

Collaboration for  
Cancer Outcomes  
Research and  
Evaluation  
(CCORE)

**Triennial Report  
1998 - 2001**

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# Message from the Director

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*Associate Professor Michael Barton*

The Collaboration for Cancer Outcomes Research and Evaluation is now three years old. In that short time it has developed from a concept into a major cancer health services research organisation with an outstanding track record that has national and international recognition.

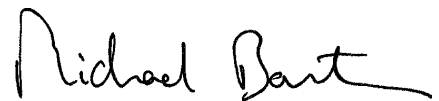
CCORE has a number of significant achievements including reports for the New South Wales Cancer Council, the Papua New Guinea Department of Health and major projects for the Health Department of the Commonwealth of Australia and the International Atomic Energy Agency based in Austria. At a local level CCORE provides extensive support to the development of a Cancer Network and Hospital-based Cancer Registry in South Western Sydney. Both services break new ground in improving cancer outcome by better health service delivery.

Equally significant are the many partnerships that members of CCORE have formed with local and international researchers. A few examples are the Centre for Effective Health Care, the Ontario Radiation Oncology Research Unit, Addenbrooks Hospital Cambridge and the NSW Cancer Council.

CCORE has been highly successful in attracting funding by competitive grant and tender. Establishment funds come from the South Western Sydney Area Radiation Oncology Service of the Cancer Therapy Centre at Liverpool.

The achievements of CCORE have only been possible because of the intellectual and financial support of the South Western Sydney Area Radiation Oncology Service. With their aid it has been possible to build an effective team of researchers and a vibrant group of collaborators. The South Western Sydney Area Health Service and in particular the Epidemiology Unit have been particularly generous with time and resources.

CCORE has an active and expanding view for the next three years. A project that will be the first to establish an evidence-based benchmark for population planning of radiotherapy services will take nearly two years to complete. The associated projects will provide CCORE with a unique research platform to assess appropriateness of care and the impact on population health. It fits well with a vision to produce a set of tools for the organisation and quality improvement of population based cancer treatment services.



**Michael Barton**  
*RESEARCH DIRECTOR*

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The Collaboration for Cancer Outcomes Research and Evaluation (CCORE) was officially launched on 11 March 2000 by Dr Andrew Penman, CEO of the NSW Cancer Council.

CCORE aims to improve cancer outcomes through research and the implementation of best practice measures into routine clinical practice in the treatment of cancer. CCORE is affiliated to the Cancer Therapy Centre, Liverpool Hospital. The Cancer Therapy Centre is a tertiary referral centre for the treatment of cancer patients in South Western Sydney.

There are many reasons for establishing CCORE. The Greater West has higher rates of incidence and mortality for some cancers compared to the NSW average (eg cervix, lung); there is a growing population in the west providing a good research base; redistribution of service needs to the west; large ethnically diverse population; and a history of interest and experience in outcomes based clinical research.

## Management and Structure

### RESEARCH COMMITTEE:

**Dr Martin Berry** *Director, SWSAHS Cancer Services and CCORE, Radiation Oncologist*

**A/Prof Michael Barton** *Research Director, CCORE, Radiation Oncologist*

**Dr Geoff Delaney** *Radiation Oncologist*

**Dr Allan Fowler** *Radiation Oncologist*

**Dr Andrew Kneebone** *Radiation Oncologist*

**Dr Shalini Vinod** *Radiation Oncologist (Clinical Fellow to May 2001)*

**Dr Andrew Hui** *Clinical Fellow, Radiation Oncologist*

**Dr Elizabeth Hovey** *Medical Oncologist (from July 2001)*

### CCORE STAFF:

**Ms Kate Tynan** *Business and Project Manager*

**Ms Sharon Miles** *Data Manager*

**Dr Susannah Jacob** *Project Manager*

**Mrs Michelle Howard** *Administration*

**Mr Gerard Viswasam** *Project Officer*

**A/Prof Bill Krickler** *Visiting Professor*

### AFFILIATE:

**Dr Bin Jalaludin** *Deputy Director of Epidemiology, South Western Sydney Area Health Service*

### VISITING FACULTY:

**Professor Tom Keane**

Professor Tom Keane is the Provincial Programme Head of Radiation Therapy for the British Columbia Cancer Agency (BCCA) in Vancouver, Canada. Professor Keane has been responsible for restructuring and redesigning a process-centred approach for the provincial radiation therapy program. Dr Keane is Professor and Chairman of the Division of Radiation Oncology at the University of British Columbia. Prior to joining the BCCA in 1995, Professor Keane was Research Director in Radiation Oncology at the Ontario Cancer Institute/Princess Margaret Hospital and the University of Toronto, Canada. Professor Keane has provided CCORE with expertise in the areas of organisational structure and Area Cancer Network reform and participated in the Driving Health Reform Symposium in 1999.

**Professor Bill MacKillop**

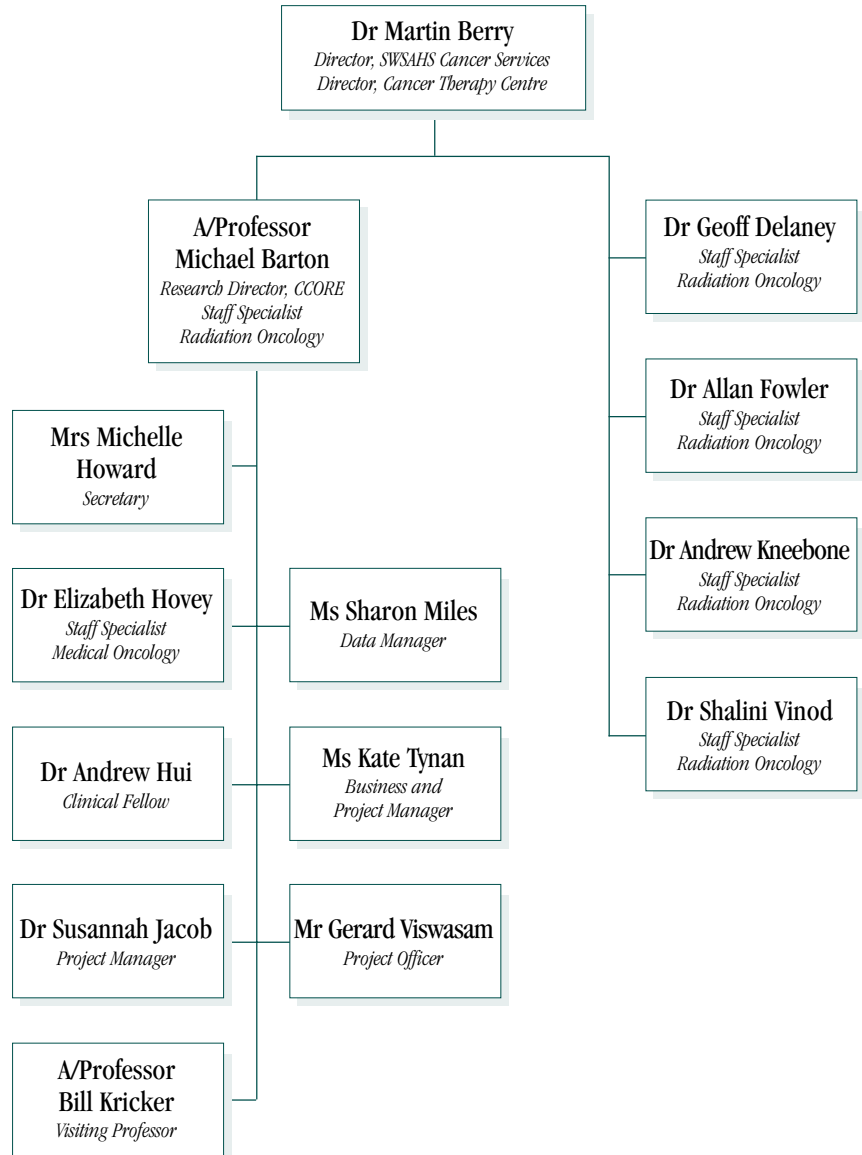
Professor MacKillop has been Head of Radiation Oncology at the Regional Cancer Centre in Kingston, Ontario, Canada since 1991. He is Professor in the Departments of Oncology and Epidemiology at Queen's University. Professor MacKillop currently chairs the Canadian Committee on Cancer Staging. He is also the Canadian representative to the UICC (Union Internationale Contre le Cancer/International Union Against Cancer) TNM Prognostic Factors Committee, and to the American Joint Committee on Cancer. Professor MacKillop is an investigator on a CCORE project looking at radiotherapy utilisation.

**VISITORS:**

**Dr Srichai Krusun**

Dr Krusun is the Director of the Division of Radiation Oncology at Khon Kaen University, Thailand. He visited CCORE and the Cancer Therapy Centre as part of a program to develop medical physics in Thailand. The objectives for his visit were to develop an academic link between our centres and to seek technical support for the program in Thailand. Dr Krusun was also interested in our clinical and research facilities, structure and management with a view to applying his experiences here to the existing infrastructure in Thailand. He met with Radiation Oncologists, Physicists and Radiation Therapists about training issues as well as visits to Wollongong Hospital Cancer Care Centre and the Department of Radiation Oncology at Westmead Hospital. There were negotiations for further academic, scientific and research collaboration between Khon Kaen University and CCORE and the Cancer Therapy Centre at Liverpool Hospital.

**Organisational Chart**



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# Our People

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**Associate Professor Michael Barton**  
*Research Director, CCORE  
MB BS (Syd) FRANZCR  
Certificate Health Economics (Monash)*



**Dr Martin Berry**  
*Director, SWSAHS Cancer Services and CCORE  
MB BS (Syd) FRANZCR  
ECFMG, LMCC, FRCP(C)*



**Dr Geoff Delaney**  
*MB BS Hons Class I (UNSW) FRANZCR  
MD Submitted July 2001*



**Dr Shalini Vinod**  
*MB BS Hons Class I (Syd) FRANZCR  
Enrolled MD UNSW*



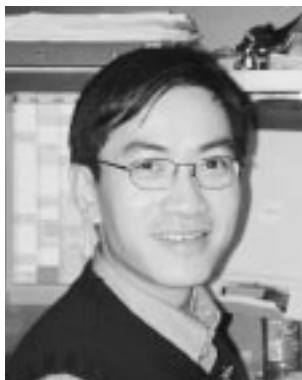
**Dr Andrew Kneebone**  
*MB BS (UNSW) FRANZCR*



**Dr Allan Fowler**  
*MB BS Hons Class II (UQld) FRANZCR*



**Dr Elizabeth Hovey**  
*MB BS (Syd) FRACP  
MSc (Biostatistics in Patient Oriented Research)  
Columbia University, NY, NY, USA  
USMLE (Parts I & II)*



**Dr Andrew Hui**  
*Clinical Fellow, Radiation Oncologist  
MB BS (Melb) FRANZCR  
Enrolled Master of Medicine (Clinical Epidemiology) Syd*



**Ms Kate Tynan**  
*Business and Project Manager  
BSc (Biochem)  
Master of Public Health (UNSW) 2001*



**Dr Susannah Jacob**  
*Project Manager*  
*MB BS MD*  
*Enrolled Master of Health Services Management*  
*(UNSW)*



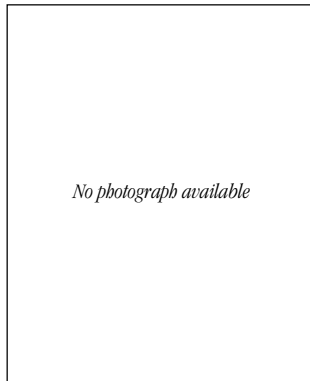
**Ms Sharon Miles**  
*Data Manager*  
*BAppSc(HIM) Syd*  
*Enrolled Master of Public Health (UNSW)*



**Associate Professor William Kricker AM**  
*Visiting Professor*  
*BSc(Hons), BE (Hons), MBA, F.I.E. (Aust), FIDA*



**Mr Gerard Viswasam**  
*Project Officer*  
*BSc, MPP*  
*Enrolled Ph.D*



**Mrs Michelle Howard**  
*Secretary to Director, CCORE*



**Dr Bin Jalaludin**  
*Deputy Director of Epidemiology,*  
*South Western Sydney Area Health Service*



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# History

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The Collaboration for Cancer Outcomes Research and Evaluation (CCORE) is an initiative of the radiation oncology specialists from South Western Sydney Area Health Service, and has completed its third year of operations.

CCORE was established to meet the need for applying evidence based practice for service delivery and to develop methods for outcome evaluation of both clinical and organisational processes. CCORE is integral to the future development of cancer services both at a local and national level. It fulfils a requirement for ongoing research and evaluation in a climate of rapidly changing technology and high patient and carer expectations for improved outcomes.

CCORE has expertise that can define and quantify research problems related to clinical and service delivery and in addition can provide management strategies to implement service innovation. It is this management experience to implement policy that sets CCORE apart from other applied research centres in health.

## Objectives

The Collaboration's aim will be achieved through the following objectives:

- Provide resources and methodological support to facilitate clinical cancer research;
- Engage in applied cancer clinical outcomes research and scholarship to the highest international standards;
- Improve the efficacy of cancer management through the development, exploration and refinement of methodologies for clinical research, including quality of life, economic and qualitative research programs;
- Develop techniques for assessing utility of cancer programs;
- Reduce mortality and morbidity and improve quality of life, from cancer related disease, through establishment, implementation and evaluation of best practice guidelines;
- Foster and disseminate a clinical research ethos in the oncology professional community;
- Explore methods by which best practice guidelines can be implemented at the local level; and
- Explore methods to optimise communication/collaboration with healthcare providers and patients to improve outcomes.

## Planning

As part of ongoing planning and quality improvement, CCORE staff participate in weekly, monthly and yearly consultation and discussion.

Strategic planning is a core issue discussed at each of the annual planning sessions over the past three years. With so many varied projects, individuals and collaborations, CCORE is careful to identify both organisational and individual goals.

The Annual Planning Day is an ideal time to discuss research directions and define priorities. Education, involvement across medical specialties and our relationship with the Cancer Therapy Centre at Liverpool Hospital are always key areas of discussion.

CCORE is committed to providing high-quality cancer outcomes and evaluation research. To help us achieve this, our planning process involves consultation with outside parties. The inaugural Annual Planning Day in 1998 was facilitated by Lesley Periera, former Business Manager for the Simpson Centre for Health Service Innovation, Liverpool Hospital. Dr Peter Ellis provided input from a Medical Oncology perspective at our second Annual Planning Day in 1999. In 2000 we had the valuable advice of the Deputy Director of Epidemiology at South Western Sydney Area Health Service, Dr Bin Jalaludin.



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# Education

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## **CLINICAL FELLOW PROGRAM**

CCORE offers the position of Clinical Research Fellow to radiation oncology trainees who have completed the FRANZCR Part II examination. The Fellow works in the Department of Radiation Oncology at the Cancer Therapy Centre in Liverpool Hospital for two days per week and in CCORE for three days per week. The Fellow is responsible for undertaking independent clinical research and usually participates in a post-graduate degree during this time. CCORE research staff provide supervision of these projects.

Dr Shalini Vinod was Clinical Fellow from 1999-2001 and is in the process of completing her MD in lung cancer. Dr Vinod has now become a Staff Specialist in Radiation Oncology in Liverpool's Cancer Therapy Centre. Our current Clinical Fellow is Dr Andrew Hui who is undertaking a Master of Medicine (Clinical Epidemiology) at the University of Sydney while undertaking research in lung cancer.

## **HEALTH INFORMATION MANAGEMENT UNDERGRADUATE STUDENTS**

Two students from the School of Health Information Management at the Faculty of Health Sciences, University of Sydney have gained experience in a clinical research setting here in CCORE. Students are encouraged to develop, implement and evaluate their own "mini-project" including ethics submissions, development of data collection forms, statistical analysis and reporting.

## **MEDICAL STUDENTS**

Associate Professor Michael Barton is the Cancer Block Supervisor for teaching Year 4 medical students from the University of New South Wales. Students participate in a six week oncology term and receive exposure to the disciplines of Medical Oncology, Radiation Oncology, Haematology and Palliative Care. Dr Elizabeth Hovey is also a supervisor. Further to this, Professor Barton and Dr Hovey teach these students in Evidence-Based Medicine in addition to teaching in the University Campus Lecture Program. CCORE has also provided some research experience to one medical intern who has already shown interest in pursuing a career in radiation oncology. Dr Colin Chong has been encouraged to participate in the design and implementation of a CCORE project.

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# Current Research Projects

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## **1. COLO-RECTAL CANCER – PATTERNS OF CARE IN THE WESTERN AND WENTWORTH AREAS**

*Barton MB, Miles SE, Ciercteko G.*

The salvage of colo-rectal cancer following recurrence is so poor that primary treatment is critical. The aim of this study is to develop baseline patterns of care data for the treatment of colo-rectal cancer. Patterns of care have been documented by the type and duration of treatment and investigative procedures performed. Long-term follow-up has been monitored with respect to survival, recurrence and morbidity. Three hundred and seventy patients have been entered onto this study and follow-up is nearing completion.

## **2. SITES OF LOCAL RECURRENCE OF RECTAL CANCER AND THE IMPLICATIONS FOR RADIOTHERAPY FIELD DESIGN**

*Hruby G, Barton MB, Miles SE, Carroll S, Nasser E, Stevens G.*

The results of adjuvant radiotherapy for rectal cancer are highly dependent on the balance between tumour control and small bowel damage. The volume of small bowel in the treatment field is the greatest determinant of small bowel damage. This study examines the sites of pelvic recurrence in patients previously untreated with radiotherapy to determine the sites and risks of recurrence within the pelvis. Two hundred and sixty patients referred to Radiation Oncology Departments at Westmead Hospital, Royal Prince Alfred Hospital and Prince of Wales Hospital were included and a paper is now being written for publication.

*A patient demonstrates the touchscreen in the Cancer Therapy Centre.*

## **3. STUDY OF THE EFFECTIVENESS OF COMPUTERISED (TOUCHSCREEN) PATIENT FEEDBACK IN THE CLINICAL MANAGEMENT OF CANCER PATIENTS**

*Berry M, Jacob S, Kneebone A, Fowler A, Delaney G, Barton M.*

In cancer service provision, attention is usually focussed on the diagnosis and treatment of the cancer and its symptoms. However, the diagnosis and treatment of anxiety, depression and the side effects associated with cancer treatment can have very significant effects on the quality of life of patients undergoing radiation therapy for cancer. This project aims to (1) identify the level of anxiety and depression associated with the diagnosis of cancer and its treatment by radiation therapy in patients with breast, prostate, bowel or head and neck cancer, (2) to identify and provide accurate information on the rates of radiation toxicity (side effects of radiation treatment) that patients experience during their radiation treatment and (3) to assess whether giving computerised feedback to oncologists about their patients' incidence of radiation toxicity and level of anxiety and/or depression would result in improved management and hence better patient outcomes.

The system has been successfully trialed on 50 patients to assess patient satisfaction with the touchscreen computer system.

## **4. LUNG CANCER: A PATTERNS OF CARE STUDY IN THE SOUTH WESTERN SYDNEY AREA HEALTH SERVICE**

*Vinod SK, Barton MB, Delaney G, Jalaludin B, Miles SE.*

Lung cancer is an important health problem in NSW particularly so in the South Western Sydney region where the incidence is significantly higher than the state average. It is associated with poor survival of 10%-12% at 5 years. A lung cancer patterns of care study is to be performed in SWSAHS for the years 1993 and 1996. The aim is to identify all lung cancer patients who were diagnosed in those two years and document their management and outcome. As well as providing an audit of results for the Area, we hope to document utilisation rates of the various treatment modalities and assess the relationship of socioeconomic factors to management and outcome. Upon completion we will recommend how processes and outcomes of lung cancer management can be improved and outline areas of priority research.



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**5. A BASIC TREATMENT EQUIVALENT FOR GYNAECOLOGICAL BRACHYTHERAPY – A PILOT STUDY**

*Vinod SK, Fowler A, MacLeod C, Delaney G, Jalaludin B.*

Brachytherapy is an important part of the radiotherapeutic management of cervical, endometrial and vaginal cancer, involving the insertion of radioactive sources in the vagina and/or uterus. The aim of this study is to see if a Basic Treatment Equivalent (BTE) can be defined for gynaecological brachytherapy. The project involves measuring how the complexity of different parameters, including several patient and treatment variables in gynaecological brachytherapy, affects the duration of treatment. It will be performed at Liverpool Hospital and Royal Prince Alfred Hospital.

**6. WAITING TIMES FOR RADIOTHERAPY – A SURVEY OF PATIENTS' ATTITUDES**

*Barton MB, Jacob S, Delaney G, Lehman M, Cail S.*

Waiting lists for radiotherapy are a global problem, as a result of increasing demand for radiotherapy coupled with a scarcity of health resources. This study aims to assess how patients respond to these waiting times, and their willingness to participate in strategies designed to reduce waiting times. A Trade-off technique is used to determine the maximal acceptable waiting time for radiotherapy before patients elect to seek treatment elsewhere. This is part of a multicentre study involving radiation oncology departments at Liverpool, Westmead, St George and Newcastle Mater hospitals in New South Wales and in Geelong Hospital in Victoria.



*Dr Stephen Cabill, Radiologist, participates in a telemedicine session.*

**7. USE OF TELEMEDICINE IN MULTI-DISCIPLINARY BREAST CANCER CLINICS IN SOUTH WESTERN SYDNEY**

*Delaney G, Jacob S, Bonar FJ, Barton MB.*

Treatment of breast cancer ideally involves a multidisciplinary team approach, since treatment may include surgery, radiation, chemotherapy, hormone therapy or a combination of these. Multidisciplinary meetings between treating medical specialists are usually held in large hospitals but not in smaller hospitals which may not have enough patients or specialists to hold regular meetings. This project aimed to test the feasibility of telemedicine as an aid to multidisciplinary breast cancer clinics in the South Western Sydney area. A telemedicine link-up between Liverpool Hospital, Bankstown Hospital and Campbelltown Hospital enabled clinicians at the peripheral hospitals to participate in the multidisciplinary breast meetings held once a week at Liverpool Hospital. This study was funded by the National Breast Cancer Centre (NBCC). It was presented as a poster at the Fourth Leura International Breast Cancer Conference, where it won the People's Choice Poster Award.

**8. THE DEVELOPMENT OF A NEW MODEL TO MEASURE CHEMOTHERAPY DELIVERY THROUGHPUT IN THE OUTPATIENT SETTING**

*Delaney G, Jalaludin B, Gildea B, Moylan E, Barton MB.*

Currently the measure of workload in chemotherapy treatment delivery is based loosely on the ability to treat a certain number of patients in a day, with patient treatment being classified as either of short (1-6 hours) or long (> 6 hours) duration. This is not necessarily a sensitive enough measure to allow for efficient service delivery. The aims of this study are to assess the impact of various treatment-related and patient-related factors on chemotherapy treatment duration; and to develop a better model to measure chemotherapy outpatient throughput. This could then lead to identification of those areas in outpatient chemotherapy delivery where changes in practice could result in efficiency gains without compromising patient outcome or satisfaction.

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**9. PROSTATE SPECIFIC ANTIGEN (PSA) DRIVEN OUTCOME AND TOXICITY FOLLOWING SMALL VOLUME IRRADIATION FOR CARCINOMA OF THE PROSTATE**

*Kneebone A, Turner S, Gebiski V, Berry M.*

Conventional treatment options for men who present with clinically localised prostate cancer include observation, radiation therapy, radical prostatectomy or endocrine manipulation. Whilst external beam radiotherapy is the most commonly used potentially curative treatment, its role in the management of prostate cancer is controversial, as indeed is the use of any other treatment modality. This study aims to determine the PSA driven outcome for patients receiving definitive external beam irradiation for clinically localised prostate cancer; to analyse the prognostic importance of pre-treatment PSA, T stage and Gleason grade on PSA driven outcome; and to analyse clinical outcome following PSA failure. The study is being conducted in the radiation oncology departments of Liverpool and Westmead Hospitals, on all patients with histologically confirmed prostate cancer with no evidence of distant metastases, who commenced radiation with curative intent between May 1993 and December 1997. The study is nearing completion, and will be presented at the Annual Meeting of the Royal Australian and New Zealand College of Radiologists.

**10. PROJECT PROPOSAL TO ENHANCE APPROPRIATE SCREENING FOR INDIVIDUALS AT INCREASED RISK OF COLORECTAL CANCER.**

Tender for the NSW Cancer Council.

*Barton MB, Frommer M, Brassil A.*

Australia has one of the highest rates of Colorectal Cancer (CRC) in the world with one in 20 Australians developing the disease in their lifetime. Despite improvements in treatment over recent years, there has been little improvement in survival. Pilot studies for 'average risk' screening trials are currently under development. However the recently released NH&MRC *Guidelines for the Prevention, Early Detection and Management of CRC* recommend that individuals of 'above average' risk of CRC be triaged into more intensive screening or surveillance programmes.

The NHMRC define above average risk as >3 times higher than background risk. They have identified six distinct groups which fall into this category. These are:

1. Individuals who have had a colorectal cancer;
2. First-degree relatives of individuals who were diagnosed with colorectal cancer before the age of 55 years;
3. First-degree relatives of individuals who
  - (a) were diagnosed with colorectal cancer when aged 55 years or older, and
  - (b) have one other first-degree relative with colorectal cancer;
4. Individuals who have had an adenomatous colonic polyp;
5. Individuals with inflammatory bowel disease;

6. Individuals with rare familial predispositions to colorectal cancer, such as familial adenomatous polyposis (FAP) or hereditary non-polyposis carcinoma of the colon (HNPCC).

A model was developed to estimate the burden of illness and numbers of kindred at increased risk, both prevalent and incident. The greatest opportunity to improve outcomes is by targeting screening interventions toward the first degree relatives of Index cases defined in groups 2 and 3 above, and those with a previous personal history.

**11. CONTRACT FOR THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) TO DEVELOP DISTANCE LEARNING MODULES FOR THE BASIC SCIENCE OF ONCOLOGY COURSE**

*Barton MB.*

International Atomic Energy Agency. See 'Special Projects' section.

**12. DISTANCE LEARNING WEBSITE-BASED CANCER PROGRAM.**

*Jaggannath P, Barton MB, Tattersall M.*

This program is for medical students and general practitioners and contains three modules for colorectal, cervix and head and neck cancers. The International Union Against Cancer strongly endorses this project and has provided funding.

**13. NEW MEDICAL GRADUATES' KNOWLEDGE ABOUT CANCER: THE AUSTRALIAN CANCER SOCIETY CANCER EDUCATION SURVEY**

*Barton MB, Tattersall MH, Butow P, Crossing S, Jamrozik K, Jalaludin B, Miles S.*

See 'Special Projects' section.

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**14. QUALITY ASSURANCE – PROSPECTIVE STUDY OF LIMITED CHEMOTHERAPY AND INVOLVED FIELD RADIOTHERAPY FOR PATIENTS WITH I-II HODGKIN'S DISEASE**

*Kneebone A, Barton MB.*

This is a clinical trial being conducted by the Trans-Tasman Radiation Oncology Group and the Australia and New Zealand Lymphoma Group. The trial is administered by the Peter MacCallum Cancer Institute in Melbourne and there are 28 participating centres across Australia and New Zealand. The aim of this project is to evaluate the efficacy of a chemotherapy regimen and radiotherapy in patients with clinical stage I-II Hodgkin's Disease. Michael Barton and Andrew Kneebone are acting as an independent audit team to review:

1. Staging and prognostic material
2. Radiotherapy treatment details
3. Chemotherapy treatment details

It is planned to review the first two patients registered from each participating centre and, if there have been no unacceptable protocol violations, one quarter of the subsequent patients from each centre. Data management is being performed by Sharon Miles.

**15. A PROSPECTIVE, NON-RANDOMISED STUDY OF CHEMOTHERAPY AND RADIOTHERAPY FOR OSTEOLYMPHOMA**

*Christie D, Barton MB, Wirth A, Porter D, Roos D, Pratt G.*

This is a clinical trial conducted by the Trans-Tasman Radiation Oncology Group, The Australian and New Zealand Lymphoma Group and the Australasian Radiation Oncology Lymphoma Group.

This is a non-randomised prospective study to determine the outcome of optimal treatment and to further investigate the natural history of lymphoma. Sharon Miles is the Co-ordinating Data Manager across Australia and New Zealand.

**16. LUNG CANCER: A PATTERNS OF CARE STUDY IN THE NORTHERN SYDNEY AREA HEALTH SERVICE**

*Hui A, Vinod S, Yuile P, Barton M, Delaney G, Jalaludin B, Miles, S.*

This retrospective study explores the associations between socioeconomic factors and lung cancer management and outcome. It compares the patterns of care and outcome of lung cancer patients in two different Area Health Services in NSW. Patients with newly diagnosed lung cancer in 1996 in the Northern Sydney Area Health Service will be studied. Data on patient demographics, tumour characteristics, management details, patient outcome and survival will be collected. The results will be compared with those of the South Western Sydney Area Health Service which are being collected in another study by Vinod et al. The socioeconomic indicators of the two Area Health Services will be obtained from the Australian Bureau of Statistics data.

**17. ASSESSMENT OF THE BASIC TREATMENT EQUIVALENT MODEL OF LINEAR ACCELERATOR THROUGHPUT UNDER ENGLISH CONDITIONS**

*Griffith S, Delaney G, Jalaludin B, Barton MB.*

Currently, radiation oncology productivity is measured by treatment fields per hour per machine. However, this is a crude measure at best and makes no consideration of the variations in treatment technique and treatment complexity. Therefore departments that have a large proportion of complex cases are not able to maintain the same fields per hour as the departments with less complex casemix. Another model to assess linear accelerator output is the Basic Treatment Equivalent. While this model has been tested in Australia and New Zealand, it has not been tested overseas. This study tests the model in a radiation oncology department in Cookridge, Leeds, England.

**18. A SYSTEMATIC REVIEW OF THE COMPLICATIONS OF ADJUVANT RADIOTHERAPY FOR RECTAL CANCER**

*Hui A, Barton MB, GebSKI V.*

Radiotherapy has an established role as adjuvant therapy in high-risk non-metastatic rectal cancer. Both pre-operative and post-operative radiotherapy have been shown to decrease the risk of local recurrence.



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However, the toxicity related to pre-operative or post-operative radiotherapy is not well reported. This systematic review aims to examine the toxicity of adjuvant radiotherapy above that of radical surgery in rectal cancer, as well as the effect of the timing of radiotherapy (pre-operative versus post-operative), the quality of radiotherapy and the addition of chemotherapy on toxicity.

**19. CHANGES IN PROSTATE CANCER MANAGEMENT ACROSS AUSTRALIA BETWEEN 1996 AND 2000**

*Austen L, Kneebone A, Lalak A, Berry M.*

In 1996 the Urological Society of Australia surveyed members and a small number of interested parties in NSW regarding patterns of care in prostate cancer. The aim of this study was to assess changes in patterns of care since the initial survey and to document the current patterns of care in new areas of practice. All urologists, medical oncologists and radiation oncologists in clinical practice in Australia and New Zealand were approached to participate.

**20. RADIOTHERAPY IN CANCER CARE: ESTIMATING THE OPTIMAL UTILISATION FROM A REVIEW OF EVIDENCE-BASED CLINICAL GUIDELINES**

*Delaney G, Jacob S, Barton M, Frommer M, Roder D.*

The utilisation rate for radiotherapy is a vital benchmark of access that is essential for the management and planning of facilities and workforce capacity for existing and future demands for radiotherapy services. The World Health Organisation recommends that 50% of all newly diagnosed cancer patients should receive radiotherapy at some point in the management of their cancer, either in anticipation of cure or for palliation.

The utilisation rate of 50% is widely cited but is based solely on expert opinion but not on evidence. The aim of this project is to estimate the optimal requirements for radiotherapy services for the control of cancer in Australia, using evidence based guidelines.

CCORE has been contracted to conduct this project by the Commonwealth Department of Health and Aged Care, under the supervision of a steering committee determined by the National Cancer Control Initiative. We will develop a model, based on the best available evidence, that can be used to estimate the proportion of new cases of cancer that should receive radiotherapy. This model of radiotherapy utilisation can then be applied to predict the impact of future changes in cancer incidence rates, stage at presentation and indications for radiotherapy.

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# Publications

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## **A/PROFESSOR MICHAEL BARTON**

1. *Christie DRH, Barton MB, Bryant G, Cheuk R, Gebbski V, Hornsey J, Loneragan D, MacLeod C, Pratt G, Roos D, Shannon J, Thornton D, Wirth A.*  
**Osteolymphoma (primary bone lymphoma): an Australian review of 70 cases.**  
Aust NZ J Med 1999 29 215-219.
2. *Barton MB, Kneebone AB.*  
**Adjuvant Therapy for Rectal Cancer can no longer be ignored (editorial).**  
Aust NZ J Surgery 1999, 69, 619-621.
3. *Delaney G, Hui A, Berry M, Fowler A, Kneebone A, Barton M, Shakespeare T, Campbell G, Della-Fiorentina S, and Brown K.*  
**Don't block the new kids (letter).**  
Australas Radiol 1999 Nov;43(4):562.
4. *Barton MB.*  
**Cancer Outcomes Research Tying The Loop.**  
J Aust Cancer Society, 1999, 33:3, 160-161.
5. *O'Brien P, Roos D, Pratt G, Liew K, Barton M, Poulsen M, Olver I, Trotter G.*  
**A Phase 2 Multi-Centre Study of Brief Single Methotrexate followed by Irradiation in Primary CNS Lymphoma.**  
J Clin Oncol. 2000 Feb;18(3):519-26.
6. *Barton MB.*  
**Radiotherapy utilisation in NSW from 1996 to 1998.**  
Australas Radiol 2000, 44: 308 – 314.
7. *Barton MB, Gebbski V and Jacob S.*  
**A quality-adjusted analysis of the cost of palliative radiotherapy for bone metastases.**  
European Journal of Cancer, August 2000 36 (S3): 11.
8. *Do V, Gebbski V and Barton MB.*  
**The Effect of Waiting for Radiotherapy for Grade III/IV Gliomas.**  
Radiotherapy and Oncology 2000, 57 (2): 131 – 136.
9. *Barton MB.*  
**Mantle Planning: Report on the Australasian Radiation Oncology Lymphoma Group (AROLG) Film Survey and Consensus Guidelines**  
Australasian Radiology 2000, 44 : 433 – 438.

10. *Hruby G, Lehman M, Barton MB and Peduto T.*  
**Malignant retroperitoneal paraganglioma: case report and review of treatment options.**  
Australas Radiol 2000 Nov;44(4):478-82.
11. *Delaney G, Moylan E, Gildea B, Barton M and Jalaludin B.*  
**Basic treatment Equivalent (BTE) – A new model of assessing radiotherapy and chemotherapy treatment throughput.**  
Radiotherapy and Oncology 2001,58 (S1): 18.
12. *Berry MP, Barton MB, Kneebone A, Delaney G, Fowler A, Jacob SA.*  
**Touchscreen computer survey to assess treatment toxicity and level of anxiety/depression of radiation oncology patients.**  
Radiotherapy and Oncology 2001,58 (S1): 19.
13. *Barton MB.*  
**The value of follow-up after cancer treatment.**  
Radiotherapy and Oncology 2001,58 (S1): 28.
14. *Vinod SK, MacLeod CA, Fowler A, Delaney G, Barton MB and Jalaludin B.*  
**A basic treatment equivalent for gynaecological brachytherapy: a pilot study.**  
Radiotherapy and Oncology 2001,58 (S1): 63.
15. *Barton M, Dawson R, Jacob S, Currow D, Stevens G, Morgan G.*  
**Palliative radiotherapy of bone metastases – an evaluation of outcome measures.**  
J Eval Clin Pract 2001 Feb;7(1):47-64.

## **CHAPTERS IN BOOKS**

1. *Barton MB.*  
**1999, Principles of Radiotherapy in Bishop J (Ed), Cancer Facts: A Concise Text of Essential Information in Oncology.**  
Harwood Academic Publishers, Amsterdam.
2. *Barton MB, O'Brien P.*  
**1999, Infradiaphragmatic Hodgkin's Disease. in Mauch PM, Armitage JO, Diehl V, Hoppe RT, Weiss LM (Eds). Hodgkin's Disease. pp. 727-739. Lippencott Williams and Wilkins, Philadelphia.**



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**DR MARTIN BERRY**

1. *Hui A, Berry MP, Delaney G.*  
**Clinical Audit of a new radiation oncology department in the first 20 months of establishment.**  
*Australasian Radiology* 1999; 43:82-86
2. *Stevens GN, Berry MP, Firth I.*  
**Faculty of Radiation Oncology - a survey of work practices.**  
*Australasian Radiology*, 43(2):233-42, 1999.
3. *Delaney G, Hui A, Berry MP, Fowler A, Kneebone A, Barton M, Shakespeare T, Campbell G, Brown K.*  
**Don't block the new kids (letter).**  
*Australasian Radiology*, 43 (4): 562, 1999.
4. *Turner SL, Adams K, Bull CA, Berry MP.*  
**Sexual dysfunction after radical radiation therapy for prostate cancer : A prospective evaluation.**  
*Urology* 54 (1) : 124-129, 1999.
5. *Veness MJ, Delaney G, Berry MP.*  
**Lung cancer in patients aged 50 years and younger : clinical characteristics, treatment details and outcome.**  
*Australasian Radiology* 43 (3) : 328-333, 1999.
6. *Al-Babrami BJ, Berry MP, Singh Y, Taylor D.*  
**Low pressure cardiac tamponade.**  
*Medical Journal of Australia.* 174(2):102, 2001 Jan 15.
7. *Kneebone A, Mameghban H, Bolin T, Berry MP, Turner S, Kearsley J, Graham P, Fisher R, Delaney G.*  
**The effect of oral sucralfate on the acute proctitis associated with prostate radiotherapy: a double-blind randomised study.**  
*Int Journal Radiation Oncology Bio Phys* (Submitted)

**DR GEOFF DELANEY**

1. *Back M, Delaney G, Denbam J, Hamilton C, O'Brien P, Yuille P.*  
**High Dose Chemotherapy in Adjuvant Breast Cancer Therapy: Concerns over design and toxicity.**  
*AN Z J Surg.* 68:10-15,1998.
2. *Vincent D, Beckham W, Delaney G.*  
**An assessment of the number of CT slices necessary for breast radiotherapy.**  
*Radiother and Oncology.* 52:179-183,1999.
3. *Hui A, Berry M, Delaney G.*  
**Clinical Audit of a new radiation oncology department in the first 20 months of establishment.**  
*Australasian Radiology.* 43:82-86, 1999.
4. *Delaney G, Hui A, Berry M, Fowler A, Kneebone A, Barton M, et al.*  
**Don't block the new kids (letter).**  
*Australasian Radiology.* 43:562,1999.
5. *Boyages J, Delaney GP, Taylor R.*  
**Predictors of local recurrence after treatment of Ductal Carcinoma in situ: a meta-analysis.**  
*Cancer* 85: 616-628,1999.
6. *Keall P; Monti di Sopra F, Beckham W Delaney G.*  
**Orthovoltage x-rays versus electrons for superficial lesion radiotherapy.**  
*Radiotherapy and Oncology*, 48, S150, Proceedings of the European Society for Therapeutic Radiation Oncology, 1998.
7. *Keall P; Monti di Sopra F, Beckham W, Delaney G.*  
**Comparison of kilovoltage x-ray and electron beam dose distributions for radiotherapy of the sternum.**  
*Med. Dosimetry* 24(2), 141-144, 1999.
8. *Veness M, Delaney G.*  
**Variations in breast tangent radiotherapy - A survey of practice in New South Wales and the Australasian Capital Territory.**  
*Australasian Radiology*, 43: 334-338, 1999.

9. *Veness M, Delaney G, Berry M.*  
Lung cancer in patients aged 50 years and younger: clinical characteristics, treatment details and outcome. *Australasian Radiology*, 43: 328-333, 1999.
10. *Delaney GP, Rus M, Gebiski V, Lunn AD, Lunn M.*  
An assessment of the Basic Treatment Equivalent Model of radiotherapy treatment throughput in Australia and New Zealand. *Australasian Radiology*. 43:500-506,1999.
11. *Delaney GP, Rus M, Gebiski V, Lunn AD, Lunn M.*  
Development of a Basic Treatment Equivalent model (BTE) to reflect radiotherapy treatment throughput in Australia and New Zealand. *Australasian Radiology*. 43:507-513,1999.
12. *Delaney G, Gerard K.*  
Breast cancer patients' attitudes about rationing postlumpectomy radiation therapy: applicability of trade-off methods to policy-making (commentary). *Clinical Update* 3: 4-5, 1999.
13. *Delaney G.*  
Cardiac mortality and tangential breast radiotherapy (commentary). *Breast News*, 1999.
14. *Delaney G, Veness M, Beckham W, Abern V, Back M, Boyages J, Fox C, Graham P, Jacob G, Lonergan D, Morgan G, Pendlebury S, Yuile P.*  
Three-dimensional dose distribution of tangential breast irradiation: results of a multicentre phantom dosimetry study. *Radiother Oncol*. 57(1):61-68, 2000.
15. *Lin P, Delaney G, Chu J.*  
Fluorine-18 FDG dual-head gamma camera coincidence imaging of radiation pneumonitis. *Clinical Nuclear Medicine* 25(11):866-869, 2000.
16. *Al-Babrani B, Delaney G, Henderson C.*  
Peripheral metastasis from Primary Central Nervous System Lymphoma – a case report and review of the literature. *J. Neuro-Oncology*, 47(2): 141-144, 2000.
17. *Delaney G, Blakey D, Drummond R, Kenny L. on behalf of the NBCC Radiation Oncology advisory Group.*  
Breast radiotherapy: A survey of current treatment techniques. *Australasian Radiology*, 45(2): 170-178, 2001.
18. *Kneebone A, Mameghan H, Bolin T, Berry M, Turner S, Kearsley J, Graham P, Fisher R, Delaney G.*  
The effect of oral Sucralfate on the acute proctitis associated with prostate radiotherapy: a double blind randomised study. *Int. J. Radiat. Oncol. Biol. Phys.* 2001 (submitted).
19. *Jacob S, Delaney G, Bonar T, Barton M.*  
An assessment of videoconferencing in multidisciplinary breast meetings. Report for the National Breast Cancer Centre, 2001.
20. *Delaney G, Moylan E, Gildea B, Barton M, Jalaludin B.*  
Basic Treatment Equivalent (BTE) – A new model of assessing radiotherapy and chemotherapy throughput. *Radiother. and Oncol*. 58 (Suppl. 1), S66.2001.
21. *Berry MP, Barton MB, Kneebone A, Delaney G, Fowler A, Jacob SA.*  
Touchscreen computer survey to assess treatment toxicity and level of anxiety/depression of radiation oncology patients. *Radiother and Oncol*. 58 (Suppl. 1), S66. 2001
22. *Vinod SK, MacLeod C, Fowler A, Delaney G, Barton MB, Jalaludin B.*  
A basic treatment equivalent for gynaecological brachytherapy: a pilot study. *Radiother. and Oncol*. 58 (Suppl. 1), S216. 2001.
23. *Delaney GP, Jalaludin B, Moylan E, Barton MB.*  
The development of a model of outpatient chemotherapy delivery – Chemotherapy basic treatment equivalent. *European Journal of Cancer*
24. *Ellis P, Delaney G, Moylan E, Della-Fiorentina S.*  
Assessing outcome of cancer care: A retrospective review of the management of small cell lung cancer at the Cancer Therapy Centre, Liverpool Hospital. January 1996- July 2000. *ANZ J. Med.* 2001 (submitted).

25. *Vinod, S. Delaney G., Fowler A, Jalaludin B, Macleod C, Barton M.*  
The development of a Basic Treatment Equivalent (BTE) Model to accurately measure gynaecological brachytherapy treatment time.  
Radiotherapy and Oncology (to be submitted).
26. *Delaney G, Jalaludin B, Moylan E, Barton M.*  
The development of a model of outpatient chemotherapy treatment delivery – Chemotherapy Basic Treatment Equivalent.  
European Journal of Cancer. 2001 (submitted).
27. *Delaney G, Griffiths S, Gebiski V, Jalaludin B.*  
An assessment of the Australasian BTE model of linear accelerator treatment throughput at Cookridge Hospital, Leeds.  
Clin Oncology. 2001. (to be submitted).
28. *Delaney G, Gebiski V, Langlands, AO.*  
To BTE or not BTE - that is the question.  
Clinical Oncology 2001 (in press).

#### **DR ALLAN FOWLER**

1. *Macleod C, Fowler A, O'Brien P.*  
Selection of surgery or radiotherapy as the appropriate single modality of treatment for Stage IB and 2A carcinoma of the cervix (letter).  
Aust NZ J Obstet Gynaecol. 1998;38;51
2. *Macleod C, Fowler A, Duval C. et al.*  
High dose rate brachytherapy alone post hysterectomy for endometrial cancer.  
Int J Radiat Oncol Biol Phys. 1998;42:1033-1039.
3. *Macleod C, Fowler A.*  
High dose rate brachytherapy in the management of cervical and vaginal intraepithelial neoplasia (letter).  
Int J Radiat Oncol Biol Physics. 1998;40:881-887.
4. *Carter J, MacLeod C, Fowler A, Chan F, Darymple C, Wong F.*  
Argument for the surgical staging of apparent early endometrial cancer. 1999.  
Submitted to Aust NZ Journal of Obstetrics and Gynaecology.
5. *Macleod C, Fowler A, Duval P et al.*  
Adjuvant high dose rate brachytherapy with or without external beam radiotherapy post hysterectomy for endometrial cancer.  
1999. Gynecology Oncology (in press).
6. *Macleod C, Cheuk R, Dally M, Fowler A, Gauden S, Leung S, Millross C, Narayan K, Stevens M, Thornton D, Carruthers S, Jeal P.*  
Australasian high dose rate brachytherapy protocols for gynaecological malignancy.  
Australasian Radiol. 2001 45: 43-48.

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**DR ELIZABETH HOVEY**

1. *Hovey E, Shelton G, Petrylak D.*  
**Phase I study of intravenous Estramustine and Docetaxel in Hormone Refractory Prostate Cancer.**  
Proceedings of American Society of Clinical Oncology; 2001 May 12-15; San Francisco. (Abstract also presented at the Pharmacia Investigators Meeting, San Francisco, May, 2001)
2. *Hovey E, Magaard K, Schmabel F, Mooney L.*  
**DNA Damage in Women at High Risk of Breast Cancer.**  
Proceedings of American Society of Clinical Oncology; 2001 May 12-15; San Francisco.

**DR SUSANNAH JACOB**

1. *Barton MB, Gebbski V and Jacob S.*  
**A quality adjusted analysis of the cost of palliative radiotherapy for bone metastases**  
European Journal of Cancer, August 2000 36 (S3):11
2. *Jacob S, Delaney G, Bonar T, Barton MB.*  
**An trial of videoconferencing of multidisciplinary breast cancer clinical meetings in South-Western Sydney**  
Report for the National Breast Cancer Centre, 2001
3. *Barton MB, Dawson R, Jacob S, Currow D, Stevens G, Morgan G.*  
**Palliative radiotherapy of bone metastases – an evaluation of outcome measures**  
J Eval Clin Pract 2001 Feb; 7(1): 47-64
4. *Berry MP, Barton MB, Kneebone A, Delaney G, Fowler A, Jacob SA.*  
**Touchscreen computer survey to assess treatment toxicity and level of anxiety/depression of radiation oncology patients**  
Radiotherapy and Oncology 2001, 58 (S1):19

**DR ANDREW KNEEBONE**

1. Barton M, Kneebone A.  
**Editorial – Adjuvant Therapy for Rectal Cancer: Not if but how?**  
Aust NZ J Surg (in press).
2. *Kneebone A, Mameghani H; Berry M; Kearsley J; Turner S; Bolin T; Fisher R; Graham P; Delaney G.*  
**A phase III randomised trial to assess the effect of oral sulcralfate on the acute proctitis associated with prostate radiotherapy.**  
Int J Rad Onc Biol Phys. In press.
3. *Ngan SYK, Burmeister BH, Fisher R, Rischin D, Schache DJ, Kneebone A, Mackay JR, Joseph DJ, Bell A, Goldstein D.*  
**Early toxicity from preoperative radiotherapy with continuous infusion 5-fluorouracil for resectable adenocarcinoma of rectum. A phase II trial for the Trans-Tasman Radiation Oncology Group.**  
Int J Rad Biol Phys. 50 (4) 883-887, 2001.
4. *Chong C, Kneebone A, Sheridan M.*  
**Malignancy presenting as back pain.**  
Clinical case review. Australian Family Physician. In press.

**MS KATE TYNAN**

1. *Tynan K, Barton MB, Krickler W.*  
**Cancer Care: from cottage industry to strategic care.**  
NSW Public Health Bulletin. In press.

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**DR SHALINI VINOD**

1. *Vinod SK, Pendlebury SC.*  
**Carcinoma of the male breast: A review of adjuvant radiotherapy.**  
Australasian Radiology 1999, 43: 69-72.
2. *Vinod SK, MacLeod CA, Barnes DJ, Fletcher J.*  
**Malignant Fibrous Histiocytoma of the Trachea – A case report and review of the literature.**  
Respirology 1999, 4: 271-274.
3. *Vinod SK, and Pendlebury SC.*  
**Review of internal mammary chain irradiation in breast cancer.**  
The Breast. 1999;8:245-250.
4. *Vinod SK, MacLeod CA, Dalrymple C, Elliott P, Atkinson K, Carter J, Firth I.*  
**Surgery and post-operative radiotherapy for early stage cervical cancer.**  
Aust NSW J Obstet Gynaecol. 2000;40:66-69.
5. *Vinod SK.*  
**Adjuvant radiotherapy in early stage cervical cancer.**  
Salud Ciencia 2000 (in press) (Spanish).
6. *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.**  
Radiotherapy and Oncology (submitted).

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## Posters

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- 1999 *Barton MB.*  
**The Development of an Ideal Oncology Curriculum for Medical Students.**  
COISA, Melbourne, Australia.
- 2000 *Hui A, Abi-Hanna D, Rae R, Delaney G.*  
**The use of endoscopic mucosal clips in radiotherapy planning for oesophageal carcinoma.**  
51<sup>st</sup> Annual Scientific Meeting of the Royal Australasian and New Zealand College of Radiologists, Auckland, New Zealand.
- 2000 *Delaney G, Jacob S, Bonar FJ, Barton MB.*  
**Use of videoconferencing in multidisciplinary breast cancer clinical meetings in South Western Sydney.**  
Fourth Leura International Breast Cancer Conference, Leura, Australia. (*awarded the People's Choice Award at the conference*).
- 2000 *Barton MB, Gebiski V, Jacob S.*  
**A Quality-adjusted analysis of the cost of palliative radiotherapy for treatment of bone metastases.**  
EORTC Second European Conference on the Economics of Cancer, Brussels, Belgium.
- 2000 *Barton MB, Dawson R, Jacob S, Currow D, Stevens G, Morgan G.*  
**Palliative radiotherapy of bone metastases – an evaluation of outcome measures.**  
International Health Outcomes Conference, Canberra, Australia.
- 2000 *Wratten C, Vinod SK on behalf of the Junior Forum.*  
**Workforce Issues in Radiation Oncology: The Trainees Perspective.**  
Radiation 2000 Summit, Sydney, Australia.
- 2000 *Barton MB.*  
**Radiotherapy utilisation in NSW 1991 to 1998.**  
Health Outcomes Conference, Canberra, Australia.
- 2001 *Kricker W, Berry MP, Tynan K, Viswasam G, Barton MB.*  
**An Implementation Framework for an Area Cancer Control Network – What is Good?**  
Health Outcomes Conference, Canberra, Australia.
- 2001 *Bolin T, Kneebone A, Larrson T.*  
**Sigmoidoscopic findings following radiation for prostate cancer.** American Gastroenterological Association.  
Atlanta, United States of America.
- 2001 *Hovey E, Magaard K, Schnabel F, Mooney L.*  
**DNA Damage in Women at High Risk of Breast Cancer.**  
American Society of Preventive Oncology; New York, United States of America (*first runner-up for best poster*).

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# Presentations and Invited Lectures

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## **ASSOCIATE PROFESSOR MICHAEL BARTON**

- 1999 **Gliomas – Waiting Times and Stereotactic Radiosurgery**  
Grand Rounds - Canberra Hospital ACT
- 1999 **Radiotherapy and Cancer Management**  
Mid-North Coast GP Forum
- 1999 **Cancer Outcomes Research**  
Cumberland Campus Sydney University
- 1999 **Rectal Cancer Guidelines Colo-Rectal Tumour Group**  
South Western Sydney Area Health Service
- 1999 **Applied Science of Oncology**  
International Atomic Energy Agency Regional Conference Sydney
- 1999 **Radiation Oncology in Australia**  
International Atomic Energy Agency Regional Conference Sydney
- 1999 **Waiting for Cancer Therapy**  
Driving Health Reform South Western Sydney Area Health Service
- 1999 **Cancer Outcomes Research**  
NSWCOG Sydney
- 1999 **Cancer Outcomes Research**  
Simpson Centre Colloquium  
South Western Sydney Area Health Service
- 1999 **Trainee feedback**  
Train-the-trainer seminar. NSW Cancer Council
- 1999 **Radiotherapy Utilisation in NSW 1996 & 1997**  
RANZCR 50<sup>th</sup> Annual Scientific Meeting Radiation Oncology – Scientific Program
- 1999 **NHMRC Colo-Rectal Cancer Guidelines**  
RANZCR 50<sup>th</sup> Annual Scientific Meeting Radiation Oncology – Scientific Program
- 1999 **International Atomic Energy Agency Basic Sciences on Oncology Course**  
RANZCR 50<sup>th</sup> Annual Scientific Meeting Radiation Oncology – Scientific Program
- 1999 **The Development of an Ideal Cancer Curriculum**  
Medical Students Cancer Education Workshop Chennai, India
- 1999 **Cancer Outcomes Research**  
School of Medical Radiation Sciences Colloquium  
The University of Sydney
- 1999 **What cancers respond to radiotherapy treatment and complications**  
Radiation Therapy and Modern Cancer Treatment  
Mid North Coast Division of General Practice.
- 1999 **Guidelines Development Process and Adjuvant Therapy for Rectal Cancer**  
Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer/South Western Sydney Colorectal Tumour Group
- 1999 **Grand Rounds**  
Royal Canberra Hospital, Canberra ACT
- 1999 **Clinical Radiobiology, Treatment time effects**  
New South Wales Cancer Council, Sydney, Australia
- 1999 **50% and all that**  
NSW Cancer Council Radiotherapy 2000 Summit.  
Darling Harbour, Sydney.
- 2000 **IAEA Guest Lecturer**  
Annual General Meeting, Philippine Radiation Oncology Society, Manila, Philippines.
- 2000 **Global Health Economics Forum**  
ISRRT/AIR Radiography Conference, Sydney.
- 2000 **Public Forum on the Guidelines for the prevention, early detection and management of colorectal cancer**  
NSW Cancer Council.
- 2000 **Radiotherapy in the Pacific region**  
Annual Conference Newcastle of the Engineering and the Physical Sciences in Medicine.
- 2000 **Screening of individuals at above average risk of colorectal cancer**  
Health Outcomes for the Nation: Best Bets and Best Buys  
Canberra



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2000 **Collaborative research workshop**  
Australian College of Physicists, Scientists and Engineers in  
Medicine, NSW Branch Meeting.

2000 **Pre-operative radiotherapy for rectal cancer – a wolf  
in sheep's clothing**  
Radiation Induced GI Injury workshop  
Port Douglas, Queensland.

2000 **Supervisors of trainees workshop**  
Medical Oncology Group and Faculty of Radiation  
Oncology Conference.

2001 **The value of follow-up after cancer treatment**  
6<sup>th</sup> International Congress of Radiation Oncology,  
Melbourne.

2001 **Ideal Oncology Curriculum**  
The European Association for Cancer Education  
Antwerp, Belgium.

**DR MARTIN BERRY**

1999 **Paediatric Oncology – An Evolutionary Perspective**  
RANZCR teaching seminar, Melbourne, March 1999.

1999 **Guest panellist**  
SWSAHS Women's Health Forum.

2000 **Radiotherapy for Kidney Cancer**  
NCOG, August 2000.

2001 **Touchscreen computer survey to assess treatment  
toxicity and level of anxiety/depression of radiation  
oncology patients**  
ICRO, Melbourne, January 2001.

2001 **The role of Radiation Therapy for Paediatric Brain  
Tumours**  
Educational Seminar, Coogee, Sydney.

2001 **The role of Radiation Therapy for Neuroblastoma**  
Educational Seminar, Coogee, Sydney.

2001 **Advances in Radiation Therapy for Paediatric  
Malignancies**  
ANZCCSG Annual General Meeting.

2001 **Questions and Key issues for Urological Malignancies**  
A Best Practice Workshop in Urological Oncology,  
St George Campus Research and Education Centre, Sydney

**DR GEOFF DELANEY**

1998 **The role of radiotherapy in the management of breast  
malignancy**  
NSW Radiation Therapy Group.

1998 **The current status of the Basic Treatment Equivalent**  
NSW Radiation Therapy Group.

1998 **The role of radiotherapy in the management of breast  
cancer**  
Liverpool Hospital medical grand rounds.

1998 **The Basic Treatment Equivalent (BTE) model as  
a measure of linear accelerator patient throughput  
– results of the Australasian survey**  
Presented at the 1998 RACR Radiation Oncology meeting,  
Brisbane.

1998 **The role of radiotherapy in breast conservative  
management**  
Breast Cancer Management Training Course,  
invited lecture Wesley Centre, Sydney.

1998 **The management of chest wall recurrence following  
mastectomy**  
South-Western Area Multidisciplinary Breast Group.

1999 **Measuring process using the Basic Treatment  
Equivalent as a model**  
Liverpool Hospital Driving Health Reform Conference.

1999 **Presentation of the National Breast Cancer  
Radiotherapy Survey**  
Invited lecture at the 1999 RANZCR Radiation Oncology  
meeting, Sydney.

1999 **The utility of the Basic Treatment Equivalent model  
as a measure of radiotherapy throughput measurement**  
Invited lecture at Vancouver Cancer Centre, Canada.

2000 **The basics of radiotherapy**  
Campbelltown Hospital RMO clinical meeting.

- 2000 **An overview of the role of radiotherapy in the management of bone metastases**  
Novotel, Homebush, NSW Co-operative Oncology Group.
- 2000 **Controversies in radiotherapy technique in breast cancer – ask the expert session**  
Invited chair - Leura International Breast Cancer Conference.
- 2000 **Strategic Investments into New Technology in Radiation Oncology**  
Invited speaker for the NSW Cancer Council Radiotherapy Summit, Darling Harbour.
- 2001 **Implementation of an Area Clinical Cancer Registry – How to Eat an Elephant**  
Health Outcomes Conference, Canberra.
- 2001 **The role of CT planning for breast radiotherapy**  
Invited lecture for the Australian and New Zealand Breast Cancer Trials Group, Hamilton Island, Queensland.
- 2001 **Dosimetry for target and non-target tissues for breast radiation**  
Invited lecture for the Australian and New Zealand Breast Cancer Trials Group, Hamilton Island, Queensland.

**DR ALLAN FOWLER**

- 2000 **Use of intracavitary balloon brachytherapy boost for carcinoma of the nasopharynx.**  
10<sup>th</sup> Australasian Brachytherapy Conference and Workshop. Hunter Valley, Australia.
- 2001 **Clinical Practice Guidelines for cervical cancer.**  
Sydney Gynaecology Oncology Group Sydney, Australia.

**DR ELIZABETH HOVEY**

- 2001 **Pilot Study: DNA Damage in Women at High Risk of Breast Cancer.**  
National Fellows Conference, Orlando, Florida, USA (*short-listed for best presentation*).

**DR SUSANNAH JACOB**

- 2001 **The cost of radiotherapy for bone metastases: A quality adjusted analysis**  
South Western Sydney Area Health Service/Hope Health Care Annual Palliative Care Conference, Sydney Australia.

**ASSOCIATE PROFESSOR BILL KRICKER**

- 2001 **Implementation of an Area Clinical Cancer Registry – How to Eat an Elephant.**  
Health Outcomes Conference, Canberra, Australia.

**DR ANDREW KNEEBONE**

- 1998 **Sucralfate and radiation induced bowel injury – the definitive overview.**  
Radiation Induced Gastro-Intestinal Toxicity Workshop. Port Douglas, Queensland.
- 1998 **Locally advanced breast cancer hypotheticals**  
Annual Scientific Meeting for COSA.
- 1999 **A double blind randomised trial to assess the effect of oral sucralfate on the acute proctitis associated with prostate radiotherapy**  
RANZCR Annual General Meeting. Sydney, Australia.  
Awarded the Medical Applications Prize for the best original research from a fellow of the Faculty of Radiation Oncology.
- 2000 **Advances in the radiotherapeutic management of prostate cancer. National Conference of the Medical Oncology Group and the Faculty of Radiation Oncology Sydney Australia.** Same talk also given at the June meeting of the NSW Genito-Urinary Oncology Group.
- 2000 **The natural history of radiation bowel complications and overview as to the role of Sucralfate**  
Radiation Induced Gastro-Intestinal Toxicity Workshop, Port Douglas, Queensland, Australia.
- 1998-2001 **Role of radiotherapy for rectal cancer**  
Annual Colorectal Seminar for Nurses and Allied Health, Liverpool Hospital, Sydney, Australia.

- 2001 **Role of radiotherapy for the palliation of pain**  
Pain Seminar, Liverpool Hospital, Sydney Australia.
- 2001 **Prostate Cancer Education Day**  
Education workshop on prostate cancer for the general public organised by the Prostate Cancer Foundation and the South Western Sydney Prostate Cancer Support Group. Liverpool Hospital, Sydney Australia.
- 2001 **Screening For Prostate Cancer. What's The Current Status?**  
Bankstown Division of General Practitioners, Sydney Australia.
- 2001 **NHMRC Guidelines On Management Of Colorectal Cancer.**  
Conducted a series of workshops for General Practitioners aimed at disseminating awareness of colorectal cancer guidelines organised by NSW Genetics Education Unit.

#### **MS SHARON MILES**

- 2000 **Quality Assurance – ANZLG/TROG prospective study of limited chemotherapy and involved field radiotherapy for patients with clinical stage I to II Hodgkin's Disease**  
Australasian Leukaemia and Lymphoma Group Sydney.

#### **DR SHALINI VINOD**

- 1999 **Junior Forum Survey.**  
RANZCR Annual Scientific Meeting 2000, Sydney, Australia.
- 2000 **Part-time consultancy and training**  
Faculty Forum, RANZCR Annual Scientific Meeting.
- 2001 **A Basic Treatment Equivalent for Gynaecological Brachytherapy**  
International Congress of Radiation Oncology.

#### **Reports and Submissions**

- 1998 **Rectal Cancer Problem Based Learning Module**  
*Kneebone A, Clarke S, Lee P, Loder P, Simons R.*
- 1998 **High dose rate brachytherapy alone in the treatment of cervical carcinoma. Presented at 8<sup>th</sup> Annual Australasian Brachytherapy Conference and Workshop**  
*Fowler A, Macleod C.*
- 1999 **Options paper Liverpool vs. Macarthur - The location of the next linear accelerator**  
*Berry MP, Viswasam G.*
- 2000 **Ideal Oncology Curriculum for Medical Schools**  
Oncology Education Committee, Australian Cancer Society.
- 2000 **Screening for individuals at above-average risk for colorectal cancer**  
*Barton M, Frommer M, Brassil A, Jalaludin B, Tynan K and Kirk J.*  
NSW Cancer Council.
- 2000 **A discussion paper on subspecialisation in radiation oncology : a report to the Faculty of Radiation Oncology**  
*Stevens G, Berry MP.*
- 2001 **A trial of videoconferencing of multidisciplinary breast cancer clinical meetings in South Western Sydney**  
*Jacob S, Delaney G, Barton MB.*  
Report to NHMRC National Breast Cancer Centre.
- 2001 **The Hidden Burden – Cancer in Papua New Guinea**  
Cancer Services Report for AusAID.
- 2001 **A Basic Treatment Equivalent for Gynaecological Brachytherapy – A Pilot Study.**  
*Vinod S, Macleod C, Fowler A, Delaney G, Barton M, Jalaludin B.*  
To be presented at ICRO 2001, Melbourne.

## THE INAUGURAL 2000 CANCER COUNCIL AWARDS

### PROFESSIONAL EDUCATION AWARD

*Associate Professor Michael Barton*



Associate Professor Michael Barton received the inaugural award for Professional Excellence in the field of Professional Education from the NSW Cancer Council.

The award was presented at a special ceremony at Parliament House on 5 May 2000 and recognises "long-term contribution, significant achievement and innovation in professional health educator multidisciplinary activities".

During a long and distinguished career in Radiation Oncology and professional education, Professor Barton has made an enormous contribution to improving oncology education and training.

The judges noted his dedication and commitment to achieving best practice in the field and were impressed with his innovative approach, strong emphasis on collaboration, and commitment to multidisciplinary education.

## LIVERPOOL CHAMPION 31 MAY 2000



Dr Michael Barton and Roy Medich show off Liverpool Hospital's linear accelerator.

## Pair's work wins praise

LAST Friday, two local residents were chosen for NSW Cancer Council awards.

Dr Michael Barton from Liverpool Hospital received the Professional Educational Award and Roy Medich from the South Western Sydney Bowel Cancer Foundation received a Community Fundraising Award.

The inaugural award ceremony, at Parliament House, Sydney, honoured the pair for their commitment to work and

the health of people residing in the south-west.

Mr Barton said his job is to cure and improve about half of all cancer cases processed through the hospital, using the linear accelerator machine.

"We are only just beginning to see the true potential of radiation treatment," he said.

"Unfortunately, staffing is a major problem - there's a shortage of about 20 people out of 140 needed.

"A lot of cancer treatment specialists prefer to work overseas."

NSW Cancer Council spokesman Dr Andrew Perman said professionals like Dr Barton have contributed enormously to improvements in Australia's oncology education and training over the past decade.

Mr Medich was also congratulated for raising more than \$600,000 for the establishment of a colorectal cancer database.

## PEOPLE'S CHOICE POSTER

AWARD AT FOURTH LEURA INTERNATIONAL

BREAST CANCER CONFERENCE

*Geoff Delaney and Susannah Jacob*

November 2000 for the poster presentation,

"Use of videoconferencing in multidisciplinary breast cancer clinical meetings in South Western Sydney".



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## Special Projects

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### **PAPUA NEW GUINEA**

CCORE supplied a team of experts in oncology and Health Service Management to perform a feasibility study of the provision of oncology services in Papua New Guinea in March 2001.

The team consisted of:

Associate Professor Michael Barton

*Radiation Oncologist*

Associate Professor Tomas Kron

*Medical Physicist*

Professor Martin Tattersall

*Medical Oncologist*

Ms Jo Smylie

*Radiation Therapist*

Associate Professor William Kricker

*Expert in Health Service Management*

The multi-disciplinary team examined all aspects of the operation of cancer services and provided recommendations on training required, support services required and costing. The team found evidence for an unrecognised and alarmingly high incidence of cancer. Among the recommendations was the development of a Cancer Control Plan to be overseen by a National Cancer Control Board. The team's report has been accepted by the Government of Papua New Guinea and priorities for implementation are being examined.

### **AREA CANCER CONTROL NETWORK**

The Optimising Cancer Management Report to the NSW Health Department recommended a Cancer Service Model to integrate cancer services as Networks within Area Health Services. The Report describes models of care that account for population interests across all aspects of cancer control, through prevention, screening, treatment and palliation.

South Western Sydney Area Health Service along with the four other metropolitan Area Health Services have appointed Cancer Network Directors. There is great diversity in the management structures, quality of facilities, public private service mix and demographics between Areas. The current situation is a legacy that reflects the development of cancer services on a sector basis within Areas and the historical pre-eminence of particular teaching hospitals.

Dr Martin Berry was appointed as the Director of Area Cancer Control Network in November 2000 and CCORE is supplying the project management to support him in this role.

Associate Professor Bill Kricker who has extensive experience in health management and Information Technology, has been an invaluable resource for implementing this extremely complex and challenging task.

While recognising diversity in structure and management, there are some common elements that are required to effectively implement and manage a Cancer Control Network. For each of the services in a Network there needs to be a concept of what is a "good" service. This will be a multi-dimensional paradigm that will inevitably evolve over time.

The challenge to working as change agents in health is where and how to start. Associate Professor Bill Kricker has developed a framework that describes the steps for building up information to effectively manage an Area Cancer Control Network. The process of unbundling funding arrangements and ascertaining cancer-related activity across the public and private continuum of care is complex.



*From left:  
Jo Smylie, Margaret Samei (CEO ANGAU  
Memorial Hospital, Lae), Bill Kricker (rear),  
Martin Tattersall, Tomas Kron.*



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The advantage of completing this task is to put decision making on a factual basis as opposed to empirical reasoning. The process goes 'hand in glove' with the implementation of area clinical cancer registries that will capture treatment outcomes.

By identifying the elements and understanding the resource, service and outcomes nexus, evidence-based information can be the driver to achieve what is 'good'.

#### **AREA CLINICAL CANCER REGISTRY**

The Optimising Cancer Management Committee report to the NSW Health Department recommended a Cancer Service Model with the aim of integrating cancer services at an Area level. A requirement for an information system in the form of an Area Clinical Cancer Registry (ACCR) was identified to validate and support this model. A cancer clinical data model, data dictionary and minimum data set have been developed under the auspices of the NSW Department of Health to support the concept of ACCR's. In NSW there is currently no registry system that collects local outcome data on patients who have had cancer treatment and the lack of this data is a major impediment to improving safety and quality.

The development of an ACCR is consistent with other current and planned information technology initiatives within the NSW health system. The ACCR proposes links with the Health Information Exchange as a mechanism for data exchange between area registries and the NSW Central Cancer Registry. A particular advantage of ACCR's is the capture of clinical data on radiotherapy and chemotherapy treatments that are often delivered on an outpatient basis.

South Western Sydney Area Health Service is committed to implementing the Cancer Service Model in keeping with the Department of Health policy and stage one has been funded locally by the Information Services Department. Associate Professor Bill Kricker, Dr Martin Berry, Dr Geoff Delaney and CCORE have developed a staged implementation plan to bridge the gap between policy, planning and practice. No less than ten State and four Area-based Information Technology and Information Management initiatives were identified for consideration in the planning process for an ACCR. The exercise of constructing a framework exposed the difficulties of implementing policy into complex systems, in particular stakeholder interpretation of the concept and language, implementation inexperience and time constraints.

Ultimately the benefit of the ACCR will be timely, local outcomes data leading to improved quality of service delivery.

One of the initiatives of the Cancer Information Management and Technology sub-committee of the Cancer Advisory Committee is to explore the issues and consider implementing an Area Cancer Registry.

#### **DISTANCE LEARNING IN THE BASIC SCIENCES OF ONCOLOGY**

There is a worldwide shortage of radiation oncologists. We estimate that in South East Asia alone 800 radiation oncologists are needed to meet the current population demand. The International Atomic Energy Agency (IAEA) has previously supported trainees for fellowships in Europe and Australia.

There are many disadvantages including costs, dislocation of trainees and the fact that many trainees may choose to work overseas and not return to their own country. The aim of this project is to develop a distance learning course in the basic sciences of oncology (BSO) for radiation oncology trainees that supplements existing texts and training schemes in the Asian Pacific Regional Cooperative Agreement. The existing BSO course run in Sydney covers physics, radiobiology, functional anatomy, chemotherapy, palliative care, molecular biology, critical appraisal and communication skills. It was conceived to prepare radiation oncology trainees for their first specialist exam. The course was broadened to include medical oncology trainees and some non-medical oncology professionals such as physicists and radiation therapists. There have been over 140 students in the past 8 years. This course will be converted and modified into a distance learning course to be delivered on CD-ROM. Associate Professor Michael Barton has been responsible for coordinating the expert authors of the learning modules as well as being an author himself. In Kuala Lumpur, Malaysia in December 1999, a meeting of representatives from Africa and three from Latin America met to form an Advisory Board. IAEA have now funded the development of materials and the CD should be ready for piloting by December 2001. The pilots will be conducted in Egypt, Argentina, the Philippines, Pakistan and Malaysia. If successful the program will be translated into Chinese, Russian and Spanish.

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## **IDEAL ONCOLOGY CURRICULUM**

The Australian Cancer Society Statement of 1988 stated: “In all Australian medical schools a compulsory course in oncology should be established, this topic should be examinable, and the presence of an appropriate course should be a requirement for an accreditation review”.

The Oncology Education Committee of the National Cancer Advisory Committee, in extensive consultation with academic staff of all medical schools in Australia and New Zealand, has revised the 1988 Australian Cancer Society: Statement on undergraduate cancer education to identify core skills and competencies in oncology that graduating medical students should possess.

A survey of cancer education for Australian medical students in 1986 resulted in the Australian Cancer Society developing guidelines for an “ideal” cancer curriculum, circulated to all Australian medical schools in 1989. The International Union Against Cancer (UICC), a non-governmental independent association of more than 290 member organisations in more than 90 countries, published a monograph on cancer education for medical students in 1994. The monograph describes global concerns about the status of medical student education about cancer, and provides a series of model curricula. A survey of cancer curricula in Australia and New Zealand medical schools was undertaken in 1997. The survey instrument was based on the 1989 curriculum recommendations of the Australian Cancer Society. This survey was repeated in 2001, the analysis of which is currently under way.

This most recent survey was designed to allow direct comparability with the 1989 survey with the addition of questions related to the Australian Cancer Society Ideal Oncology Curriculum for Medical Schools. The curriculum developed by the Oncology Education Committee provides a template for improved medical student cancer education in Australia and New Zealand.

## **SCREENING FOR INDIVIDUALS AT ABOVE-AVERAGE RISK FOR COLORECTAL CANCER**

CCORE was commissioned by the New South Wales Cancer Council to report on options for the screening of individuals at above-average risk of colorectal cancer in Australia.

In accordance with recently published Australian guidelines for the prevention and treatment of colorectal cancer (National Health and Medical Research Council, 1999), we define above-average risk as “a risk level at least three times the age-specific average risk”. Following from this definition, we recommend targeting the following groups for screening:

- Individuals who have had a colorectal cancer
- First-degree relatives of individuals who were diagnosed with colorectal cancer before the age of 55 years
- First-degree relatives of individuals who
  - (a) were diagnosed with colorectal cancer when aged 55 years or older, and
  - (b) have one other first-degree relative with colorectal cancer.

The overall intent of the proposed program is to develop, establish, maintain, evaluate and enhance screening, thereby reducing morbidity and mortality from colorectal cancer in people with above-average risk of the disease.

## **USE OF ELECTRONIC POLLING AS A TOOL TO IMPLEMENT BEST PRACTICE**

*Berry MP, Kneebone A, Cozzi P, deSouza P, Jackson M, Jackson P, Molloy P.*

This project aims to identify how electronic polling can be best utilised as an educational and motivational tool for clinicians.

An educational workshop was held June 22-24, 2001 with the aim of presenting information in an evidence-based format. Participants included radiation oncologists, medical oncologists, surgeons and scientists, both trainees and qualified specialists, from Australia and New Zealand. At the outset participants were polled using electronic handsets and a number of descriptors were collected together with an assessment of their knowledge on a number of key clinical issues. The polling technique allowed an anonymous response and results were instantaneously available using computer generated figures (pie charts and bar graphs) so that individuals could assess how their answers compared with the whole group. Presenters were then asked to lecture over the next 2 days using an evidence-based format. On conclusion of the workshop the same questions were raised and responses collated electronically. Analysis of these responses is now being carried out to identify changes in knowledge and opinion and factors that may have affected these changes.



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**NEW MEDICAL GRADUATES'  
KNOWLEDGE ABOUT CANCER:  
THE AUSTRALIAN CANCER SOCIETY  
CANCER EDUCATION SURVEY**

*Barton MB, Tattersall MH, Butow P,  
Crossing S, Jamrozik K, Jalaludin B,  
Miles S.*

Cancer is a leading cause of death in Australia yet past research shows that the subject is not well taught and that medical graduates have substantial gaps in knowledge and serious concerns about their own skills in areas such as performing a Pap smear or discussing death with a dying patient. Over the last decade new medical courses have begun in several Australian universities. We wished to assess whether there had been any improvements in the education of medical students about cancer. The aims of this survey were (1) to assess the knowledge and perceptions of new medical graduates about cancer and teaching on cancer and, (2) to compare with the results of the previous survey in 1990.

We surveyed recently graduated interns in a random sample of Australian and New Zealand hospitals. The survey instrument was designed to allow direct comparability with the survey of 1990 and included questions about knowledge and perceptions of their own competency at key tasks and the quality of their teaching.

New questions were added on screening, guidelines and types of teaching and were guided by the Australian Cancer Society Ideal Oncology Curriculum for Medical Schools.

In January 2001, 379 interns completed the survey, mostly during their hospital orientation week. The response fraction was 64%. When compared with the responses from 1990 more interns rated their competence as 'little' or 'nil' for performing a Pap smear (22% in 1990 versus 32% in 2001) and in recognising a melanoma (11% versus 25% in 2001). However recent graduates were more comfortable discussing death with a dying patient (70% reporting little/nil competence in 1990 versus 43% in 2001). Two-thirds thought, incorrectly, that the greatest risk of developing cervical cancer was when a woman was in the 30 to 40 year age group. This is unchanged from 1990. More interns had examined a malignant breast lump (17% versus 87% in 2001), rectal cancer (14% versus 47% in 2001) and melanoma (20% versus 76%). There had been greater exposure to specialist oncology centres with only 20% saying they had never attended radiotherapy clinics (versus 42% in 1990) and 12% never attended palliative care (versus 50% in 1990). However, 24% felt they had poor competence at breaking bad news and 40% did not know there was valid evidence for colorectal screening. By contrast 60% thought screening for melanoma was effective and 50% reported, erroneously, that there was a lung cancer screening service in their state.

Nearly two-thirds were unaware of the National Guidelines on Psychosocial Care of Cancer Patients. Nearly one third rated their teaching on the management of incurable cancer and symptoms of dying patients as 'poor' or 'very poor'. The results in all areas varied significantly between universities.

There have been considerable improvements in interns' knowledge but worryingly large proportions rated their competence as poor or had gaps in areas of key knowledge. The variation between universities is of considerable concern.

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# Conference Organisation

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## **DRIVING HEALTH REFORM**

10-11 June 1999, Liverpool

CCORE, in conjunction with the Simpson Centre for Health Service Innovation hosted the third Driving Health Reform conference in June 1999. The theme of the conference was "Putting it into Practice". Strategies and methods to convert theory into practice were presented including practical examples of how this has been done in specific clinical contexts.

The five major areas covered in the program were:

1. Evidence Based Medicine
2. Issues of compassion and consumer involvement in acute hospitals, particularly in relation of dying patients
3. Whistle blowing
4. Delivery of cancer services
5. The relationship between acute hospitals, general practitioners and the wider community.

## **RADIATION THERAPY 2000 AND BEYOND SUMMIT**

8-10 November 2000, Sydney

Associate Professor Michael Barton chaired the Radiation Therapy Working Group who organised this conference in conjunction with the New South Wales Cancer Council.

Over the past twenty years many reports on radiation therapy services have been developed but this treatment is still not widely utilised. Key issues discussed at the Summit included access inequality, access to services in rural areas and quality of care. The Summit has proposed an increase in funding of radiation therapy services, better access to radiation therapy services for patients in rural areas, an increase in the radiation therapist workforce and an investment in new radiation technologies.

The Summit was considered to be very successful and achieved its aim of influencing key stakeholders and advocating the need for positive development in access to and provision of radiation therapy services in New South Wales. The audience comprised of 162 State and Federal Government policy and decision-makers, radiation oncologists, radiation therapist and other health professionals and consumers. Every State and Territory in Australia was represented.

The end result of this Summit will be the production of a CD ROM that will house the Conference Proceedings, pre-reading material, visual presentations and a Cancer Council prepared Advocacy Paper.

## **14<sup>TH</sup> ANNUAL SCIENTIFIC MEETING OF THE EUROPEAN ASSOCIATION FOR CANCER EDUCATION**

2-5 May 2001, Antwerp, Belgium

Associate Professor Michael Barton was a Scientific Committee member of the European Association for Cancer Education. The meeting was organised in collaboration with the WHO-Collaborating Centre for Cancer education, the International Union Against Cancer/Union Internationale Contre le Cancer and the Oncology Centre Antwerp. The aim of the Association is to bring together health professionals working in the field of cancer education to discuss educational strategies.

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# Committee Representations

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## **ASSOCIATE PROFESSOR MICHAEL BARTON**

- 1994 – 2001 *Board Member, Faculty of Radiation Oncology, Royal Australian and New Zealand College of Radiologists.*
- 1995 – Present *Chairman, Australian Cancer Society, Oncology Education Committee.*
- 1996 – Present *Expert in Radiation Oncology, International Atomic Energy Agency.*
- 1999 – Present *Chair, Radiotherapy Working Party, NSW Cancer Council.*
- 1999 – Present *Member Governing Committee of the NSW Cancer Control Network, NSW Cancer Council.*
- 2000 *Member, National Strategic Plan for Radiation Oncology Services.*
- 2001 *International Review Panel of International Atomic Energy Agency Co-operative Research Projects Program, Vienna, Austria.*

## **DR MARTIN BERRY**

- 1993 – Present *Convenor, RANZCR Paediatric Radiation Oncology Group.*
- 1993 – Present *Convenor, Genito-Urinary Oncology Group (GUOG) and Organising Committee, GUOG National Conference.*
- 1993 – Present *Convenor, ANZCCSG Committee of Paediatric Radiation Oncologists.*

## **DR GEOFF DELANEY**

- 1996 – Present *Member of the Medical Council, United Medical Protection.*
- 1996 – Present *National Breast Cancer Centre, Radiation Oncology Advisory Group Executive.*
- 1997 – Present *NSW Department of Health Breast Advisory Committee.*
- 2000 *Member of the Commonwealth Government Medical Services Advisory Committee – Three-dimensional radiotherapy Expert Review Panel.*

## **DR ALLAN FOWLER**

- 2001 *CTC Quality Assurance Committee Radiation Therapy Quality Improvement Committee Area Cancer Control Network.*

## **DR ELIZABETH HOVEY**

- 1990 *Intern Representative-RMO Club, Royal Prince Alfred Hospital.*
- 1994-1995 *RMO-Liaison Officer for Post-Graduate Medical Education Committee, Royal Prince Alfred Hospital.*
- 1997-1998 *Executive member- RMO Committee for PSA (NSW Public Service Association Branch).*

## **DR ANDREW HUI**

- 2001 *Member (Junior Forum Representative) Radiation Oncology Faculty Board, RANZCR.*
- 2001 *Member, Website Advisory Board, RANZCR.*

## **DR ANDREW KNEEBONE**

- 2001 *Member, Colorectal Cancer Care Survey Advisory Committee NSW Cancer Council.*
- 2001 *Member, Australian Prostate Cancer Consumer Guidelines Working Group.*
- 2001 *Member, Australasian Radiation Oncology Lymphoma Group.*

## Income (1999 – 2001)

<p>1999 Oncology Education Committee Australian Cancer Society <i>M Barton</i> \$ 55,000</p> <p>1999 Chemotherapy BTE Health Research Foundation SWSAHS <i>G Delaney, M Barton</i> \$ 18,000</p> <p>2000 Feasibility of videoconferencing for multi-disciplinary clinics National Breast Cancer Centre <i>G Delaney, M Barton</i> \$ 19,000</p> <p>2000 Distance Learning Website-based Cancer Programme <i>M Tattersall, M Barton</i> US\$20,000 \$ 40,000</p> <p>2000 Oncology Education Committee Survey of Recent Graduates Australian Cancer Society <i>M Barton</i> \$ 3,000</p> <p>2000 Quality Assurance – Prospective study 1-11 Hodgkins Lymphoma Trans Tasman Radiation Oncology Group <i>M Barton</i> \$ 1,000</p>	<p><b>COMPETITIVE TENDER</b></p> <p>2000 Proposal to Enhance Screening in Individuals of Above Average risk of Colo-rectal Cancer NSW Cancer Council <i>M Barton, M Frommer, A Brassil</i> \$ 35,000</p> <p>2000 Development of Basic Science of Oncology Distance Learning Project International Atomic Energy Agency US207,000 approx \$390,000</p> <p>2001 The Hidden Burden of Cancer in Papua New Guinea Ausaid <i>M Barton, B Krickler, T Kron, M Tattersall, J Smiley</i> \$125,000</p> <p>2001 Radiotherapy Utilisation Study Commonwealth Department of Health and Aged Care <i>M Barton, G Delaney</i> \$231,550</p> <p><b>OTHER SOURCES</b></p> <p>2001 Area Cancer Control Network Liverpool Health Service <i>M Berry</i> \$ 30,000</p> <p>2001 Area Clinical Cancer Registry Stage 1 SWSAHS ISSC <i>M Berry</i> \$ 50,000</p>
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# Partnerships and Collaborations

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Partnerships and collaborations with other health professionals and organisations are essential to providing high quality expertise in clinical research. We thank the following individuals and organisations for their involvement.

Professor Bruce Armstrong *NSW Cancer Council Australian Cancer Society*

Mr Tim Becker *Mustard Communications*

Ms Ann Brassil *Director, Breastscreen NSW*

Ms Burcu Cakir *Department of Radiation Oncology, Westmead Hospital*

Ms Stacey Cail *Radiation Oncology, St George Hospital*

Dr Susan Carroll *Department of Radiation Oncology, Prince of Wales Hospital*

Dr John Cartmill *Department of Surgery, Nepean Hospital*

Dr Allison Colley *Geneticist, South Western Sydney Area Health Service*

Dr Richard Foster *Sydney Adventist Hospital*

Mr Val GebSKI *Statistician, NHMRC Clinical Trials Centre, University of Sydney*

Mrs Barbara Gildea *Medical Oncology, Cancer Therapy Centre, Liverpool Health Service*

Ms Sue Griffiths *Cookridge Hospital, Leeds, United Kingdom*

Associate Professor Chris Hamilton *Department of Radiation Oncology, Mater Misericordiae Hospital, Newcastle, NSW*

Professor Michael Hensley *University of Newcastle*

Dr George Hruby *Department of Radiation Oncology, Royal Prince Alfred Hospital*

Dr Ric Idemma *Centre for Health Services Management and Information Research, University of NSW*

Information Services Department *South Western Sydney Area Health Service*

International Atomic Energy Agency

Dr Judy Kirk *Specialist in Cancer Genetics, Westmead Hospital*

Dr Margot Lehman *Andrew Love Cancer Centre, Geelong Hospital, Victoria*

Dr Peter Loder *Colo-Rectal Surgeon, Hornsby*

Ms Junie McCourt *Department of Radiation Oncology, Westmead Hospital*

Professor William MacKillop *Ontario, Canada*

Dr Craig MacLeod *Murray Valley Radiation Oncology Centre (formerly Department of Radiation Oncology, Royal Prince Alfred Hospital)*

Dr Eugene Moylan *Director Medical Oncology, Cancer Therapy Centre, Liverpool Health Service*

Dr Elias Nasser *Cancer Care Centre, Illawarra Health Service New South Wales Cancer Council*

Dr George Papadatos *William Buckland Radiotherapy Centre (formerly of Radiation Oncology, St George Hospital)*

*Radiation Oncology Departments in Australia and New Zealand*

Dr Sally Redman *Director, National Breast Cancer Centre*

Dr David Roder *Consultant Epidemiologist, Anti-Cancer Foundation of South Australia*

Dr Graham Stevens *Oncology, Dunedin Hospital, New Zealand (formerly of Department of Radiation Oncology, Royal Prince Alfred Hospital)*

Professor Martin Tattersall *Department of Medical Oncology, Royal Prince Alfred Hospital*

Dr Julia Thompson *Coordinator Hereditary Bowel Cancer Registers, NSW Cancer Council*

Dr Sandra Turner *Department of Radiation Oncology, Westmead Hospital*

Dr Mark Winters *Centre for Health Services Management and Information Research, University of NSW*

Dr Andrew Wirth *Peter MacCallum Cancer Institute*

Associate Professor Philip Yuile *The Royal North Shore and Mater Misericordiae Hospitals, Sydney*

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# CCORE Launch

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CCORE was officially launched on 11 March 2000 by Dr Andrew Penman, CEO of the NSW Cancer Council. Other speakers included Mr Ian Southwell, CEO of SWSAHS, Dr Martin Berry, Director of the Cancer Therapy Centre and A/Prof Michael Barton, Research Director of CCORE.

Dr Andrew Penman . . . "What is outstanding about the commitment in CCORE . . . is that it is based within a health care organisation with a commitment to identifying, measuring and improving the structures and processes of care within the organisation and its environment that account for systematic variation in outcomes. It also includes the potential to intervene in the population in a way that improves outcomes."



*Dr Andrew Penman*

## **New Premises**

CCORE moved into new premises within Liverpool Hospital in November 2000.



*Pictured from top to bottom are CCORE's new Foyer, Conference Room and Work Stations.*



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## Future Directions

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- 
- Assist in the development and implementation of an Area Clinical Cancer Registry
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- Project management for the Area Cancer Control Network
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- Distance learning projects for both specialised training and for general practitioners and students
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- Health outcomes evaluation across tumour sites of interest
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# Glossary

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ACCR	Area Clinical Cancer Registry	ISRRT	International Society of Radiographers and Radiological Technologists
ACT	Australian Capital Territory	NCOG	New South Wales Clinical Oncology Group
AIR	Australian Institute of Radiology	NH&MRC	National Health and Medical Research Council
ANZLG	Australia and New Zealand Lymphoma Group	PSA	Prostate Specific Antigen
ANZCCSG	Australia and New Zealand Children's Cancer Study Group	RANZCR	Royal Australia and New Zealand College of Radiologists
AusAID	Australian Government Overseas Aid Program	RMO	Resident Medical Officer
BCCA	British Columbia Cancer Agency	SWSAHS	South Western Sydney Area Health Service
BSO	Basic Sciences of Oncology	TNM	Tumour – Nodes – Metastases. A method of staging cancer
BTE	Basic Treatment Equivalent	TROG	Trans-Tasman Radiation Oncology Group
CCORE	Collaboration for Cancer Outcomes Research and Evaluation	UICC	Union Internationale Contre le Cancer/ International Union Against Cancer
CEO	Chief Executive Officer	WHO	World Health Organisation
COSA	Clinical Oncological Society of Australia		
CRC	Colo-Rectal Cancer		
EORTC	European Organisation for Research and Treatment of Cancer		
FAP	Familial Adenomatous Polyposis		
GI	Gastrointestinal		
GP	General Practitioner		
HNPCC	Hereditary Non-Polyposis Carcinoma of the Colon		
IAEA	International Atomic Energy Agency		



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