncologists provide the service, Associate Professor Stephen Della-Fiorentina, Dr Diana Adams and Dr Lorraine Chantrill. We are part of the Sydney South West Medical Oncology advanced training network and we have had four advanced trainees rotating through Macarthur from the Liverpool-Macarthur network. A 0.5 FTE basic trainee in medical oncology cares for the ward inpatients; they participate in a rotation scheme through the St Vincent's, Campbelltown and Wagga basic trainee network. A weekly teaching ward round has commenced for the junior medical staff at the hospital.

The Southern Highlands Medical Oncology Service in Bowral continues to increase in activity with 140 new patients and 825 follow-up patients seen and 900 chemotherapy occasions of service delivered. The partnership with the private sector continues such that patients seen by the medical oncologist are able to receive chemotherapy locally irrespective of their private health insurance.

The University of Western Sydney Medical School is now in its second year of operation with all three oncologists providing clinical teaching to the year 1 and year 2 cohorts. 2009 will see the online scientific education of the students following the Ideal Cancer Curriculum endorsed by the Clinical Oncology Society of Australia and MOGA. 2010 will see the first clinical placements of students within the Cancer Therapy Centre.

The Macarthur unit continues to innovate and lead the way in the electronic cancer record, and has had a number of site visits from other cancer units looking at the efficiencies and safety improvements that we have achieved utilising the electronic medical record. The centre was the recipient of a New South Wales Cancer Institute grant to pilot an innovation project looking at an Ambulatory Emergency Department nurse within the Cancer Therapy Centre to reduce the reliance on emergency departments and speed up assessment and treatment for patients presenting with chemotherapy and radiation related toxicity.



*Associate Professor  
Stephen Della-Fiorentina  
MBBS (Hons), FRACP  
Director of Medical  
Oncology*

We have been slowly increasing research opportunities with the new planned trials in breast, lung, colorectal and prostate cancer commencing this year. We are seeking to enhance the research officer and research nursing staffing levels within the centre.

In February 2008 the centre celebrated its fifth year of operation and we are grateful to the dedication of all staff within the Medical Oncology Department. The close integration of medical, nursing, allied health and pharmacy staff in joint education meetings, planning for service delivery improvements and morbidity and mortality meetings has allowed us to continue to improve the safety and quality of care to patients.

The challenges we face in 2008/2009:

1. Enhanced Research Staffing levels
2. Increase Ward Registrar to 1 FTE
3. Support enhancements to palliative care
4. Become a site for paperless chemotherapy e-prescribing



*Dr Di Adams*  
MMBS, FRACP  
Medical Oncologist



*Dr Lorraine Chantrill*  
BSc, MBBS, FRACP  
Medical Oncologist

## PALLIATIVE CARE

The Liverpool Hospital Palliative Care Service is part of the SSWAHS Area Palliative Care Service. Currently this service provides an area-wide mode of care with the Liverpool Hospital Service being part of the Western Zone Service.

It is a consultative service providing inpatient consultations, outpatient clinics and community consultations. The medical staff provide on-call service to all hospitals, community and Braeside and Camden Palliative Care units.



**Dr Jennifer Wiltshire**  
MB, BCh, BAO, CIPM, FACHPM  
Senior Staff Specialist

### Staffing

There is funding for:

- 2.2 FTE Staff Specialists – Dr Louise Elliott, Dr Rebecca Strutt and Dr Jennifer Wiltshire. *Dr Jackie Kerfoot is on maternity leave.*
- Three FTE Nursing - Colleen Carter CNC, Naomi Ellis and Emma Giddy. *Jodie Peronchik is on maternity leave.*
- One FTE Secretary - Arlene Roache
- One Basic Physician Training Registrar and one Advanced Physician Training Registrar

There are no designated allied health, however allied health, in particular social workers and psychologists from the Liverpool Cancer Therapy Centre, provide this much appreciated service support and attend and contribute to our weekly team meeting.



**Dr Louise Elliott**  
MB, BS (Hons 1), FACHPM, Dip Pall  
Med (Hons 1)  
Staff Specialist – Liverpool



**Dr Jacqueline Kerfoot**  
MBBCh (Cardiff) FRACP  
Staff Specialist - Liverpool



**Dr Rebecca Strutt**  
BSc, MB, BS, FACHPM  
Staff Specialist - Liverpool

### Volunteers

Five volunteers provide a visiting and support service to palliative care patients throughout the hospital who are known to Palliative care service. Volunteers visit Tuesday through to Friday. One volunteer comes in monthly to complete

bereavement cards that are sent out to families on behalf of the service. Two Palliative Care Volunteers are on the Palliative Care End of Life Care Project Steering Committee. The Palliative Care Volunteers are easily identified throughout the hospital wearing a distinctive navy blue vest.

Statistics are:

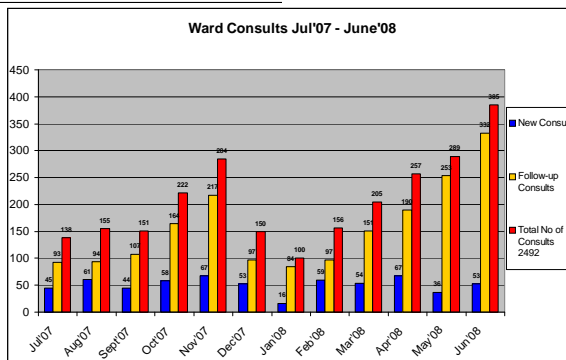
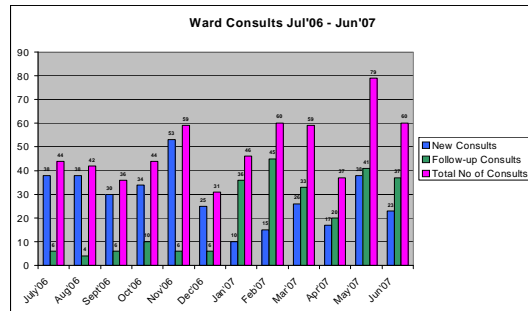
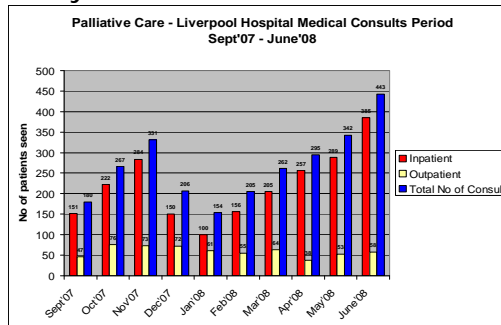
- Total average of 18 hours per week in patient/family support/visiting
- Total average of 25-30 occasions of service per week

Volunteers			
Maureen Grimshaw	Barbara Neville	Diana Popovic-Brankovic	Tricia Parker
Christine Jones	Janet Perry	Peter Teng	(End of Life Committee)

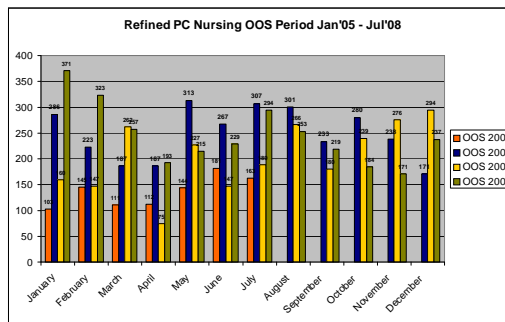
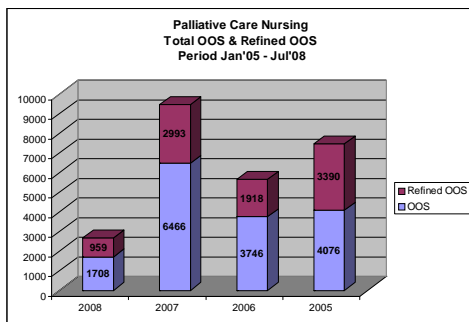
**Services**

We provide a consultative service within Liverpool hospital and Local Government Area as well as outpatient clinics. These clinics are medical and nursing. The Area Palliative Care Service has trained a number of volunteers who regularly come into the hospital to provide extra support to patients and their families. We are currently also providing medical consultative service to Bankstown Hospital.

**Activity**



There has been an enormous increase in the number of medical consults from 597 2006/2007 to 2,492 2007/2008 which is putting great strain on the service and requires a workforce review. The increase in referrals may in part be due to extensive education which has been offered to other teams. The referrals are all clinically appropriate. The increase also reflects the growing awareness of the needs and demand for palliative care for non-cancer patients. The number of non-cancer referrals has increased from approximately 10% to 37% of total referrals.



### Current Research & Quality Projects

- Randomised control trial of oral Risperidone, oral Haloperidol, and oral placebo with rescue subcutaneous Midazolam in the management of delirium in palliative care inpatients.
- Development of a clinical typology of terminal restlessness.
- Prospective study of predictors of delirium: The association between serum anticholinergic levels and delirium occurrence in palliative care patients with advanced cancer.
- Prospective study of Medical Emergency Team calls to define issues of end of life decision making, symptoms and transition in goals of care.
- Helping family of carers of palliative care patients manage their role: Evaluation of a hospital based group education intervention.
- An Audit of Palliative Care Referrals for Lung Cancer Patients in the Western Zone of Sydney South West Area Health Service. Fiona Hegi-Johnson, Jennifer Wiltshire and Shalini Vinod

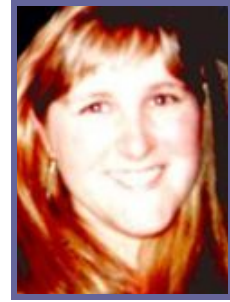
### Other Activities

Lead site Palliative Care Clinical Trials Collaborative (Commonwealth Department of Health and Ageing funding 9.4 M 2007 – 2010)



## PALLIATIVE CARE - MACARTHUR

The Macarthur Palliative Care Service is part of the SSWAHS Area Palliative Care Service, with clinicians providing consultative care to outpatients of the Macarthur Cancer Therapy Centre (MCTC), inpatients of Campbelltown, Camden and Bowral Hospitals, a domiciliary service to the Macarthur and Wingecarribee regions, as well as coordinating care in the 10 bed inpatient Palliative Care Unit at Camden.



*Dr Amanda Walker*  
 MBBS, Dip Pall Med (Hons) FACHPM  
 Area Medical Director of  
 Palliative Care SSWAHS

The medical service is funded for 2.0 FTE, but is currently staffed to 1.4 FTE by Dr Lynne Kuwahata and Dr Amanda Walker (Area Medical Director) with two Advanced Trainees (one based at Camden and one based at the MCTC). The consultative nursing service is provided by the Community Palliative Care Nurses at Rosemeadow, with Kathleen Schofield (CNC) and Amanda Sykes (CNS) and Wingecarribee, with Jane Mahony (CNC) and Mira Glavan (CNS). Jacinta Humphries provides social work services to inpatients, outpatients and community patients of the Macarthur region.

Palliative Care volunteers provide support to patients and families in their homes and in the Camden Palliative Care Unit.

The team is excited about plans for a new Palliative Care CNC position based in the MCTC to assist in care of the patients in Camden and Campbelltown Hospitals.

Staffing limitations have led to a reduction in outpatient medical clinics since the departure of Dr Kristen Turner in October 2007. We are also providing cover to Bankstown Hospital to cover a vacant position.

We are very proud that Jacinta Humphries won the “People’s Choice” Award, and Sharon Oraz (EN) and Pamela Egtberts (RN) shared the Medical Staff Council Clinical Excellence Award at the 2008 Camden and Campbelltown Queen Victoria Winter Dinner.

No Photo Available

*Dr Frank Formby*  
 MB, BS, FACHPM  
 Senior Staff Specialist



*Dr Lynne Kuwahata*  
 MB, BS, FACHPM  
 Staff Specialist

## RADIATION ONCOLOGY

Radiation Oncology goes from strength to strength at Liverpool and Campbelltown Hospitals. With additional staff, improvements in work process and greater patient throughput we have increased radiotherapy treatment at both centres by approximately 10%. This has meant that the waiting time for radiotherapy is now acceptable for most patients. We endeavour to see patients within two weeks of referral and to have them commence treatment in a timely fashion and we are able to do this with the vast majority of patients. We continue to expand our services and this year we have seen an increase in access to a radiation oncologist at Bowral as well as increased radiation oncology outpatient consultative services at Bankstown Hospital. We have also seen an increase in the number of multidisciplinary clinics attended by radiation oncologists across Bankstown, Liverpool and Campbelltown.



*Professor Geoff Delaney*  
MBBS (Hons), MD, PhD, FRANZCR  
*Director of Radiation Oncology*  
*Deputy Director Area Cancer Services*

In past years, a proportion of patients diagnosed with cancer within our treatment catchment area would have to travel to other departments of radiation oncology to receive treatment in a timely fashion. I am happy to report that we have now reversed this flow and in fact provide radiation oncology services for a number of other areas as well as our own catchment patients. Significant plans are underway to further enhance radiation oncology services in the future particularly with the NSW State Government announcement of the rapid development of the Liverpool Hospital including a dramatic increase in the size of the Cancer Therapy Centre at Liverpool Hospital. A number of staff are involved in assisting the planners in building a new, patient-friendly cancer service. At this stage, it is planned that radiation oncology will increase from a service that provides treatment using three (3) linear accelerators to five (5) linear accelerators as well as the additional facility of a research bunker. This is a major research initiative of the Sydney South West Area Health Service Radiation Oncology Group as it will allow researchers to participate in the research of radiotherapy treatment delivery in a way that does not hamper the day to day treatment of other patients. This will allow unprecedented access to radiation oncology equipment in normal office hours for researchers.

There a number of initiatives continuing in our radiation oncology service. We are very proud of our single database cancer information management system that extends across all outpatient sites including Bowral, Campbelltown, Liverpool and Bankstown giving all clinicians ready access to important medical information at the time that they are seeing their patients. We are expanding our information technology service to provide crucial backup to the day to day functioning of the information system.

In terms of staffing, we had the sad news that Dr Andrew Kneebone has decided to take a position at Royal North Shore Hospital. We wish Andrew all

the best but it is sad as he was a very well liked member of staff who was appreciated by his patients and was instrumental in a large number of initiatives at Liverpool and Campbelltown Hospitals. He will be sorely missed. I am happy to report that we have several new staff members. Dr Eng-Siew Koh is a new Radiation Oncologist who is specialising in lung and brain tumours. She also comes with significant research experience and spent some of her training experience at the Princess Margaret Hospital in Toronto, Canada, which is regarded as one of the best radiation oncology services in the world. She brings with her a number of new initiatives and new research projects that will help facilitate the ongoing reputation of our Radiation Oncology Research Group. In addition, Dr Karen Wong has also joined as a Staff Specialist in Radiation Oncology. Her role initially will be to cover for Dr Andrew Kneebone. She also comes with a significant research experience and is in the process of completing her PhD. She conducts Health Services research and has also spent research time at the Princess Margaret Hospital in Toronto.

### Education

We continue to have a strong education program in radiation oncology, radiation therapy and medical physics. We were very pleased to see that our most recent Registrar, Dr Mark Sidhom, has completed his training and been awarded the Fellowship of the Royal Australian and New Zealand College of Radiologists. He passed his examination at the first attempt. Mark was also awarded the Varian Prize for the Best Registrar Research Presentation at the annual research meeting of our college. In addition, Professor Michael Barton was awarded several awards that require specific mention. He was awarded the Rohan Williams Travelling Professor Award, which allowed him to travel the United Kingdom to spread the word about the significant radiation oncology research that he and his research group have been responsible for. In addition, Michael was also awarded the Order of Australia Medal for services to Radiation Oncology and Radiation Oncology Research. This is a well deserved honour and is not only a recognition of Michael's standing in the community but also some recognition of many members of our department. As indicated in the listing of



Professor Michael Barton receiving his OAM medal from the Governor of NSW, Professor Marie Bashir AC, CVO

publication, conference proceedings and poster presentations the radiation oncology group are responsible for a significant amount of research in all aspects of cancer care including health services research, radiotherapy treatment delivery, quality and cancer outcomes.

### Quality

A significant focus remains on treatment quality and there have been a large number of initiatives over the past 24 months focusing on treatment quality. Some of these projects include enhancing our incident reporting system, the development of intensity modulated radiotherapy, the integration of PET and MRI fusion into day to day radiotherapy planning and continuing assessment of workload changes with our Change Management Group.

I am very proud of the achievement of the Radiation Oncology Group; we have a number of challenges over the next 12 months particularly with respect to coping with the increasing workload and attempting to ensure that as many patients as possible in our Area Health Service receive timely radiotherapy particularly those patients who are not currently referred to our service.



Radiation Planning Day 2008 was held 29 February 2008 at the York Fairmont at Leura.



**Professor  
Michael Barton OAM**  
MBBS, FRANZCR  
Director of CCORE



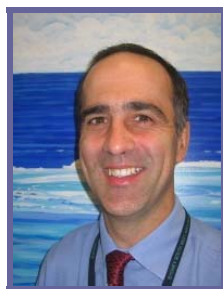
**Associate Professor  
Martin Berry**  
MBBS, FRANZCR, FRCPC  
Radiation Oncologist  
Director of Liverpool Cancer Services



**Dr Dion Forstner**  
MBBS, FRANZCR  
Radiation Oncologist



**Dr Allan Fowler**  
MBBS, FRANZCR  
Radiation Oncologist



**Dr Andrew Kneebone**  
MBBS, FRANZCR  
Radiation Oncologist



**Dr Eng Siew Koh**  
MBBS, BS, FRANZCR  
Radiation Oncologist



**Dr Denise Lonergan**  
MBBS, BS, FRANZCR  
Radiation Oncologist  
Deputy Director of Radiation  
Oncology



**Dr George Papadatos**  
MBBS, BS, FRANZCR  
Radiation Oncologist



**Dr Shalini Vinod**  
MBBS, MD, FRANZCR  
Radiation Oncologist



**Dr Karen Wong**  
MBBS (Hons), FRANZCR  
Radiation Oncologist

#### Radiation Oncology Registrars

Dr Miriam Boxer  
Dr Roopa Jairam  
Dr Fiona Hegi-Johnson  
Dr Sharlyn Kang  
Dr Bernadette Kua  
Dr Annie Lee

Dr Kavita Morarji  
Dr Chelsie O'Connor  
Dr Trang Pham  
Dr Mark Sidhom  
Dr Lisa Sullivan  
Dr Mei Ling Yap

## MEDICAL PHYSICS

The Medical Physics Department has seen another year through with the continuing endeavour to provide for a quality treatment for the Centres' patients and a safe environment for the staff.

The primary areas of focus for the year, in addition to routine clinical work, equipment management and all aspects of quality assurance were:

- IMRT Commissioning
- Acquisition and acceptance testing of the replacement accelerator for M1
- Staff recruitment
- Research

### IMRT Commissioning

With several new staff joining the team with their clinical IMRT experience, the IMRT commissioning project has made significant progress through the year to the point of being almost ready to treat a patient. Most effort has been put into commissioning of planning beam models and dosimetry equipment as well as identifying and performing additional accelerator quality assurance.

### M1 Replacement

After some 13 years of use the old Siemens accelerator in the M1 bunker was decommissioned in March. It has been replaced with an Elekta Synergy accelerator which was installed and acceptance tested by the end of June. It is expected to be treating patients towards the end of the year after completion by Medical Physics of the commissioning process, which includes mechanical and radiation beam tests, radiation safety checks, beam data collection and analysis, radiation beam modelling, radiation dosimetry and additional system checks.

### Staff Recruitment

A significant effort was made over an extended period to recruit experienced staff, both locally and from overseas. This has been encouragingly successful with a number of people having started in the year to June 2008, or who are about to commence employment in the department.

### Research

The scholarship program to sponsor physics undergraduate research thesis work had a successful outcome after its first year of running in 2007. All three physics students completed their projects with us and were awarded their Honours degrees, two at 1<sup>st</sup> Class level. One of these students, Michael Jameson, has continued his involvement with the department by commencing a PhD under the supervision of Dr Lois Holloway. The scholarship program continued in 2008 with a further two students being awarded scholarships to undertake their



**Gary Goozée**  
B Sc (Hons), DipEd, MSc, MACPSEM  
*Director of Medical Physics*

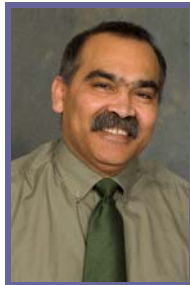
honours thesis research work with members of Medical Physics. Philip Vial, Jarrad Begg and Vinod Nelson have continued their postgraduate studies and Tony Young submitted his Masters thesis. Three peer reviewed papers were published by team members with a further four were submitted or are In Press (see *Achievements*).

In addition, a number of other initiatives have occupied the team:

- Physics and Medical Registrar training
- Participation in the upgrade to Multi-Access information system
- An upgrade to the CMS planning system version 4.34.02
- Development of some KPIs and system utilisation via a Multi-Access report
- Equipment maintenance tender evaluation



**Virendra Patel**  
Deputy Director Liverpool  
BSc (Hons), MSc, Dip R P,  
MACPSEM, MAAPM, MARPS,  
MAMPI



**Satya Rajapakse**  
Deputy Director Macarthur  
BSc (Hons), MAppSc, MACPSEM

**Senior Medical Physicists**

**Armia George**  
BSc (Hons), MSc  
ACPSEM Accreditation  
Started 29/10/07

**Lois Holloway**  
PhD, MACPSEM

**Vinod Nelson**  
BSc, BScMed, Grad Dip, Rad Phys  
MACPSEM, AIP

**Keri Owen**  
MPhys MSc DipIPEM CPhys  
Started 04/02/08

**Guangli Song**  
BSc (Hons), MSc ACPSEM  
Left 23/11/07

**Phil Vial**  
BSc (Hons)

**Medical Physist**

**Abdurrahman Ceylan**  
BSc Phys, Masters Med Rad Physics

**Registrars**

**Jarrad Begg**  
B Applied Physics

**Tony Young**  
B Med Rad Phys (Hons) Class 1

**Tania Bartrum**  
BSc MSc

## RADIATION THERAPY

This year has been a varied and busy one for Radiation Therapy (RT). We have maintained our staffing levels at nearly full capacity, coping with the challenges of having many staff away, busy producing the next generation of RT staff. There have been a lot of comings and goings, with some RTs going off on maternity leave and others returning. Other staff headed for work overseas in the UK and in Saudi Arabia and to balance this we have been joined by a large number of new staff recruited from within NSW.



**Lynette Cassapi**  
DCR(T) BSc (Hons)  
Director of Radiation  
Therapy

Five Professional Development Year (PDY) staff completed their training with us in May 2008 we welcomed seven new graduates who are currently undertaking their PDY with us at Liverpool and Macarthur in 2008/2009. Also this year, several RT staff were successful in attaining personal regrades to level 3 RT positions – congratulations go to Thien Le and Jim Yakobi.

We were also fortunate enough to be supported by the CTC Trust Fund with the creation of two Research, Development and Imaging roles at Level 3 Grade 2, both for 2 years duration. We congratulate Shivani Prasad and Vikneswary Batumalai on their appointment to these roles in December 2007 and look forward to being part of the developments, research projects and publications that these roles will facilitate. The positions enable all RT staff to have access to Research and Development (R&D) time in order to assist with the projects being undertaken within the departments. Also linked with R&D, this year has seen the formation of a number of site-specific and topic-specific interest groups. This now allows regular interactions between many professional groups within the CTC's for the purpose of reviewing, developing and progressing our techniques, processes and ideas in each interest area. The groups now include Genito Urinary, Head and Neck, Lung, Gynae/Brachytherapy, Breast, Imaging, IMRT, Quality and Multi-Access.

We have adapted patient schedules this year to accommodate the clinical decommissioning of the M1 Siemens linear accelerator and are eagerly awaiting the clinical commencement of the new M1 Elekta linac in November 2008. Other technological developments this year include the many hours of work put in by RTs and other staff to prepare the service for delivery of Intensity Modulated Radiotherapy (IMRT). This has required a huge team effort on the part of many staff and culminated in the planning and treatment delivery for our first IMRT patient in August 2008.

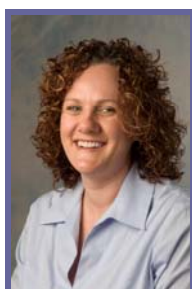
Since the migration of the Oncology Information System from Lantis to Multi-Access in January 2008, the RT group has become more involved in the development of this technology and the reporting of data from this system. RT super-users are now actively taking the lead with the development of the system and are working towards a paperless system with Radiation Oncology and development of an electronic treatment sheet.



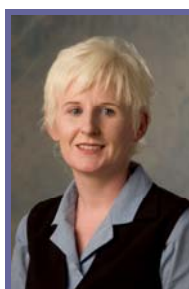
RT staff has continued to expand their technical knowledge by attending many conferences and courses during 2007/2008, both within Australia and overseas. Close links are also being developed between the RT groups at Liverpool, Macarthur and Royal Prince Alfred Hospital and it is hoped that there can be joint projects undertaken in the future between the three centres.



**Daniel Moretti**  
Deputy Director Liverpool  
BAppSc MRT  
(Radiation Therapy)



**Nicole Cusack**  
Deputy Director Macarthur  
BAppSc MRT  
(Radiation Therapy)  
Master of Health Mgt



**Kurrily Cloak**  
Head of Treatment  
BAppSc MR  
(Radiation Therapy)



**Joanne Veneran**  
Head of Planning  
BAppSc MRT  
(Radiation Therapy)

**Seniors**

*Kylie Dundas  
Matthew Fuller  
Odette King*

*James Latimer  
Annie Lau*

*Som Rattanavong  
Christine Tawfik*

*Renee Voysey  
Andrew Wallis*

**Oncology Information System Manager**

*Nasreen Kaadan*

**Radiation Therapy Educators**

*Melanie Rennie*

*David Sampson*

**Radiation Therapists**

*Kathy Andrew  
Ewa Aren  
Carly Ballard  
Vicky Batumalai  
Syke Blakeney  
Kate Caldwell  
Peter Chen  
Kerryn Dean  
Shane De Giorgio  
Susan Foot  
Isabelle Franji  
Marjorie Fugoso*

*Janelle Hardie  
Leisa Holmes  
Rylie Humble  
Ewa Juresic  
Josip Juresic  
Sarah Keats  
Hayley Kerr  
Thien Le  
Vanessa Leong  
Ashika Maharaj  
Sally McInnes  
James McKay*

*Cara McKibbin  
Katrina Miller  
Carol Nguyen  
Hung Nguyen  
Cesar Ochoa  
Lucy Ohanessian  
Danielle Parrot  
Penny Phan  
Judy Plante  
Shivani Prasad  
Sandhya Rojukhirdu  
Joshua Sams*

*Giselle Sasi  
Adrianna Scotti  
Reyna Stirton  
Su Swe  
Thanh Tran  
Steven Tran  
Tania Twentyman  
Eunice Wong  
Jim Yakobi  
Joann Yap  
Adam Zammit*

## RESEARCH

### THE COLLABORATION FOR CANCER OUTCOMES RESEARCH AND EVALUATION

The Collaboration for Cancer Outcomes Research and Evaluation (CCORE) has had another productive year with many peer-reviewed publications, contributions to National Tumour Guidelines and commissioned reports. Following the publication of our report on the optimal utilisation of radiotherapy as a series of papers in *Cancer*, the benchmark we developed is currently being used and acknowledged worldwide. Another project on optimal chemotherapy utilisation in cancer was commenced.

During 2007/2008 four members of CCORE have become conjoint lecturers at UNSW. The number of CCORE staff currently awarded or enrolled for a PhD or MD is six. Included was Professor Michael Barton who was awarded his Doctor of Medicine (MD) by Published Work titled 'The improvement of cancer management by the application of currently available knowledge' following submission of his thesis during 2007.

Current and future projects include:

- o **Radiotherapy and Chemotherapy Utilisation in Lung Cancer:** Building on our work in modelling optimum radiotherapy and chemotherapy utilisation, this project will assess the extent to which there is discordance in optimum and actual utilisation of therapies in patients managed in a large multidisciplinary lung cancer clinic, and the reasons underlying any such discrepancy.
- o **The distance learning course in the applied sciences of oncology:** During the last year, the definitive 2006 version of the ASO course was disseminated by the International Atomic Energy Agency (IAEA) to developing countries around the world for use as part of radiation oncology training. It is supplied in two formats, as a two-CD set and as a direct download from the IAEA website. An additional nine interactive modules developed during 2007/2008 are currently going through IAEA acceptance procedures. When accepted, the official IAEA 2008 version of the ASO course will contain 80 modules providing approximately 80 hours of interactive learning.
- o **Radiotherapy data linkage:** The project implementation has progressed with the support of the NSW Department of Health to start the data linkage pilot in 2-3 radiotherapy centres.



*Professor Michael Barton OAM*  
MBBS, MD, FRANZCR  
*Professor of Radiation Oncology*  
*Faculty of Medicine, UNSW*  
*Research Director, CCORE*  
*Director of CCORE*

- **Medicare Benefit Scheme (MBS) Revenues for radiation oncology services in NSW 2004-2007:** The study has been completed and the final report has been submitted to the Cancer Institute NSW.
- **Optimal Chemotherapy utilisation in cancer:** In this project we have calculated an estimate of ideal or optimal chemotherapy utilisation for all cancer based on the incidence of each type of cancer, the evidence-based indications for chemotherapy in the treatment of that cancer, and the proportion of cancer patients eligible for the indication for chemotherapy. This model of chemotherapy utilisation can be easily adapted to take into account any future changes in cancer incidence, stage at presentation or in the indications for chemotherapy. The optimal chemotherapy utilisation rate can serve as a benchmark against which actual rates of chemotherapy utilisation can be compared to ensure the best quality of cancer care, to assist in the planning of chemotherapy services and to identify the issues which result in under-utilisation of chemotherapy. This project has been funded by the Cancer Institute NSW.
- **Review of National Cancer Control Activity in Australia:** The study was undertaken in partnership with the Sydney Health Projects Group and the Cancer Council Australia has been completed and the final report has been submitted to The Cancer Council Australia.
- **Overview of Cancer Treatment Services in Western Australia:** CCORE was successful in conducting this study. The aim of the study was to review existing levels and quality of cancer services in public and private facilities; identify key issues for consumers and providers; examine projections for future demand; and identify gaps in service provision. This included consultations with service providers, Cancer Council WA staff and consumers. The study has been completed and the report was submitted to Cancer Australia WA.
- **Bone metastasis 'Quality of Life' project:** Internationally we are collaborating with groups in Canada to develop the bone metastases 'Quality of Life' Scale for the EORTC. The project is now completed and the bone metastases module BM 22 has been approved by EORTC so that it can be used in clinical trials/studies together with either Pal15 or C30 module.
- **Touchscreen 'Quality of Life' project:** CCORE is providing a substantial contribution in implementation of the Touchscreen-based 'Quality of Life' assessment project for all patients attending the Cancer Therapy Centre, especially in development of the evaluation framework and data collection. The project is continuing as a routine protocol at the Liverpool Hospital Cancer Therapy Centre.
- **World Health Organisation (WHO) commissioned project on development of a radiation safety tool:** CCORE team led by Professor Barton has been commissioned by the WHO to do a literature review of radiation incidents

worldwide and draft a safety tool for international use. Based on CCORE contribution to the project WHO World Alliance for Patient Safety is in the process of publication of a radiotherapy safety 'Risk Profile' for international use and an article on review of radiotherapy incidents worldwide has been submitted to 'Lancet Oncology'.

- o **Survey of undergraduate cancer education in Australia:** This is a follow-up survey (initially done in 2001) of undergraduate cancer education in Australia facilitated by the Cancer Council Australia.
- o **Provision of epidemiological and statistical advice on research projects done by the clinician researchers at the Cancer Therapy Centre:** We are providing statistical assistance and advice to junior researchers at the CTC for their publications on various clinical topics.
- o **Assessment of cancer prevalence and utilisation of cancer treatment in '45 and Up Study' population in NSW (proposed study):** A cancer treatment utilisation study through linkage of ongoing '45 and Up Study' run by the SAX Institute is at the planning stage.
- o **Estimation of the optimal number of radiotherapy fractions for cancer patients: a review of the evidence:** The aim of this study is to construct an evidence based model to estimate the optimal number of radiotherapy fractions per cancer patient and per treatment course, building on the existing optimal radiotherapy utilization model. On completion of this study, the optimal number of fractions for all 23 cancer sites, and the overall optimal number of fractions per cancer patient and per treatment course will be estimated. These data can provide a benchmark for services delivery and for comparison with actual fractionation in practice. This model can also be applied to predict future radiotherapy workload and hence aid in future radiotherapy services planning in Australia. During the last 12 months the optimal number of radiotherapy fractions has been estimated for the following cancer sites: breast, melanoma, cervix cancer and ovarian cancer. The estimation of optimal number of fractions for vaginal cancer is currently being studied.
- o **Radiotherapy Training Network:** We have established a training network for radiation oncology registrars under the leadership of Dr Denise Lonergan. The network includes Liverpool, Campbelltown, Wollongong, St George, St Vincent's and Prince of Wales Hospitals and from 2009 will also involve Canberra. The Network is supported by a grant from the Cancer Institute NSW.

The year 2007-2008 has seen a broadening of our base of collaborators and an increase in involvement with Cancer Therapy Centre members resulting in more and better research. We hope that we continue to expand these alliances over the next year.

CCORE Staff Members

**Dr Gabriel S Gabriel**  
Project Manager (UNSW)

**Dr Susannah Jacob**  
Project Manager

**Dr Jesmin (Rokeya) Shafiq**  
Project Manager

**Dr Weng Ng**  
Clinical Research Fellow  
Medical Oncology

**Dr Mark Sidhom**  
Clinical Research Fellow  
Radiation Oncology

**Professor Geoff Delaney**  
Director Radiation Oncology

**Dr Denise Lonergan**  
Radiation Oncologist

**Dr Dion Forstner**  
Radiation Oncologist

**Dr Shalini Vinod**  
Radiation Oncologist

**Dr Karen Wong**  
Radiation Oncologist

**Dr Eng-Siew Koh**  
Radiation Oncologist

**Richard Thode**  
Regional Course Coordinator  
Applied Sciences of Oncology  
Distance Learning Program

**Phil Vial**  
Medical Physicist

**Kate Tynan**  
Project Manager

**Robyn Hittman**  
Administration (UNSW)

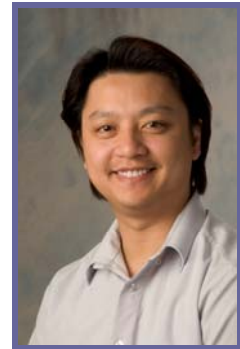
**Caryn Knight**  
Administration (CCORE)



*Standing:* Dr Gabriel Gabriel, Robyn Hittman, Professor Geoff Delaney, Dr Weng Ng, Dr Susannah Jacob, Dr Mark Sidhom  
*Sitting:* Dr Eng-Siew Koh, Dr Karen Wong, Professor Michael Barton, Dr Jesmin Shafiq

## CLINICAL TRIALS

It has been a challenging year for the Clinical Trials Unit in 2007-2008. Key changes to the ethics and governance procedures for clinical trials has resulted in delays in the activation of new research studies in the CTC. The trials team has also recently lost a few staff members, who left to seek new opportunities and lifestyle changes.



*Vu Nguyen*  
BSc (Hons)  
*Research Manager*

Despite this, the Clinical Trials Unit has still managed to achieve a great deal in 2007-2008. Some of the key achievements include:

- 112 new patients recruited to clinical trials at Liverpool CTC and 37 new patients recruited at Macarthur CTC.
- Continuing to meet the patient recruitment targets as set by the NSW Cancer Institute, including contributing towards making SSWAHS the leading Area Health Service in patient trial recruitment for NSW.
- Continuing implementation and upgrading of the electronic document information system for clinical trials (Clinical Trial WIKI).
- Nominated at the lead site in a multi-centre ethics submission for two trials, which have both successfully received ethics approval through a lead ethics committee.

The CTC Clinical Trials Unit is looking to continue to focus on clinical trial participation and awareness for the CTC in the year ahead.

Research Chairperson	Research Manager
Dr Patricia Kho	Vu Nguyen
Research Officers	
Jennifer Cho Cho Aung Joseph Gancia	Sen Rattanavong Anne Whatman



Pictured from left: Joseph Gancia, Siemens Rep, Vu Nguyen, Jodie Stewart, Jennifer Cho Cho Aung, Anne Whatman, Sen Rattanavong, Siemens Rep

The following table summarises the active trials and patient recruitment for the Clinical Trials Unit in 2007-2008.

TRIALS 2007/2008	FULL TITLE	Patients recruited LCTC	Patients recruited MCTC
APML4	A phase II trial in patients with previously untreated acute promyelocytic leukaemia to evaluate the efforts of 1) adding arsenic trioxide to all trans retenoic acid & idarubicin for remission induction and 2) adding arsenic trioxide to all trans retenoic acid as consolidation.	0	NA
Calypso	A multi-national, randomised, phase III, GCIg intergroup study comparing Pegylated Liposomal Doxorubicin (CAELYX®) and Carboplatin vs. Paclitaxel and Carboplatin in patients with epithelial ovarian cancer in late relapse (>6 months).	1	NA
CHERP	Needs Assessment Intervention Study	57	NA
ESPAC3	Adjuvant chemotherapies in resectable pancreatic cancer (ESPAC3v2)	1	0
Fibre Study	Randomised trial investigating the impact of oral fibre on prostate movement and rectal side effects during radiotherapy.	10	NA
Horizon II	A Randomised, Double-blind, Phase III Study to Compare the Efficacy and Safety of AZD2171 when added to 5 fluorouracil, Leucovorin and Oxaliplatin (FOLFOX) or Capecitabine and Oxaliplatin (XELOX) with the Efficacy and Safety of Placebo when added to FOLFOX or XELOX in Patients with Previously Untreated Metastatic Colorectal Cancer	5	NA
HOSTT	A phase III study to evaluate the impact of maintaining haemoglobin levels above 120g/L versus above 100g/L in anaemic patients with carcinoma of the cervix receiving concurrent cisplatin and radiation therapy.	0	NA
IBIS II DCIS	An international multi-centre study of Tamoxifen vs Anastrozole in postmenopausal women with hormone sensitive Ductal Carcinoma in Situ (DCIS)	1	0
IBIS II Prevention	An international, multi-centre study of anastrozole vs placebo in postmenopausal women at increased risk of breast cancer.	5	4
Intravesical bladder	Phase II trial of intravesical gemcitabine in patients with transitional cell carcinoma of the bladder.	1	NA
Outpatient Peg Auto	Outpatient-based fractionated ICE chemotherapy supported with pegfilgrastim for salvage and stem cell mobilisation in transplant eligible patients with relapsed or refractory diffuse large B-cell lymphoma and Hodgkin lymphoma	0	NA
Outpatient RIE	Outpatient ifosfamide, Etoposide plus Rituximab (R-IE) for salvage in patients > 60 years with relapsed or refractory CD20 positive diffuse large B-cell lymphoma who are not candidates for stem cell transplant.	0	NA
POST	Post-operative concurrent chemo-radiotherapy versus post-operative radiotherapy in high risk cutaneous squamous cell carcinoma of the head and neck.	0	NA
Radiant	A multicentre, randomised, double-blind, placebo controlled, phase 3 study of single agent Tarceva® (erlotinib) following complete tumour resection with or without adjuvant chemotherapy in patients with stage IB-IIIa Non Small Cell Lung Carcinoma who have EGFR-positive tumours	1	NA
SC20 Bone Mets	A phase III international randomised trial of single versus multiple fractions for re-irradiation of painful bone metastasis.	0	0
SOFT	A phase III trial evaluating the role of ovarian function suppression and the role of exemestane as adjuvant therapies for pre-menopausal women with endocrine responsive breast cancer	1	1
TEXT	A phase III trial evaluating the role of exemestane plus GnRH analogue as adjuvant therapy for pre-menopausal women with endocrine positive breast cancer	1	5
STARS	A randomised comparison of Anastrozole commenced before and continued during radiotherapy for breast cancer versus anti-oestrogen therapy delayed until after radiotherapy.	13	26
TOAD	A collaborative phase III trial: the timing of intervention with androgen deprivation in prostate cancer patients with rising PSA	1	1
TROG Oesophagus	A randomised phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemo-radiotherapy	2	NA
TROG Cervical	Prospective study to determine the relationship between survival and FIGO stage, tumour volume and corpus invasion in cervical cancer.	1	NA
TROG DCIS	A randomised phase III study of radiation doses and fractionation schedules in non-low risk ductal carcinoma in situ (DCIS) of the breast.	0	0

# SSWAHS CLINICAL CANCER REGISTRY



Dr Val Poxon  
PhD, RN  
SSW Cancer Information Project Manager

## SSWAHS Cancer Registrations by Cancer Type and Gender

A total of 6,936 patients have been registered to date and it is estimated that at least 3,000 more cases are in progress for the period July 2005 – June 2007. A breakdown of the types of cancers separated into tumour groups and distributed by gender is shown in the tables below.

Head & Neck	N	M	F
Mouth/Pharynx	243	165	78
Nasal Cavity/Middle Ear	12	6	6
Larynx	54	47	7
Thyroid	161	33	128
<b>Total</b>	<b>470</b>	<b>251</b>	<b>219</b>

Digestive System	N	M	F
Oesophagus	96	74	22
Stomach	154	95	59
Small Intestine	19	11	8
Colon	623	327	296
Rectum	300	203	97
Ano-Rectum	13	5	8
Liver/Bile Ducts	129	86	43
Gall Bladder	38	17	21
Pancreas	143	73	70
Others	6	3	3
<b>Total</b>	<b>1521</b>	<b>894</b>	<b>627</b>

Respiratory	N	M	F
Lung/Bronchus	867	518	349
Pleura	6	4	2
Trachea/Other	5	5	0
<b>Total</b>	<b>878</b>	<b>527</b>	<b>351</b>

Sarcoma	N	M	F
Bone/Joint/Soft Tissue	28	19	9
Soft Tissues	45	25	20
<b>Total</b>	<b>73</b>	<b>44</b>	<b>29</b>

Skin	N	M	F
Skin – Melanoma*	150	93	57
Skin - Reportable	8	8	0
<b>Total</b>	<b>158</b>	<b>101</b>	<b>57</b>

Breast	N	M	F
Breast	857	2	855
<b>Total</b>	<b>857</b>	<b>2</b>	<b>855</b>

Male Genital	N
Prostate	959
Testis	48
Penis	8
Other	1
<b>Total</b>	<b>1016</b>

Urinary System	N	M	F
Bladder	273	211	62
Kidney/Renal Pelvis	183	131	52
Ureter	10	8	2
Other	3	2	1
<b>Total</b>	<b>469</b>	<b>352</b>	<b>117</b>

Brain/CNS	N	M	F
Brain (malignant)	132	76	56
Brain (benign)	153	43	110
Other CNS	3	2	1
<b>Total</b>	<b>288</b>	<b>121</b>	<b>167</b>

Lymphoma	N	M	F
Hodgkin	28	21	7
Non-Hodgkin	212	112	100
<b>Total</b>	<b>240</b>	<b>133</b>	<b>107</b>

Haematological	N	M	F
<b>Myeloma</b>			
Multiple Myeloma	77	35	42
<b>Leukaemia</b>			
Lymphocytic	84	57	27
Myeloid/Monocytic	96	50	46
Other	6	5	1
<b>Total</b>	<b>186</b>	<b>112</b>	<b>74</b>

Miscellaneous	N	M	F
Unspecified/Unknown	433	241	192
Primary/ Ill defined sites			



Female Genital	N
Cervix	59
Uterus	111
Ovary	78
Vagina	7
Vulva	19
Other	5
<b>Total</b>	<b>279</b>

\* Melanoma cases are collected only of from the SSWAHS facilities that patients were diagnosed and had their first course treatment in. Referral cases to the Sydney Melanoma Unit are not included as the SMU collect their own statistics.

### Summary

The pilot project has seen the establishment of a robust and important clinical repository of cancer information (SSWAHS Clinical Cancer Registry). As the processes of identifying and registering new cancer cases have become more effective in SSWAHS, the quality of data in terms of accuracy and completeness is improving. More clinicians have expressed an interest in using the data and are actively engaged in providing missing data or giving advice about ambiguous terminology. This will make for better reporting in the future and the provision of meaningful and useful data as part of the cancer information program.

#### SSW Cancer Information Project Manager

*Dr Val Poxon*

#### Cancer Information Managers

<i>Angela Berthelsen</i>	Colorectal Cancer Data
<i>Kirsten Duggan</i>	Lung, Central Nervous System and Miscellaneous
<i>Sandra Farrugia</i>	Genito-Urinary
<i>Christine MacDonald</i>	Breast and Gynaecological
<i>Joyiti Prakash</i>	Haematopoietic, Melanoma, Head and Neck
<i>Mahbuba Sharmin</i>	Upper Gastro Intestinal Tract and Colorectal

#### Administrative Support

*Isabelle Anscombe*

# CLINICAL SERVICES

## ADMINISTRATIVE SUPPORT

The Administrative support service provided to cancer services requires a combination of skill, dedication and innovation. Many projects undertaken this year have relied heavily on the collaborative implementation of new processes and the upskilling of staff. The service has certainly come a long way since paper diaries, manual data collection, and labour-intensive activity reporting. With the level of activity showing no signs of reducing, it is important to note that all the upgrades to services, changes to practice and procedure adjustments occur in between business as usual, showing the busy nature of the roles that support the service. Every vacancy is felt by the remaining staff as they soldier forward to deliver the best service possible. Not without mention, is the transcription staff, who work tirelessly behind the scenes to produce correspondence for every patient visit. Last year they produced 4,034 letters, with multiple recipients; this is a magnificent effort by the five transcription staff, supported of course by the ever helpful secretarial staff.

The focal points for performance during this year have been to improve the quality of data input, and development of staff through competency assessments and rotation.

Many of our clinics are now operational with a “no paper record” consultative service, as a strategy to improve access to information.

The development of a new website has been in progress during the year, and is now ready for release.

Overall Cancer Service staff numbers have increased to 203 due to additional services commencing in Macarthur, and project staff funded through Cancer Institute grants. Accommodating additional staff and services has been a challenge that has continued, and will be addressed in the Liverpool Hospital capital works, and Macarthur planning.

A planning day in May 2008 drew attention to the need for elevating the community profile, which will be the focus for 2008.



*Sandra Avery*  
Grad Dip Bus Tech  
*Business Manager*  
*(Liverpool)*



*Sue Connor*  
*Operations Manager*  
*(Macarthur)*

LIVERPOOL ADMINISTRATIVE SUPPORT

Information Manager

Phan Sayaloune

IT Support

Adam Stanzione

Transcription

Melissa Cameron  
Heather Patchett  
Karen Singh

Secretarial Support

Leanne Aarts  
Narelle Barnett  
Joanne Barron  
Zelja Jankovic  
Arlene Roach  
Deborah Young

Clinical Administration

Rosalie Atkin  
Holanda Bentancor  
Ashti Bibani  
Maree Cain  
Naomi Holm  
Kristy Jemison  
Dorella Lutzen  
Kriston Nicholls  
Dean Ralph  
Ida Ravindraj  
Brigida Sbezzi  
Melissa Schouten  
Franca Serafin  
Joanne Yeo

MACARTHUR ADMINISTRATIVE SUPPORT

IT Support

Janice Warner

Transcription

Delma Bird  
Suzanne McIntyre

Secretarial Support

Tina Coppard  
Colleen Reynolds  
Ann See

Clinical Administration

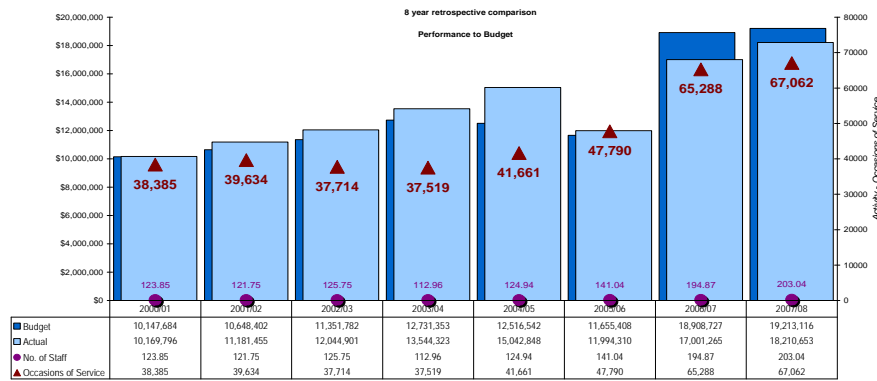
Janet Byrne  
Roselyn Frederic  
Nicole Marchbank  
Michelle Moors  
Julie O'Brien  
Leanne Radovic  
Annette Ryan

## Financial and Activity Summary

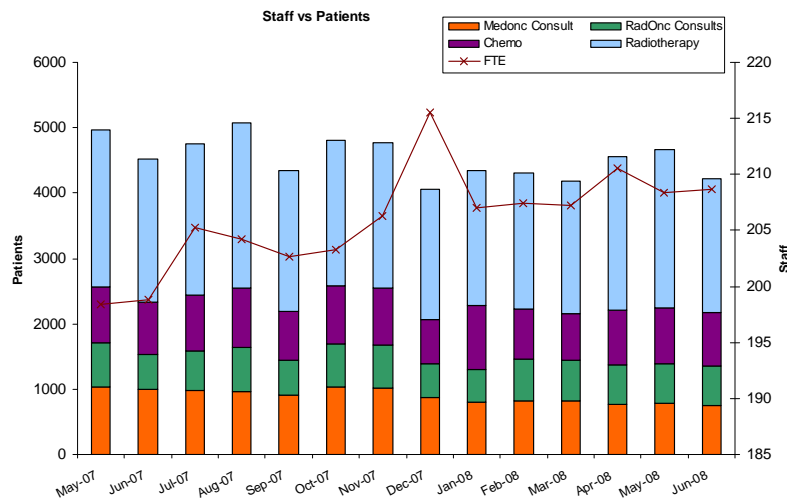
Sandra Avery  
Business Manager

Liverpool and Macarthur Cancer Services finished the year with a favourable balance of \$1m, reflecting the fiscal responsibility adopted by Oncology services. Cancer Institute grants of \$2.2m enabled the cancer registry project and care co-ordination model to continue, as well as the appointment of lead clinicians and project staff to develop improved patient care and outcomes. These grants appear in the graph below as budget items.

The average staffing over the year was 203 FTE, to facilitate 67,062 occasions of service. The increased cost of the service this year reflects a 6% increase in staff, and relates to the number of patients seen, indicating that resources are directed appropriately.



The graph below also supports that the allocation of staff directly corresponds to the number of patients seen.



## ALLIED HEALTH

Allied Health consists of Social Workers, Dietitians, Speech Pathologists, Occupational Therapists, Physiotherapists and Clinical Psychologists. They work within the Macarthur and Liverpool Cancer Therapy Centres and Palliative Care Units to provide services to inpatients and outpatients, their families and carers. They work together with other Cancer Therapy staff to meet the range of patient needs and continually strive to provide a quality service. A summary of their work and achievements throughout the past year is outlined below.

### Planning

- Allied Health Representatives attended:
  - Combined CTC Executive Committee Planning Day
  - Radiation Oncology Planning Day
  - Area Cancer Services Council meetings
  - NSWOG (H+N) at the Cancer Institute (Speech Pathology/Dietitian)
  - NSWCC community cancer network (Social Work as LCTC representative) - This newly established group has the aim of building and consolidating links across cancer support services and agencies in the local area.
- Allied Health attended:
  - Regular site and combined Allied Health meetings
  - LCTC Executive meetings for Radiation Oncology and Medical Oncology
  - MCTC Executive meetings
  - Relevant case conferences and MDT meetings
  - Relevant community support groups to provide education and support
- Liaison between sites and departments to improve efficiency of patient management and service provision in:
  - Occupational Therapy and Physiotherapy across MCTC and LCTC for Lymphoedema services and reduce waiting times
  - Social work and Clinical Psychology at MCTC in setting up structures to ensure collaborative and efficient service delivery
- Establishment of routine assessment of patients' Quality of Life (QoL) and associated needs as an integral part of the centre's standard clinical practice, by LCTC Clinical Psychology in collaboration with stakeholders across the centre.

### Patient Focus

- Improved continuity of care with MCTC Occupational Therapist and Speech Pathologist seeing patients previously known to their service when they are admitted to Campbelltown Hospital.
- MCTC Lymphoedema Clinic consistently running two days a week. Three OT staff involved in provision of clinic service on rotating basis to ensure continuity of service and maintenance of staff with specialist skills.
- Clinical Indicators collected in:
  - Occupational Therapy
    - Examining time frames for patient care at department level
    - Achievement of patient goals in CTC across SSWAHS

- Speech Pathology
    - Vocal quality and use following voice therapy
- Provision of inservicing by a range of Allied Health staff to fellow CTC staff and community services.

#### Professional Standards

- Revision of MCTC Occupational Therapy Policies and Procedures to adhere to current research.
- Establishment of and attendance at Clinical Networks/Specialty Groups. These allow networking between sites, sharing of resources, development/comparison of clinical indicators and discussion regarding practice guidelines.
- Continuation of the H&N Patient Education Resource (funded by Cancer Institute). This multidisciplinary project includes Allied Health, H&N Care Coordinator and RO Staff Specialist. A Project Officer has now been recruited.

#### Organisational Development

- Modification of MCTC Occupational Therapy referral, initial assessment and home visit forms to improve intake and information records.
- Establishment of a multidisciplinary voice clinic (in conjunction with ENT Department) by LCTC Speech Pathology allowing H&N cancer patients with associated voice disorders access to improved assessment and treatment using Nasendoscopy.
- Review/re-grade of the LCTC Dietitian position to a specialist, non-rotational position.
- Increase of LCTC Social Work staffing with a new social work team leader for chronic and complex care.

#### Population Focus

- Hosting of a Young Adult Focus Group by MCTC Social Work, in conjunction with nursing and medical staff. This aimed to examine service delivery within MCTC and identify possible improvements to provide more appropriate service to young adults with cancer. One significant suggestion was a request for an ongoing Young Adult Cancer Support (YACS) group which is now run monthly by Social Work and Nursing.
- Provision of education to various patient groups including:
  - Healthy eating post treatment by the MCTC Dietitian to the 'Macarthur Young Adult Cancer Support (YACS)' and the 'Prostate Cancer Support' groups
  - Information on energy conservation and Lymphoedema management to MCTC Occupational Therapy patients
- Ongoing provision of patient and carer groups including:
  - MCTC
    - Keep In Touch (KIT) and Macarthur Young Adult Cancer Support (YACS) groups
    - Complementary therapies of Reiki and Meditation
  - LCTC

Health Education Program, Relaxation Program, Living with Breast Cancer, After Breast Cancer Seminars, Carer's Group, Laryngectomy Association, Fatigue Management and various Education Programs; and Lymphoedema,

Gynaecological Oncology, Haematology, and Brain Tumour education and support groups.

- Multicultural support groups (eg Vietnamese, Mandarin, Italian)

**Academic Focus**

- Continued involvement in all relevant education programs and inservices.
- Presentation of posters at the 2007 COSA Conference:
  - “Perspectives on Clinical Psychology Services amongst Uro-Oncology Multidisciplinary Team Clinicians” by Clinical Psychology
  - “Clinical Psychology and Social Work Service Integration at Macarthur Cancer Therapy Centre MCTC” by Clinical Psychology and Social Work

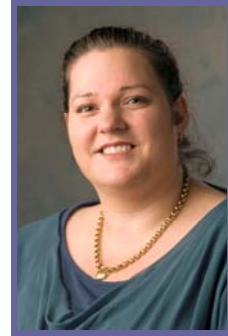
**Future Plans**

- Ongoing liaison between centres and AH staff to improve patient access, standards of care, service provision and management of waiting times.
- Establishment of a combined Nursing and Allied Health Pre-Treatment Clinic for high risk H&N cancer patients by the LCTC dietitian, social worker, speech pathologist and care coordinator.
- Continued development of relevant competencies in specialist areas.
- Evaluation of the joint Speech Pathology/Dietetic Head & Neck Clinic.

Discipline	Macarthur Cancer Therapy Centre and Palliative Care	Liverpool Cancer Therapy Centre and Palliative Care
<i>Social Work</i>	Jenella Cottle Jacinta Humphries	Teresa Simpson Terasa Gardner Kim Brauer Simone Hallett Debra McAuley
<i>Dietetics</i>	Rebecca Phillips Kit Lai Jean Reid	Katherine Pronk
<i>Speech Pathology</i>	Armalie Muller Alison McGillicuddy Justine Vella	Candice Baxter Donna Rom Katherine Kelly
<i>Occupational Therapy</i>	Clare Sedel Katie Faddy Rebecca Tyson Catherine O’Sullivan Stacey Wheeler Megan Holt Catherine McLeay	Megan Jones Monica Vasquez
<i>Physiotherapy</i>	Janet Chan Rotating provision of service	Theresa Yong Jerric Leav
<i>Clinical Psychology</i>	Astrid Przewdziecki Mariad O’Gorman	Astrid Przewdziecki Gerald Au Mariad O’Gorman

## NURSING – Liverpool Cancer Services

In the previous year there have been several staffing changes. Carol Ryman has concluded her two year secondment as acting Nurse Unit Manager (NUM). We would like to extend our warmest appreciation for the work she put in. Justine Kemsley returns as NUM from maternity leave on reduced hours (three days per week) and Aura Serrano is acting NUM two days per week.



**Justine Kemsley**  
BA Nursing, Grad Dip Man  
*Nursing Unit Manager*

Lenore Knapman, the outpatient Clinical Nurse Educator, has been seconded to the colorectal care co-ordinator position to relieve Sharon Cassar on Maternity leave. Betty Silaphet has been covering the CNE position in Lenore's absence. This has meant a lot of personal and professional development for all the nursing staff involved in acting in higher positions. It has also helped cancer services provide some succession planning for future movements.

Rhonda Eke attended a course on gynae-oncology, an area of interest for her, and was able to feed back a lot of information to the staff.

Our strong ties with Grimson Ground East (GGE) have seen the development of good team building events such as the City to Surf. The staff participated to raise awareness for The Cancer Therapy Centre and marched together in purple. It was a fantastic sight. We look forward to further events together.

### RADIATION BAY AND DAY CENTRE STAFF

<b>Nurse Unit Manager</b> Justine Kemsley <i>Acting Carol Ryman</i> <i>Acting Aura Serrano</i>	<b>Clinical Nurse Educator</b> Lenore Knapman <i>Acting Betty Silaphet</i>	<b>Haematology Clinical Nurse Consultant</b> Patricia Ryan	<b>Registered Nurses</b> Joanne Bartley Rhonda Eke Monica Fowler Meghann Lang Danielle Martens Vinodini Onawale Aura Serrano Betty Silaphet Amy Wholohan
	<b>Enrolled Nurses</b> Amanda Baldwin Carol Doherty Yvette Furney	<b>Oncology Nurse Consultant</b> Vacant	

### CARE CO-ORDINATORS

Breast	Anne-Marie Griffin	Haematology	Alicia Cianflone
Colorectal	Sharon Cassar, <i>Acting Lenore Knapman</i>		
Genito Urinary	Vacant	Head & Neck	Luci Dall'Armi
Gynae Oncology	Rosemary Craft	Lung	Vacant



GRIMSON GROUND EAST STAFF

**Nursing Unit Manager**  
Tania Luxford

**Clinical Nurse Specialists**  
Karen Baker  
Sally Carey  
Gai Fairnam  
June McEachern  
May Valdez

**Ward Clerk**  
Beverley Ryan

**Registered Nurses**  
Liza Allan  
Dianne Coller  
Kelly Follers  
Rhoda Gamildien  
Hang Gilbang  
Emma Giddy  
Edith Hawker  
Allison Hill  
Sara Hitchcock  
Joan Losloso  
Evelyn Macey  
Aaron Manson  
Georgina Rees  
Mayra Reyes  
Milagrous Rivero  
Phillip Wearden

**Undergraduates**  
Vanessa Beesley  
Melissa Gil  
Sara haji-Mohamed  
Vanessa Sammut  
Meghan Sandoz  
Iris Selby  
Kim Sharkey

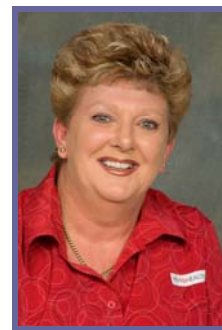
**Enrolled Nurses**  
Erin Higgins  
Nardy Lucero  
Sladjana Starcevic  
Aimee Torres  
Margaret Wilkes

**NURSING – Macarthur Cancer Services**

The past year has been a time of further change and development within our nursing team. Our staffing levels have fluctuated periodically due to pregnancies and deliveries, staff transfers and resignations.

**Achievements:**

- Macarthur Cancer Therapy Centre (MCTC) nursing staff continues to provide ongoing support and input into the development, implementation and evaluation of 'MultiAccess' (our upgraded electronic information system). An electronic system for receiving and making patient treatment bookings has been implemented after a successful trial of the system by MCTC nursing staff. This new system eliminates the need for paper request forms. A 'MultiAccess' education package has been developed and implemented for MCTC nursing staff.
- An Acute Ambulatory Nursing Assessment Unit was opened in MCTC in March 2008. The Assessment Unit operates from 0830 to 1700 Monday to Friday and provides assessment and management of toxicities and complications for patients receiving chemotherapy and/or radiation therapy.



Denise Burns  
RN, RMN, ROncN  
Nursing Unit Manager

- A Young Adult Cancer Support Group (YACS) has been implemented as a combined nursing/social work initiative. The purpose of the group is for young adults with cancer who have either completed or are receiving treatment to be able to meet and discuss/share concerns that are relevant to this group of clients.
- A Vascular Access Device training program has been implemented within Emergency Department and various ward areas of Campbelltown Hospital. This has facilitated Emergency Department and ward staff being trained and credentialed in the management of Vascular Access Devices, therefore providing the best quality care to cancer patients who have such devices. Designated 'Superusers' within these ward areas are now training and credentialing nominated staff members within their specific areas.
- A number of new policies and procedures have been developed and implemented eg administration of specific medications. Monthly quality audits are completed, documented and evaluated.
- Twice weekly nursing in-services have been conducted with presentations from the medical, nursing, allied health, community and pharmaceutical companies.
- Annual chemotherapy re-credentialing continues, this quality activity ensures that the nursing staff who administer cytotoxic agents are aware of and are practising current up to date best practice. There is documented evidence of competency.
- Karl Jobburn, our Clinical Nurse Educator, attended the EdCan (Cancer Education) Network Workshop in Melbourne. The workshop is a Federal Government funded cancer nursing education initiative.
- A number of MCTC Nursing Key Performance Indicators have been developed and implemented.

Nursing Unit Manager	Registered Nurses	
Denise Burns	Yamileth Aguilar	Gail Dwyer (part-time)
	Carly Allen	Caroline James (part-time)
Clinical Nurse Educator	Diana Aston	Jennifer Mitchell (part-time)
Karl Jobburn	Kelly Bourke	Chong Noi Peacock
	Elspeth Carson	Melanie Poyntz (part-time)
	Linda Craig (part-time)	Suzanne Rochfort
	Bernadette De Souza	

## PHARMACY – Liverpool Cancer Services

The Cancer Therapy Centre has gone through another staff change with Rebecca Grundy taking over from Sugantha Thumbadoo as Senior Pharmacist in October 2007. In addition to the usual services, we are providing a more complete pharmaceutical service to patients. Oncology patients are now able to collect their medications (both oral and injectables) from the one pharmacy – CTC pharmacy. Since October 2007, all new oncology patients have been scheduled to have an interview with a pharmacist prior to treatment in order to receive education on their anti-emetics and chemotherapy treatment - this service has recently been reviewed by means of a patient satisfaction survey.

The future aim is to provide a complete education to patients and their carers and make them aware that pharmacy is available and accessible for patients. We continue to ensure that clinical review occurs for cytotoxic medication orders and the pharmacy maintains its advisory roles for nursing, doctors and patients alike.

Senior Clinical Pharmacist	Rebecca Grundy
Clinical Pharmacist	Vivien Tran
Pharmacy Technician	David House

## PHARMACY – Macarthur Cancer Services

Staffing levels have remained the same this past year with 1.5 FTE Pharmacists (Pirkko Boyd and Brett Ly) and a 1.0 FTE Pharmacy Technician (Debra Vandine). This year we have continued to see growth in the number of chemotherapy treatments being ordered and administered (by approx 20 %).

We continue to use the Multi-Access program for our chemotherapy ordering. We have added some improvements to the way we order, using the Pharmacy Worklist report, which is a step closer to paperless ordering. Some improvements to our workflow have been introduced and we have seen an increase in our documentation of interventions and occasions of counselling via entry into Multi-Access patient schedules.

A quality project is planned for 2008-2009 which involves collecting data from patients regarding the use of chemotherapy and concomitant Complementary medicines (CAMS). This data should be available for analysis in September 2009.

We continue to participate in the Multidisciplinary team meetings discussing patient care, contribute to protocol development, provide drug information to patients and staff and provide patient counselling and drug interaction checks. This year has seen an increase in clinical trials participation and pharmacy involvement in their implementation.

Senior Oncology Pharmacist	Pirkko Boyd
Clinical Pharmacist	Brett Ly
Pharmacy Technician	Debra Vandine

## EDUCATION

*Sandra Avery  
Business Manager*

Patient education and support groups are continually evaluated and programmes developed each year. Response rates from these groups directs the frequency and content for delivery of further patient support groups and education sessions. Macarthur produced a patient orientation DVD to provide patients with what to expect of the service and a similar concept will be produced for Liverpool next . New programmes run for the first time this year include the Keep In Touch (KIT) group and Young Adult Support group in Macarthur. Specific printed information will be reviewed again next year with a major focus on individually tailored packs for patients, and translated material.

The Education Committee co-ordinated an oncology-specific staff orientation programme to give new staff a complete introduction to the service, and plans are underway to develop this orientation day into a CD ROM format for wider access. There is a multitude of in-services and training for cancer services staff that is co-ordinated by the education committee members, with a weekly education bulletin sent to all staff listing all the programmes scheduled for the week. Some of the open programmes include:

- Multi-disciplinary team discussions for Breast, Lung, Genito-Urinary, Gynaecology Oncology, Head & Neck, Upper Gastrointestinal
- Radiation Oncology Interesting Cases/Audit Meeting
- Regular Inservice sessions:
  - Tuesday and Thursday Nursing education programmes
  - Radiation Oncology Registrar Tutorials weekly for part 1 and 2 candidates
  - Medical Physics Research Meeting
  - Nurses Palliative Care Education
  - Radiation Therapy In-Service Program
- Wednesday morning education/journal club meetings which showcase research, QA, updates on clinical advances, changes in procedure (see below for some examples). These are managed using a combined public calendar, which is located under clinical services for the SSWAHS, and presentations from all the sessions are available on the public folders, and soon will also be made available to staff on the new website for cancer services.

Speaker	Organisation	Topic
Merran Findlay	Senior Dietitian Oncology RPA	Around the Head and Neck World in 80 days - A dietitian's international study tour
Dr Farah Magrabi	Senior Research Fellow Centre for Health Informatics, UNSW	Quality and Safety of Clinical Software Systems
Associate Professor Sharon Kilbreath	Discipline of Physiotherapy, Faculty of Health Sciences, University of Sydney	Rehabilitation following breast cancer
Associate Professor Ida Ackerman	Department of Radiation Oncology, University of Toronto, Canada	Adjuvant pelvic radiotherapy in endometrial cancer – is it dead?
Kim Faulkner	Cancer Institute, NSW	Overview of the Standard Cancer Treatment Programs (CI-SCaT) with focus on Radiation Oncology
Professor Michael Barton	Research Director, CCORE, Liverpool Hospital	WHO Radiotherapy Safety Initiative
Georgina Fenton	Genetic Scientist, Liverpool Hospital	Overview of the new SSW Hereditary Cancer Service and review of cancer genetics
Astrid Przedzdiecki	Clinical Psychologist, Liverpool Hospital	Perspectives on Clinical Psychology Services amongst Uro-Oncology Multi-disciplinary team clinicians
Gunjan Tripathi and Janice Low	NSW Cancer Council	Community Engagement and Capacity Building in Cancer: Present and Future plans of the Cancer Council NSW
Professor Johanna Westbrook	Health Informatics Research & Evaluation Unit, University of Sydney	Measuring the impact of health information and clinicians work
Dr A Hamilton & N Sansey	Clinical Cancer Research Support Program	Update on Program

## INFORMATION TECHNOLOGY

*Dr Allan Fowler  
Chair*

The committee works to an Information Management and Technology (IM&T) plan based on directions from the Cancer Services planning day. A major focus is the continued development of the electronic medical record (EMR). The committee has established several working groups, including the Oncology Information System group, Document Management group and the Electronic Billing Optimisation group. The committee meets regularly to review current IT status and plan for future needs.

After several months of planning, the team realised a major upgrade of our patient information system from Lantis to Multi-Access (MA8.3). The upgrade was choreographed over a long weekend to avoid any disruption to services, and has given our system improved functionality and streamlined processes. MA8.3 facilitates a comprehensive electronic medical record, replacing the paper record. This has been gradually rolled out at Macarthur, Bowral and Bigge Street Oncology who are now able to operate a completely paperless clinic consultation. Every document is scanned in at the central office, and viewed immediately by the specialist for their clinic. Patient treatment consents are also imported to the electronic media. Haematology are using the system, and are starting on the scheduling module, with successful training sessions to date with Haematology Specialists progressing through the detailed patient notes training.

Macarthur are trialling electronic Chemotherapy orders, funded by a successful innovation grant, which has revealed immediate results in the improvement of accuracy and timing of chemotherapy pharmaceuticals.

A new Linear Accelerator arrived this year at Liverpool to replace our oldest machine, and came with upgraded hardware to support it. This has benefited the department enormously, and enabled delivery of new technology to sustain the system into the future. Cancer Service has developed an IT Hardware & Equipment Database to track the age and location of equipment which will assist in future replacement programming.

Development of new methodologies enabled us to review and decommission the Simulator at Liverpool, eliminating maintenance and replacement costs associated with this equipment.

A lot of work has gone into the development of a new website for Cancer Services, which is expected to go live within a month, linking all the Cancer Services offered in Sydney South West Area Health Services.

Voice recognition software was trialled at Macarthur this year, to address the delivery of timely information to referring practitioners. With such great results, this system will be rolled out to other users, to assist with speedy correspondence. To further support improved correspondence output, internal referrals and templates are now used within our patient information system to

facilitate fast reproduction of information, and reduced burden on the limited transcription service. The existing dictation and transcription system, Winscribe, has been upgraded.

With an ever increasing number of users and increased complexity of IT services provided, major technical enhancements to the network infrastructure have also been required. Improved methods for data back-up and disaster recovery have been implemented. Major improvements to video-conferencing capabilities have also been made to facilitate communication between the two main centres.



IMT Committee: Alison Pryor, Nasreen Kaadan, Dr Allan Fowler, Janice Warner, Adam Stanzione, Sandra Avery, Pham Sayaloune and Lynette Cassapi. Absent: Gary Goozee.

## QUALITY

*Sandra Avery  
Business Manager*

The Quality Committee met eight times throughout the year, and has developed a quality action plan, incorporating strategies from the combined planning day in May 2008 and the radiation oncology planning day in February 2008. There were 12 policy reviews tabled, and Radiation Therapy is developing a Wiki to enable improved search capabilities for all procedures. CI-SCaT (Cancer Institute Standard Cancer Treatments) is being used throughout Oncology, with clinicians contributing to the review and development of the treatment protocols that exist on the website. There are several groups that report to this Committee, including monthly Mortality and Morbidity meetings, Radiotherapy Quality Improvement meetings, and various incident and programme development meetings.

Regular audits and activity reports are collected and reported through the Quality Committee. Key Performance Indicators for Radiation Oncology and Administration continue to be developed and expanded to provide meaningful and useful activity measures, and Medical Oncology and Palliative Care now have consistent KPIs that are reported to Area Cancer Services, as well as community indicators that were agreed through the Transition Committee, to be used for benchmarking in 2008/2009.

Allied Health and community access to medications has been agreed for Palliative Care, improving the care pathways for home care. The End of Life Pathway was initiated in the Oncology Ward at Liverpool, and the tools have been sent to an international independent auditor for benchmarking.

Quality projects this year include:

- A telephone response audit, which led to improved call direction.
- Ongoing improvements to the electronic patient record include form letters, electronic internal referrals, electronic billing and treatment summaries and review of medical oncology and chemotherapy scheduling. Voice recognition software was piloted this year, with encouraging results. It is expected that this will be rolled out across the service to reduce transcription turnaround.
- Patient satisfaction feedback forms are now collected at Macarthur and Liverpool, and the Quality of Life questionnaires are being used as an indicator for appropriate patient referrals to social work and psychology services.
- A Staff satisfaction survey was administered earlier this year. This demonstrated that most staff were very passionate about their workplace and motivated by the outcomes of their work within the centre. The environment was the main concern for most staff, and this feedback has been considered in the new Liverpool Hospital development scheduled for 2010.

- The terms of reference for Cancer Services' peak committees was reviewed in February, and each committee reports their key decisions and progress to the Management committee.
- The Visible Management programme continued, with scheduled walk-arounds within each department to record quality improvements, issues and workflow.
- The Communication meetings and newsletters continue to provide staff with ongoing updates and provides the service a feedback forum.
- The valued employee of the month programme acknowledges staff for outstanding effort, the elected nominees are announced at the quarterly communications meetings, along with new staff, retiring staff, and highlights across the service.

## Employees of the Month/Year

### LIVERPOOL EMPLOYEES OF THE MONTH 2007/2008

<i>July 2007</i>	Adam Stanzione	<i>January 2008</i>	Joanne Barron
<i>August 2007</i>	Dr Richard Eek	<i>February 2008</i>	Janice Warner
<i>September 2007</i>	Virendra Patel	<i>March 2008</i>	Vicky Batumalai
<i>October 2007</i>	Zelja Jankovic	<i>April 2008</i>	Daniel Moretti
<i>November 2007</i>	Kathryn Caldwell	<i>May 2008</i>	Amanda Baldwin
<i>December 2007</i>	Leanne Aarts	<i>June 2008</i>	Phan Sayaloune

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*Employee of the Year 2007*      Narelle Barnett

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### MACARTHUR EMPLOYEES OF THE MONTH 2007/2008

Denise Burns	Maria Martinez	Debra Vandine
Tina Coppard	Annette Ryan	Andrew Wallis
Kit Lai		Angelina Zaripova

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## MULTIDISCIPLINARY CARE

The services within the Cancer Therapy Centre have also been integral to the development of multidisciplinary care for cancer patients presenting within the area. Clinicians involved with the various tumour sites have developed multidisciplinary teams and treatment protocols to better standardise care and to allow a forum for discussion and debate about the latest innovations in cancer care. Short summaries of their major achievements to date are presented below. Plans are already in place to improve services and integrate our multi-disciplinary model with the plans of the NSW Cancer Institute.

### BREAST CANCER

*Anne-Marie Griffin  
Breast Cancer Care Co-ordinator*

Breast cancer remains the most common cancer in women. Over the past ten years our service has managed approximately 2,500 new cases of breast cancer. Consultative services are provided at Liverpool, Fairfield, Bankstown, Campbelltown and Bowral. Our Multidisciplinary Team (MDT) meetings provide video-links between Liverpool and Macarthur Cancer Therapy Centres. There is also a Breast MDT meeting at Bankstown Hospital.

We are active in recruiting patients to clinical trials, both national and international, exploring the role of new drugs as well as different surgical and radiotherapy techniques. We are currently analysing the large database of patients treated in our centre. Our plan is to record this valuable information into an electronic format that will allow outcomes to be measured and foster ongoing research within the centre. This initiative will also allow us to perform quality control audits, which in turn, will allow us to better document the high standard of care that our patients deserve.

The breast cancer group have been successful in securing funding for a breast cancer nurse from The McGrath Foundation. The funding will be for a four year period, working in the Macarthur and Bowral areas.

The Sydney South West Hereditary Cancer Clinic has commenced with a full time genetic counsellor working based between Liverpool and Royal Prince Alfred Hospitals. They are in the process of recruiting a Geneticist to the service. The clinic is accepting referrals for individuals where a genetics consultation would be valuable.

### COLORECTAL CANCER

*Dr Andrew Kneebone  
Senior Staff Specialist, Radiation Oncologist*

The cornerstone of the South Western Sydney (SWS) Colorectal Tumour group's success continues to be a prospective database of all colorectal patients operated in Sydney South West Hospitals from 1997 onwards. More than 2,500

patients are registered onto the database documenting excellent outcomes for SWS patients compared to national averages. Outcome data has recently been updated and reports are planned for the 1997-2005 cohort of patients. The database is now managed by the new area registry. A lot of work is being performed to enable this to be a totally electronic system linking all existing area databases and electronic submission of data by surgeons.

High quality research is now being produced from this database with multiple publications looking at overall outcomes, the impact of emergency versus elective surgery, radiotherapy and chemotherapy utilisation and other factors impacting on outcome such as radial margins, ethnicity, surgeon experience and female menopause. With mature data now available, plans are underway to utilise the colorectal tumour bank in which fresh specimens from nearly 400 patients are collected.

The group has the services of a colorectal care co-ordinator and holds regular fortnightly multidisciplinary meetings at Liverpool Hospital. Since the formation of the new area health service, there has been excellent good will and collaboration with the colorectal units at Concord and Royal Prince Alfred Hospitals. The Western Zone is receiving due recognition for its experience in advanced surgical techniques such as laparoscopic colorectal surgery and Trans Endoscopic Micro Surgery (TEMS).

Significant challenges however still exist including the lack of stomal therapy resources in the Western Zone, the lack of funding for a colorectal surgical unit including a surgical fellow and no genetic counselling services for high risk colorectal families though funding for this has recently been obtained. Further work also needs to be performed in developing site specific protocols and promoting educational colorectal programmes.

## GYNAECOLOGICAL CANCER

*Dr Felix Chan  
Director of Gynaecological Oncology*

The unit has weekly multi-disciplinary team meetings to discuss the management of patients. The pathology of patients who are newly diagnosed, received recent surgery or developed recurrent disease are discussed. Their management plan is established and on-going psycho-social follow up is carried out. A teleconferenced morbidity and mortality meeting is carried out between the western and the eastern zone every month to discuss the management of interesting cases. With the growing number of patients with complex health problems who present with gynaecological cancer, this poses an ongoing challenge to the team. Ongoing psychological support is paramount to ensure the patient recovers from the emotional impact of the diagnosis and treatment.

## HAEMATOLOGICAL MALIGNANCIES

*Alicia Cianflone  
Haematology Care Coordinator*

Multi-disciplinary care continues to be an essential component to the planning of care of patients with haematological malignancies. Dr David Rosenfeld leads the haematology tumour group. Alicia Cianflone joined the haematology team in June this year as the new Haematology Care Coordinator. The Haematology Care Coordinator role is an essential component of MDT care and ensures continuum of patient care through assessment, planning, documentation of patient care, patient education support and referral to appropriate members of the health care team.

The Haematology Tumour Group holds weekly MDT meetings at Liverpool Hospital to discuss patient care and treatment planning for patients from across Sydney South West Area Health Service Western Zone. This consists of the

lymphoma MDT meeting, followed by the inpatient MDT meeting. The Haematology Tumour Group comprises of Haematologists, Radiation Oncologists, Nuclear Medicine, Radiologist, Registrars, social worker and specialist nursing staff.

The aim of the Haematology Tumour Group is to provide a comprehensive service for people diagnosed with a haematological malignancy. The team endeavours not only to provide patients of the area with timely diagnosis, treatment and ongoing management, but also to deliver psychosocial assessment and support, utilising all appropriate members of the health care team.

Patricia Ryan has taken on the new role of Haematology Clinical Nurse Consultant (CNC) and commenced in February 2008. The Haematology CNC role is integral to the haematology group, coordinating care for patients requiring Bone Marrow Transplant (BMT). Patricia is also currently involved in reviewing and updating haematology policies as well as providing a valuable resource for staff looking after patients with haematological malignancies.

The Haematology Support Group runs monthly meetings and is lead by our Social Worker, Terasa Gardner. This year various members of the haematology support group plan to start a regular patient Bone Marrow Education session for patients requiring Autologous BMT. I would like to welcome the addition a new Clinical Haematologist Silvia Ling. We are hopeful that we will see the addition of more Clinical Haematologists in the near future.

The Haematology tumour group continues to have strong representation by various clinicians on state and national initiatives including the Cancer Institute, BMT and Haematology reference groups, NSWOG Haematology group, the Cancer Institute Patient Education working party and BMT Network committees and working parties. We also continue with BMT meetings via video-linked monthly with Royal Prince Alfred and Concord Hospitals and are working towards joint protocols and care pathways.

The Haematology group members include:

<b>Clinical Haematologists</b> Dr David Rosenfeld Dr Lindsay Dunlop Dr Anne Marie Watson Dr Penny Motum Dr John Giannoutsos Dr Silvia Ling	<b>Haematology Registrars/Residents</b>
	<b>Senior Nurses</b> Patricia Ryan, Haematology CNC Alicia Cianflone, Haematology Care Coordinator Phil Wearden, Acting Nurse Unit Manager GGE Justine Kemsley, Nurse Unit Manager Aura Serrano, Acting Nurse Unit Manager
<b>Radiation Oncologists</b> Professor Michael Barton Dr Annie Lee Dr Eng-Siew Kho Dr Mark Sidhom	<b>Nuclear Medicine and Radiology Representative</b>
	<b>Allied Health</b> Teresa Gardner

## HEAD AND NECK CANCERS

*Luci Dall'Armi*

*Cancer Nurse Coordinator, Head & Neck Tumour Programme*

The Head and Neck (H&N) Tumour Programme has undergone considerable further development in 2008. Multidisciplinary clinics are held weekly where patients referred to the clinic can be seen by specialist H&N oncology surgeons including the recently appointed Ear, Nose and Throat (ENT) surgeon with H&N experience, radiation oncologists, an oral medicine and pathology specialist, cancer nurse coordinator and speech pathologist at the initial visit. During the year visiting surgical fellows from the United Kingdom and Canada have also participated in the multidisciplinary team. This team approach ensures that patients are given appropriate options for treatment and minimises waiting times. Multidisciplinary team meetings are held fortnightly for case discussions, which also ensure patients receive optimal care according to best evidence. Plans are underway to introduce a regular academic component to enhance the professional development of the group. Both the clinic and meetings are used for teaching purposes and are attended by a number of registrars in H&N and ENT surgery, Radiation oncology, and oral medicine and pathology.

Rehabilitation following treatment has received greater emphasis with a combined dietitian and speech pathology clinic. In addition, a combined nursing and allied health pre-treatment clinic is in the planning stages in order to capture and assess the needs of high-risk patients with complex needs prior to receiving treatment.

Major challenges for the H&N tumour group are the continuing need to modernise treatment techniques, particularly with the delivery of radiotherapy. Intensity modulation radiotherapy (IMRT) is a more sophisticated means of delivering radiation which has been shown to have better outcomes with reduced side effects. IMRT is fast becoming a standard of care for head and neck cancer internationally and within Australia. IMRT has recently been made available in

Liverpool and Campbelltown. A generous donation from the Cabra-Vale Ex-Active Servicemen's Club Ltd has recently allowed the purchase of additional sophisticated nasopharyngoendoscopy equipment which allows viewing of a patient's inner nose and throat to assist with diagnosis.

Supportive care for patients is being enhanced through the Cancer Institute NSW Oncology Group H&N funded project. The project involves a qualitative study of H&N patient and family members' information needs and psychometric evaluations. The aim is to develop a specific information resource for this poorly supported group of patients.

## LUNG CANCER

*Shalini Vinod  
Senior Staff Specialist, Radiation Oncology*

The multidisciplinary lung cancer group meet weekly with video-conferencing between Liverpool and Campbelltown Hospitals. The group consists of respiratory physicians, cardiothoracic surgeons, radiation and medical oncologists, palliative care physicians, radiologists, nuclear medicine physicians, registrars, allied health care workers and the care coordinator. The group follows written protocols for management of lung cancer patients.

Services for lung cancer patients include the introduction of image co-registration of PET and CT imaging, cardiothoracic surgery, respiratory medicine, radiotherapy (including endobronchial brachytherapy), chemotherapy, allied health and palliative care.

The group is active in lung cancer research and education, with the radiation and medical oncologists enrolling a large number of patients into clinical trials that test new drugs and radiotherapy treatments. Data is collected from patient presentations at the Multidisciplinary Team Meetings for ongoing audit and research to ensure quality of care. Other activities include GP education sessions and patient support groups.

## NEURO ONCOLOGY

*Dr Eng-Siew Koh  
Neuro Oncology Tumour Stream Leader*

The Western Zone Neuro Oncology Multi-Disciplinary Team (MDT) meets fortnightly with representation from Neurosurgery, Radiation Oncology, Medical Oncology, Palliative Care, Pathologist Dr Alar Enno, Radiologist Dr Ramesh Cuganesan, Neurosurgical Nursing and Social Work. Meetings are chaired by Dr Eng-Siew Koh, Radiation Oncologist, who has also taken over the role of Tumour Stream Leader.

The MDT has benefitted from a more streamlined approach which has increased case capture and discussion of particularly benign tumour cases. A database of cases discussed at the MDT has now been established with stronger links to the Area Clinical Cancer Registry being promoted.

An MDT Project Grant from the NSW Cancer Institute entitled "Addressing the Cognitive and Behavioural Sequelae of the Adults with Brain Tumour: Trialling a Behavioural Consultancy Model" has been a very successful collaboration between co-investigators Dr Grahame Simpson (Research Fellow, Brain Injury Rehabilitation Unit), Dr Diane Whiting (Clinical Neuro-psychologist), Kylie Wright (Neurosurgical CNC), Teresa Simpson (Senior Oncology Social Worker) and Kathryn Younan (Project Officer). The project has reached its target recruitment, with both Carer and Health Professional workshops held in August 2008, and the development with 16 unique Fact Sheets to be disseminated widely.

The role of Neuro Oncology Care Coordinator has been funded from a NSW Cancer Institute Health Innovations Grant as a pilot project with the position still undergoing recruitment. In the interim, Teresa Simpson has continued to be an invaluable member of the team fulfilling the role of 'proxy' Care Coordinator and providing excellent administrative support.

The Brain Tumour Support Group coordinated by Kylie Wright and Teresa Simpson celebrated its fifth year anniversary in September 2008, and continues to hold successful monthly sessions admixed with social outings.

Members of the MDT continue to be active participants in Neuro Oncology NSWOG as well as the recently established Cooperative Trials Group for Neuro

Oncology (COGNO). Liverpool Hospital is now also a participating site for the NCIC-EORTC-TROG multi-site phase III trial in Low Grade Glioma.

Professor Barton and ex-MDT member Dr Hovey have invested significant time in overseeing the development and drafting of the "Clinical Practice Guidelines for the Management of Adult Gliomas: Astrocytomas and Oligodendrogliomas", supported by the Australian Cancer Network, Cancer Council Australia and COSA. The guidelines will be officially launched at the annual COSA meeting in November 2008.

## UPPER GASTRO INTESTINAL

*Associate Professor Neil Merrett  
Area Director, Gastroenterology and Liver Services  
Area Head Upper Gastrointestinal Surgery*

### Overview

Area plan continues as per the Way forward with concentration of Upper Gastro Intestinal (GI) surgical services in Bankstown and Liverpool. There is ample evidence in the literature that outcomes are closely linked with throughput, and in the writing of the Upper GI plan, this was a significant component of planning. It was thought that to maximise this "clinical economy of scale" we should have one major pancreatic centre, one hepatic centre, and two oesophagogastric centres. Bankstown has developed as the unit with expertise in pancreatic and oesophagogastric tumours. Liverpool is developing more expertise in hepatic and benign surgery but still has a significant presence in gastric tumours. Cooperation with the Eastern Zone hospitals has also been sought with complex liver resections (trisegments and central resections, and large hepatomas).

Close linkages have been maintained with the gastroenterologist, oncologists and radiotherapists. MDTC clinics have been established and are functioning well. Area linkages for patients at Macarthur and Fairfield have been maintained and strengthened.

Diagnostic equipment includes routine endoscopic equipment, ERCP, EUS (Bankstown), DBE (Bankstown), intraoperative ultrasound. Full range of nuclear medicine facilities at Bankstown and Liverpool. PET scanner at Liverpool. Multidetector CT (Bankstown scanner upgraded June 2008) and MRI scanners (Bankstown application approved and due for installation late 2008).



The reputation of the unit can be gauged by the interest expressed by overseas self funded fellows and a swap with Ninewells Hospital Dundee for post fellowship trainees.

**Workload**

Bankstown is currently the largest resectional unit for pancreatic tumours in Australia, and is the second largest resectional unit for Oesophagogastric tumours in Australia. In 2007 49 oesophageal and gastric resections; 39 pancreatic resections; 30 bypass procedures were performed at Bankstown. In addition to these 11 gastric and 8 pancreatic resections were performed at Liverpool. A further 18 liver resections were also performed at Liverpool with 3 at Bankstown. This gives an unparalleled experience in upper GI oncology.

**Outcomes**

A prospective database of the Bankstown experience of oesophageal and gastric resections has been kept since 1996. Survival for all patients has been confirmed by correlation with Cancer Registry and BD&M. This has been analysed to October 2007. Results are as shown:

269 resections for tumours:

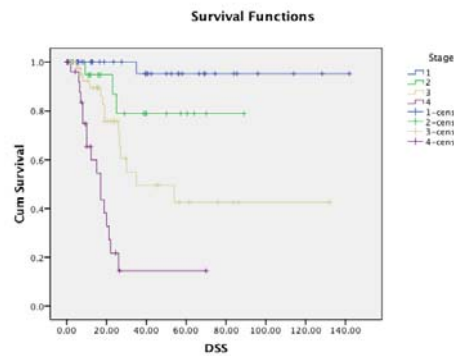
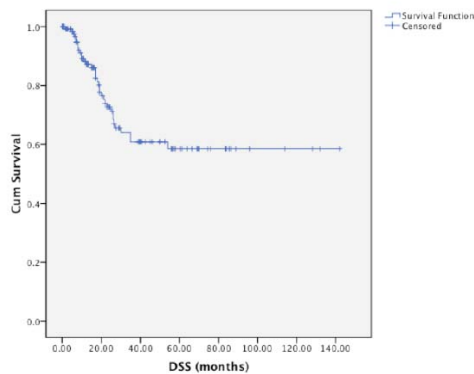
- 134 Gastrectomies for adenoca
- 79 oesophagogastric resections for scc & adeno
- 32 GIST tumours
- 10 lymphomas
- 14 other tumours (carcin x4, sarc x2, panc x7)

Figure 2 shows the overall 3 and 5 year survival of 63 and 59% respectively. This is compared with a NSW 5 year survival of 30% for resected gastric tumours.

Survival by stage is demonstrated in figure 3 Survival Time. Stage 1: 3 year and 5 year both 95.2%; Stage 2: 3 and 5 year both 78.9%; Stage 3: 3 year: 49.5% and 5 year: 42.4%; Stage 4: 3 and 5 year: both 14.5%.

These figures are comparable to Japanese data and equal or better than most Western series.

Figure 2: Kaplan-Meier Curve for Gastrectomy Patients  
3-year survival: 61%, 5-year survival: 59%

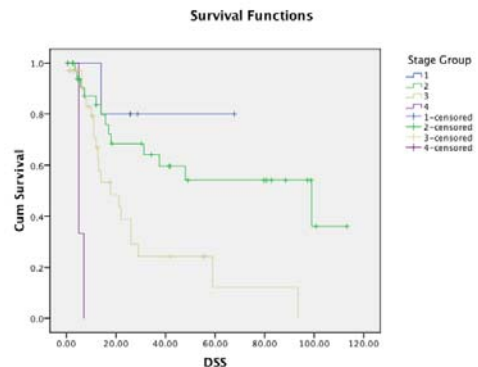
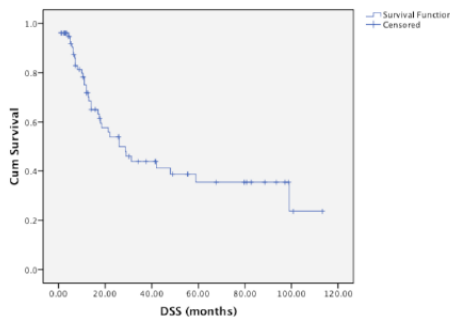


Oesophageal resectional results are outlined in table 2 with a 3 year survival of 46% and a 5 year survival of 38%. This compares with NSW 5 year survival of 24% for operable oesophageal tumours.

Stage specific survival is illustrated also with Stage 2: 3 year: 64.1% and 5 year: 54.1%; Stage 3: 3 year: 24.2% and 5 year: 12.1% (Note: number is too small to determine the 3 and 4 year survival for Stage 1 and 4.)

Again these figures are comparable to international series.

Figure 1: Kaplan-Meier Survival Curve for Gastro-oesophagectomy  
3-year survival: 46%, 5-year survival: 38%





The data for pancreatic resections and GIST tumours are currently being analysed as part of research projects and will be available later this year.

#### **MDTC Clinics**

Upper GI MDTC clinic was established in 2003. A weekly meeting is held at Liverpool with attendance by all Upper GI surgeons, and representatives of medical oncology, radiotherapy, radiology, nuclear medicine, anatomical pathology, gastroenterology and allied health. Approximately 85% of upper GI malignancies are discussed at this meeting at some time during the patient journey. A paper based system of records is kept. In the absence of any support from cancer services for the support of this meeting, no electronic database of these meetings are kept.

In view of the demand and size of the service, a second MDTC meeting has been established on a weekly basis at Bankstown.

#### **Cancer Care Coordinator**

A position (0.5) has been established after negotiation between the Director of Gastro and Liver and the CE. This will be combined with a 0.5 research position funded by the Garvan institute. The position has been advertised and will be appointed shortly.

#### **Patient Support Group**

In collaboration with the NSW Cancer Council a pilot program of Pancreatic Cancer Support group has been established at Bankstown Hospital. As part of this, a comprehensive information pack containing information on pancreatic cancer is distributed to patients suffering from this condition by the oncology nurses and the Upper GI surgeons rooms.

#### **Oncology and Radiotherapy**

Close relationships exist with all three cancer centres at Macarthur, Liverpool and Bankstown with patient referrals based on patient address and expertise. Neoadjuvent and adjuvant protocols have been agreed and are discussed at MDTC meetings.

Patients are considered and entered into clinical trials and the unit have been active participants in these trials.

Radiofrequency ablation is offered at Bankstown hospital, Chemoembolisation and SIRC sphere therapy are novel therapies which are available and utilised at Liverpool Hospital as per agreed protocols.

#### **Research**

There is an extensive research program in upper GI tumours. This includes currently work on two MS dissertations and a Phd Student. In addition two Cancer Institute Fellowships were awarded to Bankstown Hospital for studies on FNA biopsies and molecular markers in pancreatic cancer, and studies on gastric cancers.

Tissue bank of Pancreatic and oesophageal and gastric tumours has been established in collaboration with the Garvan Institute, and ongoing

collaborative research is occurring between the Upper GI unit and the Garvan Institute and also separate research projects with the pancreatic research group at UNSW.

**Future Directions**

It is anticipated that the service will continue to expand in SW Sydney building on the strengths which exist in Bankstown. The paradigm of linking large clinical units with existing strong research centres such as the Garvan has been highly successful and will be continued as a new way forward in oncology research avoiding duplication and enabling easier translation of research outcomes to clinical practise as well as forging closer links between scientists and clinicians.

Similarly it is hoped that the success we have had in attracting Cancer Institute Fellowships will continue as well as the overseas fellow programs.

Support for data managers and care coordinators from the cancer stream would be appreciated as the creation of the MDTC clinics and cancer coordinators has been driven and funded by the surgical specialists. Similarly we anticipate making the MDTC clinics linked by teleconferencing in the next year to link Macarthur better into the Upper GI network.

The Liverpool redevelopment gives further scope for expansion, but with the other demands on Liverpool by other services, the large trauma load adding to unpredictability of beds, particularly in ICU means that in the bulk of the upper GI oncology will be performed at Bankstown. Over the next 5–10 years, the expansion of Campbelltown to Bankstown sized Hospital with the relationship with UWS means that we will aim to establish specialist Upper GI surgical presence there probably with gastric surgical oncology and this will commence with cross appointments.

## UROLOGY ONCOLOGY PROGRAM SWS

*Kate Tynan  
Project Manager*

The Urology Oncology Program South West Sydney covers patients with prostate, bladder, renal and testicular cancers and has a dedicated multidisciplinary group working to improve patient outcomes. The team leader is Dr Lawrie Hayden.

Our Genito Urinary members are:

<p><b>UROLOGISTS</b> Dr Paul Gassner Dr Lawrie Hayden Dr Nestor Lalak Dr James Wong Dr Kayvan Haghghi Dr David Jefferson</p>	<p><b>RADIATION ONCOLOGISTS</b> Associate Professor Martin Berry Dr Andrew Kneebone Dr Karen Wong</p>	<p><b>CLINICAL PSYCHOLOGIST</b> Astrid Przedziecki</p>
	<p><b>MEDICAL ONCOLOGISTS</b> Dr Di Adams Dr Michelle Harrison Dr Eugene Moylan</p>	<p><b>DATA MANAGER</b> Sandra Farrugia</p>
		<p><b>PROJECT MANAGER</b> Kate Tynan</p>

### Team Changes

We said sad farewells to some team members this year. In July Dr Andrew Kneebone left us to take up a position at the department of Radiation Oncology, Royal North Shore Hospital. After 10 years contribution to the service, research and social club he will be greatly missed. Andrew has been an ardent collector of data and has significant follow up on many hundreds of prostate and colorectal cancer patients. This underpins how we perform as a service and is a powerful tool to keep us improving.

Dr Eugene Moylan moved to Ireland. Eugene's contribution goes back to the original cancer service predating the building of the Cancer Therapy Centre. As an esteemed and knowledgeable colleague he was subjected to a protracted series of farewells. In his place we welcome Dr Michelle Harrison as our new medical oncologist for the team. Dr Elizabeth Hovey was also a major contributor to the service, and we sadly said goodbye as she took up a position at the Prince of Wales Department of Medical Oncology. We welcomed Dr Kayvan Haghighi and Dr Karen Wong who joined our service this year.

### Achievements

- The fortnightly multidisciplinary meeting continues to function well and is attended by specialists, trainees and students. Prostate cancer still dominates the case presentations and these numbers are predicted to continue growing.
- Sandra Farrugia, our Data Manager for the Clinical Cancer Registry of treatment and outcome data, has completed 18 months of data collection up to 2006. This initiative is funded by the Cancer Institute NSW. This is a very high quality data set that shows how patients are treated in the SSW. It also has the capacity in the future to show differences between hospitals and Area Health Services.
- The Genito Urinary Radiotherapy Development Project is sub-specialist interest group who meet regularly to improve the service. A major project was the 'fiducial marker' program that has been fully implemented into the service and is now standard practice. The fiducial marker program involves placing three gold seeds into the prostate so that at each treatment the radiation therapists can easily visualise the prostate and adjust the fields as necessary. This minimises radiation to adjacent organs such as the bladder and bowel to reduce side effects. The radiation therapists have taken a lead role in patient education and developing the clinical pathways to ensure our patients are guided through the process.
- The Radiotherapy Development Project has also encouraged our radiation therapists to initiate research questions and present their finding at conferences. Matthew Fuller presented at the Australian Institute of Radiography, a major national event. Another senior radiation therapist Renee Voysey, received a Cancer Institute NSW grant to spend a month at the Princess Margaret Hospital in Canada. This allowed her to compare processes and also become familiar with expanded roles for radiation therapists. Our clinical psychologist Astrid Przedziecki has a special interest in quality of life issues for prostate cancer patients and is now enrolled in a PhD to further research in this area.

- Dr Andrew Kneebone has been the lead clinician in collecting data for the evaluation of our radiotherapy service. We have just completed seven years of data on 487 patients who were treated 1999-2006. This group of patients were treated with higher doses of radiation than previous years to improve on local cancer control and survival. One of the tradeoffs for higher doses of radiation is a possible increase in bladder and bowel problems. We will be pooling data from Westmead to report on our patient outcomes and expect this work will be published in 2009. With our pooled patient data we will have enough information to make statistically valid inferences about the likelihood of long term problems so we can inform our patients when making treatment decisions.
- Prostate cancer has an 88% five year survival rate so keeping up with patients post treatment has become a major task for the service. Associate Professor Martin Berry introduced telephone follow-up for prostate cancer patients over three years ago. Patients are offered either a clinic appointment or phone interview for follow-up. Telephone consults are increasingly popular, saving patients a trip and the associated waiting time to visit the centre.
- The clinicians associated with the Genito Urinary group are also active on a State level in many capacities. Associate Professor Martin Berry is the Deputy Chair of the NSW Oncology Group for Genito Urinary Cancers. This is a committee of the Cancer Institute NSW. The group was successful in obtaining a grant to commission a five year strategic plan for Genito Urinary oncology and a one year operational plan. Martin's leadership along with the Chairman, Dr Andrew Brooks, has underpinned the group over several years. As an example of how we make a difference, one of the imminent challenges for all cancer services is a predicted workforce shortage. Therefore as a major project we need to train nurses, allied health and radiotherapists with additional new skills. Through this planning process we can take a structured approach and ensure that proper credentialing and recognition for new roles occurs.
- Associate Professor Martin Berry is the Deputy Chair of the Urology Oncology Program NSW and principal instigator in establishing the organisation. He has a long standing interest in professional education. The Urology Oncology Program now in its third year is a multidisciplinary education forum. It is well supported by the medical industry and runs four educational meetings a year which are targeted at specialists' learning needs .
- Liverpool and Macarthur Genito Urinary radiotherapy service staff have organised two planning days with other departments. The purpose is to bring together people with a service and research interest in Genito Urinary radiation oncology. This includes clinical trials, psychologists and data managers as well as the clinicians and radiotherapists. At our most recent planning day in September 2008 which was combined with Westmead, we explored how we can implement a new clinical trial and also standardise treatment for prostate patients including 'quality of life' measures. We also considered new treatment and imaging modalities.

## VOLUNTEERS

*Teresa Simpson  
Senior Oncology Social Worker*

### Liverpool Cancer Therapy Centre Volunteers Service

The volunteers of the Liverpool Cancer Therapy Centre (LCTC) continued to prove their dedication in providing support services to patients, family members and staff. Each one contributes their different gifts and talents for the benefit of the LCTC.

Vicky's special talent is her love of talking to people, and she finds it very rewarding to bring this support to patients. Carol brings her administrative skills to bear, providing lots of help and assistance to the LCTC administrative staff with the filing. Elizabeth is our top expert at selling goods for various fund raising causes and securing support from the local Serviceman's Club at Canley Vale for a state of the art BBQ and a nasendoscope. Joy has a gift for sign writing that is indispensable to promoting fundraising events. Dutch is very good at filling up the tea room and making sure everything is tidy and organised. Barbara makes sure that all our plants remain alive and green and healthy, contributing to a healthy environment at LCTC. Our other volunteers Apii, Val, and Joan have also played an important role as part of the team.

Their hard work and willingness to work as a strong team means that the LCTC has developed strong ties to the NSW Cancer Council office in Parramatta, particularly in helping Liverpool Hospital become one of the leading fundraising centres in Western Sydney for Daffodil Day (last year raising \$6,400).

To top it all they are all excellent cooks baking biscuits and cakes for hosting the Biggest Morning Tea every year in May. Recently some of our volunteers were struck with illness or sustained an injury due to car accident. We wish them our thanks and a speedy recovery.



The Volunteers attended a morning tea on 7 March 2008 – in attendance was Susan McManus, Associate Professor Martin Berry (Director of Liverpool Cancer Services), Val Spruce, Barbara Wright, Apii Tangi, Carol Keogh, Fawezia Daahd, Elizabeth Lowe, Sandra Avery (Business Manager) and Vicky McCarthy



Macarthur Volunteers Beatrice Atwell and Kathleen Forshaw

#### VOLUNTEERS – Liverpool Cancer Services

Joan Blunt	Carol Keogh	Vicky McCarthy	Apii Tangi
Fawezia Daahd	Elizabeth Lowe	Susan McManus	Barbara Wright
Enid (Dutch) Day	Joy Maloney	Val Spruce	

**Volunteers – Macarthur Cancer Services**

Beatrice Attwell	Catherine Bourke	Keith Glover	Lyn Smith
Elvira Bertolissio	Kathleen Foreshaw	Dorothy Kwasniak	Noeline Wright

**Reiki Therapists**

Sophie Cram	Trudie Herne	Nicole Psaroudis
Angie Falls	Jenny Kelly	Kerrie Wearing

## WIG LIBRARY

The Wig Library is a service that helps to retain patient self-esteem and relies on donations to maintain the service. This is one of the most appreciated services provided to chemotherapy patients who lose their hair as a result of their treatment. They are available to shave heads, keep the patients informed of what will happen and give advice. The volunteers see around 500 patients a year, matching them to wigs and ensuring there is a variety of quality wigs available.



Pictured: Fiona Gould and Robyn Cavan

**Volunteers – Wig Library**

Robyn Cavan	Fiona Gould	Roberta Turnbull
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## LOOK GOOD FEEL BETTER



Look Good...Feel Better is a free national community service program dedicated to teaching cancer patients - through hands on experience - techniques to help restore their appearance and self image during chemotherapy and radiation treatment.

The program was founded and developed by the Australian cosmetic industry in May 1990 (through its former industry association, the Cosmetic Toiletry and Fragrance Association Australia Inc) and is administered through the registered charitable organisation, the Cancer Patients Foundation Ltd.

The **Look Good ...Feel Better** workshops are brought to the patients by the Cosmetic industry of Australia and in 2007 six workshops were conducted at our Cancer Centres with 97 patients registered, average attendance of 15.

Volunteers from Within Cosmetic and Hairdressing Industry

Lyn Georgeson – Liverpool Facilitator

Kim Cawthorne  
Lyn Evans

Sandie Foreman  
Helen Lawrence

Sharon Moore  
Norah Raslan

Merrilyn Usher  
Carmen Versace

LOOK GOOD...FEEL BETTER FACT SHEET



*Look Good...Feel Better is a free national community service program dedicated to teaching cancer patients - through hands on experience - techniques to help restore their appearance and self image during chemotherapy and radiation treatment. The program was founded and developed by the Australian cosmetic industry in May 1990 (through its former industry association, the CTFAA), and is administered through the registered charitable organisation, the Cancer Patients Foundation Ltd.*

*The beauty industry represented now by its national association, ACCORD Australasia Limited, utilizes the resources of its members to provide:*

- Patient education through group workshop sessions
- Complimentary make up kits for each patient participating in the group workshops
- Free program materials such as videos, patient brochures, and self-help booklets.

*Look Good...Feel Better relies on the support of the cosmetic industry to provide the makeup, materials and financial support for the program. It is important to note that Look Good...Feel Better is product neutral and non-commercial. Volunteers and program participants do not promote any cosmetic product line or manufacturer. Look Good...Feel Better workshops are held in 150 comprehensive cancer centres, hospitals, Australian Cancer Society regional offices and other community settings.*

*All volunteers for Look Good...Feel Better are trained and certified prior to their participation in the workshops. Currently over 1500 volunteers assist the program. Look Good...Feel Better workshops are expected to assist over 7,500 patients this year. Over 63,000 women have been through the program since its inception. "Most of all I loved thinking that despite cancer, with or without makeup, I am still beautiful and still me, there is more to cancer than the treatment. Keep up the good work;" says workshop attendee Shanti.*

*The program is available in every state and in over 150 workshop locations. The cosmetic industry donates over 95,000 units of cosmetic products valued at around two million dollars to Look Good...Feel Better every year. Look Good...Feel Better also conducts a special version of the women's program for teenagers and men. Look Good...Feel Better is available in 22 countries: Argentina, Australia, Belgium, Canada, Denmark, France, Germany, Ireland, Israel, Italy, New Zealand, Norway, Poland, Portugal, Portugal, Singapore, South Africa, Sweden, Switzerland, The Netherlands, UK and USA.*

*To learn more about Look Good...Feel Better contact: FREECALL HELPLINE 1800 650 960 or visit our website at [www.lgfb.org.au](http://www.lgfb.org.au)*

*Joanne Meehan, NSW & ACT Manager*



## DONATIONS

Fundraising and donations fill funding needs not supported by government grants and health insurance reimbursement. The following are a few examples of how this support has helped:

- Research (Clinical Trial) Fund – support ongoing research into prevention, detection, treatment and supportive care for patients with cancer.
- Education Fund – sponsoring cancer staff to attend specialised training; funding cancer-training courses offered at Liverpool.
- Patient Care Fund – purchase of equipment and resources for patient and visitors comfort on the ward and Cancer Therapy Centre.

These organisations and people have generously donated to the Liverpool Cancer Therapy Centre:

### ONCOLOGY CLINICAL TRIALS DONATIONS

Russel Byrnes	Nina Ebejer	Eddie Kallu	Kulwant Kaur Phull
Melissa & Michael Clarke	Julie Fuanca	Helen Kiosoff	Manjinder Singh Phull
Paul & Tania Clarke	R & S Granata	John McCartney	Ramlesh Kaur Phull
Sheila Clarke	Solomon Haddad	R G & S McLeod	Tarsam Singh Phull
J Coahlan	Craig & Laura Hawkes	A & V Millibank	Joan Rainbow
Lja Ebejer	S Henry	Emma Paci	Monica E Wood

### ONCOLOGY EDUCATION DONATIONS

Novartis Pharmaceuticals Australia Pty Limited	Mundipharma Pty Ltd
Sanofi-Aventis Australia Pty Limited	Pfizer Australia Pty Ltd
Servier Laboratories (Aust) Pty Ltd	

### ONCOLOGY PATIENT CARE TRUST FUND DONATIONS

All Saints Catholic Senior College	Carol Hancock	Family Momi
Paul Bennett	David & Cathryn Hill	Bruce Murray
D Brain	Horsley Park Tavern	A Mylchreest
Cabra-Vale Ex-Active Servicemen's Club Limited	S Huggett	Victoria Partridge
Cabra-Vale Ex-Active Servicemen's Club (Ladies Auxiliary)	Ralph & Gwen Hughes	Mervyn & Eunice Rae
Anthony Challita	Rhonda Ierace	Glenda Rivers
Commonwealth Grants Commission	Kes Ironside	Sally Ross
D Daco	Eileen Jones	Frank Scali
Rocky Desio	Anna Kozelko	Dalma Scicito
Warren Flood	Frank Lacorua	Steven Stanley
Patricia Gray	Kevin & Pauline Lee	B Thomas
Suzanne Guy	Jim & Cherly Lock	Noreen Unicomb
Solomon Haddad	Le Binh Ly	Mr & Mrs Webb
	Leslie Moffat	

### ONCOLOGY WIG LIBRARY TRUST FUND

Rotary Club of Liverpool West Inc





Cabra-Vale Ex-Active Servicemen's Club Limited donating \$11,000 to purchase a nasendoscope. Pictured left is John Gannon (Honorary Treasurer), William O'Brien (Chief Executive Officer), Elizabeth Lowe, Luci Dall'Armi, Professor Geoff Delaney, Carol Doherty, Dr Bruce Ashford and Dr Dion Forstner. Right: Dr Forstner demonstrating a nasendoscope.

These organisations and people have generously donated to the Macarthur Cancer Therapy Centre:

**CLINICAL TRIALS DONATIONS**

Barbara Gough

**ONCOLOGY EDUCATION DONATIONS**

Barlow Real Estate  
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Gregory Johns

Paul & Jacqui Johns  
Roger Johns

Amanda Reedie  
E W & R E Seeney

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Tatiana & Ivan Mansaliva  
Carmen & Bill Martin  
Yvonne Reddy

Graham & Dianne Wagg  
Vanessa Winston-Martin

**ONCOLOGY PATIENT CARE TRUST FUND DONATIONS**

Beatrice Atwell  
Bowral Women's Bowling Club  
Graham Collier  
Charles Cramp  
Robert Dawson  
Alion Derrett

Robyn Edwards  
Keith Glover  
Barbara Gough  
M & D Harrison  
Pamela Hindes  
Col Lay

Linda Lee  
Jeffrey Leung  
Daniel Maurer  
Michael Norris  
Lisette Palmer  
Rhonda Plumb

Rosemeadow Public School  
Kevin Rutter  
St Vincent's Sisters of Charity  
K Truran  
Woodville Pastoral Company

## ACHIEVEMENTS

### AWARDS

**Barton MB.** Order of Australia Medal in the Queen's Birthday Honours List

**Sidhom M.** Varian Prize - The Royal Australian & New Zealand College of Radiologists - 2007. Best Registrar Oral Contribution - Presentation on e-learning

**Hughes J.** Drager Poster Prize - Engineering and Physical Science in Medicine - 2007. Mega Voltage Cone beam imaging

**Botros G.** Best Undergraduate Award - MedPhys 07. 2007. Leaf sequencing for IMRT

**Barton M.** Rohan Williams Professor. 2007. Royal College of Radiologists London, Royal Australian and New Zealand College of Radiologists

**Jameson M.** First Class Honours - Wollongong University - 2007. Utilising the EPID for Quality Assurance

**Jameson M.** Dean's Merit List 2007. Meritorious Achievement 2007 - Wollongong University

**Jameson M.** The Engineering Alumni Award - Wollongong University. 2008. Interest and improvement in profession

**Humble N.** Second Class Award - Wollongong University - 2007. Contouring for PET images

**Carter C.** International Nurses Day Awards. 2008. Contribution to the Liverpool Hospital and Palliative Care Service

### CONFERENCE PROCEEDINGS

**Dall'Armi L, Simpson G, Simpson T, Forstner D.** *Developing information resources for people with head and neck cancer.* ANZ Head & Neck Society Meeting. 2007. Brisbane

**Nelson V, McLean D, Holloway LC, Liverpool Cancer Therapy Centre, Macarthur Cancer Therapy Centre,** Faculty of Health Sciences Sydney University. *Use of thermoluminescent dosimetry (TLD) for quality assurance of orthovoltage X-ray therapy machines.* 15th Solid State Dosimetry Conference. 2007. Delft, Netherlands

**Sidhom M, Holt T, Fanous D, Kua B, Morarji K.** *Give me understanding and I shall live: Radiation Oncology Teaching in 2017.* Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

**Delaney GP.** *Controversies in the natural history, diagnosis and treatment of ductal carcinoma insitu of the breast.* Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

**Avery S, Kaadan N.** *A staged approach to optimising electronic billing in LANTIS.* 5th Australasian Conference on Safety and Quality in Health Care. 2007. Brisbane

Graham P, **Delaney GP,** Harvey J, **Papadatos G,** Lynch J, Browne L. *STARS pilot: A successful pilot for a randomised comparison of anastrozole commenced before and continued during adjuvant radiotherapy for breast cancer versus anastrozole and subsequent anti-oestrogen therapy delayed until after radiotherapy.* Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

**Vinod SK.** *Moving beyond the Jurassic period: A contouring protocol for external beam radiotherapy for cervical cancer.* Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

**Vinod SK.** *Patterns of Lung Cancer Care in NSW, Australia.* 12th World Conference on Lung Cancer. 2007. Seoul, Korea

Graham P, Plant N, Graham J, Browne L, Borg M, Capp A, **Delaney GP**, Harvey J, Kenny L, Francis M, Zissiadis Y, Gupta R. *TROG 04.01 cavilon post-mastectomy skin care trial: Analysis of audited skin reaction photography*. Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

Board N, **Delaney GP**, Dobrovic A. *Mapping stage and comprehensive cancer treatments in a clinical cancer registry*. Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne

Graham P, Browne L, Capp A, Fox C, **Delaney GP**, Kearsley J, Nasser E, **Papadatos G**. *The St George, Wollongong and Liverpool Breast Boost Trial: 1st planned analysis at 6-year mean follow-up*. Royal Australian and New Zealand College of Radiologists (RANZCR) Annual Scientific Meeting. 2007. Melbourne.

Tyldesley S, Mackillop WJ, **Delaney GP**, Foroudi F. *Comparison of model estimates of radiotherapy needs with utilization data from British Columbia*. American Society for Therapeutic Radiology and Oncology (ASTRO) 49th Annual Meeting. 2007. Los Angeles

Jacob S, **Hovey E**, **Vinod SK**, **Delaney GP**, **Barton M**. *Estimation of an optimal chemotherapy utilisation rate for lung cancer*. ECCO 14 European Cancer Conference. 2007. Barcelona

**Eek R**, **Au G**, **Shafiq J**, **Delaney GP**, **Barton M**, **CCORE**, **Liverpool Cancer Therapy Centre**. *Integrating patient-reported outcomes on health-related-quality of life into routine oncology practice at Liverpool Cancer Therapy Centre*. SSWAHS -Western Zone Research Showcase. 2007

**Dadic D**, **Vinod SK**, **Lee M**. *Paper to electronic Multidisciplinary Team meeting data collection: an audit of changing practice*. Clinical Oncology Society of Australia (COSA) Annual Scientific Meeting. 2007. Adelaide

**Vial P**, Hunt P, Greer P.B, Oliver L, Baldock C. *A software tool for portal dosimetry and IMRT research*. MedPhys 07. 2007. Sydney

**Cottle J**, **Przedziecki A**. *Clinical Psychology and Social Work Service integration at Macarthur Cancer Therapy Centre*. Clinical Oncology Society of Australia (COSA) Annual Scientific Meeting. 2007. Adelaide

Medd J, **Przedziecki A**, **Tynan K**. *Perspectives on Clinical Psychology Services amongst Uro-Oncology Multidisciplinary Team Clinicians*. Clinical Oncology Society of Australia (COSA) Annual Scientific Meeting. 2007. Adelaide

Medd J, **Przedziecki A**, **Tynan K**. *Perspectives on Clinical Psychology Services amongst Uro-Oncology Multidisciplinary Team Clinicians*. Urological Society of Australia and New Zealand NSW Section Meeting. 2007. Hunter Valley

Medd J, **Przedziecki A**, **Tynan K**. *Assessing doctors' and nurses' understanding, awareness and use of clinical psychology services in uro-oncology*. Research Show Case Liverpool Hospital. 2007. Liverpool Hospital

Alam M, **Gabriel G**, **Eek R**, **Barton M**. *Discriminating factors in treatment decisions for chemotherapy in elderly patients with colorectal cancer in Liverpool and Campbelltown Hospitals 2005 - 2006*

**Eek R**, **Shafiq J**, Cohen G, Chasen M, Slabber C. *Routine assessment of patient reported Quality-of-Life outcomes in an Outpatient Cancer Clinic*. Medical Oncology Group of Australia (MOGA) Annual Scientific Meeting. 2007. Melbourne

**Kaadan N**. *Optimising procedures to improve the quality of radiation therapy summary letters and billing*. 5th Australasian Conference of Safety and Quality in Health Care. 2007. Brisbane

**Berry MP**, Smith D, Gurney H, Brooks A, **Tynan K**. *Genitourinary multidisciplinary teams and clinician perceptions on unmet needs of younger men with prostate cancer*. The Royal Australian and New Zealand College of Radiologists 57<sup>th</sup> Annual Scientific Meeting. 2007. Melbourne

Botros G, Wolfe J, **Holloway LC, Vial P**. *An evaluation of the efficiency and accuracy of IMRT*. MedPhys07. 2007. Sydney

**Vial P**, Hunt P, Greer P.B, Oliver L, Baldock C. *An experimental investigation of a-Si EPID dose response to MLC transmitted radiation*. Liverpool Hospital Research Showcase. 2007. Liverpool

**Ng W, Jacob S, Delaney GP, Barton M**. *Estimation of optimal chemotherapy utilisation rates for upper gastrointestinal cancers*. School of Public Health and Community Medicine UNSW Research Conference. 2007. Sydney

**Ng W, Jacob S, Delaney GP, Barton M**. *Estimation of optimal chemotherapy utilisation rates for colon and rectal cancers*. School of Public Health and Community Medicine UNSW Research Conference. 2007. Sydney

**Carter C** and Harlum J. *Reviewing the partnership to improve service delivery*. 9th Australian Palliative Care Conference. 2007. Melbourne

**Carter C** and Harlum J. *What's in a Vest? A service initiative from the West*. 9th Australian Palliative Care Conference. 2007. Melbourne

**Formby F**. *The Health System and Palliative Care in Australia*. Mildred Scheel Akademie, Klinik and Polyklinik for Palliative Care. September 2007. Cologne

**Formby F**. *The Health System and Palliative Care in Australia*. E Kluebler-Ross Akademie, Hospiz. October 2007. Stuttgart

Tracy E, **Barton M**, Glass P, Rodriguez M, Bishop J. *Brain cancer in NSW - variation in diagnosis and survival by histological subtype*. Clinical Oncological Society of Australia (COSA). 2008. Adelaide

Gassner P, Hayden L, Jefferson D, Lalak N, **Berry MP, Tynan K**. *Prevalence of Vitamin D3 deficiency in a cohort of Australian men diagnosed with prostate cancer*. The Urological Society of Australia and New Zealand 61<sup>st</sup> Annual Scientific Meeting. 2008. Hong Kong

**Kaadan N**. *Stepping up to Multi-Access*. IMPAC Users Meeting. 2008. Brisbane

**Kao S, Shafiq J, Adams D**. *Chemotherapy in the terminal care of oncology patients*. American Society of Clinical Oncology (ASCO) Annual Meeting. 2008. Chicago

**Ng W, Delaney GP, Jacob S, Barton M**. *Optimal chemotherapy utilisation rate in breast cancer: Setting an evidence-based benchmark for the best quality cancer care*. Best of American Society of Clinical Oncology (ASCO). 2008. Boston

Giles C, **Delaney GP**, Buckingham J, Pearce A, Care O, Zorbas H. *Post-surgical care for women with breast cancer in Australia*. Conjoint Annual Scientific Congress, Royal Australasian College of Surgeons and the College of Surgeons Hong Kong. Hong Kong. 2008

**Formby F**. *A Case Presentation*. Annual Palliative Care Retreat/Workshop. March 2008. Hobart

**Wiltshire J**. *Cancer Pain Syndromes*. Cancer Pain Symposium. Cancer Hospital, April 2008. Beijing

## INVITED LECTURES

**Delaney GP**. Data management in oncology: Trials and tribulations. WP Holman Clinic, WP Holman Clinic. 2007

**Delaney GP**. *Estimating the optimal radiotherapy utilisation rate for gynaecological cancers*. Prince of Wales Hospital, Back to Prince of Wales 40th Birthday celebrations and symposium. 2007

**Delaney GP**. *Breast intensity modulated radiotherapy*. WP Holman Cancer Clinic, WP Holman Cancer Clinic. 2007

**Delaney GP**. *Controversies in the management of breast cancer*. Prince of Wales Hospital, Back to Prince of Wales 40th birthday celebrations and symposium. 2007

**Kneebone A.** *Combining hormone therapy and radiotherapy.* 8th National Prostate Cancer Symposium. Melbourne. 2007

**Kneebone A.** *Who, when and how to give post prostatectomy radiotherapy.* Prince of Wales Hospital Back to Prince of Wales Hospital 40<sup>th</sup> birthday celebrations and symposium. 2007

**Barton M.** *The cost of radiotherapy.* Chennai India, Association of Radiation Oncologists (AROI) Annual Meeting. 2007

**Professor Michael Barton.** Lectures given as part of the Rohan Williams Travelling Professorship between September – October 2007

*Waiting for radiotherapy and queueing theory*

- Royal College of Radiologists Annual Scientific Meeting, London
- The Beatson Cancer Centre, Glasgow, Scotland
- Cookridge Cancer Centre, Leeds
- Velindre Hospital, Cardiff, Wales

*Evidence based assessment of the demand for cancer services*

- University of Dundee – Dundee, Scotland
- The Christie Hospital, Manchester, England
- Gloucestershire Cancer Service, Cheltenham General Hospital, Cheltenham, England

**Delaney GP.** *Controversies in the management of ductal carcinoma in situ of the breast.* Melbourne, Royal Australian & New Zealand College of Radiologists 58th ASM. 2007

**Barton M.** *The overall position of radiotherapy - globally.* Chennai India, Association of Radiation Oncologists (AROI) Annual Meeting. 2007

**Barton M.** *International Union Against Cancer.* (UICC) Workshop, Chennai, India: Assessing the need for radiotherapy in setting priorities in radiotherapy: technology and access. November 2007

*Education of medical students about cancer and waiting for radiotherapy and queueing theory' –*

- Addenbrooke's Hospital, Cambridge, England

*Radiotherapy in low and middle income countries*

- The Colney Centre, Norfolk and Norwich Hospital, Norwich, England

*Evidence based assessment of the demand for cancer services and education of medical students about cancer*

- Gloucestershire Cancer Service, Cheltenham General Hospital, Cheltenham, England

## JOURNALS

**Shafiq J, Delaney GP, Barton M.** *An evidence-based estimation of local control and survival benefit of radiotherapy for breast cancer.* Radiotherapy and Oncology 2007;84:11-7

**Barton M, Gabriel G, Sutherland D, Sundquist KJ, Girgis A.** *Cancer knowledge and perception of skills of general practice registrars in Australia.* Journal of Cancer Education 2007;22:259-265

**Shafiq J, Barton M.** *Review of patient safety measures in radiotherapy practice.* 2007

**Hegi-Johnson F, Gabriel G, Kneebone A, Wong SKC, Jalaludin B, Behan S et al.** *Utilization of radiotherapy for rectal cancer in Greater Western Sydney 1994 - 2001.* Radiotherapy and Oncology 2007;3:134-47.

**Dundas K, Atyeo J, Cox J.** *What is a large breast? Measuring and categorising breast size for tangential breast radiation therapy.* Australasian Radiology 2007;51:589-93.

- Hovey E, **Gabriel G**, George M, Shapiro J, Chern B, **Moylan E**. *Experience with docetaxel in hormone-refractory prostate cancer (HRPC) at three Australian cancer centres: A retrospective study*. Asia-Pacific Journal of Clinical Oncology 2007;3:156-62
- Hegi-Johnson F, Gabriel G, Kneebone A**, Wong SKC, Jalaludin B, Behan S et al. *Utilization of radiotherapy for rectal cancer in Greater Western Sydney 1994-2001*. Asia-Pacific Journal of Clinical Oncology 2007;3:134-42. 55
- Christie DRH, **Gabriel GS**, Dear K. Adverse effects of a multicentre system for ethics approval on the progress of a prospective multicentre trial of cancer treatment: how many patients die waiting? Internal Medicine Journal, Oct 2007; 37(10): 680-686
- Vinod SK**, O'Connell D, Simonella L, **Delaney GP**, Boyer M, Peters M et al. *Lung Cancer Care in New South Wales Australia: Where are the gaps?* Journal of Clinical Oncology 2007;2:S351.
- Dadic D, Vinod SK, Lee M**. *Paper to Electronic Multidisciplinary team meeting data collection: An audit of changing practice*. Asia-Pacific Journal of Clinical Oncology 2007;3:A106
- Brown S, Venning A, De Deene Y, **Vial P**, Oliver L, Adamovics J et al. *Radiological properties of the PAGAT gel dosimeter and the presage polymer dosimeter*. Australasian Physical and Engineering Sciences in Medicine 2007;30:436
- Vial P**, Greer PB, Hunt P, Oliver L, Baldock C. *A comparison of portal dosimetry and dose to water measurements of IMRT beams*. Australasian Physical and Engineering Sciences in Medicine 2007;30:452
- Armstrong K, **Kneebone A**, O'Connell D, Leong DC, Yu Q, Spigelman AD et al. *The New South Wales Colorectal Cancer Care Survey - Part 3 radiotherapy management for rectal cancer*. The Cancer Council NSW 2007
- Wiltshire K, Brock KK, Haider MA, Zwahlen D, Kong V, Chan E, Moseley J, Bayley A, Catton C, Chung PW, Gospodarowicz M, Milosevic M, **Kneebone**, Warde P, Menard C. *Anatomic boundaries of the clinical target volume (prostate bed) after radical prostatectomy*. International Journal of Radiation Oncology, Biology, Physics 2007;69:1090-9
- Kneebone A**, Gebski V, Turner S, Mai T. *Late rectal and urinary toxicity from conformal, dose-escalated radiation therapy for prostate cancer: A prospective study of 402 patients*. Australasian Radiology 2007;51:578-83
- Griffiths A, Marinovich L, **Barton MB**, Lord S. *A cost analysis of Gamma Knife Stereotactic radiosurgery*. International Journal of Technology Assessment in Health Care 2007;23:488-94
- Alam M, **Gabriel G, Barton M, Eek R**. *Discriminating factors in treatment decisions for chemotherapy in elderly patients with colorectal cancer*. Cancer Forum 2008;32:22-6
- Delaney GP, Shafiq J**, Chappell G, **Barton M**. *Establishing treatment benchmarks for mammography-screened breast cancer population based on a review of evidence-based clinical guidelines*. Cancer 2008;112:1912-22
- Gabriel G**, Lah MJ, **Barton M**, Jalaludin B, **Au G, Delaney GP**. *Do cancer follow-up consultations create anxiety?* Journal of Psycho-oncology 2008;26:17-30
- Spry N, Harvey J, MacLeod CA, Borg M, Ngan SYK, Millar JL, Graham P, Zissiadis Y, **Kneebone A**, Carroll S, Davies T, Reece WH, Lacopetta B, Goldstein D. *3D radiotherapy can be safely combined with sandwich systemic Gemcitabine chemotherapy in the management of pancreatic cancer: Factors influencing outcome*. International Journal of Radiation Oncology, Biology, Physics 2008;70:1438-46
- Vial P**, Greer PB, Hunt P, Oliver C, Baldock C. *The impact of MLC transmitted radiation on EPID dosimetry for dynamic MLC beams*. Medical Physics 35(4):1267-77

Greer PB, **Vial P**, Oliver L, Braddock C. 2007 *Experimental investigation of the response of an amorphous silicon EPID to intensity modulated radiotherapy beams*. Medical Physics 34(11):4389-98

Smith D, Supramaniam R, King M, Ward J, **Berry MP**, Armstrong B. *Age, Health and Education Determine Supportive Care Needs of Men Younger than 70 Years with Prostate Cancer*. Journal of Clinical Oncology. 2008;25(18):2560-6

**Nelson V**, **Holloway L**, McLean D. 2008 *Use of thermoluminescent dosimetry (TLD) for quality assurances of orthovoltage x-ray therapy machines*. Radiation Measurements: 43(2-6) 908-911

Ittimani M, **Goozee G**, Maovel A, Holdgate A. 2007 *Trauma team radiation exposure: the potential need for dosimetry monitoring*. Emergency Medicine Australasia 19(6):494-500

## BOOK CHAPTER

**Delaney GP**, Stebbing J, Thompson AM. *Breast Cancer (non-metastatic)*. In: BMJ Publishing Group. Clinical Evidence Handbook, June 2008 ed. BMJ Publishing Group, 2008:588-91

## UNIVERSITY DEGREES

**Delaney GP**. PhD - *Radiotherapy in Cancer Care: Estimating the optimal utilization from a review of evidence based clinical guidelines*. 2008. University of New South Wales - Faculty of Medicine

**Luci Dall'Armi**. Masters in Nursing (Clinical Leadership) Uni of Western Sydney

Dr Meera Agar and **Janeane Harlum** supervising a Master of Nursing thesis: *The impact of a multi-service approach to Palliative Care on a patient's quality of life and lifestyle*.

## IN PRESS

**Koh ESK**, Do VT and **Barton M**. *Frontiers of cancer care in Asia Pacific region: Cancer care in Australia* Biomedical Imaging and Interventional Journal

**Vinod SK**, O'Connell D, Simonella L, **Delaney GP**, Boyer M, Miller D, Supramaniam R, McCawley L and Armstrong B. *Patterns of lung cancer care in NSW*. Thorax. 2007

**Sidhom M** and Poulsen M. *Group decisions in oncology: Doctors perceptions of the legal responsibilities arising from multidisciplinary meetings*. Journal of Medical Imaging and Radiation Oncology. 2007

**Vial P**, Greer PB, Oliver L and Braddock C. 2008 *Initial evaluation of a commercial EPID modified to a novel direct-detection configuration for radiotherapy dosimetry*. Medical Physics

## GRANTS

*Review of Patient Safety measures in radiotherapy practice.* WHO (World Health Organisation, Geneva) \$31,500. 2007

*Randomised control trial of oral Risperidone, oral Haloperidol, and oral placebo with rescue subcutaneous Midazolam in the management of delirium in palliative care patients.* (PACCS) \$552,000

*RCT of risperidone – Sub-study of neural apoptosis markers* (NHMRC) \$50,000

*Prospective study of Medical Emergency Team calls to define issues of end of life decision making, symptoms and transition in goals of care.* (NHMRC) \$48,700

*Modelling multiple radiotherapy treatment episodes for benchmarking and service planning.* (NHMRC – Department of Health and Ageing) Collaboration with UNSW. \$503,415

*Palliative Care Clinical Trials WZ July 2007 – June 2010.* \$274,566

### Cancer Institute Grants:

*Lead Clinicians Programme.* \$536,000

*Care Coordinators.* \$425,000

*Clinical Cancer Registry.* \$482,000

*Clinical Trials Data Managers and Nurses.* \$215,000

*Clinical Cancer Research.* \$120,000

*Health Service Innovation Grants – Acute Assessment.* \$70,800

*Health Service Innovation Grants – Quality of Life Psychosocial Assessment.* \$80,000

*Research Infrastructure Grant.* \$66,483

*Additional modules for distance learning course in the Applied Sciences of Oncology.* International Atomic Energy Agency (IAEA), Vienna \$93,500 (USD). 2007

*Prospective study of predictors of delirium: the association between serum anticholinergic levels and delirium occurrence in palliative care patients with advanced cancer.* Cancer Trials NSW. Sacred Heart Palliative Care Trust Fund \$10,000

*Palliative Care for People at Home Program – PEACH: Palliative Extended and Care at Home.* (Commonwealth Department of Health and Ageing) \$279,000

*Referral Pathways in colorectal cancer: general practitioners' patterns of referral and factors that influence referral.* Cancer Australia funding grant in collaboration with NHMRC. \$598,750

*Liverpool Hospital End of Life Care Project Phase 2 – Enhancing the Care of the dying patient and their families in an acute medical setting in Liverpool Hospital.* \$78,700

*Palliative Care EMR Project.* \$78,000

*Radiotherapy Training Network.* \$80,000

*NSWOG Priority Projects – Head & Neck.* \$27,971



*Faces of Cancer Services*



*Faces of Cancer Services*



*Faces of Cancer Services*



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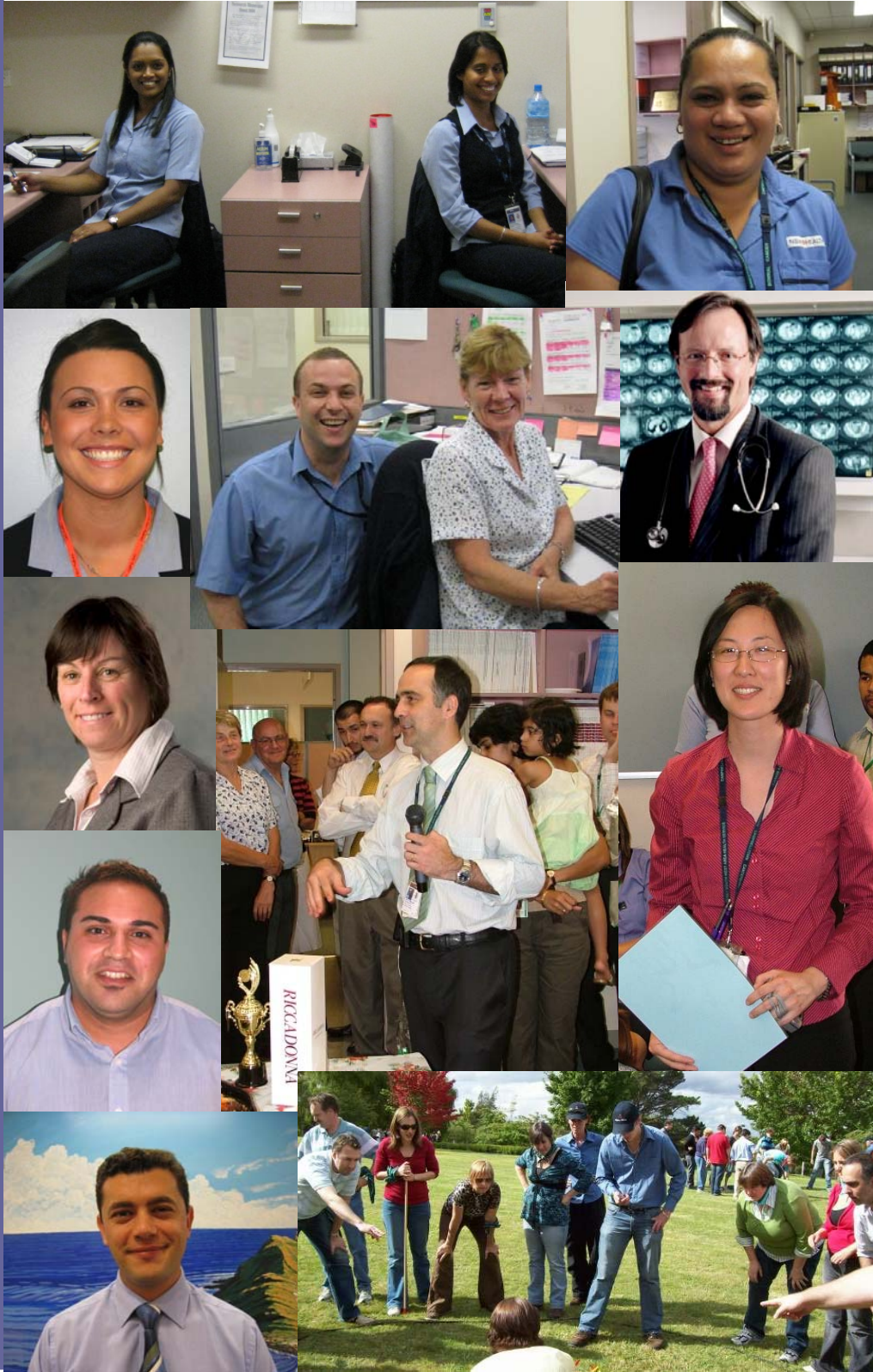
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