



**South Western
Sydney Cancer
Service**

Annual Review
2002/2003



Foreword

This has been an eventful year for NSW Cancer Services as well as the SWS Cancer Service. There are two very important initiatives at a State level where the SWS Cancer Service has made a direct contribution and will benefit from their implementation. The Clinical Service Framework for Optimising Cancer Care was developed in part from the outcomes of two workshops held with our clinicians; this is an achievement about which we may all feel proud. The very practical Standards outlined in the Clinical Service Framework will guide our service development over the next two years. The importance of this document is that it provides for the first time a yardstick to improve the quality of services to our patients.

The other significant State development has been the fulfilment of an election promise with the establishment of the NSW Cancer Institute and appointment of a Chief Cancer Officer, Professor Jim Bishop. The Cancer Institute will be a catalyst for improving the outcomes for patients with cancer and most importantly has significant funding to enable this to occur. The SWS Cancer Service will be preparing submissions for a variety of demonstration projects where we have developed expertise such as the Cancer Care Coordination Model and the Clinical Cancer Registry.

On a local level the SWS Cancer Service has continued to develop with eleven site specific Tumour Programmes. Several Tumour Programmes now have regular multidisciplinary team meetings, which have been shown to improve the quality of patient care. I would like to thank all those who have participated.

The Macarthur Cancer Therapy Centre has opened its doors for medical and radiation oncology services. This is the culmination of many years planning and I welcome the appointment of Dr Stephen Della-Fiorentina as the Director of the Centre. We are aiming to have an official opening in conjunction with the launch of the SWS Cancer Service early in 2004. The opening of the Macarthur Centre has created a need to re-define the governance structure for an Area Cancer Service and this will be finalised in October this year.

The SWS Cancer Service Development Team has been working with me over the past year to assist me in my role as an Area Director. Some of the achievements have been the completion of a medical oncology service review, a pilot of the clinical cancer registry and an audit of activity and resources. The website is now live and will provide a valuable tool for clinicians and patients.

I would like to thank the members of the Service and volunteers for their support over the past year. It is not possible to list all the individual achievements but it is clear that these achievements have resulted from a great deal of effort from committed people.

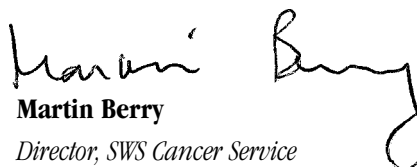

Martin Berry
Director, SWS Cancer Service

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The Director's Key Performance Indicators

The *Key Performance Indicators* of the Director, South Western Sydney Cancer Service have been incorporated into senior job descriptions and Committee Terms of Reference. There are six strategic areas incorporating a number of key result areas. In preparing this report the authors have been asked to report against the directors six strategic areas.

These are outlined below.

STRATEGIC GROUP 1: Planning

KRA 1. Develop an Area Cancer Service Strategic Plan

STRATEGIC GROUP 2: Patient Focus

KRA 2. Ensure a demonstrable improvement in patient outcomes

KRA 3. Ensure a quality service by implementing the Clinical Service Framework for Optimising Cancer Care in NSW

KRA 4. Ensure access for all SWS residents

KRA 5. Determine service and budget priorities

KRA 6. Patient Centred Care

STRATEGIC GROUP 3: Professional Standards

KRA 7. Implement agreed consistent clinical policies and protocols

STRATEGIC GROUP 4: Organisational Development

KRA 8. Build and manage an appropriate organisation
(*systems, plans, policies, staffing*)

KRA 9. Provide Leadership

KRA 10. Ensure a cost –effective service

KRA 11. Ensure appropriate liaison and consultation

KRA 12. Commission Macarthur Cancer Therapy Centre
as a part of the SWS Cancer Service Organisational
Development

KRA 13. Ensure effectiveness of Cancer Advisory Committee.

KRA 14. Ensure effective Management support for service
providers

KRA 15. Ensure appropriate financing is available

STRATEGIC GROUP 5: Population Focus

KRA 16. Prevention and health outcomes

STRATEGIC GROUP 6: Academic Focus

KRA 17. Develop an integrated cancer research strategy

KRA 18. Education for all stakeholders from patients and
providers, students and public.

KRA 19. Support cancer services appropriate to a tertiary
referral teaching hospital

South Western Sydney Cancer Service

SWS Cancer Service has been a major contributor towards development of the Clinical Service Framework (CSF) for Optimising Cancer Care. This was published in July 2003 and it specifies the service standards and compliance indicators to be achieved over the next two years. These will be incorporated into the Area CEO's performance agreements.

The seven standards are listed below:

- Demonstration of compliance
- An Area-wide approach to Optimising Cancer Care
- Patient centred care
- Access to appropriate clinical services
- Multi-disciplinary care
- Communication between primary, secondary and tertiary services
- Education

The SWS Cancer Service has engaged a data manager and finance consultant to report on cancer activity by ICD 10, establish the budget and staffing profiles for the Cancer Service. Without activity data reconciled to the budget and workforce, cost effectiveness can only be empirically determined. This medium term project would also link into the cancer registry for outcome data to allow full assessment of the service cost effectiveness.

The SWS Cancer Service conducted its first major service review in Medical Oncology. This took 12 months to complete and resulted in 180 plus recommendations. Implementation is currently in progress. The governance model for the SWS Cancer Service has emerged from the above review and will address appropriate communication and participation. The model will be finalised and agreed by clinicians and managers by the end of October 2003.

Each Tumour Programme will be asked to define a minimum service specification for their tumour site over the next 12 months.

This will be cross-referenced against capacity for the services i.e. medical oncology, radiation oncology etc. Development of service networks both intra and inter Area will be required to ensure that there are clear waiting lists and referral protocols for pre-defined triggers.

A General Practitioner directory to improve access to cancer services in SWS (a pathway to cancer care) is in draft form for publication in November. This directory lists affiliated service providers by tumour site as well as a simple guide to the signs and symptoms that should prompt a referral to a specialist for investigation.

The SWS Cancer Service has developed a model for cancer coordination services that defines the role of the service coordinator as a facilitator for the patient's journey through the Cancer Pathway. A Cancer Pathway is a care continuum where multiple providers of both medical and community services are encountered. Patients will have different levels of social support to cope with their illness, varying functional status and possibly other co-morbidities. Holistic support of the patient needs to be addressed by determining the patient's social context, and barriers to treatment in addition to streamlining the clinical management. The service has been successful in obtaining 'soft' funding for Genito-urinary, Lung, Colorectal, Breast and Gynae-oncology Tumour Programmes plus a secretary to support the Upper Gastrointestinal Multidisciplinary Team meeting. An evaluation is also underway.

A full Cancer Care Coordination proposal and budget for a demonstration project is to be prepared by the SWS Cancer Service for submission to external funders by October 2003.

Professional Standards

Each Tumour Programme is responsible for endorsing and defining protocols and pathways for specific cancer sites. These are applicable Area wide. Where NH&MRC Guidelines exist it is expected that these will be the accepted Guidelines.

If there are no Australian endorsed guidelines a programme may adopt another or determine an evidence based alternative.

The SWS Cancer Service has agreed affiliation requirements for tumour programmes. These will further advance appropriate sub-specialisation.

These are:

- (Referral of all cancer patients to) or attendance at a minimum number of multidisciplinary meetings (determined by the SWS Cancer Service);
- Agreement to follow practice guidelines if endorsed by the SWS Cancer Service;
- Entering patient data for peer review and be an active participant in peer review;
- Submit data as required by the SWS Cancer Service for audit purposes or Area Clinical Cancer Registry;
- Be a member of the appropriate section in a college where there are established sub specialties OR if not, then membership of associated specialist society;
- And to be considered: Participating in the process of developing protocols.

Organisational Development

The SWS Cancer Service has recruited a number of key people (*the SWS Cancer Service Development Project Team*) who assist the Director to develop an Area-wide cancer service. (*Project Manager, Management and Finance consultants and a Data Manager*).

Consistent with the CSF, the SWS Cancer Service is organised along ten site-specific Tumour Programmes that represent the continuum of care. The Tumour Programmes intersect with services ie medical and radiation oncology, surgery, imaging and palliative care etc. Each programme has recruited a leader with recognised interest and expertise and a team representing a broad spectrum of health workers and geographical locations within SWSAHS. The Tumour Programmes are defined by locally agreed ICD 10 codes.

The Tumour Programmes and Leaders are:

- Colorectal *Dr Mathew Morgan*
(*Dr Cyril Wong resigned July 2003*)

- Genito-Urinary *Dr Laurie Hayden*
- Gynae Oncology *A/Prof Felix Chan*
- Head & Neck *Dr Allan Fowler*
- Lung *Dr Tony Aouad*
- Haematology *Dr John Gallo*
- Upper GI *Prof Stephen Deane and Dr Neil Merrett*
(*co chair*)
- Breast *Dr Tom Bonar*
- Neuro *Dr James Van Gelder*
- Skin *Prof Chris Anderson*
- Other *Dr Martin Berry*

Site specific multidisciplinary teams have been established for Upper Gastro-intestinal, Lung, Colorectal, Genito-Urinary, Neuro-oncology, Haematology, Head and Neck, Breast and Gynae oncology. Membership of these teams and the processes will be formalised over the next 6-12 months to comply with the Clinical Service Framework.

Staffing profiles are being updated to reflect operational reality and these need to be reported monthly to the Director to meet the CSF Benchmarks for some services are being used to determine capacity eg medical oncology nursing. Risk management strategies are being developed and systems formalised.

The SWS Project Development Team provides advice and support to the Director. A SWS Cancer Service Governance model will be completed by December 2003. The structure will be revised periodically to account for service maturation and other system changes over time.

The Director is also Chair of the Liverpool Clinical Council and a member of the Area Clinical Council and Chair of the sub-committee for Quality and Standards. Through these roles reform initiatives in Cancer Services can be communicated with the wider health service.

The Macarthur Cancer Therapy Centre is operational with oncology services currently provided and radiation to commence September 2003. The SWS Cancer Service has completed a service agreement between Macarthur and Liverpool, set up a committee structure to administer the commissioning and start up of the service including the recruitment of staff.

The Oncology Advisory Committee (OAC) has been reconvened with new terms of reference to reflect the Director's KPIs. The committee membership has incorporated the Cancer Programme Executive to ensure alignment of this group with the strategic objectives of the Oncology Advisory Committee. The OAC is the formal conduit into the Area decision making therefore a very important forum for the cancer service. Again the lack of activity finance and budget information is a severe handicap to making informed decisions.

Population Focus

The SWS Cancer Service has invested resources over the past 2 years to pilot a Clinical Cancer Registry using the NSW Minimum Data Set: a first in NSW. The Colorectal Tumour Programme, which has an existing comprehensive data-base, is the first site to be piloted with the preliminary results due in August 2003. From this will flow 'proof of concept' for the software and information strategy including the feasibility of capturing such a large MDS. Each Tumour Program has been asked to consider site specific data items in addition to the MDS. The establishment of a Clinical Cancer Registry has shown a need to establish a process to agree definitions and protocols at a State or National level.

A proposal for a State-based or National body to undertake the development of nationally agreed site specific data items will be prepared by the SWS Cancer Service. The significance of the cancer registry is to be able to link treatments with patient outcomes. This would allow the cancer service to access the quality of service delivery and incorporate this information into planning.

The Tumour Programmes address the continuum of care for prevention, early detection for survivorship or palliative care. As the Service matures it will be more able to address these sub-acute areas of the service.

Academic Focus

The appointment of a Chief Cancer Officer and establishment of the NSW Cancer Institute will provide a State focus for Cancer in many dimensions including research and a cancer information strategy. There will be a State-wide cancer plan and the Director of the SWS Cancer Service will be closely involved with this through the Directors of Cancer Services (DACS) Forum. The SWS Cancer Service will launch its website in November 2003. This has been in development for the past 18months. It will have patient and professional information provided by the Tumour Programmes.

Macarthur Cancer Therapy Centre

The commencement of clinical services at the Macarthur Cancer Therapy Centre (MCTC) on Feb 17 2003 marked a major enhancement to the delivery of cancer services within South West Sydney Area Health Service. It was shown that 25-30 % of occasions of service performed at Liverpool were for residents of the Macarthur, Wollondilly and Wingecarribee areas, hence the need for a high quality local cancer therapy service. Staff of the Liverpool Cancer Therapy Centre (LCTC) were involved in the design, planning and development of the centre within the Macarthur Health Sector. The support of the executive of Macarthur Health Sector and the incorporation of a representative of LCTC on the planning and development committee ensured a smooth commissioning process.

The service currently offers clinics in medical and radiation oncology; ambulatory chemotherapy delivery; dietetic, occupational and speech therapy; and a clinical trials unit. Radiation therapy is planned to commence in late 2003 and the addition of social work, physiotherapy in late 2003/04.

Residents of the Wingecarribee sector frequently use cancer services at Wollongong and other centres in Sydney. There has been a weekly medical oncology service provided by the Department of Medical Oncology since 2001. The MCTC is currently finalising a service agreement with a private provider in Bowral to enhance the medical oncology service and commence radiation oncology clinics for the Southern Highlands. A transportation service for patients requiring radiation therapy at MCTC is planned to further improve this new service.

Patient Focus

The goal of the MCTC is to provide high quality clinical services incorporating safety and customer satisfaction to the patients, their carers and the community of the Macarthur, Wollondilly and Wingecarribee areas. Central to this is the adoption of multidisciplinary teamwork in the planning, review and implementation of treatment plans; providing information to the patient; and assessing the outcomes.

A number of initiatives have been incorporated into the running of the Macarthur centre. The involvement of nursing staff is critical in this process. They are present during new patient consultations, personally educate patients receiving chemotherapy and follow-up these chemotherapy treatments with telephone calls to assess any side-effects. This involvement will continue with the commencement of radiation services in late 2003. Quality of the service is measured by regular auditing of key functions-billing, clinical information, turnaround time of dictation to general practitioners. Patients and visitors are invited to complete anonymous questionnaires relating to their experience at the centre and suggestions for improvements. Initial results are extremely favourable for the service.

The creation of a community consultative committee within the MCTC seeks to involve community groups in the running of the centre. They will provide priorities for services, education needs and equipment purchases. The degree of fundraising by community volunteer, sporting and service groups has been instrumental in commencing the wig library, an education and resource centre. A strong volunteer group currently exists, they are invaluable in making patients and visitors feel welcome and supported during their visits to the centre.

The education of staff within Macarthur not previously exposed to cancer treatments has progressed well. Lectures and inservices to nursing staff, senior and junior medical staff, emergency staff, general practitioners and community nursing staff have occurred. The use of videoconferencing facilities will link MCTC with Liverpool Cancer Therapy Centre, Camden Palliative Care Unit and Wingecarribee general practice.

Professional Standards

The MCTC has updated the clinical policy manual for Macarthur Health Service for safe practices relating to administration of chemotherapy and is implementing care plans for disease states in conjunction with Liverpool CTC.



Macarthur Cancer Therapy Centre opened in February, these are the Nursing Staff (l-r): D Aston, M Hinton, M Causer, G Dwyer, D Burns. Absent: K Bourke, J Stewart.

The involvement of medical, nursing, pharmacy and allied health staff at both cancer centres ensures multidisciplinary co-operation.

At a local level, these policies are incorporated into nursing education, especially for areas outside of the MCTC- medical and surgical wards, emergency departments and the community. Work instructions for clerical and nursing staff are available for clinic organisation.

Organisational Development

The MCTC is an integrated service with over 50 staff when radiotherapy commences in late 2003. An executive with community representation manages the service, with good relationships having been built with Macarthur Health Service and South West Sydney Cancer Services (SWSCS). A business plan has been formulated with staff and management actively involved in performance management. Staff members are supported in attending ongoing education programmes within South West Sydney Area Health Service and outside agencies.

Staff are involved in education and strategic planning in the departments of medicine and surgery. Post-graduate and medical student teaching sessions are undertaken. Staff attended the 2003 high school career development day in the Macarthur area.

Regular meetings are held for the management of breast cancer, and videoconference facilities will allow greater integration with other SWSCS tumour stream clinical meetings.

Population Focus

The MCTC is strongly focused on the needs and wishes of the community. An education centre exists within the MCTC where patients and carers are able to obtain literature and internet access to cancer information. Information sheets on therapies are given to all patients. Patient questionnaires are a method of receiving feedback from users of the MCTC and allow the executive to consider changes. The clinical governance of the MCTC and Macarthur Health Service allow review of the quality of the service, review incidents and consider changes. Safety for patients, visitors and staff is a major priority.

Clinical research and clinical trials allow an opportunity for patients to access new therapies. Breast cancer prevention studies are planned for the community, information on screening for breast, colorectal, cervix and skin cancer are available. A lecture series to high school children is planned for 2003-04.

A broader variety of patient support groups are planned to commence in 2003-04 when the full complement of allied health staff are available.

Academic Focus

The clinical trials unit commenced operations in June 2003. A series of chemotherapy, radiation and supportive studies will commence under the auspices of regional, national and international co-operative research groups. Information is provided to allow informed decisions to be made. The MCTC is hopeful to secure a grant from the NSW Cancer Council to increase the staff available to enrol patients into clinical studies.

Quality Assurance projects are in place in nursing and pharmacy to review completeness of medication charts, patient side-effects following chemotherapy administration and the time for dictated letters to reach the general practitioner.

Allied Health

The Liverpool CTC Allied Health staff have conducted planning meetings since November 2002 to prepare for the interface and service collaboration with their Macarthur CTC counterparts when the latter came on board in the ensuing months. Relevant service managers of the various Allied Health disciplines at both sites have also subsequently met on several occasions to address services, resources and administrative issues anticipated when Macarthur CTC came into operation in April 2003. These processes are on-going. The Allied Health staff of both Liverpool and Macarthur CTCs will hold the first joint meeting in September 2003.

Patient Focus

Relevant service managers of the Liverpool and Macarthur CTCs have met to address the issue of consistency in services, equipment and protocols to ensure equitable quality of and access to Allied Health services across the two sites. Each discipline continued to operate along their respective departmental policies and quality improvement initiatives. Complementing individual casework, education and support groups were run regularly for patients and families with laryngectomy, lymphoedema, haematological cancers and those receiving radiation therapy. The Social Work and Clinical Psychology services have been working with the Education Committee and Clinical Care Coordinators on the provision of relevant education activities to patients area-wide. Following a successful Cancer Education Programme for Vietnamese-speaking patients, the largest NESB patient group in SWS, a Cantonese Cancer Education Programme has also been conducted for the service's second largest NESB patient group. Liverpool CTC's "Dealing with Cancer" Patient Education Programme has won the Liverpool Health Service 2002 Quality Awards.

Professional Standards

Periodic meetings have been put in place for related service managers and Allied Health staff to continually review respective service policies and protocols to maintain professional standards and quality.

Organisational Development

Liverpool CTC Allied Health staff have conducted a review on the current service provision level and identified the shortfalls in funding from Cancer Service to maintain such level of activity. Relevant service managers of the Liverpool and Macarthur CTCs have reviewed the situation. Submissions have been made by the service managers to the Liverpool CTC management so that this issue could be looked into in its budget review process.

Population Focus

Allied Health services for the cancer population remain to be secondary or tertiary services. No major primary, preventive programmes have been implemented over the year.

Academic Focus

Over the year, Allied Health staff have been actively participating in Liverpool CTC's staff education and inservice programmes, including providing inservice education to staff centre-wide. Various disciplines have been involved in providing training and supervision for students in their respective field.

Palliative Care Service

The goals of the Palliative Care Service are set down in the Liverpool Hospital Palliative Care Service Business which works within the Strategic Plan of SWSAHS, Division of Medicine, Cancer Therapy Centre and the Area Palliative Care Service.

Patient Focus

To enhance the quality of discharges from Liverpool Hospital to the Community Palliative Care Teams. Conduct survey of Discharge Issues for Palliative Care patients. Phase 1 Due for completion September 30th 2003.

Professional Standards

Currently developing Area wide Palliative Care Policies:
Bowel Care For Palliative Care Patients (*out for final comment*)
Syringe Driver Policy under review.

The Area Palliative Care Service have set a key performance indicator which is to Increase the length of time between Referral to the Palliative Care Service and Death. We are measuring the percentage of patients who were referred more than one hundred days before death. As at June 30th 2003 the percentage of patients referred more than one hundred days before death was 16%.

Organisational Development

A quality audit that we have been undertaking since January 2000 is to decrease the length of delay between identifying a patient who is for transfer to a Palliative Care Unit, and the actual transfer.

In the calendar year 2000 the number of patients who required transfer to a Palliative Care Unit in total was 52. The average waiting time for a bed was 5.21days with the longest delay being 17 days and the shortest delay being 1 day.

In the calendar year 2002 up to June 30th the number of patients requiring transfer to Palliative Care Units has been 48 with an average delay of 2.7 days. The longest waiting time has been 7 days and the shortest delay has been transfer on the actual day of identification of the need for transfer.

Decreased delays of transfer from Liverpool Hospital to Palliative Care In-patient Units (Data as at 30th June 2003)

Population Focus

As part of the SWSAHS Palliative Care service we work very closely to provide a holistic Palliative Care service to the people of the area. We hope that this service is culturally appropriate at all times. We endeavour to educate the people of South Western Sydney about Palliative Care, its philosophy and the service that we provide.

Academic Focus

The Liverpool Hospital Palliative Care Service has provided education to the Health Service on Palliative Care in the following areas:

- Year 4 Medical Students *Dealing with Bad News*
- Year 4 Medical students *Loss and Grief*
- Area Palliative Care Nursing Education OPSCA Funded Course
- Area Palliative Care Nursing Home Education for Registered Nurses, Enrolled Nurses and Assistants In Nursing
- Education for all stakeholders from patients and providers, students and public
- Support cancer services appropriate to a tertiary referral teaching hospital
- Education to the Division of General Practitioners on Symptom Management and Palliative Care issues.

Nursing

A number of initiatives have been undertaken by Nursing over the past 12 months to develop and promote oncology nursing, within Cancer Services.

They include:

- Review of the model of care within the Cancer Therapy Centre with the subsequent development of the Team Leader role and the Clinic Nurse role
- Ongoing recruitment through internal secondments, external advertising and accessing SWSAHS overseas nursing recruitment strategies
- The development of a 2 day chemotherapy workshop, available to all Cancer Services staff
- The development of a second Clinical Nurse Educator position and the regrading of the Clinical Nurse Consultant position to provide clinical expertise and educational support to the nursing workforce.

Patient Focus

The nursing staff regularly reviews patient care, developing and undertaking Quality audits and projects. At present they are developing the role of the Team Leader within the chemotherapy room. This role will assist with patient flow and trouble-shoot difficulties throughout the day. The clinic nurse will assist patients with their educational needs, referral to other members of the multi-disciplinary team and make clinic and chemotherapy bookings as required.

The Cancer Therapy Centre Quality committee has developed a Patient Satisfaction Survey that will be used to give direction to the improvement of the patient's experience while they are in the care of the Cancer Service.

Professional Standards

The nursing staff of the Cancer Service continually strive to review and improve the care they provide to patients. They develop and write policies and procedures that ensure a high standard of nursing care.



Patient heights and weight are taken here for clinic by D Gaston EN.

An orientation checklist has been implemented in AGGE to assist Agency and Casual nursing staff. Compliance is regularly audited.

The development of a venous access resource nurse will provide information to both patients and staff regarding venous access devices, insertion and care.

The team leader role with Cancer Therapy Centre allows nurses to experience an in-charge role developing clinical, organisational and leadership skills.



Apheresis cell separator operated by G Fairnham.

Organisational Development

Ongoing recruitment is improving the nursing complement. We welcome Justine Kemsley, NUM, Tammy Tautai Acting NUM, (maternity relief), Doris Dadic, Sally Meighan, Aura Serrano, Claudia Kogelbauer (from Austria) to the Cancer Therapy Centre. To Alex Grimson Ground East we welcome Robyn Benton, Amy O'Donnell, and Jennei Weber. Laura Woodlands and Justin Hussein have joined the Palliative Care Service.

Population Focus

Nursing is involved in the implementation of the Patient Friendliness Project. There are nursing representatives on all the working parties, working with the multi-disciplinary team to improve the customer service of the Cancer Therapy Centre.



CTC supporting Student Nursing Programme, AIN undergraduate M Kelly.

Academic Focus

The clinical nurse educator and senior nurses developed a 2-day chemotherapy workshop to address educational deficits within the nursing team. This has been run successfully a number of times, with the LHS Learning and Development Unit supporting the September program, promoting it as an SWSAHS education program.

The CNE and Acting CNE have received accreditation from the Learning and Development Unit to facilitate cannulation education. This will assist with the annual re-accreditation of all Cancer Services nurses in their cannulation practise.

Three nurses, Doris Dadic, Joan Lososo and Karl Jobburn, have been supported by SWSAHS to enrol in the NSW College of Nursing, Oncology Certificate course. Their feedback has been very positive and we are looking forward to the nurses bringing their newfound knowledge back to the Cancer Service.

Radiation Oncology Report

In radiation oncology we have had a mixed year when it comes to presenting our achievements. There have been a large number of improvements to the service but these have been tempered somewhat by ongoing waiting lists for patients requiring radiation therapy. These waiting times have been a consequence of the continuing international shortage of trained radiation therapy and medical physics staff. This has resulted in a reduction in the numbers of patients seen and treated within the department when compared with previous years. A number of initiatives have been put in place to assist patients getting access to timely treatment while we solve the problem.

However, there is some light at the end of the tunnel. A number of initiatives that were intended to attract more staff may start to reap benefit in the next 12 months. In addition, both the state and federal governments have made plans for substantial injections of much-needed funds to enhance the service. Despite these difficult times, our staff have worked hard at maintaining treatment quality. In addition, the quality of the research and education work coming out of the Liverpool Cancer Therapy Centre Radiation Oncology Department is testament to the hard work of our team and some of these achievements have been listed below.



Radiotherapy equipment at Liverpool.

Some of the major departmental achievements for the past 12 months have included:

- Successful recruitment of staff for the Macarthur Cancer Centre radiation oncology service
- Commissioning of a new linear accelerator at the Macarthur Cancer Centre
- Implementation of a new three-dimensional planning system for radiotherapy treatment planning
- Implementation of the Radiotherapy Information System (Lantis) into the Liverpool and Macarthur Cancer services as a pilot site for NSW Health
- Installation and acceptance of new CT scanners at Liverpool and Macarthur Cancer Centres
- Major upgrade of the quality assurance information system for the linear accelerators
- A number of people within our department have represented the department at International, National, State and Local committees. There are too many to list, but input into these groups maintains the radiation oncology profession and the SWSAHS radiation oncology service with a profile of not only developing the local service but also having an interest in the larger issues
- Development of information packages for patients with breast cancer, colorectal cancer, prostate cancer and lung cancer.

Some of the challenges that face us within the next couple of years:

- Successful recruitment and retention of staff and the consequent eradication of our waiting list
- Ongoing introduction of new technologies into radiation therapy planning and treatment and the regular replacement of ageing equipment
- Further development of the electronic information system recently installed into the department
- Replacement of our two oldest linear accelerators.

Patient Throughput 2002 - 2003

One of the three linear accelerators at Liverpool Hospital has been closed for all but 1 month of the current year due to staff shortages.

When comparing to the 2001/02 statistics, a 3rd Linear Accelerator was operational from February to June 2002 and therefore, this explains the drop in patient throughput.

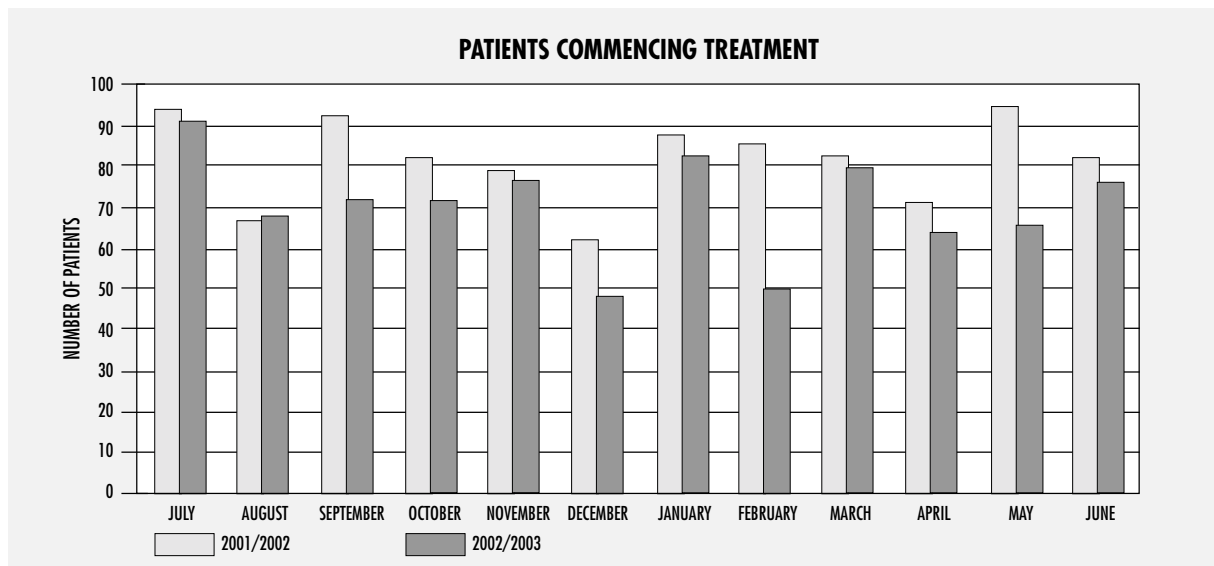
For the year 2002/03:

Number of patients who commenced treatment = 846:

This is 14% less than 2001/02 but that year had 6 months of 3 Linear Accelerators the current year had only 1 month.

2001/02 – 981 Patients

2002/03 – 846 Patients

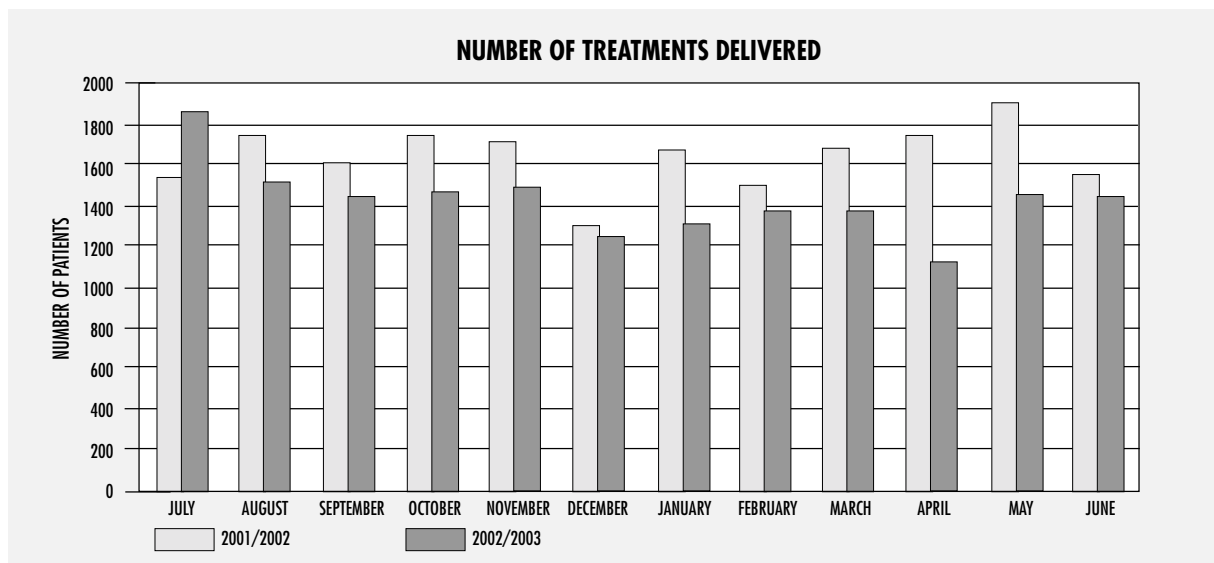


Number of treatments delivered 17,058:

Again a 14% decrease from 2001/02 but again the same reasons apply.

2001/02 – 19,693

2002/03 – 17,058



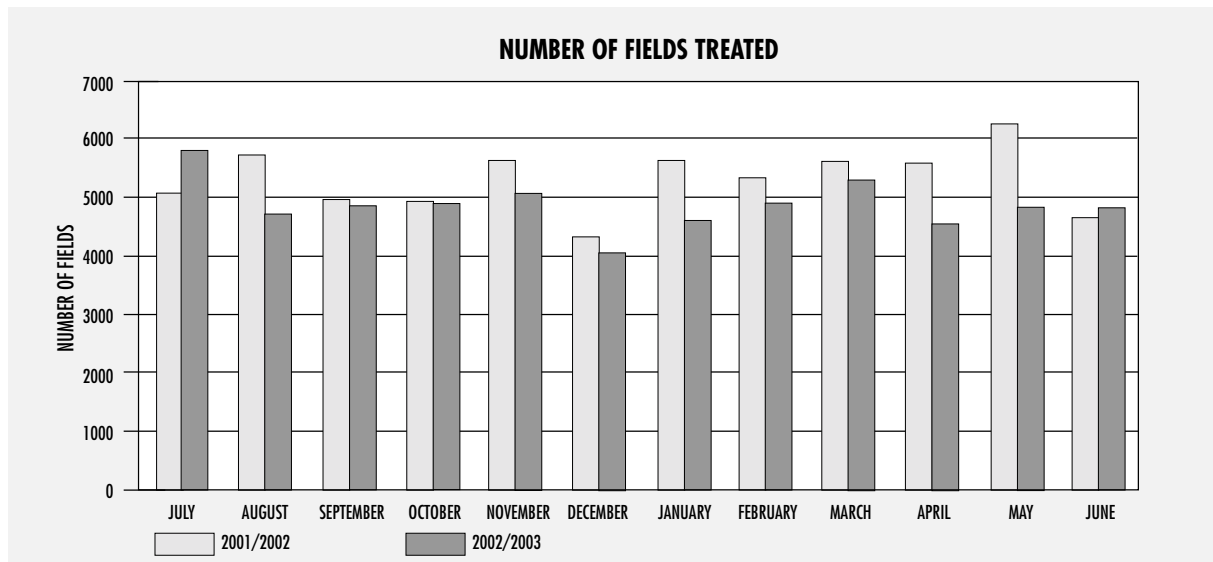
Number of fields treated 58199:

This is only a 9% decrease from the 2001/02 which may indicate an increase in more complex techniques with more fields per treatment. As the technology improves the treatment techniques become more complex.

In 2001/02 the number of fields per treatment was 3.23 and in 2002/03 it was 3.41. The State average from 2001 RMIS is 2.83.

2001/02 – 63646

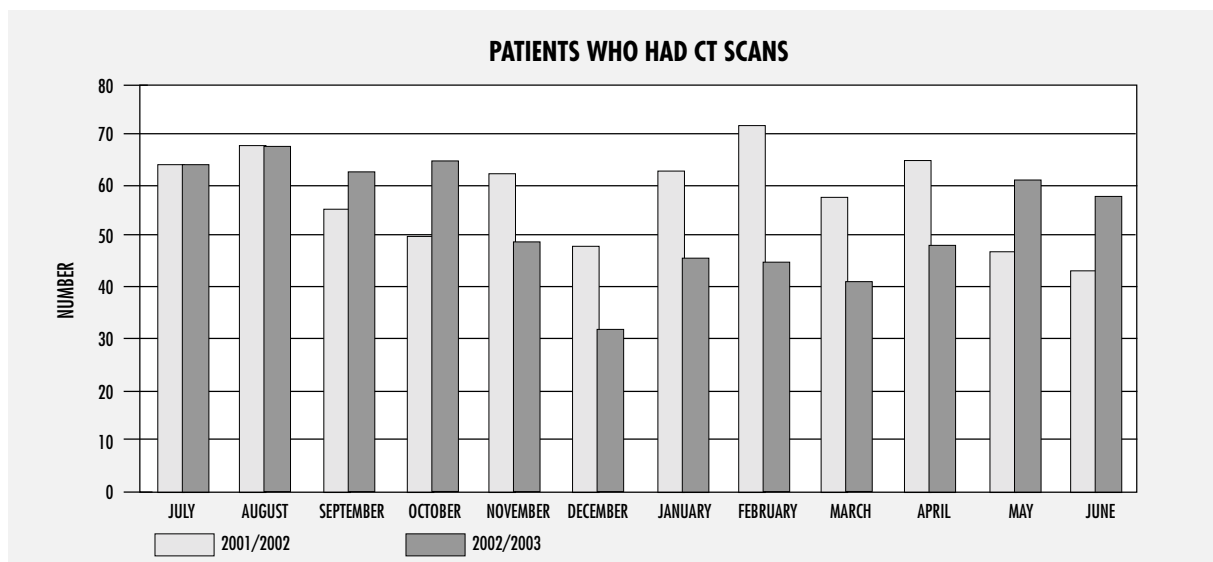
2002/03 – 58199



CT Planning:

2001/02 – 695 patients had CT scans for planning. (71% of the patients treated)

2002/03 – 640 patients had CT scans for planning. (76% of the patients treated)



Brachytherapy:

2002/03 has also seen a 23% increase in the attendances for Brachytherapy.

Orthovoltage and superficial x-ray therapy:

2002/03 has seen a 12% increase in the attendances for orthovoltage treatments and a 9% in the no. of fields treated.

Research Activity

The CTC radiation oncology department continues to have a high profile in research. A list of publications, presentations and awards conferred are listed below.

Higher degrees

Dr Geoff Delaney received an MD for research into “The Development of Basic Treatment Equivalent as a measure of Linear Accelerator Throughput” 2002. University of NSW.

Ms Oona Collins submitted honours thesis.

Submitted: 12th June 2003

Degree: BSc (HONS) in Applied Physics, University of Technology, Sydney

Thesis title: Investigation of film dosimetry for high-dose radiotherapy techniques

Awards

Dr Lois Holloway

Finalist in the Cure Cancer Australia Foundation’s Young Researcher of the Year award (2003)

Dr Marketa Skala

Awarded the Mayne Health travel grant for Medical Oncology Group/ Faculty of Radiation Oncology presentation of “Consensus Guidelines for 3D Conformal Radiotherapy in Prostate Cancer”

Dr Geoff Delaney

Awarded the Philips Prize for the best research presentation at the 2002 Annual General and Scientific Meeting of the Royal Australasian College of Radiologists Meeting for the presentation “Estimating the Optimal Radiotherapy Utilisation Rate Based Upon Evidence”.

Dr Karen Lim

Awarded the part 1 examination in radiation oncology registrar training.



A new bookings system was implemented this year by The Lantis team.

(back l-r): A Arnold, V Towell, M West,

(front l-r): N Kaadan, D Vincent (absent): G Goozee, M Bailey

Publications *(CTC Radiation Oncology staff appear in italics)*

Hill R, Holloway L

IAEA Education CD-ROM on “Radioactivity” and “Radiobiology”.
In press.

Vinod SK, Delaney GP, Jalaludin BB, MacLeod CA, Fowler AR, Barton MB

A Basic Treatment Equivalent for High-Dose Rate Gynaecological Brachytherapy – A Pilot Study.
Clin Oncol 2002; 14: 394-398.

Vinod SK, Jalaludin BB, Rodger A, Turner S, Kelly L, Thornton D & Clark C.

Part-time Consultants in Radiation Oncology.
Austral Radiol 2002; 46: 396-401.

Vinod SK, Delaney GP, Bauman AE, Barton MB

A Lung Cancer Patterns of Care Study in South Western Sydney Area Health Service, New South Wales, Australia.
Thorax In press.

GP Delaney, B Jalaludin, E Moylan, MB Barton

The development of a model of outpatient chemotherapy delivery – Chemotherapy basic treatment equivalent.
Journal of Clinical Oncology Clinical Oncology 2002; 14 (5):406-412.

A Penman, M Barton

Access to radiotherapy: the gap between policy and practice.
Cancer Forum 2002; 26 (3): 173-176



*Young Researcher of the year Award 2003.
Presented to Research Physicist Dr Lois Holloway
of the Liverpool Cancer Service.*

G Delaney, R Sorenson, A Ralston and **M Barton**
Strategic investment and new technology in radiotherapy.
Cancer Forum 2002; 26 (3): 180-182.

MB Barton

The city AND the bush. Where is the best place for radiotherapy departments?
Australas Radiol 2002 Sep;46(3):219-220.

Barton MB, Delaney GP

A comparison of the evidence based utilisation of radiotherapy with current clinical practice.
CCORE. April 2002

MB Barton, G Delaney

A comparison of the evidence based utilisation of radiotherapy with current clinical practice.
Part 2 CCORE. December 2002

G Hrubby, **MB Barton**, S Carroll, L Nasser, S Miles and G Stevens
Sites of Local recurrence following surgery, with or without chemotherapy for Rectal Cancer – Implications for Radiotherapy Field Design.
Int J Radiat Oncol Biol Phys 2003 Jan 1;55 (1):138-43

G Delaney, M Barton, S Jacob, B Jalaludin
A model for decision making for the use of radiotherapy in lung cancer.
Lancet Oncology 2003; 4: 120-128

MB Barton, MH N Tattersall, PN Butow, S Crossing, K Jamrozik, B Jalaludin, CH Atkinson, SE Miles
Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types.
Med J Aust 2003 178: 285-289

Delaney G, Barton M, Jacob S

Estimation of an optimal radiotherapy utilization rate for breast cancer: A review of the evidence.
Cancer, 2003 (in press)

Barton M, Jacob S, Gebski V
Utility-adjusted analysis of the cost of palliative radiotherapy for bone metastasis.
Australas Radiol 2003 (in press).

Featherstone C, Delaney G, Jacob S, Barton MB
Estimating optimal radiotherapy utilisation for haematological malignancies from clinical guidelines.
Clinical Oncology 15(2) s25, 2003

Denham J, Steigler A, Kilmurray J, Wratten C, Burmeister B, Lamb D, Joseph D, **Delaney G**, Christie D, Jamieson G, Smithers BM, Ackland S, Walpole E
Relapse patterns after chemo-radiation for carcinoma of the oesophagus.
Clin Onc. 15: 98-108, 2003

Graham P, Capp A, Fox C, Nasser E, **Delaney G**, Ahern V, Wratten C

Why a breast boost should remain a controversial aspect of routine breast conservation management in Australia and New Zealand in 2002.
Aust Radiology 47(1): 44-49, 2003

Delaney G

“Radiation Oncology: Rationale, Technique, Results”
(book review), Australasian Radiology, 2003 (in press)

Bydder S, Spry N, Christie D, Roos D, Burmeister B, Krowitz S, Davis S, Joseph D, Poulsen M and Barry M
A prospective trial of short fractionation radiotherapy for the palliation of River Metastases.
Australasian Radiology 43:3, 284 Sept 2003

Submitted for publication

1. **Featherstone C, Delaney G, Barton M, Jacob S**
Estimation of an optimal radiotherapy utilization rate for myeloma: A review of the evidence.
Submitted to Radiotherapy and Oncology, 2003.
2. **Featherstone C, Delaney G, Barton M, Jacob S**
Estimation of an optimal radiotherapy utilization rate for lymphoma and leukaemia: A review of the evidence.
Submitted to Radiotherapy and Oncology, 2003.
3. **Delaney G, Barton M, Jacob S**
Estimation of an optimal radiotherapy utilization rate for melanoma: A review of the evidence.
Draft complete.
4. **Delaney G, Barton M, Jacob S**
Estimation of an optimal radiotherapy utilization rate for rectal carcinoma: A review of the evidence.
Draft in progress.

5. *Delaney G, Barton M, Jacob S*
Estimation of an optimal radiotherapy utilization rate for gynaecological carcinoma: A review of the evidence. Draft in progress.
6. *Barton M, Gabriel G, Miles S*
Colorectal Cancer Patterns of Care in the Western Sydney and Wentworth Area Health Services.
Australian and New Zealand Journal of Surgery
7. Iedema R, Winters M, *Delaney G, Jacobs S, Barton M*
Introducing Videoconferencing to multi-specialist breast cancer meetings.
Behaviour and Technology 2003
8. *Kneebone A*, Mameghan H, Bolin T, *Berry M*, Turner S, Kearsley J, Graham P, Fisher R, *Delaney G*
“The effect of oral sucralate on late rectal injury associated with prostate radiotherapy: a double-blind, randomised trial”.
J Clin Onc 2003
9. Barbera L, Jackson LD, Schulze K, Groome PA, Foroudi F, *Delaney GP*, Mackillop WJ
Performance of Different Radiotherapy Workload Models, Int. J. Radiat. Oncol. Biol. Phys. 2003
10. Lehmann M, *Jacob S, Barton M, Delaney G*, et al
“What patients think of waiting times”.
11. Back M, *Delaney G*, et al.
“Breast cosmesis following breast conservative surgery and radiotherapy”.
Australian and New Zealand Journal of Surgery
12. *Delaney G, Barton M, Jacobs S*, Bonar T
A pilot study into establishing video-conferencing for multidisciplinary care.
Australasian Radiology, 2003
13. *Latimer J, Beckham W, Delaney G, West M, Holloway L*
Utilizing an expandable micro-shell to minimize skin dose and support large breasts during tangential irradiation.
Med Dosimetry
14. Tai KH, Duchesne G, Turner S, Kneebone A, See A, Gogna K, Berry M
Three – Dimensional Conformal Radiography in the treatment of Prostrate Cancer in Australia and New Zealand: Reprint on the proceedings of a Consensus Workshop.
15. Skala M, Berry M, Duchesne G, Gogna K, Tai HK, Turner S, Kneebone A, Rolfo A and Hayworth A
Australia and New Zealand 3D Conformal Radiation Therapy consensus guidelines for Prostrate Cancer .
16. *Abern V, Berry M*
Paediatric radiotherapy in Australia and New Zealand – an anachronism in 2003?

Seminar Proceedings

The CTC Radiation Oncology Department staff have been involved in organising a series of inter-disciplinary workshops for radiation therapists, radiation oncologists and medical physicists. Those organised in 2002-2003 are:

Imaging in radiotherapy 2002

Waiting times seminar 2002

The multidisciplinary management of lung cancer, 2003

Each seminar had over 150 attendees and there has been very positive feedback about the seminars. Future seminars are planned.

RT and Physics staff from Liverpool CTC organised the successful CMS Focus Users meeting held in Sydney in May 2003.

Presentations

Hill R, Williams M, Cho G-A, West M, Bailey M, Whitaker M, Collins O, Greig L, Holloway L

“Conformance of x-ray dose calculations to AAPM TG53 recommendations” AAPM 2003

M Bailey, O Collins, M Whitaker, M West, M Williams, L Holloway, R Hill, G Cho, L Greig

“Anthropomorphic verification of a 3d RTPS” – EPSM 2002

M Bailey, O Collins, M Whitaker, M West, M Williams, L Holloway, R Hill, G Cho

“Verification of a 3D RTPS using an Anthropomorphic Phantom and TLD-100” CMS Users Meeting – May 2003

Dundas KL, Atyeo JW

Breast Reproducibility: Examining set-up error for Tangential Breast Radiation Therapy. 21st Radiation Therapy Symposium held in Adelaide March 21-23 2003

Fuller M, Williams M, Kneebone AB

Radiotherapy of the Prostate: the Use of the BAT Ultrasound System at the Liverpool CTC.

21st Radiation Therapy Symposium held in Adelaide March 21-23 2003

Fleet M

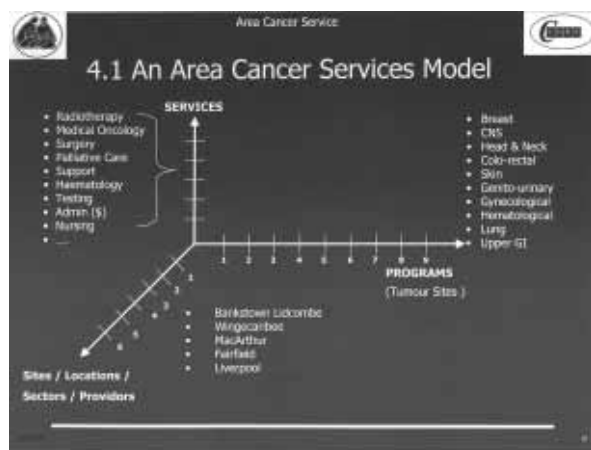
A CT Scanner in a RT Department. Siemens Users Meeting in conjunction with the RT Symposium held in Adelaide March 21 2003

Vincent D, Arnold A

Implementation of Lantis in a Multidisciplinary Cancer Centre. Siemens Users Meeting in conjunction with the RT Symposium held in Adelaide March 21 2003

Towell V

The Liverpool CNS technique on Focus
2003 CMS Focus Users Meeting held in Sydney May 10-11 2003



A model for Area Cancer Services

M Skala, KH Tai, M Berry, G Duchesne, K Gogna, S Turner
MOG/FRO Conference, August 2002 Australian and New Zealand consensus guidelines for 3D conformal radiation therapy in prostate cancer: a tripartite collaborative approach. Received the FRO Advanced Trainee Award sponsored by Mayne Health

M Skala, KH Tai, M Berry, G Duchesne, K Gogna, S Turner
RANZCR Annual Scientific Meeting, October 2002, “Australian and New Zealand consensus guidelines for 3D conformal radiation therapy in prostate cancer”

Vinod S

The prioritisation of waiting lists in radiotherapy. Workshop on Waiting Times, Sydney, 2002

Vinod S

A lung cancer patterns of care study in SWSAHS. Workshop on Radiotherapy Planning in Lung Cancer, Sydney, 2003.

Lim K

“The prioritisation of waiting lists in radiotherapy”. 2002 Annual General and Scientific Meeting of the Royal Australian and New Zealand College of Radiologists, 2002 Adelaide.

Delaney G

“The use of CT in breast radiotherapy planning” – Radiotherapy Imaging Symposium, Liverpool Hospital.

Delaney G

“The radiation oncology management of DCIS and early breast cancer” – Invited lecture for the NSW Breast Cancer Institute Multidisciplinary Workshop.

Delaney G

“Radiotherapy lessons for data managers” – Invited Lecture for the data managers workshop, Australian and New Zealand Breast Cancer Trials Group Meeting, Sanctuary Cove, Gold Coast 2002.

Delaney G

“A DCIS update for radiation oncology” – Invited Lecture for the radiation oncology workshop, Australian and New Zealand Breast Cancer Trials Group Meeting, Sanctuary Cove, Gold Coast 2002.

Delaney G

“The role of fractionation of radiotherapy and waiting lists” – Invited lecture, Radiotherapy Waiting List Symposium, Liverpool Hospital.

Delaney G

“Episode profiling in radiotherapy” – 2002 Health Care Forum and Case Mix conference, Melbourne.

Delaney G

“Radiotherapy and Breast Cancer: Evaluating Current Practice and Guideline Implementation”. A Rodger, L Dalton, G Delaney, M Borg, S Vinod, R Drummond and D Blakey on behalf of the Radiation Oncology Expert Advisory Group, 2002 RANZCR Annual General and Scientific Meeting, Adelaide, Australia.

Delaney G

“Estimating the optimal radiotherapy utilisation rate from evidence”. 2002 RANZCR Annual General and Scientific Meeting, Adelaide, Australia.

Delaney G

“Current controversies in the management of DCIS”. G Delaney. 2002 RANZCR Annual General and Scientific Meeting, Adelaide, Australia.

Delaney G

Plenary session – “Case Studies in Breast Cancer”, Clinical Oncological Society of Australia (COSA), Sydney 2002.

Delaney G

“Models of multidisciplinary care” NSW Cancer Council workshop on the multidisciplinary management of lung cancer, Sydney 2003.

Delaney G

“Estimating the optimal radiotherapy utilisation rate based upon evidence.” NSW Radiotherapy Club Meeting. Sydney 2003.

Delaney G

“Estimating the optimal radiotherapy utilisation rate based upon evidence.” National Cancer Control Initiative. Sydney 2003

Delaney G

“What is the optimal radiotherapy utilisation rate in lung cancer based on clinical guidelines?” International Lung Cancer Conference, Vancouver, Canada. 2003

Delaney G

“Estimating the optimal radiotherapy utilisation rate based on clinical guidelines and best available evidence and comparing it to current practice.” International Congress of Radiation Research, Brisbane, Australia.

Berry M

Service coordination for urological oncology. USA Annual Scientific Meeting, Perth WA, April 2002

Berry M

Urological Society of Australasia, Annual Scientific Meeting, Perth WA, April 2002

Berry M

ANZCCSG Annual Scientific Meeting, Adelaide SA, May 2002

Berry M

EBRT – 3D Conformal Radiotherapy Workshop, Melbourne, May/June 2002

Berry M

Collaborative Centre for Prostate Health & Faculty of Radiation Oncology National Conference, Adelaide/Barossa Valley SA, August 2002

Berry M

3rd National Prostate Cancer Symposium & Australian Genito-urinary Oncology Trial Group Meeting, Melbourne, August 2002

Berry M

RANZCR Annual Scientific Meeting, Adelaide, October 2002

Berry M

USA Conference, Queenstown NZ, March 2003

Berry M

SWS Colorectal Tumour Group Clinical & Research Meeting, Bowral, March 2003

Berry M

‘Understanding cancer policy’ - Consumer Advocacy Training Workshop Cancer Council, May 2003

Berry M

Clinical Services Framework Forum, Orange NSW, July 2003

Berry M

Mid North Coast Rural Consultation, Coffs Harbour, Port Macquarie, Taree NSW, Oct 2003

Posters

Dundas KL, Atyeo JW

Determination and Categorisation of the Breast Size for Tangential Radiation Therapy Breast Patients at NCCC. 21st Radiation Therapy Symposium held in Adelaide March 21-23 2003

Towell V

Rhynophyma – A Case Study. 21st Radiation Therapy Symposium held in Adelaide March 21-23 2003

Cusack N, Towell V, Fowler A, Greig L, West M

Brachytherapy – Freiburg Flap: A Case Study. 21st Radiation Therapy Symposium held in Adelaide March 21-23 2003.

Vinod SK, Delaney GP, Bauman AE and Barton MB

A Lung Cancer Patterns of Care Study in South Western Sydney Area Health Service, New South Wales, Australia 10th World Conference on Lung Cancer. Vancouver 2003.

Vinod SK, Hui AC, Esmaili N, Hensley MJ and Barton MB

A comparison of patterns of care in lung cancer in different area health services in NSW, Australia. 10th World Conference on Lung Cancer. Vancouver 2003.

Hui A, Vinod SK, Yuile P, Delaney G, Jalaludin B and Barton M

Socioeconomic Status and Patterns of care in Lung Cancer. International Congress of Radiation Research, Brisbane 2003.

Featherstone C, Holloway L, Vinod SK, Ho-Shon I and Kaplan A

The influence of 18FDG-PET on conformal radiotherapy planning for patients with non-small cell lung cancer (NSCLC) International Congress of Radiation Research, Brisbane 2003.

Skala M, Tai KH, Berry MP, Duchesne G, Gogna K and Turner S

Consensus guidelines for EBRT treatment of prostate cancer. MOG/FRO meeting, Barossa Valley, S.A., August, 2002

Poxon V, Berry MP, Delaney G, Kneebone A

Using integrated hospital information systems to improve survival and outcomes for cancer patients.

Works in Progress

The NSW Clinical Service Framework for Optimising Cancer Care: Development and Implementation.

Submitted for COSA Meeting Perth, November 2003.

Kricker W, Berry M, Tynan K

Business Case for Piloting an Area Clinical cancer Registry in South Western Sydney Area Health Service (Submission for Treasury Funding via the NSW Office of Information Technology).

Poxon V, Berry M

The Collaboration for Cancer Outcomes Research and Evaluation

The Collaboration for Cancer Outcomes Research and Evaluation is a research group within Liverpool Hospital, directed by Prof Michael Barton. CCORE was established by funding from the radiation oncology private practice trust fund. Ongoing funding is obtained from the trust fund, research grants, and contracts from external groups. The research focus is largely in the area of oncology health services research. Below are listed the current projects being performed. The 2002-2003 publications and presentations that come from this group have been included in the previous lists. A separate report on the functions of CCORE is available on request.

Current Projects being undertaken by the Collaboration for Cancer Outcomes Research and Evaluation.

1. Victorian Cancer Services Framework

Cancer services framework for Victoria including planning projections, service standards and role designation framework for the Victorian Department of Human Services.

Collaborators: M Frommer, I Olver, P Crowe, C Cox, B Wall

Progress: Final draft submitted 4 July 2003. Final advisory meeting 18 July 2003

2. Radiotherapy in cancer care: estimating the optimal utilisation from a review of evidence-based clinical guidelines

The planning of efficient, equitable radiotherapy services for a population requires a rational estimate of need. The objective of the project is to estimate the ideal proportion of new cases of cancer that should receive radiotherapy at some time during the course of their illness, based on the best evidence available. It was calculated that, based on the best available evidence, 52.3 % of all cancer patients should ideally receive radiotherapy at least once during the course of their illness. This estimate should be useful in aiding the planning for future radiotherapy facilities.

Collaborators: The steering committee for this project is convened by the National Cancer Control Initiative (NCCI).

Project funding: This project is funded by the Commonwealth Department of Health and Aged Care.

Progress of project: The draft final report has been completed on schedule and mailed to the members of the Steering Committee, who will meet to review the report in late July/August 2003.

Projected closing time of project: September/October 2003



Meeting of the Advisory Board of the Distance Assisted Teaching Course in the Applied Sciences of Radiation Oncology being developed by CCORE for the International Atomic Energy Agency. Seoul June 2003 attended by Dr M Barton.

3. A comparison of optimal and actual radiotherapy utilisation

This study was a follow up of the abovementioned 'Optimal' project, in order to compare actual with optimal practice. Major discrepancies were found for lung, breast and rectum. Head and neck utilisations were close to optimal. The project was performed at the request of the Commonwealth Department of Health and Ageing through the NCCI.

4. Applied Sciences of Oncology Distance Learning Project

CCORE (SWSAHS) is contracted to the IAEA to develop and produce a distance learning course in (radiation) oncology, to enable doctors from developing countries to receive basic oncology training in their home countries. This cost-effective training should reduce the time such doctors are absent overseas for formal specialist training and examinations, and should also limit the medical "brain drain" from these countries.

Collaborators: More than 50 authors, Mediworld international, International Advisory Board.

5. BTE 2003: an assessment of linear accelerator throughput in New South Wales in 2003

Updating the BTE model to 2003.

Investigators: Dr Geoff Delaney (Chief Investigator), A/Prof Michael Barton, A/Prof Bin Jalaludin and Jesmin Shafiq (Project Coordinator).

Collaborators: Participating centres: All public and private radiation oncology departments in NSW except one (Mater Private Hospital).

Progress: Data collection in progress from all participating departments (3 completed).

6. Survey of Interns' knowledge about cancer

Follow up study to survey performed in 1990 to assess interns' knowledge and attitudes to cancer and their experience of its teaching.

Collaborators: MH Tattersall, K Jamrozik, P Butow, S Crossing, C Atkinson

Funding: \$6000 from the Cancer Council Australia

Progress: survey completed 2001. Results published MJA 2003

7. Survey of GPs' knowledge about cancer

Comparison of GP registrars with intern survey using slightly adapted survey

Collaborators: NSW Cancer Council, K Sundquist, D Sullivan, E Sayers

Progress: Survey completed and preliminary analysis completed.

8. Survey of reasons why patients do not receive radiotherapy

Prospective survey of lung cancer patients to determine the reasons that they did not receive radiotherapy.

Collaborators: NCCI, Rob Sanson-Fisher

Progress: project still in formulation

9. Shared care project for follow-up of breast cancer

Feasibility of devolving follow up of breast cancer patients to GPs.

Investigators: Dr Shalini, K Vinod/Dr George Papadatos (Chief Investigator), Dr Marketa Skala, Dr Sheila Knowlden, Dr Geoff Delaney, A/Prof Bin Jalaludin, Dr Tom Bonar, Jesmin Shafiq (Project Coordinator).

Progress: Approved by the SWSAHS Human Research Ethics Committee and patient recruitment process has started from 25.06.2003.



CCORE Touchscreen, used to collect data on quality of life issues

10. Carrying out the quality assurance survey 'Follow-up of women with early stage breast cancer at the Cancer Therapy Centre Liverpool Hospital, 1999-2002

Outcome:

- Completed the report
- Presented the results at weekly 'oncology education/journal club meeting' held in the Cancer Therapy Centre
- Plan to submit a poster at the annual COSA conference in November 2003

11. Patient Anxiety Associated with Cancer Follow-Up Clinic Attendance

This study aimed at examining the psychological impact of follow-up clinic on a broad cross-section of cancer patients, identifying factors that influence patient anxiety and evaluating patient satisfaction with routine follow-up.

Investigators: MJ Lah, G Delaney, G Au, M Barton, GS Gabriel

12. The Australian Council for Healthcare Standards (ACHS) Clinical Indicators

This is a pilot study to collect and analyse data and write reports on:

- Patient waiting time for radiotherapy treatment
- Survival time in patients with prostate cancer
- Survival time in patients with laryngeal (glottic) cancer

Investigators: C Hamilton, M Barton, GS Gabriel

Medical Oncology Report

The Medical Oncology aim is to “maximise access to Oncology services across SWSAHS” was in part realised with the opening of the Macarthur Cancer Therapy Centre in early 2003. Participation in the development and implementation of Area-based multidisciplinary tumour streams has facilitated improved patient access to the highest standard of care (as evidenced by multiple publications in the medical literature validating this approach).

In planning the future direction of the Area Cancer Service, the Department of Medical Oncology would like to see additional enhancements, which would allow the development of a consultative service in the Fairfield sector. The development of Area-wide medical oncology protocols reflecting standardised treatment approaches (extended across NSW Health) is also a priority. The implementation of an Area-wide information technology strategy which will improve patient care and interdisciplinary communication is a major focus for 2003/4.

Patient Focus

The ability to meet this key performance indicator (KPI) in Medical Oncology is dependent on the development of tools which will enable patient outcomes to be measured. The development of an Area-based cancer registry will allow evaluation of treatment outcomes in terms of survival by tumour type and stage, but this is only a small component of cancer care. Newer tools, based on “palm-pilot” computer technology, may allow individual patient quality-of-life data to be entered and evaluated at each clinic visit. We look forward to a level of resourcing which would facilitate this individualised patient feedback in response to cytotoxic and other cancer treatments (either curative or palliative).

During 2002/3 there have been major staffing shortfalls which have impacted on the delivery of chemotherapy to patients in SWSAHS. This was particularly troublesome from December 2002 to March 2003 prior to the opening of the Macarthur Cancer Therapy Centre.



Pharmacy and Nursing staff at the Day Centre (l-r): J Lewis, D Dadic, R Eke and F Kbosravan.

In order to maintain a quality service, patient referrals have had to be declined at Liverpool but links to oncology providers in other Area Health Services have facilitated alternative patient access to necessary treatment in a timely fashion.

Medical Oncology has developed and expanded at Bankstown, Liverpool and Macarthur over the past decade. There are contracts being written with the Bowral Diagnostic Centre to ensure ongoing local treatment access for patients from the Wingecarribee/Wollondilly sector. As indicated above, expansion of a consultative service to Fairfield would see all sectors of the SWSAHS serviced by Medical Oncology.

An external review of Medical Oncology in early 2003 has identified priority areas for attention in order to improve patient outcomes. Major enhancements are required in senior medical staff numbers to meet the increasing demand for medical oncology expertise. There are frequently significant delays between breakthroughs in treatment and availability of these treatments as Authority medications on the Pharmaceutical Benefits Scheme. Accordingly, it remains a budget priority to allow access to these newer (and frequently high cost) agents.

During 2003, the Liverpool Cancer Therapy Centre formed a “Patient Friendliness Committee” to review our current provision of services to the community. There have been a number of recommendations from this committee which will be implemented over the next twelve months. The introduction of cancer care coordinators will help meet the needs of patients and carers at a critical time in their lives. By incorporating nurses into the medical oncology consultation process, it is anticipated that the process of giving patient information will become more streamlined and better attuned to patient needs.

Professional

The current medical oncology protocol book is linked to publications in the medical literature and is updated regularly to reflect significant changes in oncology treatments.

New patients are discussed in the weekly multidisciplinary medical oncology meeting, providing a peer review process for every patient commencing antineoplastic therapy.

Over the coming year the medical oncologists aim to move to pre-printed orders which are directly linked to our agreed protocols. This will then be progressed to on-line computer prescribing and treatment, with patient safety being a major focus of these changes. It is anticipated that the policies and protocols will become standardised across all SWSAHS treatment centres.

Organisational

The Area Medical Oncology Review made specific recommendations regarding the organisational structure of Cancer Services within SWSAHS. Beyond the development of an Area Cancer Service, the Review recommended the appointment of an Area Director of Medical Oncology. The decisions regarding overall organisational structure rest with the Area Executive and will set the directions for the future development of the Cancer Service in South Western Sydney. The focus within Medical Oncology remains one of team building centred on patient care.

Members of the Medical Oncology Department have aimed to provide leadership both within and outside SWS Cancer Services. Over the past 3 years, Dr. Eva Segelov has developed a Colorectal Tumour Bank/Laboratory, and research flowing from her efforts has been recognised and published. Her efforts are to be applauded in achieving so much in a short space of time with so few

resources. Dr Elizabeth Hovey has worked within the Neuro- and Uro-Oncology Tumour Program and is defining a leadership role within these tumour streams. Dr Amanda Goldrick has developed increasing leadership in the recently formed Australian Gynaecology Oncology Group and Dr Stephen Della-Fiorentina has taken the position as Director of the Macarthur Cancer Therapy Centre. He has taken a leadership role in the development of the Lantis Medical Oncology Module and is active within the Lung Cancer Tumour Program. Dr Eugene Moylan is currently the Chair of the Division of Medicine Grand Rounds Committee, organising its weekly Continuing Education Program.

There are significant difficulties in accurately measuring a cost-effective service. Importantly, there has been a high level of access to tertiary level care in medical oncology at Liverpool and this has been maintained despite fewer staff numbers when compared with similarly sized referral centres. Following a review of Liverpool medical oncology data, it is apparent that on recognised performance indicators (such as access to chemotherapy for node positive colorectal and pre-menopausal breast cancer) patients are treated at or above statewide or national benchmarks.

Through peer review processes and participation in multidisciplinary clinical discussions, there is a high level of consultation aiming to provide optimal patient care at the Liverpool Cancer Therapy Centre. These discussions also support the professional development of clinicians and provide a framework for clinical governance within SWS Cancer Services.

Since March 2003 Dr. Eugene Moylan has undertaken to provide a 0.2 FTE equivalent clinical service at the Macarthur Cancer Therapy Centre. Dr Stephen Della-Fiorentina has similarly maintained a fractional clinical service at Liverpool which has enabled networking of medical oncology services across the Area.

Population Focus

Along with Clinical Psychology and Social Work, Medical Oncology has continued to provide the “Dealing With Cancer” education/information program for patients and carers. This has been expanded to provide sessions to both the Vietnamese and Chinese communities through the use of interpreter facilitated sessions. Individually, patients and families are encouraged to adopt healthier lifestyle choices such as smoking cessation and regular exercise.

Academic

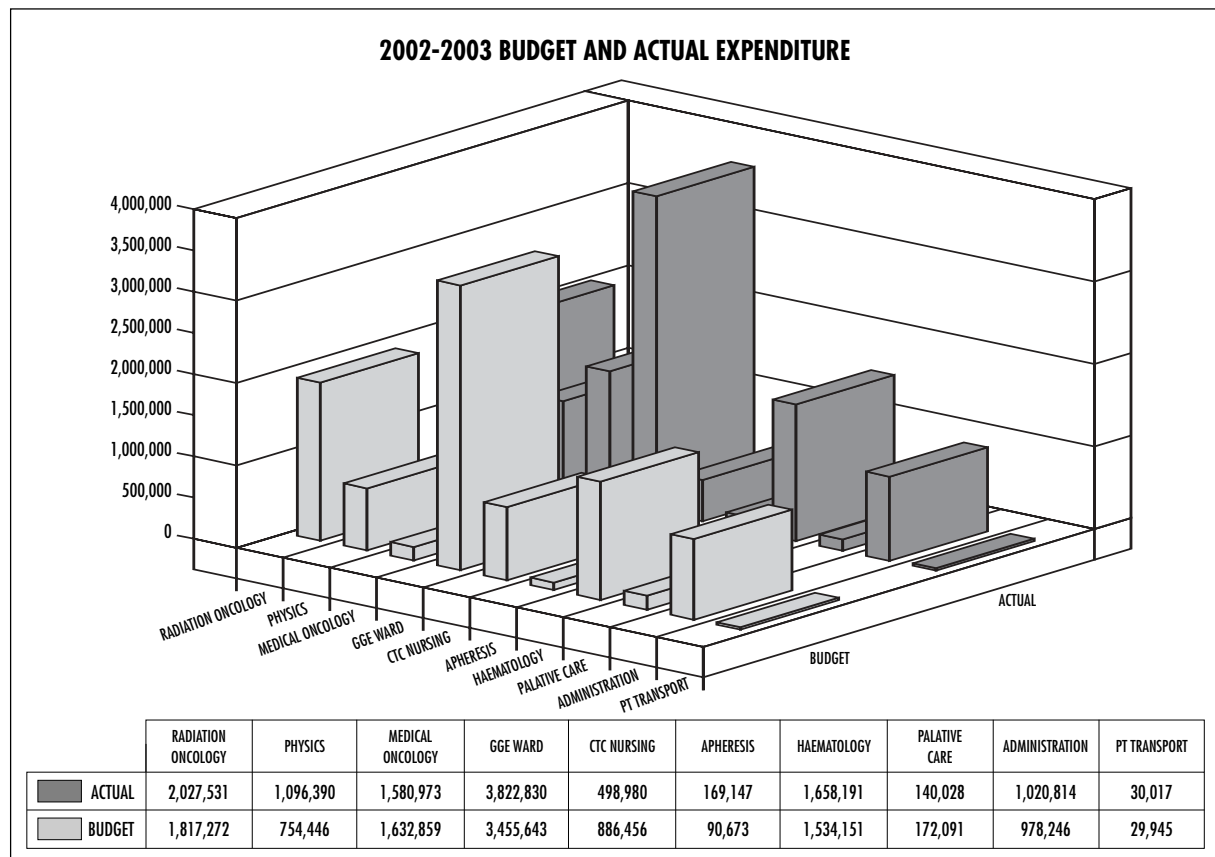
The medical oncologists maintain a strong focus on clinical trial research, evaluating new approaches to cancer treatment. A significant number of publications have resulted from participation in multi-centre national and international clinical trials, particularly in breast and colorectal cancer. The Colorectal Tumour Laboratory, aiming to utilise the Colorectal Tumour Bank for Translational Research, unfortunately will be discontinued with Dr Eva Segelov leaving Liverpool at the end of 2003. Through participation in CCORE, Dr Elizabeth Hovey is working on projects which focus on broader aspects of Cancer Care including access to medical oncology treatments and optimal use of available resources.

All members of the Medical Oncology Department participate in activities that maintain a high level professional standards.

These include participation in local, regional, national and international cancer conferences. In turn, this information is used in the teaching/tutoring of post-graduate doctors, undergraduate medical students, nurses, allied health, staff, pharmaceutical industry representatives and the broader community.

Financial and Activity Summary 2002/03

Liverpool Cancer Therapy Centre



The Liverpool Cancer Therapy Centre budget finished the year 6.3% over budget.

Employee related expenses: ¹The majority of the annual over-run was salaries, overspent due to award increases in physics, staff shortages necessitating higher costs for overtime and agency staff in the ward, and salary increments in radiation and medical oncology. These costs exceeded any savings gained through many vacancies in nursing and radiation oncology throughout the year. The staff profile allowed for 125.25 FTE the actual was 113.49. Nursing split the ward budget to report on salaries for the day centre staff this year, and experienced vacancies – causing a \$398k favourable end of year result. In contrast, the ward’s shortages of new staff required many overtime shifts and expensive agency staff, creating an over-run of \$262k.

Radiation Oncology’s end of year position should consider a credit of \$36,865 from MCTC that was not processed.

Goods and services: ²The ward and haematology overspent on drugs and pathology charges – due to new clinical processes for haematology and medical oncology. Medical consumables were also high for nursing. Some of the haematology staff budget was expended through back-charging pathology fees.³

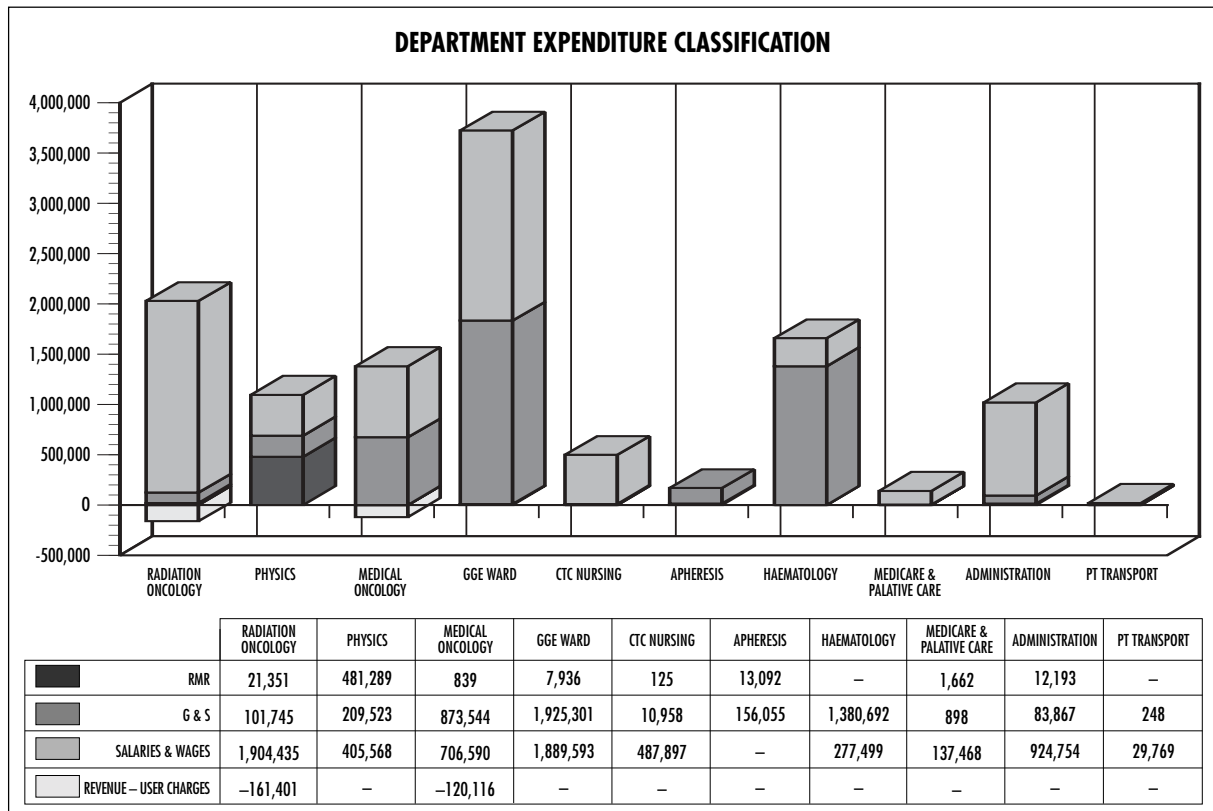
Repairs and maintenance: Costs increased this year due to the expiry of warranty’s on equipment, and the subsequent necessity to negotiate contracts for ongoing maintenance. Physics bears the main burden of these costs, with some being costed through radiation oncology. Unexpected repairs on the ward also impacted on the over run.

¹ Palliative care includes Budget for only Medicare Palliative care

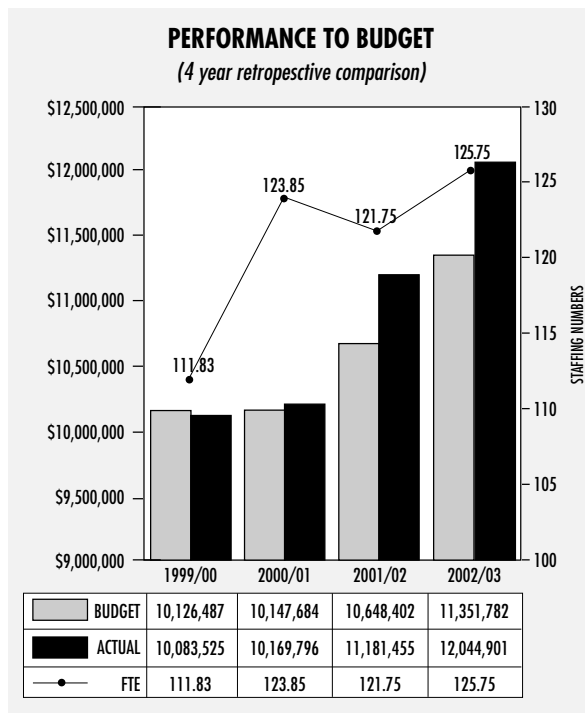
² Anticoagulant clinic is included in Haematology

³ Depreciation and special grants have been excluded from this report for comparative purposes

The following chart illustrates the breakdown of actual expenditure classifications for each department, and revenue for facility fees.

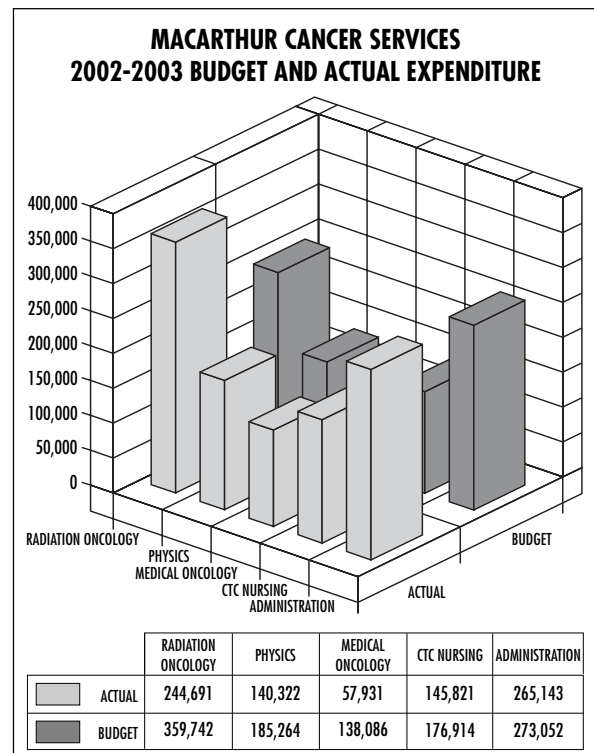


To put this in perspective, a 4 year retrospective comparison of the budget against the expenditure for cancer therapy centre is pictured below



Macarthur Cancer Therapy Centre

The Macarthur Cancer Therapy Centre opened in February, and finished the financial year with a favourable result of \$279,150.

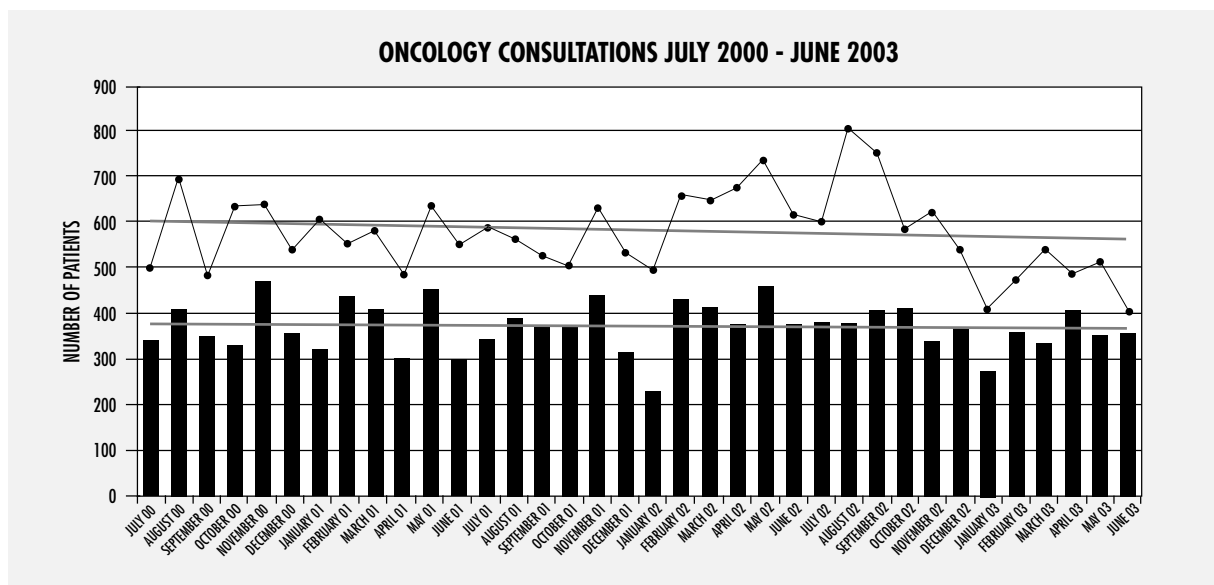
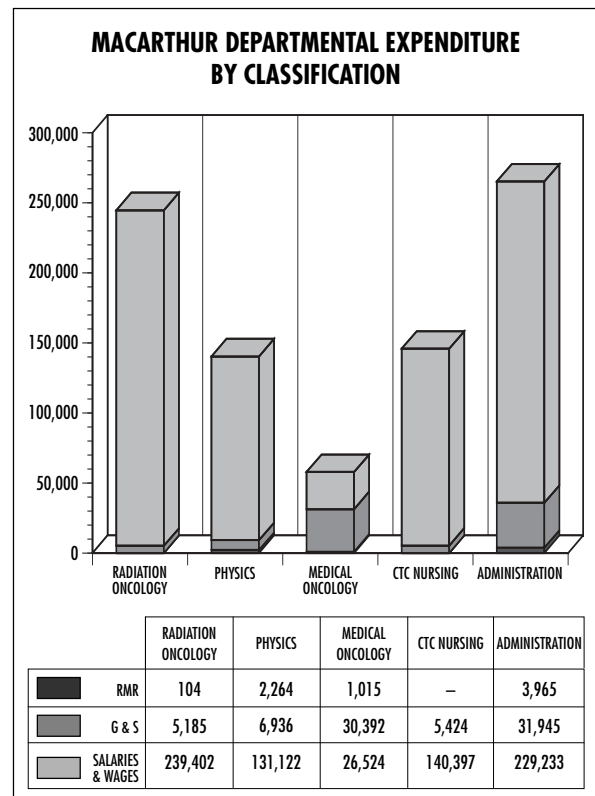


With a staff profile of 27.75 FTE drawn down, only 11.35FTE commenced within the expected timeframe, deferring staff and treatments to Liverpool for the short term, leaving unspent goods and services. Medical Oncology's end of year position should consider a debit of \$36,865 to LCTC that was not processed, bringing the actual close to budget.

The chart (right) illustrates the breakdown of actual expenditure classifications for each department, and revenue generated through facility fees.

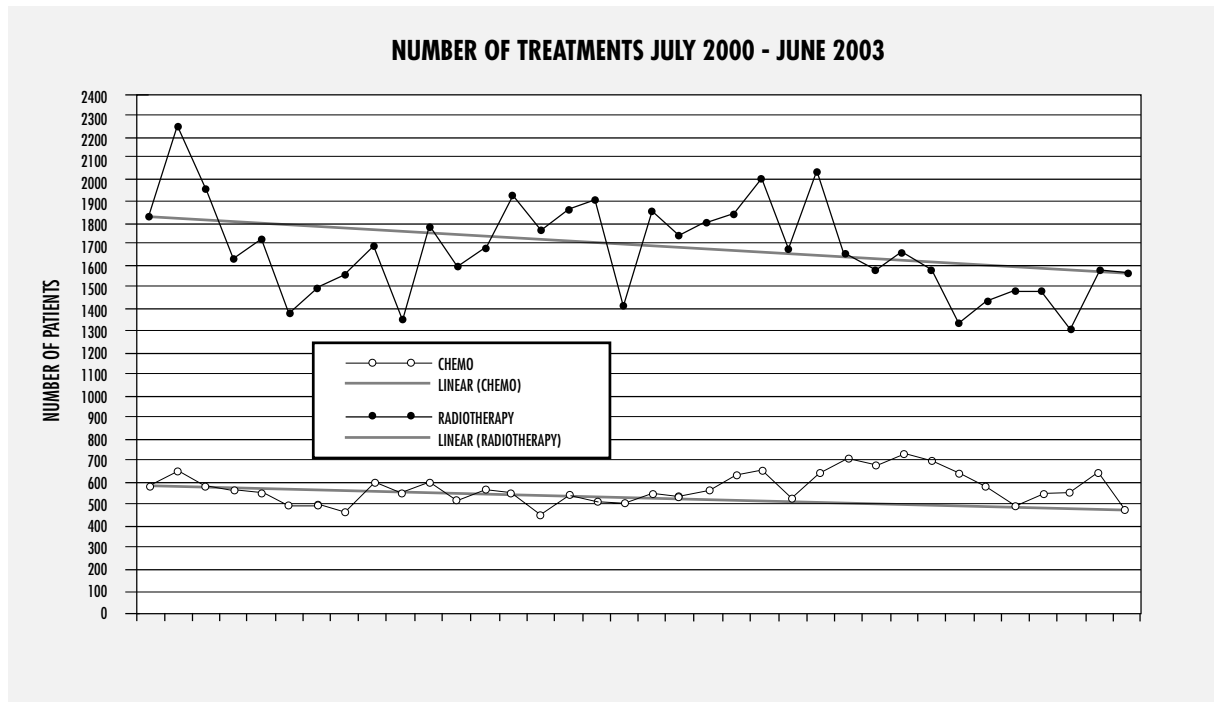
Activity trends July 2000 to June 2003

Activity captured across the area shows that the total consultations for new and follow-up patients from July 2000 until June 2003 has remained static (see chart below).



Treatment Numbers

Treatments have also remained fairly consistent over the 3 years.



Staff List

LIVERPOOL HOSPITAL

Nursing

E. McManus
A. Enayati
E. Keons
K. Baker
B. Bird
S. McCart
S. Seuala-Talagi
V. Nguyen
S. Davis
A. Humphries
M. Lipman
J. Roberts
W. Crowley
G. Fairnham
S. Gilson
D. Flynn
J. Alcock
L. Jones
A. Wariner
D. Neilson
K. Buckpitt
C. Butlin
G. Fuller
S. Comito
R. Rieckmann
P. Savva
S. Hitchcock
A. Smith
S. O'Keefe
H. Darwiche
R. Benton
A. Gow
D. Burns
E. Hawker
B. Silaphet
J. Kemsley
C. Murray
C. Carter

F. Tait
J. Williams
C. Wilson
L. Knapman
T. Nassar
D. Grass
J. Van Den Braak
S. Merhot
R. Kumar
L. Hollis
I. Sam
F. Maramara
M. Lambert
H. Ostrowski
B. Westin
R. Leighton
M. Fry
D. Moore
N. Da Silva
M. Hopping
J. Owar
S. Batt
N. Barrett
J. Prasad
A. Booth
G. Matabang
S. McCue
S. Parra
M. Roux
O. Shipway
D. Dacic
M. Cho
S. Seuala-Talagi
M. Lees
S. Larkin
H. Lierz
R. Sergeant
K. Womsley

J. Kegreiss
J. Williams
M. Stylińska-Scholz
J. Ryan
D. Rowlinson
A. Gorsuch
M. Parsons
K. Bourke
D. Walsh
H. Booth
Y. Lam
K. Gilson
D. Whitton
S. Sainsbury
A. McKieK. Casey
S. Angara
D. Robinson
K. Brown
J. Burke
N. Calderon
S. Loudoun
C. Couldridge
M. Valdez
V. Kirkpatrick
T. Luxford
M. Czuprynski
A. Logan
R. Ramsay
M. Fowler
M. Ravi Kumar
B. Carter
K. Rogers
G. Fairnham
F. Tait
R. Eke
T. Chee
R. Evans
B. Heron



*The staff and patients rely on friendly assistance from our rostered pool of Volunteers (l-r): Joy, Joan, Carol.
Absent: Dutch, Anna, Joan and the Co-ordinator; Valma and Vicky.*

S. Lee
H. Gilbang
N. Lucero
R. Gamildien
A. Hill
V. Valdes
M. Goulden
G. Simpson
J. Pljevaljcic
V. Macadangdang
W. Sives
K. Wright
M. Zimmerman
K. Bray
M. Santiago
T. Tautai
M. Biancotti
J. Alcock
K. Narayan
A. Serrano
D. Dacic
J. Hussein

K. Jobburn
W. McCall
J. Losloso
J. Slade
S. Lartey
H. Dizon
K. Follers
W. Bealing
E. Macey
J. McEachern
P. Navarro
G. Rees
B. Ryan
C. Smith
M. Robertson
A. Deruyter
S. Loudoun
T. Tesauo
D. Gaston
S. Wright
S. Slater
L. White

R. Akama
R. Ballard
M. Calderon
B. Ciardi
Y. Furney
J. Hanlen
A. Hecimovic
M. Lees
K. Gray
J. McCready
K. Booth
E. Newman
Y. Feeney
A. O'Donnell
A. Kean
C. Aquilina
B. Gildea
S. Almeida
S. Meighan
J. Hussein
T. Paul
L. Woodlands

Radiation Oncology

A. Kneebone
N. Cusack
D. Vincent
M. Lah
K. Lim
A. Lau
M. Bassal
T. Le
K. Stuart

C. Tawfik
G. Delaney
S. Lee
B. Silaphet
C. Wong
D. Gaston
S. Foot
K. Dundas
D. Forstner

L. Holmes
M. Fleet
R. Kumar
S. Rattanovong
J. Veneran
S. Jones
S. Hudson
C. Wilcox
S. Vinod

N. Kaadan
A. Fowler
M. Fuller
M. Lee
S. Munday
T. Nguyen
S. Arghandewal
S. Hall
M. Williams

M. Berry
J. Latimer
D. Sampson
L. Elich
M. Skala
A. Yartsev
A. Arnold
S. Prasad

K. Banister
V. Towell
M. Tattersall
U. Parvathaneni
A. O'Leary
K. Tran
G. Papadatos
V. Estall

Physics

R. Hill	M. West	L. Holloway	M. Whitaker	G. Cho	O. Collins
M. Bailey	G. Goozee	X. Kong			

Medical Oncology

G. Fairham	M. Joseph	K. Brown	D. Burns	M. Biancotti	S. Della-Fiorentina
A. Goldrick	M. Lees	B. Gildea	F. Tait	P. Poursoltan	E. Wong
G. Sheh	C. Ling	K. Womsley	G. Pickard	R. Eke	M. Shaqalaih
A. Huang	E. Hovey	Y. Lam	T. Chee	H. Lierz	W. Chan
G. Asghari	E. Tong	S. Abdo	S. Wright	K. Tran	K. Virik
E. Moylan	M. Alam	N. Jackson	M. Azer	N. Halani	E. Segelov

Haematology

K. Micklethwaite	R. Reben	V. Au	C. Ng	C. Wen	E. Choong
H. Huang	B. Ko	T. Soh	R. Bashir	J. Almeida	G. Chen
M. Ilyas	G. Asghari				

Oncology Administration

L. Smith	T. Stephenson	S. Neal	H. Patchett	M. Kotsou	R. Atkin
N. Arena	J. Attard	R. Bryson	N. Barnett	H. Bentancor	P. Childs
S. Campbell	V. Gill	G. Gilmore	A. Hutchinson	K. Nicholls	L. Miller
S. Slater	U. Paltaci	R. Shipley	S. Avery	D. Kelly	F. Sallie
I. Hanna	S. Murray	F. Serafin	T. Halls	N. Jones	A. Bibani
S. Graham	R. Atkinson	M. Zielazo	J. Walker	D. Cottrell	G. Adams
R. Leechburch Auwers	J. Robinson	C. Murray	M. Cain	S. Volcic	L. O'Connor
A. Amaratunga	T. Marquez	K. Shah	K. Ellis		

Patient Transport

J. Attard

Clinical Trials

P. Ounthoulay	S. Taufa	V. Nguyen	A. Amaratunga
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CCORE

C. Featherstone	R. Shafiq	M. Camilleri	E. Hovey
G. Gabriel	S. Miles	S. Jacob	M. Barton
M. Howard			

SWS Development Team

W. Kricker	R. Hamilton	K. Tynan	S. Behan
V. Poxon	K. Pronk		

SWS Cancer Service: Care Coordinators

N. Wilcox	A. Griffin	L. Ward	C. Baulman
S. Cassar			



Wig Library co-ordinated by volunteers Victoria and Fiona

MACARTHUR HOSPITAL

R. Tyson	M. Dumont	K. Mascarenhas	B. Humbert	M. Martinez	J. Francisco
R. Phillips	F. Sallie	C. Reynolds	M. Poyntz	B. Sbezzi	S. Slater
S. Della-Fiorentina	S. Campbell	R. Bryant	J. Hardie	C. Wilcox	G. Papadatos
A. Arnold	U. Parvathaneni	J. Yakobi	O. Wilson	K. Banister	D. Vandine
V. Estall	M. Lee	G. Sheh	P. Boyd	S. Rajapakse	M. Bailey
V. Nelson	J. Stewart	K. Bourke	G. Deal	M. Chalker	D. Burns
M. Causer	D. Aston				

VOLUNTEERS

V. Nasso	F. Gould	V. Spruce	D. Day	J. Maloney	C. Keogh
J. Watson	V. McCarthy	J. Blunt	J. Meehan	N. Holyoake	V. Dargan
D. Thomson	M. Thackeray	S. Pinkerton	K. Giufre	L. Evans	C. Wilton
T. Hodges	J. Wright	M. Flood	V. Nasso	F. Gould	



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