

The Breast Cancer Treatment Group

Jenny Brogan – Chair of the ACT & SE NSW Breast Cancer Treatment Group

2003 has been another busy year for the Group. We have had 4 meetings all very well attended including guest speakers and presentations.



Jenny Brogan

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Our first meeting of the year in February raised the issue and discussion of the role of the Group, and where the Group can go from here. A presentation about the Lymphoedema Clinic was also given. In May we had guest speaker Dr Rosemary Knight from the Commonwealth speaking about the National Service Improvement Framework for Cancer. In the August meeting we had both guest speaker Mary Cooper from Westmead Hospital speaking on breast care nursing, as well as a presentation from Breast Cancer Network Australia representatives. During our last meeting of the year in November the Group approved revised protocol on data use and the forms associated with the data/information request process.

The focus has also been on the use of the data and much work has gone into the development of the 5-year report which we hope to have out by early next year.

It is with much regret that I tendered my resignation as chair at the November meeting. I have been very involved with the project from its commencement and certainly intend to keep some involvement, but my current area of work is very far removed from the activities of the Breast Cancer Treatment Group and so I feel it is appropriate to hand over to someone who has that involvement. At the meeting Jane Dalhstrom was elected Chair and I am sure she will take the Group onto bigger and better things.

Thank you!

We would like to say a big thank you to Jenny Brogan who has been involved with the Project from the beginning and who has chaired the Group for several years. She has done an enormous amount of work and the Project wouldn't have succeeded without her!

Report from the Chair of the Data Collection Subcommittee

Paul Craft – Chair of the Data Collection Subcommittee

FIVE-YEAR REPORT

The subcommittee has enjoyed a busy year so far. Considerable work has been undertaken by subcommittee members, and the project managers, preparing the five-year report. This report documents the results of the first full five years of the Quality Assurance Project and will give a complete picture of breast cancer treatment in the ACT and South Eastern NSW. The report will be finalised towards the end of 2003.

DATA/INFORMATION REQUEST PROCESS

The subcommittee frequently receives requests from Group members for results of data analyses to assist in research projects. De-identified data subsets can be generated for researchers in certain circumstances. Important insights into breast cancer treatment outcomes will come to light through analyses of the information collected by the project over the coming years.

The subcommittee has developed procedures to assess data requests including a new request

form and data use agreement. Data releases that might involve identifiable patient details will generally require specific Ethics Committee approval. The Group as a whole, at the November meeting, accepted these procedures.

The project continues to collect important information with a total of 1711 cases of breast cancer being notified at the end of October.

I would like to take this opportunity to again thank members of the subcommittee for the large amount of work they have contributed this year, as well members of the Treatment Group who continue to diligently report the treatment of patients they care for. Of course, the project remains successful due to the unfailing enthusiasm of Yanping Zhang and Sally Naylor.



Paul Craft

Management Support for the Projects

Bev Gow-Wilson

The Breast Cancer Treatment Quality Assurance Project is making steady progress towards the completion of its 5-year report. Thanks to Yanping Zhang and Sally Naylor's support and attention to detail, along with Paul Craft and the subcommittee's time and commitment, and input from the clinicians, it appears that this report is approaching 'ready for publication' stage.

Excellent timing as the Breast Cancer Treatment QA Project is soon to be joined by the Colorectal Cancer Treatment QA Project. Ian Davis and the ACT regional GIT Tumour Group support



the Colorectal Project, which has received initial funding for one year.

Yanping will be co-ordinating data management for both projects. The Colorectal Project will be modelled from the successes of the Breast Cancer Treatment Project. Recruitment for the colorectal data officer has been finalised, Jennifer Bertram commenced November 10th.

As Director of Community Health's Quality and Safety Unit, it is my privilege to be part both these important and productive projects. The project office is located on the first floor, Moore St Health Building.

Pathological Perspective on the Breast Cancer Quality Assurance Project

Ian Clark, Capital Pathology

Pathological examination of breast specimens has come a long way since the days when a single block of tumour tissue would be taken from a radical mastectomy specimen with sampling of perhaps one or two lymph nodes and provision of a report that identified the presence or absence of adenocarcinoma. Today a comprehensive breast cancer pathology report is typically based upon careful microscopic examination of thirty or more blocks with adjunctive immunohistochemical staining, and contains several pages of data. Accurate and reliable pathology reporting has underpinned the ACT & SE NSW Breast Cancer Quality Assurance Project from its inception in 1996.

Pathological features account for approximately 30% of the data entered into the quality assurance project, and include key features of tumour type, size, grade and stage. These features play a crucial role in helping clinicians select appropriate adjuvant hormonal, chemo- and radiotherapy, and allow for an estimate of prognosis in each patient.

In order to be comprehensive, most breast reporting today uses the so-called synoptic form of report which is pre-formatted, is easy to read and includes all relevant facts concerning the carcinoma.

Accurate and reliable pathology reporting has underpinned the Project since its inception in 1996

Recent advances in pathology include immunohistochemical assessment of hormone receptor status, formerly performed biochemically, and staining for the over expression of the receptor protein HER2, the latter a prerequisite for treatment with the new molecular therapy (Herseptin). The increasing use of sentinel lymph node biopsy to avoid axillary dissection and its associated morbidity, carries a requirement to exclude any possibility of metastatic disease. Such nodes are step sectioned and cytokeratin immunohistochemical stains performed, sometimes identifying metastases comprising only a few cells.

Histopathology is a subjective specialty, and to ensure consistency and reliability of reporting the Royal College of Pathologists of Australasia has sponsored its own quality assurance project, undertaken by individual pathologists who report breast pathology. Independent assessments of immunohistochemical staining quality are also performed. Together with intralaboratory quality assessments, these projects ensure that the pathological data supplied to the ACT and SE NSW Project can be relied upon as the basis for sound surgical audit, prognostication and appropriate management decisions.

Social Work Service at The Canberra Hospital

Madeline Clark

A diagnosis of cancer is distressing and often throws the patient's world into turmoil. Social Workers are available to help patients and their families with both social and emotional needs. Social issues may include employment and financial concerns, transport and accommodation. Sometimes patients are not aware of relevant community services that are available and how to access these. Social Work is able to provide information on these areas and offer solutions to problems associated with having cancer and its treatment.

We are also available to talk about the emotional impact: the effect on self-image, relationships and

caring responsibilities and feelings of isolation. We are able to play a different support role to those close to the patient and this is often a relief to all involved. We are able to advise patients about other support agencies, self-help and general support groups running in the community.

There are a number of social workers attached to the Oncology Units at The Canberra Hospital. We are available to see patients and their families at any point of their cancer journey, before, during and after treatment but refer patients to community counsellors also. We welcome referrals from all sources and can be contacted via our Social Work Department on 6244 2316.

Sentinel lymph node b

Jane Dahlstrom

The most significant change for pathologists in reporting breast cancer over the last 5 years in the ACT and surrounding regions has been the introduction of sentinel node biopsy in an effort to reduce the number of full axillary dissections in breast cancer patients with clinically negative lymph nodes. This short article aims to discuss briefly the technique involved, the current knowledge of its value and some limitations, and the current dilemmas for pathologists in the assessment of sentinel nodes in breast cancer.

The concept of sentinel node biopsy in the management of cancer has been known for decades and has been increasingly used in the management of melanoma.

Studies have demonstrated that the spread of disease within a draining lymph node basin follows a sequence from sentinel node/s to high echelon nodes and that biopsy of the

sentinel node/s could be used to stage the nodal basin.

Currently in Canberra, patients with breast cancer have preoperative subdermal injection of microcolloidal particles labelled with technetium (^{99m}Tc), close to the tumour site, on the day, or day before surgery. Scintigraphic images of the axilla and breast are taken. A mark is placed on the skin over the site of the radioactive node (sentinel node).

During breast surgery, a hand-held gamma-ray detector probe is used to locate the sentinel node. In addition a vital dye (Patent Blue V) is also injected close to the tumour site intraoperatively to improve the visibility of the sentinel node. This makes possible its separate removal via a small

axillary incision. This node is then pathologically assessed, first by imprint cytology and/or frozen section examination, and then processed for

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Future Research Possibilities.....

Alison Davis

I have been very impressed with the database being collected by the Breast Cancer Treatment Group Project. It is pleasing and encouraging to see such a high degree of collaboration, although this is really only as it should be in a multi-disciplinary field such as Oncology.

The database provides endless opportunities for research and analysis of our population set in the ACT and surrounds. Assessing our practices and outcomes is an extremely important QA exercise and allows us to compare ourselves with other states and internationally. There will also be opportunities to explore new or novel research questions, particularly as the data matures. It will be important to maximize use of the database by allowing individual investigators access for different projects, naturally with the approval of the board.

Ideally, we would also have a tumour bank attached to the database. Unfortunately the tumour bank instigated and co-ordinated by Dr Doug Taupin at The Canberra Hospital is currently "on-hold" due to lack of funding. Hopefully we will be able to resurrect this.

With our understanding of the molecular processes involved in malignancy rapidly increasing it will become increasingly important to include molecular assessments and correlations with clinical outcome.

At present we are collecting only histological details and limited immunohistochemistry (ER/PR). I would like to see that expanded, initially by collecting Her2 data, which is already available, then with the addition of relevant molecular markers.

This would expand enormously the potential research possibilities.

Biopsy in breast cancer

and Sanjiv Jain

formalin fixed paraffin embedded examination. The current practice in Canberra is if the sentinel node is positive at the time of frozen section examination full axillary dissection is performed during this operation.

Most published studies show that this technique is reliable, safe and could reduce the number of full axillary dissections performed. There is however still much debate on the optimal technique such as site of injection, dye verses radio-colloid and the evidence that there is a considerable learning curve for successful performance of this procedure. In addition for a small number of women the sentinel node is detected in the internal mammary nodes, chest wall or clavicular nodes. This has also raised further questions in relation to traditional axillary nodal dissection.

For pathologists, the major advantage is that fewer lymph nodes need to be examined.

The major disadvantage is the need to perform intraoperative frozen section analysis or imprint cytology on a lymph node. This requires more skill than routine histological assessment as the sections are more difficult to interpret and so microscopic metastatic disease may not be detected. When this lymph node is then processed into paraffin there is a chance that microscopic disease may not be detected as trimming of the tissue is required and this may remove the metastatic focus.

More importantly there are no established protocols on how extensively this sentinel lymph node should be examined (ie how many levels should be cut). Traditionally, for full axillary dissections only one level of both halves of a lymph node are examined.

Currently, at ACT Pathology, we perform 4 levels (at intervals of 0.2mm) on both halves of the lymph node plus stain one section with a cytokeratin marker (AE1/AE3) to detect small clusters of epithelial cells that may be missed on routine haematoxylin and eosin stained sections. The value, interpretation and significance of

immunohistochemistry are currently being hotly debated in the literature amongst clinicians.

The current AJCC guidelines (6th edition) state that the presence of small groups of cytokeratin positive cells in lymph nodes should not render a patient as having stage II disease in breast cancer although some authors would disagree.

This has created some doubt in relation to the use of appropriate adjuvant therapies post operatively.

In summary, current data indicates that sentinel node biopsy is an accurate method of staging the axilla with less post surgical morbidity. There are a number

of randomised control trials currently underway, including the SNAC (Sentinel Node Biopsy to Axillary Clearance) trial in Australia, which will hopefully address some of the controversies. These include optimal surgical and pathological techniques and more importantly the significance of lymph node micrometastases in patients with small and otherwise good prognosis breast cancer.

For further reading:

1. Bonnema J, van de Welde CJ. Sentinel lymph node biopsy in breast cancer. *Ann Oncol.* 2002 Oct;13(10):1531-7.
2. Veronesi U et al. A randomized comparison of sentinel-node biopsy with routine axillary dissection in breast cancer. *N Engl J Med.* 2003 Aug 7;349(6):546-53.
3. Shiver SA et al. Intraoperative analysis of sentinel lymph nodes by imprint cytology for cancer of the breast. *Am J Surg.* 2002 Nov;184(5):424-7
4. Farshid G, Pradhan M, Kollias J, Gill PG. Computer simulations of lymph node metastasis for optimizing the pathologic examination of sentinel lymph nodes in patients with breast cancer. *Cancer.* 2000 Dec 15;89(12):2527-37
5. Euthus DM. Cytokeratin staining and other sentinel node controversies. *Clin Breast Cancer.* 2003 Apr;4 Suppl 1:S49-54.
6. Wong SL, Chao C, Edwards MJ, Simpson D, McMasters KM. The use of cytokeratin staining in sentinel lymph node biopsy for breast cancer. *Am J Surg.* 2001 Oct;182(4):330-4.



The ACT Cancer Registry

Since the beginning of the ACT & SE NSW Breast Cancer Treatment Project, a representative from the ACT Cancer Registry has worked closely with the Group.

Information on the incidence of cancer and mortality due to cancer in the ACT has been collected since 1972. The notification of cancer became mandatory in 1994, with the establishment of the ACT Cancer Registry under the Public Health Act. Since then it has been a legal requirement that all public and private hospitals, general practitioners, pathology laboratories and nursing homes notify newly diagnosed cancers.

The ACT Cancer Registry routinely publishes information on cancer incidence and mortality in the ACT for the information of the community, health service providers and planners. In addition to publishing cancer-related information for the ACT, the registry provides data to the National Cancer Statistics Clearing House (Australian Institute of Health and Welfare) for the purpose of national reporting.

Importantly, the Registry publishes mortality statistics that are based on the usual state of residence of the individual at the time of diagnosis and of death, providing more accurate information than is currently in national reports. Publication of the 1996-2000 cancer statistics is anticipated in the next few months.

The Registry also produces occasional discussion papers such as "Breast Cancer in the ACT" (Health Series Number 31, June 2003). This paper uses descriptive epidemiology to present a discussion of mortality due to breast cancer in the ACT with reference to the characteristics of the ACT population, the incidence of breast cancer, participation in breast screening, rates of early cancer detection, treatment and relative survival.

For copies of this report, or other information about the ACT Cancer Registry, contact Population Health Research Centre, Building 5 Level 1, The Canberra Hospital PO Box 11, Woden ACT 2606, Ph: 6244 4276, or via email to healthinfo@act.gov.au

One of the Breast Cancer Treatment Group Meetings in 2003



Left to right: Molham Hassan, Hanh Tran, Kate Aigner, Jenny Weekes, George Jacob, Desmond Yip, Jane Dahlstrom, Lyn Austen, Robin Stuart-Harris, Bethel Holley, Yanping Zhang, Ian Clark, Carolyn Cho, Gemma Arnold, Robin Jenkins, Paul Craft, Jenny Brogan, Berrin Kose, Melva Walter, John Buckingham, Alison Davis, Ken Sunderland, Anna Wellings-Booth, Sally Naylor.

Breast Cancer Management on the Far South Coast N.S.W.

A-J Collins

Some of the issues affecting breast cancer management in rural and remote regions have been well described previously but I will note these again as they continue to have a significant impact on the day-to-day management of women and men affected in this region.

Access to radiotherapy services is still the single biggest issue for those being treated for breast cancer.

We are fortunate in the Bega Valley to have regular clinics provided on a visiting basis by Dr Ken Sunderland – Radiation Oncologist and Dr Robin Stuart-Harris and Dr Desmond Yip – Medical Oncologists; however these services are heavily over subscribed and gaining appointments can be difficult.

The need for patients to be in Canberra for around 6 weeks for the radiotherapy component of their treatment is a major hurdle for many women.

At what is already a stressful, anxious time in their life they have to relocate to Canberra dislocating their normal social arrangements.

This often involves time away from family alone in a foreign environment. For this very set of reasons many country women will choose after careful consideration to have a mastectomy hoping to avoid the need for radiotherapy treatment. Thus the mastectomy rate for women in the Bega Valley and surrounding regions is higher than that of similar women in metropolitan regions.

Access to breast re-construction for these rural women is also very difficult to access: generally lower incomes and only being able to access breast reconstruction via the private hospital sector makes the rate of reconstruction very low.

With this in mind I am currently exploring the options for immediate breast reconstruction following mastectomy with a single or two-stage tissue expander.

A further difference for women on the Far South Coast is lack of a nuclear medicine facility. This has meant that sentinel lymph node biopsy has been much more difficult to introduce.

Whilst we have performed a number of these as part of breast cancer and melanoma management



it is logistically difficult for patients as it involves a return trip to the ACT immediately before their surgery – thus so far it has only had a role in very selected cases.

I am hopeful that with the continual expansion of services in the Bega Valley we will be able to increase the use of this modality.

All women treated for breast cancer in my practice are enrolled in the ACT & SE NSW Breast Cancer Treatment Project (after consent is obtained.) Other surgeons in the region also participate in this programme.

This project is of great value and the data collected is forwarded to the R.A.C.S. Breast Audit programme and this is a valuable asset to the surgeon.

We plan to continue to support this project as the further it goes the more valuable the data it collects will be.

The Breast Screening Programme is now enjoying a much higher profile in the region and with more women being screened and we are seeing smaller malignancies detected regularly.

Nevertheless the challenges and disparity for rural and isolated patients with breast cancer do continue and will challenge us to find better solutions to these problems in the coming years.

Radiation Oncology Liaison Officer

The Radiation Oncology Department at the Canberra Hospital now has a liaison officer, Mrs Cate Barton. Cate will receive and co-ordinate all referrals for radiotherapy from the ACT and surrounding region ensuring patients are triaged and assist in making appointments for consultation and treatment. Please contact Cate on 6244 2272.

Reminder for Clinicians:

Patient Notification: A reminder to please notify all your patients who have presented with early breast cancer or DCIS and to gain consent as soon as possible.

Important information on follow-up forms for GP's:

As the number of patients being registered onto the database is growing so too is the importance of completing the follow-up forms.

Some patients are onto the third round – fifth year of follow-up and understandably patients move from the area or change their GP and we want to still be able to follow-up on these patients.

We appreciate and want to thank the GP's and clinicians in the community who give up their time to complete the forms and we look forward to your continued support!

Data Use Procedures

The subcommittee and group have approved the revised protocol for data use and data/information request forms. These forms can be obtained from either the ACT Health Web Site or from the Project Officer on 6205 1542.

**Leura V
International
Breast Cancer
Conference
November 10-14 2004, Sydney.
For more information
– www.bci.org.au/leura.**

Acknowledgements

We would like to thank all those who have helped us in obtaining such a great data set. We realise that everyone is very busy, and we appreciate your time given to us.

CONTACT DETAILS

If you have any enquiries or comments about the project, please contact the Project Co-ordinator.

Any clinical questions should be directed to Dr Paul Craft at The Canberra Hospital on (02) 6244 2220.

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