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**Forum: Innovations in cancer imaging**

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Overview

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The burgeoning development of new computer applications and increased funding from venture capitalists has lead to an explosion of new innovations in radiology and interventional radiology.

The articles in this edition of Cancer Forum cover many of the new developments. Importantly, in terms of breadth of new developments this volume is ‘barely scraping the surface’ so to speak.

Radiology and especially interventional radiology continues to expand its role in diagnosis and follow-up in cancer patients. Minimally invasive image-guided therapies have developed increasing importance as a modality of treatment.

Annually in Australia, about 80,000 people are diagnosed with an aggressive form of cancer. We know that the incidence of cancer is increasing and this generates more responsibility and an increased workload for both diagnostic and interventional radiologists.

We have assembled an expert panel of radiologists to discuss the evolution, and in some instances, revolution, in cancer imaging.

Rathan Subramaniam and Murali Guduguntla highlight the role played by the higher field strength MRI scanners and discusses in depth their application in various oncological scenarios.

It is of little use having sophisticated CT and MRI scanners for diagnosis and management of chemotherapy patients if it is difficult to administer the chemotherapeutic agents effectively. With an ever increasing workload and longer waiting lists, our surgical colleagues have found it increasingly difficult to place venous access devices. Additionally, this takes no account of other logistical problems such as hospital bed shortages. Therefore insertion of venous access devices, especially chest and brachial ports have become a procedure performed by the interventional radiologist. It neither requires hospital admission nor general anaesthesia. Stuart Lyons’ article reviews the management of the ports and explains why they malfunction. He has included an extensive list of references in his bibliography.

The management of pain, once entirely the domain of a pain or anaesthetic specialist has also become part of the daily workload of the interventional radiologist. Clearly, the interventional radiologist is now a member of the multi-disciplinary oncological team. Glen Schlaphoff describes ‘cementoplasty’ which is a procedure used for treating bone pain in patients with metastatic bone disease. Not only does cementoplasty stabilise and strengthen the weakened bone, in some instances it will immediately alleviate pain because the heat of the bone cement can destroy the sensory fibres.

Palliative care has advanced considerably and performs an admirable task in caring for the terminally ill patient. But obviously there is ongoing demand for novel cancer therapies, many of which will be developed by other members of the multi-disciplinary team. Your editor has contributed an article to this edition of Cancer Forum, detailing how the interventional radiologist can assist in bettering the quality of life of the terminally ill patient with intractable ascites. The paper describes the image-guided placement of peritoneal ports in the radiology department. This allows the palliative care nursing team to aspirate the ascites with the patient at home; obviating the need for frequent visits to the radiological department for paracentesis.

The papers presented may seem esoteric to some clinicians and radiologists who have become comfortable with the concept that radiology is purely a diagnostic tool. This truism is no longer valid. This edition of Cancer Forum dispels that and shows the road ahead – radiology offering diagnostic and therapeutic services.

It is hoped that the articles provide two benefits for the reader. Firstly, to reflect upon and admire the speed and breadth of development within diagnostic and interventional radiology. But probably more importantly, to act as a springboard for curious minds such that they might follow the lead and contribute to improving the management of cancer.
Vascular access devices and the oncology patient
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Abstract
Oncology patients are frequently faced with difficult venous access requirements. Access is required for chemotherapy and frequent blood testing, which rapidly consumes peripheral access, often on and off for prolonged periods. Long-term venous access devices have the potential of minimising the quality of life implications for such patients whilst preserving peripheral veins.

Venous access devices, including implantable catheters (ports), tunelled catheters and peripherally inserted central catheter (PICC) lines, all have relative advantages and disadvantages. Choice of device will often revolve around both patient factors and local preference. Image guided placement is the preferred method of insertion in most institutions due to its higher success rates and lower morbidity and mortality. Secondly, such physicians are usually well suited to address many of the catheter complications and place alternate access catheters in the compromised venous patient.

Vascular access is a common problem facing oncology patients. Access in oncology patients is not only for dose intensive chemotherapy, but also for frequent blood sampling and intravenous supportive measures. Vascular access devices provide reliable access and may protect peripheral access and increase patient comfort through reducing repeated and difficult venipuncture.

The perfect catheter should be placed in a large vein allowing rapid dilution of infused products, free aspiration of blood and reduced pain on injection. This catheter should also be biocompatible, whilst minimising catheter related infection, thrombosis, stenosis or occlusion of access site. There are numerous types of catheters available for this purpose and selection is dependent upon type and duration of access, patient factors, physician and local factors.

Venous access, however, is not without complication. Although insertion and placement problems are rare with modern techniques, catheter related infection, thrombosis and loss of function continue to be major problems. The oncology patient is also often immunosuppressed, prone to febrile periods and is often thrombogenic from the underlying disease.

Venous access devices
Venous access devices can be divided into implantable devices, tunelled catheters and peripherally inserted central catheter (PICC) lines.

Placement is similar for all devices, the chosen vein is entered either percutaneously using the Seldinger technique or surgically cut down. The catheter tip is ideally placed either into the right atrium or the cava atrial junction. Catheter tips that end in the SVC or brachiocephalic vein have a higher incidence of catheter failure due to fibrin sheaths, venous stenosis and thrombosis. PICC lines are fastened to the skin at their exit site. Tunelled catheters are passed subcutaneously for a variable distance before exiting the skin. Ports are burst subcutaneously (not exiting the skin) after being tunnelled for a short distance.

Favoured access sites for tunnelled catheters and ports include jugular and subclavian veins. A low right internal jugular access has the least likelihood to develop catheter dysfunction, venous stenosis or occlusion. PICC lines and arm ports may be placed in basilic, brachial, cephalic or axillary veins.

The majority of procedures in adults are done percutaneously utilizing the Seldinger technique. Percutaneous procedures have been shown to be superior to surgical cut-downs in terms of theatre time, cost, infection rates and placement complications. A study comparing surgical cut-downs with percutaneous techniques found a failure rate of 4.5% and multiple attempts in 13% in the surgical group, compared with none in the percutaneous group. Furthermore, 3.7% of surgically placed catheters were misplaced compared with none in the percutaneous group. There were subsequently 4.0 infections per 1000 catheter days in the surgical group compared with 1.9 in the percutaneous group. Some authors also believe that surgical access will compromise the vein for future use in a way that percutaneous puncture does not. The only disadvantage of the percutaneous technique can be the rate of pneumothorax, which in this study was 3.3% (compared with 0.8% for the surgical group). However, it is my belief when ultrasound and micropuncture access is used (figure 1), pneumothorax is a very rare occurrence. Secondly, image guided placement allows for accurate catheter tip placement increasing the rate of technical success and reducing the rate of catheter dysfunction. Image guided placement has become the insertion method of choice in many institutions, as it has reduced morbidity and mortality, as well as reducing costs and length of hospital stay.

Long-term venous access patients may well be challenging because of venous pathology due to previous procedures and underlying medical problems. When the classical access sites are no longer patent, ongoing access may require recannalisation of the central veins or alternate catheter placement sites. Alternate access sites include external jugular, brachiocephalic, femoral, transhepatic, collateral and translumbar access. Such access can usually be provided safely and relatively easily through specialised interventional radiology services (figure 2).

Implantable venous access
Ports are totally implanted devices comprised of metallic or plastic casing with a thick injection membrane on the superficial aspect. The ports may be single or double housing and are placed subcutaneously on the anterior chest wall, lower lateral costal margin or upper arm. A Silastic catheter is tunnelled from the housing to the access vein and the tip is sited as per other forms of long-term venous access. Percutaneous access is gained by placing a non coring Huber type needle through this membrane. The site of needle placement is determined by palpation of the port. The advantages of ports are greater cosmetic acceptance, less maintenance and allow the patient greater freedom to bathe and swim. Ports are particularly useful when shorter periods of intermittent use are required. Disadvantages are that they are more time consuming to place and more expensive than tunnelled catheters. Patients with generous subcutaneous tissues are often not suited to this form of access due to difficulty to palpate the entry to the housing for each access. Conversely, very emaciated patients may suffer from port erosion. Arm ports compare favourably with chest ports and would seem to have similar thrombotic and infective rates.

Tunelled access
Originally described by Hickman and colleagues in 1979, these include Hickman, Groshong and Broviac catheters. Hickman and Broviac catheters are open ended while the Groshong catheters have a formed blunt end with a slit-like orifice just proximal to the distal end. Hickman catheters are more commonly in use and come in single, double or triple lumen. They are usually manufactured from materials such as soft silicon rubber or PVC and have one or two cuffs on the subcutaneous proximal portion that may act as a micrabial barrier. However, controlled trials have failed to show a difference in colonisation rates between cuffed and non-cuffed catheters. Tunelled catheters are particularly popular for access in haematological malignancies.

PICC lines
These are fine-bore soft catheters which are passed from cubital or humeral veins up the axillary vein, into a central vein. PICC lines are relatively easy to place, have quick insertion times and are cheaper than other long term access devices. However, they do have limitations. The catheter tip is difficult to manipulate and a higher rate of suboptimal positioning is usually accepted. Failure to achieve a central tip position has been shown to occur between 25% and 40% of attempts. The rate of thrombosis related to the catheter rises from 21% if the catheter tip is in the superior vena cava to 60% if placed in the axillary, subclavian or innominate veins. The narrow gauge of the catheter limits infusion flow rates and makes aspiration difficult. Also, a high percentage of catheters are removed because of premature failure (21%), often as a result of phlebitis (8.2%) or occlusion (8.2%). This failure rate is higher than that for tunnelled catheters. The majority of solid tumor patients will have this form of access, and this is provided with fluoroscopic and ultrasound guidance by trained radiology nursing staff.

The material of choice for long-term venous access is silicone elastomer. Silicone has been shown to have the lowest rate of infection when inserted peripherally. Recently, attempts to reduce the risk of catheter related infection have included addition of antiseptic or antibiotic compounds. Chlorhexidine or silver sulphadiazine coatings have been studied repeatedly and often show to reduce the risk of catheter colonisation by between 1.5 and eight times. Studies of minocycline and rifampicin coatings have shown lower rates of infection than for antiseptic impregnated catheters. However, none of these catheters were in place for longer than 14 days and there is no evidence of any long-term effects. The disadvantages of these catheters are the two or three-fold increase in price and the potential risk of increased antibiotic resistance.

Complications
Procedural complications are rare with meticulous technique, image guided insertion and image guided punctures. They include pneumothorax, hemothorax, material manipulation, catheter malposition, haematoma and air embolism. The Society of Interventional Radiology’s published guidelines on image guided central venous access recommend a threshold of 3% for major complications (rates exceeding a threshold should prompt a review of that service).

Indwelling complications include infection, thrombosis, catheter malfunction and catheter fracture. Catheter fracture is rare (< 1%), while the other three are problems integral to all long-term catheters. Catheter malfunction has an incidence of 10-20%, this is often related to fibrin sheath formation or catheter associated thrombosis. The incidence may be diminished with meticulous access and tip placement.

Infection
Infection is an important cause of morbidity, mortality, and increased health costs with long-term vascular catheters. Infection includes exit site infection, tunnel or port infection and catheter related blood stream infections; it does not

Figure 1:
Ultrasound and micropuncture access set.

Figure 2:
Translumbar placed portacath in man with bilaterally occluded brachiocephalic veins.
Fibershah containing small thrombus in apex, brachiocephalic sheath PICC line.

(a) Non functioning Hickman with SVC thrombosis. (b) Functional access with complete thrombus resolution post Unikrustan infusion.

Conclusion
Tunneled catheters, ports and PICC lines are important means of providing intermediate to long-term central access in oncology patients. Image-guided placement has been shown to have the greatest success and lowest complication profile and now represents the standard in most institutions for insertion of these devices.

References
37. Rohde D, Bock L, Roberts R. The incidence of first Hickman catheter-
Abstract

Magnetic resonance imaging is usefully employed on its own or with complementary technologies to evaluate stage and other characteristics for a range of specific tumour types. MRI involves particularities of tumour type and various other characteristics. For most tumour categories, there are scenarios in which magnetic resonance imaging has only limited application.

Magnetic Resonance Imaging (MRI) is a safe and painless imaging investigation (test) that produces cross sectional images of the tissues of the body. MRI is a valuable tool that can aid in diagnosis of a wide range of conditions and is often used to diagnose cancer. It is most effective in detecting and staging cancer of the brain, spine cord, head and neck, breast, prostate and colon-rectum, as well as gynaecological and musculoskeletal malignancies. For each tumour type, optimal usage of magnetic resonance imaging involves particularities of tumour type and various other characteristics. For most tumour categories, there are scenarios in which magnetic resonance imaging has only limited application.

Primary tumours of central nervous system

MRI is now the investigation of choice for the evaluation of cerebral neoplasms. MRI is superior to computed tomography (CT) for tumour detection because of its inherently high sensitivity to altered tissue. Although conventional MRI sequences play a major role in determining prognosis, MRI is unable to predict tumour type and grade reliably. The accuracy is limited by the inherent nature of the majority of common brain tumours, which are not exudative. MRI is frequently unable to identify the tumour margins. Since many glomas contain areas of varying histological type, the aim of imaging should be to identify the area of highest grade and thereby guide the stereotactic biopsy appropriately.

Since there is increasing evidence that complete resection of tumour prolongs survival, especially in low-grade gliomas, intraoperative MRI with its ability to provide up-to-date images that reflect intraoperative anatomical change should enable more complete resections. However, the resection would be limited in neurologically critical areas where risk of producing neurological deficit increases.

Functional imaging studies using MRI at 1.5 Tesla or higher are being developed which permit non-invasive determination of centres of task activation in the cortex of the brain. This may allow the accurate mapping of the relationship of the normal functioning tissue to the tumour and enable larger resections while preserving normal function. MRI spectroscopy (MRS) has become more readily available and easier to use and is therefore becoming part of preoperative imaging and tumour follow-up. MRS is able to show choline and lactate levels in recurrent tumour outside areas of enhancement seen in gadolinium-DTPA contrast MRI scans.

Echoplanar diffusion-weighted imaging (DWI) is routinely used in many institutions. Its main value is to discriminate between an acute infarct and tumour at presentation. Apparent diffusion coefficient (ADC) maps can discriminate between high grade glioma and normal brain tissue and may help to target the most malignant areas. There is, however, some overlap between Grade II and Grade IV astrocytomas.4

Head and neck tumours

There is no scientific evidence to indicate whether MRI or CT is better in the evaluation of head and neck cancers. Each is complementary with its advantages and disadvantages.

CT is reliable to evaluate bony structures. MRI is valuable to evaluate bone marrow involvement. However there is usually bloody destruction in CT when tumour invades the marrow space. CT is more useful around the skull base because of the higher contrast resolution to obtain detailed complex anatomy around the skull base and upper neck. The main disadvantage of MRI compared to CT is the motion artefacts, especially in the region of the lower neck and oral cavity due to swallowing, coughing etc.

MRI has little role to play in the evaluation of thyroid nodules. It cannot reliably differentiate benign from malignant nodules. MRI can assist for tumour staging and assessing mediastinal and oesophageal extent of tumours considered to be aggressive or invasive. Introduction of one and two dimensional proton MRI is promising and allows more specific tissue characterisation, which may help to distinguish benign and malignant nodules.5

Musculoskeletal tumours

Staging of all potentially malignant tumours in bone is most accurately achieved by MRI, which should be performed prior to biopsy. This allows measurement of the maximum dimension of the tumour prior to any treatment. CT has a limited role in the early detection and staging of the tumour but is the examination of choice for evaluation of the chest for metastatic disease. CT is the preferred test where characterisation of the lesion by radiography is inadequate because of inadequate visualisation of the matrix of a lesion. In these circumstances CT imaging may suffice for local staging.6

MRI has become the imaging method of choice in evaluation of soft tissue tumours. This is due to improved soft tissue contrast and multi-planar image acquisition, which allows more accurate anatomical delineation of the tumour and its relationship to structures. However, inability to detect soft tissue calcification renders a mass non-specific on MRI, whereas a plain radiograph or CT can make the diagnosis immediately obvious. Pulmonary metastasis is best characterised by CT as 10-20% patients with primary soft tissue cancers have pulmonary metastasis at diagnosis. Knowledge of pulmonary metastasis is critical for optimum management of these patients.

Breast tumours

MRI has high sensitivity for breast cancer detection that relies on the tendency of malignant tumours to generate neovascularity. Malignant proliferation is seen with leaky capillaries that allow the contrast agent to show high intensity peak with rapid washout that is seen in most, but not all, malignancies. False negative examinations have been reported with well differentiated carcinomas and lobular carcinomas. Although sensitivity is high for invasive carcinoma, ductal carcinoma in situ (DCIS) is more difficult to detect, with a sensitivity as low as 40%.7

False positive breast MRI is seen with fibroadenomas, atypical ductal hyperplasia, lobular carcinoma in situ, papilloma, fibrocystic changes and in women with familial cancer. The role of MRI is to aid in localising the lesion for needle biopsy or surgical excision. The two major advantages of MRI over mammography or ultrasonography are improved localisation and demonstration of extramural venous invasion, peritoneal infiltration and depth of extramural spread. These features are difficult to image by CT or ultrasound. The availability of liver specific contrast agents, such as magnafodipir trisodium (Mn-DPDP), has resulted in further improvements in detection of metastatic breast malignancies.

Breast MRI is best used as an adjunct to conventional imaging, complementing mammography and ultrasound. Its high sensitivity for multifocal disease is being looked at as a possible screening investigation in high-risk populations.8,9

Magnetic resonance and oncology imaging

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Abstract

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Magnetic Resonance Imaging (MRI) is a safe and painless imaging investigation (test) that produces cross sectional images of the tissues of the body. MRI is a valuable tool that can aid in diagnosis of a wide range of conditions and is often used to diagnose cancer. It is most effective in detecting and staging cancer of the brain, spinal cord, head and neck, breast, prostate and colon-rectum, as well as gynaecological and musculoskeletal malignancies. For each tumour type, optimal usage of magnetic resonance imaging involves particularities of tumour type and various other characteristics. For most tumour categories, there are scenarios in which magnetic resonance imaging has only limited application.

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Implantable peritoneal ports in the management of malignant ascites – technical innovation

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Abstract

A minimally invasive method for palliative drainage of symptomatic malignant ascites by placing a peritoneal port in the Interventional Radiology Suite would allow patients to avoid repetitive trips to the Radiology Department for paracentesis and for peritoneal drainage to be performed by the palliative care team at home. Since 2003 960 patients at Westmead Private Hospital have received either a chest or a abdominal port in the Department of Radiology. The procedure is therefore used for the placement of peritoneal catheters. Cuffed-tunnelled peritoneal ports using a modified Seldinger technique in the Interventional Radiology Suite. Patients with symptomatic ascites were able to be drained at home and all achieved significant improvement in those symptoms attributable to the ascites. It is postulated that the complication rate will be much lower than with tunnelling peritoneal catheters for palliative drainage of malignant ascites. According, percutaneous placement of Peritoneal Ports in the Interventional Radiology Suite appears to be a viable and safe technique in patients who have symptomatic ascites that requires frequent therapeutic paracentesis for relief of their symptoms.

Ascites is a common complication of advanced malignancies with symptoms of marked abdominal distention, shortness of breath and fluid accumulation in the peritoneal cavity, which comprise cancer patients’ everyday functions. Treatment options for intractable ascites include serial paracentesis, peritoneal venous shunting, tunneled peritoneal catheter drainage and cuffed-tunnelled peritoneal catheters attached to subcutaneous ports implanted under the skin. In the past permanent drainage catheters have not been considered a viable treatment option for malignant ascites due to infection, malposition or occlusion. Cuffed-tunnelled peritoneal catheters have been used for many years for peritoneal dialysis with an acceptable complication rate. A recent article showed a two-year catheter survival rate of 49 to 82%.

It was therefore appropriate to re-evaluate placement of peritoneal ports specifically designed for peritoneal access as a means of controlling malignant ascites and develop a technique that would be easier to use and less invasive for cancer patients’ everyday functions. Between January 2003 and August 2005 46 peritoneal ports were placed in patients with a short life expectancy and with symptomatic ascites. The ultimate goal was to repeatedly access the peritoneal port and to perform ascites drainage at home, thereby avoiding frequent trips to the radiology department for image-guided drainage.

Previously these ports were placed surgically, which necessitated hospital admission and hospital care before discharge. Using ultrasound and performing the procedure in the angiography suite, a large collection of ascitic fluid is identified. The inferior epigastric artery and the venous perforators in the region where the port is going to be placed and also identified. A Seldinger technique is used to create a tunnel through the subcutaneous tissues into the peritoneal cavity, after which the peritoneal port catheter is placed within the pelvis, followed by placement of the port in the subcutaneous tissues adjacent to the ilium on the left or right side.

The procedure is performed using buffered local anaesthesia only and under cover of one gram of Cefazolin and the wound closed with an absorbable suture. The port is heparin locked at the end of the procedure.

With the help of the palliative care unit a home nursing care protocol has been developed. The port is accessed at home on a weekly basis or more frequently if necessary using a Hube needle with dependent drainage. A maximum of three litres of ascites are drained at any given time to avoid volume depletion and the port heparin locked after the procedure.

Very few complications have been experienced as listed below:

1. In one patient, there was accidental puncture of the inferior epigastric artery with contained haematoma formation in the anterior abdominal wall.
2. One patient presented with wound infection and the port was removed.
3. In one patient, there was accidental transection of the catheter by the Huber needle and the catheter and port was replaced.
4. One patient developed bowel obstruction due to progressive disease.
5. Several patients developed leakage around the insertion site, managed with decreasing intra-abdominal pressure by increasing frequent drainage with successful resolution.
6. Several patients with exudative ascites developed port blockage, managed with injections and in one instance with port replacement.
7. No patients presented with peritonitis or wound dehiscence.

Discussion

Intractable malignant ascites is often a disabling disease and decreases the quality of life in patients with a short life expectancy. Serial paracentesis may be performed with or without ultrasound guidance and has the advantage of being relatively easy to perform with a low risk rate. The disadvantage of serial paracentesis includes repeated trips to the hospital and the radiological department.

Peritoneovenous shunting has an advantage as no hospital visits are required for drainage and there are no fluid or protein losses. A major disadvantage is the invasiveness of the procedure and poor long-term patency and excessive complications, which includes disseminated intravascular coagulation.

Tunneled peritoneal catheters with an external component

References

5. Beets–Tan RG, Beets GL, Vliegen RF et al. Accuracy of magnetic resonance imaging in the detection of deep myometrial invasion ranges from 82 – 88% (range 79 – 100%).
6. Castillo M, Smith JK, Kwock I. et al. Apparent diffusion coefficient in the evaluation of adnexial masses. Both techniques are highly sensitive but MR is more specific than ultrasound in identifying malignant masses. Spread of ovarian cancer into uterus, bladder or rectum may be better appreciated on MR than CT. MR has a limited role in the evaluation of intra-abdominal tumour masses. Peritoneal deposits greater than 1cm in diameter can probably be identified with a similar sensitivity for both MR and CT. CT is superior in the wall of small and large bowel are better detected by CT. MR remains insensitive for detecting peritoneal, mesenteric or omental tumours in ovarian malignancy. The appropriate role for MR is to characterise the entire mass rather than abdom-pelvic staging of proven ovarian cancer. MR is not an appropriate investigation for diagnosing endometrial mass and should only be carried out for staging purposes only after a patient has been given a specific histological diagnosis of endometrial carcinoma. The sensitivity and accuracy of MR in detecting deep myometrial invasion ranges from 82 – 94%.
7. Contrast enhanced MR is superior to ultrasound in characterising adnexal masses. Both techniques are highly sensitive but MR is more specific than ultrasound in identifying malignant masses. Spread of ovarian cancer into uterus, bladder or rectum may be better appreciated on MR than CT. MR has a limited role in the evaluation of intra-abdominal tumour masses. Peritoneal deposits greater than 1cm in diameter can probably be identified with a similar sensitivity for both MR and CT. CT is superior in the wall of small and large bowel are better detected by CT. MR remains insensitive for detecting peritoneal, mesenteric or omental tumours in ovarian malignancy. The appropriate role for MR is to characterise the entire mass rather than abdom-pelvic staging of proven ovarian cancer.
The lumbar spine is most frequently involved.2

Carcinomas. Multiple myeloma and lymphoma are most frequently related to breast lung or prostate vertebral body tumours.8 Spinal metastases are spinal metastases, which are the most common are osteoporotic compression fractures and providing pain relief in the cancer patient

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A technique was developed whereby a peritoneal port with a
tubing was first to describe the placement of cuffed-
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by prospective randomised controlled trials is not available thus far, a range of reports have consistently documented

Vertebroplasty in oncology: a novel approach to pain relief in the cancer patient

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Abstract

The mechanism by which vertebroplasty is effective in providing pain relief is unclear, but may involve destruction of nerve endings consequent upon the injection of bone cement into the vertebral body. Vertebroplasty is now employed to treat osteoporotic compression fractures and spinal metastases which are the most common vertebral body tumours. Patients likely to benefit are those having relative spinal canal compromise with epidural involvement and vertebra plana related to osteoporosis and secondary to metastatic disease. Application of the procedure is critically dependent upon appropriate imaging. While evaluation by prospective randomised controlled trials is not available

Technique

Careful patient selection must be undertaken when pain relief is the goal, as in patients with advanced disease, the source of pain may not be limited to a given vertebra.10 Diagnostic MR and CT scanning are required to accurately define the infiltrated vertebra. The procedure is performed by an interventional radiologist familiar with high quality imaging, either under fluoroscopy or CT guidance. The patient is placed prone and local anaesthesia is provided at the appropriate level. An 11G or 13G PVP (percutaneous vertebroplasty) needle is used to gain access to the involved vertebral body.

A bipolar or unipolar approach is used. The choice of approach depends on the different access geometry in, for example, the L-spine compared to the T-spine and also depends on the degree of cement distribution across the vertebral body. The degree of pedicular involvement and intention to treat or avoid the pedicle is also taken into account.21 A biopsy sample should be obtained if the primary cancer is unknown and if the fracture is suspicious for metastasis.11 The cannulated vertebroplasty needle is advanced into the vertebral body and cement is injected.12

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The mechanism by which vertebroplasty is effective in providing pain relief is unclear, but may involve destruction of nerve endings consequent upon the injection of bone cement into the vertebral body. Vertebroplasty is now employed to treat osteoporotic compression fractures and spinal metastases which are the most common vertebral body tumours. Patients likely to benefit are those having relative spinal canal compromise with epidural involvement and vertebra plana related to osteoporosis and secondary to metastatic disease. Application of the procedure is critically dependent upon appropriate imaging. While evaluation by prospective randomised controlled trials is not available thus far, a range of reports have consistently documented

Percutaneous Vertebroplasty (PVP) by definition is a procedure
which augments the strength of a weakened and or fractured vertebra by injecting bone cement, usually Polymethylmethacrylate (PMMA) into the vertebral body. This augmentation restores some of the mechanical properties of the vertebra, stabilising the fractured vertebra, thus relieving pain. The technique, using a fluoroscopically guided, percutaneously placed needle, was pioneered in France 1987 to treat benign aggressive haemangiomata.14

Currently the two most commonly treated conditions are osteoporotic compression fractures and spinal metastases, which are the most common vertebral body tumours.8 Spinal metastases are most frequently related to breast lung or prostate carcinomas. Multiple myeloma and lymphoma are also frequent causes of disseminated spinal lesions. The lumbar spine is most frequently involved.1 The associated back pain in many lesions leads to impaired functioning and significant reduced QOL. This often results in chronic pain syndromes with loss of sleep, decreased mobility and depression.3 Why it works

Various theories on the procedure’s ability to provide pain relief have been suggested. In cases of vertebral metastases, local pain is thought to be secondary to bone fractures and the reaction of the remaining nerve structures to the tumour’s mass effect.1 It is likely that a component of the vertebroplasty-related analgesia is secondary to immobilisation of microfractures and reduction of mechanical forces. The destruction of nerve endings caused by the cytotoxic, mechanical and vascular effects of PMMA, as well as the thermal effects of polymerisation, however, may also play a role in pain relief. Furthermore, it has been proposed that PMMA has an antinociceptive effect, which may explain the rarity of local recurrence.12 The exact mechanism by which vertebroplasty is effective may be the result of the cytotoxicity, thermal effects and ischaemia produced by PMMA.12 Analysis of pathological findings in patients in whom PMMA has been injected has demonstrated a macro and microscopic rim of tumour necrosis six months after vertebroplasty/tumour injection, which seems to extend outside the limits of the cement.12

Prognosis following vertebroplasty

There are no prospective randomised controlled studies on vertebroplasty published to date,13 however numerous other studies have all documented the efficacy of vertebroplasty in providing pain relief and improving mobility in patients with metastatic spinal disease.

The studies have documented improvement of pain in 80 to 97% of patients within 48 hours of the procedure.1 At six-month follow up, 65 to 79% of patients in all studies experienced pain relief.2,3

Unlike the delayed effects of radiotherapy, vertebroplasty provides immediate strengthening of the anterior column, which may limit the painful vertebra body collapse. Furthermore, vertebroplasty provides early mobility, which limits complications related to inactivity, increased mobility and pain relief lead to improvement in quality of life for these patients.

The published complication frequency is 1.3% in osteoporotic fractures and 10% in metastatic disease.12 The frequency probably reflects increased vertebral body destruction and or the poor general condition of the cancer patient, as well as the progression of the nature of the disease. Note however, the long-term complication rate in patients with metastatic disease is 1.7%.12 Percutaneous vertebroplasty and radiotherapy are complementary procedures with radiation preferred after percutaneous vertebroplasty when possible.1

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snake oil, coffee enemas and other famous nostrums in Australia

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To begin in the middle. For legal reasons I start with a disclaimer: despite it, I do not by any means imply that everyone mentioned in this article is a quack in the worst possible sense. There are none some of the unorthodox claims for the cure of cancer that achieved prominence in the Australian public eye over the last 30 years or so, are of an extent of seriously interfering with the normative practice of cancer medicine. Some of those making such claims might fittingly be labelled as ‘quacks’, others not.

Human beings have always sought easy and safe methods of treatment for illness, understandably so. The uncomplimentary term (alternative) medicine arose in the 17th century as short for quackseller, a hawkawho sold quack remedies (merry) as a cure for syphilis. In the American west in the 19th century rival travelling salesmen dispensed snake oil and coffee enemas, each trying to outdo one another with claims that their product cured the widest range of conditions. One example, prepared from ‘pure rattlesnake oil’, was said to be beneficial for ‘headache, neuralgia, toothache, earache, backache, swellings, sprains, contracted cords, still joints, cuts and bruises and all aches and pains’. While we may wonder, 150 years later, what was meant by ‘contracted cords’, more relevant is the uncomplimentary claim that this product was effective for ‘writings’, a description which could well have included some types of cancer.

Confusingly, treatments that do not conform to standard Western notions of appropriate medical care have been described in many different terms, of which ‘complementary and alternative medicine’ (CAM) an all-embracing phrase which was introduced about 10 years ago, has reduced the confusion. However ‘complementary’ and ‘alternative’ are not the same. Complementary medical treatments are used alongside conventional medicine whereas alternative treatments are used instead of conventional medicine. For most their real value is known have been few as have been subjected to high-quality scientific studies. Many surveys have shown that cancer patients worldwide are heavy users of CAM. Because definitions vary, comparisons are not simple, but one international survey in the late 1990s estimated that over 50% of patients in a variety of countries used such treatments.1 Recent Australian estimates put the figure at 22% and 52% and in New Zealand at 49%. It is well known that many patients do not tell their doctors of such use unless specifically asked. It has been stated that Australians spend approximately the same on CAM as they one might fittingly be labelled as ‘quacks’, others not.

One claim often made by proponents of CAM is that their treatments are ‘natural’ and therefore, by implication, harmless or at least less likely to have side-effects than conventional pharmaceuticals. However to suggest that because something is ‘natural’ it is automatically safe is to easily misled into believing that the only person in the world who had the cure for cancer was working on a remote Pacific island. His presence ultimately caused such a local scandal that an election was fought over it. It was concluded that ‘a great step was for to leave the the Cook Islands. In the meantime so many patients had died and been buried there that the cemetery became known as the ‘Brych yard’. During this period his case was taken up by the newspapers of New Zealand, Joe Batey-Petticrew, who won there are many natural products that are toxic and dangerous, such as snake venom, many plants and tobacco. Unless subjected to thorough testing, the true rate of side-effects of any product can only be approximated. On the other hand, many anti-cancer medications included in the modern pharmacopeia are derived from plants, either directly or as synthetic variants, including vincristine from the periwinkle, etoposide from the mandrake plant and many taxanes such as pacitaxel (Taxol) from the Pacific yew tree.

Soon after I returned to Australia in the mid-1970s after several overseas training, I was met by remarkable headlines, particularly in the now defunct Melbourne newspaper Truth, claiming that a refugee from Czechoslovakia working in New Zealand was achieving remarkable success in treating cancer. According to reports, the wicked NZ medical hierarchy though was suspicious of these claims and was trying to have this modern Semmelweis deregistered. In a case with remarkable similarities to several more recent ones, Milan Brych was strongly supported by an irredescent media. His journey from Czechoslovakia to New Zealand, Queensland, the Cook Islands and eventually to jail in California is fascinating and instructive.

Milan Brych escaped to Australia at the time of the anti- communist uprising of 1968 – the so-called ‘Prague spring’ – and its subsequent suppression by the forces of the Warsaw Pact. On arrival in NZ he claimed to be a doctor and a cancer specialist. His name was not in the published list of graduates of his title university because, he said, it had been removed as punishment for his anti-communist activity. In the cold war atmosphere of the time he was believed by some authorities in NZ, even though in fact Czech universities under communism never lost their autonomy to that extent.

So he was registered as a medical practitioner and, after a period in junior appointments, worked in a cancer centre in Auckland. It wasn’t long before word got out he was administering a secret remedy, possibly prepared in his home kitchen and according to some, achieving remarkable successes. Thanks to heroic efforts by the NZ Medical Journal editor, Professor Peter Scott, the fact that he had been in jail as a cardiac confidence trickster during the time he claimed to have been at medical school was revealed, and after a long series of delays he had succeeded in regaining his licence. The editors of the NZ Medical Journal and who had some knowledge of medicine because for a while he had worked as a laboratory technician?) But this wasn’t the end of the matter. The NZ Supreme Court reinstated him and it wasn’t until three years later that he was removed by his legal defence against appeals by the NZ Medical Council, by which time the matter had again reached the NZ Supreme Court.2 He then moved to the Cook Islands, a tiny Pacific Ocean nation where the parliament passed an amendment to the local Medical Act to allow him to begin his cancer practice immediately on arrival. There he set up his clinic, and with strong encouragement from the Truth, patients from Australia and NZ flocked to him. To me it brought about feelings of sadness for it was so easily misled into believing that the only person in the world who had the cure for cancer was working on a remote Pacific Island. His presence ultimately caused such a local scandal that an election was fought over it. It was concluded that ‘a great step was for to leave the the Cook Islands. In the meantime so many patients had died and been buried there that the cemetery became known as the ‘Brych yard’. During this period his case was taken up by the newspapers of New Zealand, Joe Batey-Petticrew, who won him to set up a clinic in Brisbane. It took a courageous effort by other politicians, particularly the Queensland and federal Ministers for Health, Dr Llew Edwards and Dr Ralph Hunt, respectively, to block such a move. In California where he obviously couldn’t change his behaviour, as in 1983 he was jailed there for several years for practising medicine without a licence.

Why was he such a success for a while and why was he able to generate such support? Although his actual methods are not known as certain, as he never revealed them despite many promises that he would, it seems that in addition to his secret brew he used cyclophosphamide, vincristine, other chemotherapeutic agents and steroids at a time when chemotherapy was in its infancy and the specialty of oncology barely existed. Indeed, few would disagree now that, at the time, the only hope for cancer patients in NZ was the margins of the profession dealt poorly with advanced cancer. There is little doubt that some patients who were told ‘nothing more could be done’ did gains temporary benefit from his ministrations. Almost certainly though better results were available to those patients in fact in could do much to improve the early oncology departments of the time. Furthermore, those working with him tell stories of overdoses, deaths from septicaemia, severe infections and other complications. He was obviously extremely charismatic – his eastern European accent seems to have given him an air of mystery. As in many such cases the staid, conservative medical profession was accused of hampering progress and of being instinctively opposed to anyone with radically different ideas. This case, the most unambiguous example of quackery and local medical fraud in our recent history, contains many lessons. Milan Brych was a charlatan and the professional itself was not blameworthy. More widespread recognition of the potential benefits of chemotherapy and more widespread availability of clinical trials would have diminished his impact and thus his treatments available to more patients, many desperate to try anything that offered some hope. If we tell our patients ‘nothing more can be done’, it is no wonder that some then turn to those that promise other options. (It seems strange to make such a statement; to do so is to confuse ‘cure’ with ‘care’.

The next widespread phenomenon in the CAM world in Australia was Ian Gawler. This young veterinary surgeon who was cured of osteogenic sarcoma in the 1970s believed his cancer treatment was ‘natural’ and therefore, by implication, harmless and spoke widely of his belief that he had cured his own cancer through meditation and the adoption of a variety of diets and herbal treatments, including coffee enemas. He was living in Queensland when he was diagnosed with cancer by someone in the medical profession that he had only two weeks to live. (A lesson that one must never give a prognosis containing an exact figure – any such figure will surely be wrong.) The profession was accused of being blind to the value of such alternative treatments and many patients spend long periods sitting in corners trying to mediate their cancers away, and in adopting diets of dubious nutritional value. Some of the claims he made in his books included the following about cancer, that meditation: ‘is the single most powerful tool to aid recovery from disease’, allows the body to remove tumour; and ‘increases quality & quantity of life’ [my emphasis]. Amongst his quaint recommendations were the ‘Grape Cure’, the herb ‘valerian; red clover and fennel; coffee enemas; etoposide from the mandrake plant and megadose vitamins and vitamin C; to adopt a ‘natural life’; to avoid chocolate; sexual excess and too much television; not to use a microwave oven; and to drink spring or rain-water.

Gawler’s ideas were to a large extent based on the hypothesis that mental stress increases the risk of cancer, an attractive notion when one is seeking the inexplicable. The evidence in favour of the concept, and of possible adverse influences of mental states on prognosis, even then were at best questionable but much of it has been fairly conclusively disproved.2 Indeed, there is some surprising recent evidence that mental stress may actually provide protection from cancer.

Many of us at the time argued that Gawler’s ideas were unproven and some were potentially damaging, especially to the extent that patients adopted them as alternatives rather than as complementary to standard care, or spent a great deal of time on them to the detriment of their relationships. In the late 1980s and early 1990s cancer treatment was achieving remarkable success in treating cancer. Particularly interesting are the claims of the cancer quackery in Australia – a recent history of cancer quackery
As states as well as Australia and enjoyed considerable political support. Its proponents strongly pushed the conspiracy theory, that the medical profession really knows the cause and cure of cancer, but denies this information to the public in order to increase profits for itself and its malignant bedfellows the pharmaceutical industry. Whether it is this, or its cunning avoidance of a nutritional requirement for all, or the false claim that normal cells are not, for whatever reason it has enjoyed great popularity in the US. When it was banned there after studies conclusively showed it to be of no value and indeed potentially dangerous,10-12 laetrile clinics were set up in Mexico just across the border from the US. They continue to operate. Indeed this substance is enjoying a resurgent popularity perhaps encouraged by a considerable internet presence. In the 1980s many Australian patients were so taken by the pseudo-scientific clap-trap that accompanied it that they were prepared to travel to Mexico for treatment, at great expense. Many others arranged its importation for personal use.

In the 1990s the alternative treatment that caught the imagination of many patients was shark cartilage. Its popularity was based on two myths, one that sharks don’t get cancer and two, that it had shown unexpectedly good results in a trial in Cuba. In fact sharks do get cancer (but even if they didn’t, so what? By this logic we should all eat extract of spider venom since few spiders get cancer). Many other popular forms of CAM this too was the subject of a media bandwagon, this time by the American 60 Minutes programme which claimed that 3 of 15 patients in Cuba had had excellent results. The American media observed that these results were ‘incomplete and unimpressive’. Even the National Center for Complementary and Alternative Medicine (which was set up by supporters in the US Congress) stated that this trial was ‘incredibly detailed to draw any valid conclusion. Subsequent studies have convincingly shown that shark cartilage is useless for the treatment of cancer:11 in fact its proponents have been heavily fined in the US for false advertising and promotion of its use for cancer treatment. During its hey-day many Australian patients were persuaded to part with considerable sums to import it.

The most recent large Australian CAM phenomenon was again media-promoted, and was for an elderly WA doctor’s treatment with microwaves, radio waves and so-called ‘glucose block’ treatments. Dr. Holt has used some version of this treatment for over 30 years and like many other practitioners discussed here, has enjoyed the patronage of leading Australian politicians as well as the media. The National Health & Medical Research Council (NHMRC) carried out a study of his methods back in the 1970s and found them of no value.12 A controlled comparison of his methods with standard radiotherapy in the treatment of rectal cancer carried out during the 1990s concluded that “VHF microwave therapy in conjunction with radiotherapy produces no therapeutic advantage over conventional radiation therapy alone in the treatment of locally recurrent rectal carcinoma.” Most recently (2004) Dr. Holt again came to public notice because of promotion on a popular television program, A Current Affair. All oncologists during this time had patients clamouring to fly to Perth for the treatment. In response to this public outcry, the NHMRC mounted a large scale investigation, lasting over a year and costing $250,000, which concluded that his treatment was in no cases better than standard treatment and for many types of cancer it was clearly worse. The report is available on the internet http://www.nhmrc.gov.au/news/media rele05 holt.htm (accessed 17 October 2005).

In addition to these prominent forms of CAM that have taken Australia by storm, there are many others that have been or are presently being actively promoted, although not perhaps with the same extent of publicity. As reported elsewhere this was clearly shown by the offers and suggestions made to a prominent Australian politician when he had developed cancer recently. Jim Bacon, Premier of Tasmania, developed lung cancer in 2004, and was inundated with offers and suggestions of CAM. While they included some that could be helpful such as massage and sensory therapy, many of the proposals were quite wacky. They included an ‘energy cleaner machine’ and ‘a blood zapper’; a white food diet, a green food diet and liqueur (a black food diet perhaps?), colloidal silver and ‘Stabilise’ capsules.13 He also observed that many of our patients are under considerable pressure to adopt CAM and that an amazing variety of such treatments is available and being actively promoted in our community.

There are more dangers in the use of CAM than is often recognised. They include for example malnutrition from unbalanced diets, cyanide poisoning from laetrile, electrolyte disturbances from coffee enemas and interference with standard treatments - the herbal anti-depressant St John’s wort can reduce the effectiveness of commercial anti-depressant drugs, which is used for the treatment of colon cancer. The 2003 Pan Pharmaceuticals scandal, when more than 1600 herbal and other preparations were taken off the Australian market because of poor quality control procedures, showed the need for better regulation of the ‘alternative medicine’ market.

How should the medical profession respond? How do we protect our patients from misleading and potentially dangerous excursions when they seek the pot of gold at the end of the rainbow? We must firstly recognise that patients’ needs go well beyond the purely medical. Increasing numbers of large international organisations are offering safe complementary therapies. Amongst the leaders of this movement is Dr Barrie Cassileth, who has been a pioneer and strong advocate of the need for scientific testing of claimed alternative treatments. At the Integrative Oncology Service of the Memorial Sloan Kettering Cancer Center in New York, she offers patients complementary therapies which are backed by scientific evidence, such as massage and music therapy, and avoids potentially harmful or disproved therapies.14 In Australia similar support is available to cancer patients in Perth through the Browne Cancer Support Centre at the Sir Charles Gairdner Hospital,15 in Melbourne at the Peter MacCallum Cancer Centre and elsewhere at a limited number of other centres. Patients enjoy this type of supportive care which should be available at more of our large cancer hospitals.

The Medical Oncology Group of Australia/Pieter Fabre Award is granted annually in recognition of an outstanding contribution to the scientific study of cancer and/or to the control of cancer in Australia by an Australian scientist, clinician or other health care professional.

This is an edited version of the lecture presented at the Medical Oncology Group’s Annual Scientific Meeting in Hobart in August 2005.

References
17. Cassileth BR. The integrative oncology service at the Memorial Sloan-Kettering Cancer Centre. Sem Oncol 2002; 29:585-588

The Medical Oncology Group of Australia/Pieter Fabre Award is granted annually in recognition of an outstanding contribution to the scientific study of cancer and/or to the control of cancer in Australia by an Australian scientist, clinician or other health care professional.
The idea that oncology education needs constant evaluation, updating and standardisation is not new. In one of the first significant reports on undergraduate cancer education, substantial differences between medical schools were found, primarily in curricula content (Tatterson & Langlands 1993). Subsequent evaluation of cancer education and surveys of medical students’ oncology knowledge and skills have not indicated a high standard of training in these areas (Barton et al. 2003; Tatterson et al. 1988, Smith et al. 1991). Perhaps the disturbing are the results of a comparison of skills between graduates’ knowledge and skill has been undertaken and the introduction in the next few years of seven new medical schools around the country (Lawson et al. 2004). Clearly there are deficits in the delivery of education, but there are also some exciting opportunities and resources with which to correct these deficits in Australia over the next decade. But how do we best make use of these opportunities?

Identification of the issues

There are many groups in oncology education, each with their own specific complexities. Each group has something to offer as well as something to gain via an improvement in oncology education in Australia. Who are the stakeholders?

Academia

It is easier to win a war than to change a medical curriculum by even one half hour (Chester TE 1975, reported in Kamien 1996). A survey of clinical oncologists and clinicians responsible for cancer teaching in Australian medical schools (Tatterson et al. 1993) indicated that some of the bias and misinformation detected in student’s experience/knowledge may be attributed to the failure of oncology education to attract enough interest from teaching by hospital administrations.

The Cancer Council Australia’s Student essay competition

With the variable, non-uniform curricula in most (medical) schools it was early recognised that some means of determining progress would be much desired. Thus in 1948 an objective type of evaluation was developed. (Wood 1987).

The progress made in medicine over the past century has been developed (De Vries et al. 2002, Galaycthuk 2000, Langlands 1993). Subsequent evaluation of cancer education and surveys of medical students’ oncology knowledge and skills have not indicated a high standard of training in these areas (Barton et al. 2003; Tatterson et al. 1988, Smith et al. 1991). Perhaps the disturbing are the results of a comparison of skills between graduates’ knowledge and skill has been undertaken and the introduction in the next few years of seven new medical schools around the country (Lawson et al. 2004). Clearly there are deficits in the delivery of education, but there are also some exciting opportunities and resources with which to correct these deficits in Australia over the next decade. But how do we best make use of these opportunities?

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the make-up of The Cancer Council’s Oncology Education Committee. However, there seems to have been a patchy partnership and a lack of consistency in the professed outcomes of the oncology education intervention. It has been recently suggested that, for a number of reasons, a national exit exam should be considered for all Australian medical schools in an undergraduate curriculum (Koczwara & Tattersall 1999a, Tattersall et al. 1999b, Tattersall et al. 1999c, 1999d, Barton & Simons 1999, Barton et al. 2003). The Cancer Council Oncology Education Committee has suggested that it is “laudable that the medical schools implement an ideal Oncology Curriculum state and/or nationwide and test its utility.” The benefits of outcomes education is that it can be used as encouragement to implement change as well as a way to keep the necessary characteristics to implement outcomes based educational interventions in cancer curriculum.

According to McNeir (1993) outcomes in education should be broad in vision but specific enough to be taught and measured effectively. Outcomes education is an effort to overcome a situation of inappropriate and excessive testing, unnecessary surgery and medical error the systematic undervaluing of the humane, holistic and affective components of medicine in favour of the technical, reductionistic, and invasionist (Ellwood 1999).

Tamblyn et al. (1998) have used outcome research to determine that those who performed better on a standardised patient essay competition. As the winner, Jennifer Anderson attended the necessary characteristics to implement outcomes based educational interventions in cancer curriculum and tests the impact of the programme on the patient’s quality of life.

Outcomes-based education has the additional attraction of being able to actively involve all the above mentioned stakeholders and to correct the quality and relevance of an undergraduate medical curriculum. In Australian oncology education we have the benefit of knowing the current level of student competency. Indeed, it has been demonstrated that the number of students participating in an undergraduate medical curriculum can be improved by implementing an exit exam (Koczwara et al. 2005). An exit exam is one way of ensuring that the message gets through to both medical school students alike that there is an expected minimum standard that must be reached. It is imperative that the Oncology Education Committee lobbies for a place at the table should the idea eventuate. Another advantage of an exit exam would be to continually improve undergraduate curriculum in all fields of cancer treatment outcomes (Sloan 2000). Sloan et al. (2000) have suggested that “outcomes by and large, remain the ultimate validators of patient attitudes and satisfactions, social restoration and physical disability and rehabilitation”. Donabedian suggested that “cost (time, money, suffering, undergraduate medical education curriculum hours) can be plotted against benefits (lives saved, early detection, pain avoired etc.) and that there is a hyperbolic relationship.” We should, especially, in an overcrowded undergraduate medical curriculum, be aiming to get the greatest benefit from our interventions.

Prevention and detection would be the obvious candidates in oncology education but more generally, interventions aimed at improving communication skills, examination proficiency, pain management skills and psycho-oncological coping would also be candidates. The second and perhaps more difficult issue is how and when to measure specific outcomes which require active participation of all stakeholders and has yet to be clearly defined in the literature (Prideaux 2002).


Notes from Editorial Board: The reference in this text to ‘mixed method’ is not consistent with Critical Care, nor has it been accepted on the basis of an undergraduate medical curriculum.
Corrections to last edition
A Research in the Pipeline item titled Comparing GPS and accelerometer counts, that was reported under CBRC (Centre for Behavioural Research in Cancer, Vic) in the July 2005 issue (Vol 29, 2) is actually research to be carried out by the CBRC (Cancer Prevention Research Centre at The University of Queensland).

New Results
- Cancer Prevention Research Centre (CPRC), Qld
PLACE (Physical Activity in Localities and Community Environments) Report
An account of the spatially based survey methods used in the PLACE project and the recruitment outcome has been published on the CPRC and International Physical Activity and the Environment Network (OPEN) websites. This report aims to make the project experience available to others and includes planning similar studies and includes details of how objective measurement of physical activity and the environment was conducted using Australian data sets. The Report can be viewed at http://www.uq.edu.au/cprc/index.html?page=35080 or http://www.ipenproject.org/place.htm
- Centre for Behavioural Research in Cancer (CBRC), Vic
Australian Letters to the Editor on tobacco: triggers, rhetoric and claims of legitimate voice
Kim McLeod and Melanie Wakefield (The Cancer Council Victoria) along with Katherine Clegg Smith (from John Hopkins University) have explored the arguments and ideologies relating to tobacco issues present in Letters to the Editor (LTEs) in University of Queensland). The first of The Cancer Council NSW biennial surveys tracking community attitudes and practices in relation to smoking was published in the Health Promotion Journal of Australia, 16, 107-9.
- The Viertel Centre for Research in Cancer Control (VCRCC), Queensland Cancer Fund, Queensland
Queensland Cancer Risk Study
The Queensland Cancer Risk Study is the first comprehensive, state-wide survey of cancer risk factors, cancer screening activity and knowledge and attitudes towards cancer in Queensland. The objectives of the study, which included 9419 residents of Queensland, were to describe the distribution of behavioural risk factors for cancer in the Queensland population (including smoking, alcohol consumption, diet, physical inactivity, overweight, sunburn, sun protection and solarium use) and to investigate the determinants of these behaviours. Early results show that the prevalence of risk factors for cancer among Queensland adults is high. Many cancer risk behaviours are more prevalent among men, those aged 20-39 years and those living in remote/very remote areas of Queensland. For example, when compared to women, men are more likely to smoke on a daily basis, drink alcohol regularly, drink alcohol in excessive quantities, eat less than two serves of fruit a day, eat less than five serves of vegetables a day, be overweight or obese and to have been sunburnt or sun-exposed at least once a year. In contrast, women are more likely than men to be inactive and to use sola. Overall, the results suggest that there is scope for improvement in regard to cancer risk behaviours for the majority of Queensland adults and particularly within groups with multiple cancer risk behaviours including men, younger Queenslanders and residents of remote/very remote areas.

Non-cancer causes of mortality among cancer survivors
Do people diagnosed with cancer have an increased risk of death from non-cancer causes compared to the general population? This study was based on analysis of the non-cancer mortality of people diagnosed with cancer in Queensland and who were prevalent cases at any time between 1993 and 2002, utilising data from the Queensland Cancer Registry and the Registrar of Births, Deaths and Marriages. Among all cancer patients combined, there is a significantly increased risk of death from non-cancer causes compared to the general population. In subgroup analysis, melanoma patients have significantly lower non-cancer mortality compared to the general population.
while lung cancer patients had the highest risk of non-cancer mortality. Future work will investigate the causes of non-cancer mortality in lung cancer survivors. A manuscript has been accepted for publication in Cancer Causes and Control.

Reports

CPRC

International Physical Activity and the Environment Network

IPEN is the International Physical Activity and the Environment Network. It was launched by Professor Jim Sallis (USA), Dr Ilse Delboulbeaudjiah (Belgium) and Professor Neville Owen (Australia) at the International Congress of Behavioral Medicine in Mainz Germany in August 2004. IPEN has 168 members from 28 countries. The network aims to:

- increase communication and collaboration between researchers investigating environmental correlates of physical activity;
- stimulate research in physical activity and the environment;
- recommend common methods and measures;
- support researchers through sharing of information, feedback, letters of support etc.
- bring together data from multiple countries for joint analyses; and
- aid in the publication of data through papers, special journal issues, conferences etc.

Neville Owen with the other members of the IPEN consortium have assisted the Danish Cancer Society with preparation of a research grant application on the effects of environmental physical activity in Denmark. A research grant is also under review in Belgium to replicate the PLACE study that CPRC has recently completed in Adelaide and a collaborative studying cancer, environment and lifestyle in Japan with Tokyo Medical University is in progress.


CBRC

How acceptable is a referral-based telephone and outcall program for men diagnosed with cancer?

Trish Livingston along with Vicki White, Jane Hayman, David Hill and other collaborators have studied the feasibility and acceptability of a referral and out-call program from a telephone-based information and support service, for men newly diagnosed with colorectal or prostate cancer. Patients were caregivers of cancer survivors.

Active referral 1: specialist referral with four CISS out-calls: (a) T/L of diagnosis, (b) 2 weeks, (c) 6 weeks, and (d) 3 months post-diagnosis.

Active referral 2: specialist referrals with one CISS out-call 1 week of diagnosis.

Passive referral: specialist recommended patient contacts CISS, but contact at the patient’s initiative.

Patients completed research questionnaires at study entry (before CISS contact) then four and seven months post diagnosis.

Six clinicians referred 112 patients to CISS and 100 (89%) agreed to participate in the research. One-third of participants were allocated into each referral condition. The average time taken for Active 1 calls was 17.15 minutes and Active 2 calls 24 minutes. Nine (28%) participants in the Passive Referral group called CISS but their calls lasted 28 minutes. Eighty-five per cent of participants completed the seven month survey and of these 96% reported a positive experience with the referral process. The most common theme expressed was that the referral was a good idea because of the shock of being diagnosed with cancer. Of men in Active 1 and 2 conditions 93% thought it was helpful to talk to someone. Of men in the Active referral groups 87% reported being interested about receiving the calls and 84% indicated the timing of the calls was helpful.

This research is ongoing however this preliminary analysis suggests that the referral office of all states of Australia from 1997-2005. Analysis is currently underway with the aim to update knowledge of effective communications strategies on smoking cessation, assess whether there is a need to revise the communications model developed as an outcome of the National Tobacco Campaign review, and identify possible themes, issues and approaches that might inform future campaigns. Results will be presented on the Wednesday 23rd of November by Dr Owen Carter at the 3rd Tobacco Control Conference to be held in Sydney this year.

CheRP

The partners and caregivers study: a longitudinal study of the psychosocial outcomes of the partners and caregivers of cancer survivors.

Cancer is one of the most common health conditions in receipt of informal care. With the primary setting for the delivery of care to cancer patients having shifted from the hospital to the home, more emphasis is placed on the care provided by the patient’s informal caregiver, usually their spouse or a family member. Evidence suggests that caregivers of cancer patients are at risk of experiencing anxiety, depression, distress, poor quality of life, psychosocial, physical, and increased financial pressure. Whilst there is published evidence indicating the significant health and financial impact of caring, no previous research has reported on the longitudinal impact for partners and caregivers of cancer survivors.

A longitudinal population-based study of cancer survivors (the Cancer Survival Study) is currently being undertaken in NSW and Victoria. CheRP will be conducting the Partners and Caregivers Study parallel with the Cancer Survival Study, recruiting the partners and caregivers of the cancer survivors. The partner or caregiver will be invited to complete a survey at baseline (six months post-diagnosis of the cancer survivor), 12 months, two years, three years, and five years post-diagnosis. The study will identify changes in the levels of distress, anxiety, depression, quality of life and unmet needs over the first five years since the cancer diagnosis and personal factors such as social support, coping style, personal characteristics, work and financial situation associated with these outcomes will also be identified. The study will provide information on the costs and benefits associated with the past 15 years, has built with cancer and how this changes over time. Using data from both cancer survivors and their partners and caregivers, the inter-

relationships between the cancer survivors’ and their partners’ and caregivers’ psychosocial and other health outcomes will be described, and analyses; and

CheRP

National audit of Quid research 1997-2005

Under the auspices of the National Quid Coordinators group, CBGCC has received over 300 mainly unpublished research reports from the Quid offices of all states of Australia from 1997-2005. Analysis is currently underway with the aim to update knowledge of effective communications strategies on smoking cessation, assess whether there is a need to revise the communications model developed as an outcome of the National Tobacco Campaign review, and identify possible themes, issues and approaches that might inform future campaigns. Results will be presented on the Wednesday 23rd of November by Dr Owen Carter at the 3rd Tobacco Control Conference to be held in Sydney this year.

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relationships between the cancer survivors’ and their partners’ and caregivers’ psychosocial and other health outcomes will be described, and
The following grants and consultancies have been awarded:


Cancer Trials Database Victoria — first of its type in Australia

Susan Fitzpatrick
Centre for Clinical Research in Cancer and Victorian Cooperative Oncology Group

The Cancer Trials Database Victoria was launched on Daffodil Day, 19 August 2005.

Why a state-based cancer trials database when the National Clinical Trials Register had been announced? The genesis for a trials database for Victoria goes back a few years. However, its development had been deferred due to a national register proposal, as it was decided not to duplicate effort. In 2004, with repeated calls from clinicians and patients for trials information online, and still no register in place at a national level, The Cancer Council Victoria decided to develop the Cancer Trials Database Victoria. This database provides a reliable online resource of collaborative group cancer trials for both health professionals and the community.

It is known that clinical trials are essential for improving cancer outcomes but patient recruitment is hampered by low participation rates. Whilst Victoria has an adult participation rate of approximately 6%, the aim is to have 10% of all eligible adult patients participating in cancer trials.

There is evidence that insufficient resources and lack of awareness are major barriers to increased participation in clinical trials. To address these barriers, The Cancer Council instituted The Cancer Trials Management Scheme in 1988, awarding grants toward the appointment of trial managers in Victoria’s cancer centres, and then in 1991 published a clinical trials information booklet. Both these actions have significantly contributed to raising clinical trial participation. Increasingly, however, clinicians and patients have been seeking an online resource of more specific information about clinical trials open to participation.

The aim of the Cancer Trials Database Victoria is to improve access to information about cancer clinical trials for health professionals and the community.

The database has proved immediately useful to clinicians in identifying suitable cancer trials for their patients and enabled patients to approach their clinicians about potential trial participation. It is a “one-stop” site listing 60 state/ national/ international collaborative group phase 2 and 3 trials open to patient recruitment at treatment centres in Victoria. The database eliminates the effort of searching multiple individual websites. Direct links to the collaborative groups are also available if additional information is required.

It is acknowledged that the Cancer Trials Database Victoria does not fulfill the criteria of a register as defined in the Statement of the International Committee of Medical Journal Editors 2004. It is not meant to. The database does not require a unique registration number. The Victorian database could be considered a state-based cancer trial supplement to the National Clinical Trials Database. Other states may consider adopting a similar model.

In the development process, permission was obtained from the collaborative trial groups to list their trials on the online database and to include website links. Using the 2004 Cancer Trials Management Scheme annual reports, information about which centres were participating in which trials was sourced and confirmed. Permission was obtained to provide links to participating site websites. The details for each trial was sourced from the collaborative group trial coordination centres and their websites.

The database is easily navigated. It is searchable by cancer type and/or phase, location (treatment centre), or keyword. This enables a specific or broader search to be conducted. The details include: protocol title, phase, protocol ID, description, summary, aims, outcomes, eligibility, collaborative group, principal investigator, accrual target, anticipated closure date, location and access to further supplementary information.

Cancer Institute Nsw Standard Cancer Treatments (CI-SCaT)

Jen Bichel-Findlay
Standard Cancer Treatments Program
Cancer Institute NSW

In order to deliver optimal treatment to cancer patients, oncology clinicians need to have a full understanding of contemporary literature, key evidence and internationally acceptable standards. Each hospital currently writes, reviews and updates standard treatment protocols for cancer patients. This requires expert and detailed attention, drawing considerable resources away from treating patients. Regional services typically lack the specialist expertise and resources to maintain currency across all protocols.

The Cancer Institute NSW has launched an evidence-based Standard Cancer Treatments (CI-SCaT) website for all those involved in cancer services, including patients, carers, cancer practitioners, medical officers, nursing staff, pharmacists and general practitioners throughout Australia and New Zealand. Professor Robyn Ward developed the website at St Vincent’s Hospital, Sydney, with the Cancer Institute (NSW) assuming responsibility in October 2004. Whilst the protocol is not intended to replace or redefine the knowledge, skills, experience, or clinical judgement of experienced health professionals, it provides specialist clinicians and general practitioners with direct access to best-practice treatment for a variety of cancer types.

Access

The site can be accessed via:

n Internet

www.treatment.cancerinstitute.org.au

1 National Clinical Trials Register, announced by Minister for Health and Ageing, 17 May 2005


3 Cancer Trials Management Scheme 2005, grants totalling $750,000 awarded to 18 cancer centres.

4 Cancer Trials: information for people having cancer treatment – www.cancervic.org.au

5 Editorial – Clinical Trial Registration: A Statement from the International Committee of Medical Journal Editors - www.icmje.org/clin_trial.pdf

Cancer Forum - Volume 29 Number 3 - November 2005

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Reports

As new information becomes available, the reference group located at the end of each treatment. It is anticipated that an

and made available. The date each protocol was approved is

Approved protocols are signed off by a medical specialist

and all members discuss the protocols in detail and a consensus

reference group member prior to a meeting. At the meeting,

document by Cancer Institute project staff. These unapproved

and superseded.

There are three categories of protocols – approved, unapproved

and Dose modification;

n Melanoma;

n Dose modification;

n Surgical pathways;

n Radiotherapy pathways; and

n Links to a resource directory.

CI-SCaT contact

The CI-SCaT team is requesting suggestions from interested clinicians on how to improve the resource and offers of

assistance in reviewing and critiquing the protocols. Educational sessions related to effective use of the website are also being

offered. A rural program covering 27 sites throughout NSW is expected to be completed by November this year. Metropolitan

sites within NSW are being offered educational sessions from November onwards and a national education roadmap is

being planned for January to April next year.

Inquiries or requests for onsite education or clinician participation can be directed to the CI-SCaT team on (02) 8374 5653 or by emailing ci-scat@cancerinstitute.org.au.

Approval process

There are three categories of protocols – approved, unapproved and superseded.

Unapproved

Existing protocols are identified and prepared as a draft document by Cancer Institute project staff. These unapproved

protocols are reviewed and edited by the project staff and a reference group member prior to a meeting. At the meeting,

all members discuss the protocols in detail and a consensus decision is made as to whether to approve, approve with

changes, or send back for further development.

Approved

Approved protocols are signed off by a medical specialist and made available. The date each protocol was approved is

located at the end of each treatment. It is anticipated that an annual review of all protocols will commence in 2006.

Superseded

As new information becomes available, the reference group recommends that some protocols become superseded. In

other words, key evidence indicates that another protocol is demonstrated to be superior (in the majority of patients) in

relation to outcomes such as less toxicity, less serious adverse events and improved survival. The information contained in

these protocols justifies why they are not recommended. They are clearly marked as superseded, but remain for historical

reference and for the rare occasion that they may need to be administered.

Future plans

In the future, there are plans to expand the resources to include information on:

n Palliative care;

n Paediatric;

n Bone marrow transplant;

n Melanoma;

n Dose modification;

n Surgical pathways;

n Radiotherapy pathways; and

n Links to a resource directory.

NEWS & ANNOUNCEMENTS

New CEO for The Cancer Council Australia

The Cancer Council Australia recently announced the appointment of a new Chief Executive Officer, Professor Ian Olver, to replace long-serving CEO Professor Alan Coates, who will retire from the role next year.

Professor Olver, Clinical Director of the Royal Adelaide Hospital Cancer Centre, will take up the position in May 2006.

The Cancer Council Australia President, Mrs Judith Roberts, said the role of CEO at the organisation was one of the nation’s most important community sector positions, particularly as the number of cancer cases was projected to increase by more than 30 per cent over the next decade.

“The Cancer Council Australia represents the nation’s eight state and territory Cancer Councils and is Australia’s largest federal health charity, so the responsibility of guiding the organisation into a future that will see unprecedented new cancer challenges emerge is enormous,” Mrs Roberts said.

“Professor Olver is an outstanding clinician, communicator and administrator. For many years he has shown an extraordinary personal commitment to the fight against cancer, through his work in clinical research, publications across a range of cancer-related areas and his involvement in delivering services at the forefront of cancer care, including in remote Indigenous communities.”

As well as his role at Royal Adelaide Hospital, Professor Olver is Chair of the Medical Oncology Group of Australia, Board member of the National Breast Cancer Centre, Cancer Council Professor of Cancer Care at Adelaide University and Chair of The Cancer Council Australia’s Medical and Scientific Committee. He is also a member of The Cancer Council’s Oncology Education Committee and a former member of the multi-jurisdictional National Cancer Strategies Group set up to advise the Federal Government.

Professor Olver said he was enthusiastic about his new role with the nation’s leading independent cancer control organisation. “The Cancer Council Australia plays a vital role in contributing to national cancer policy development and helping to coordinate the research, information, education and patient support activities of Cancer Councils Australia-wide,” he said.

Mrs Roberts paid tribute Professor Coates, who will retire after nine years at the helm in May 2006.

“Professor Coates, through his tireless efforts and standing as one of the world’s leading cancer authorities, led the way in establishing The Cancer Council Australia as the nation’s peak non-government cancer control organisation.

“He has made a major contribution to the development of public policy in cancer care and control both in Australia and internationally.”

New Cancer Forum Editorial Board member

The Cancer Forum Editorial Board would like to welcome its newest member, Kim Devery. Kim currently works at Flinders University teaching palliative care at postgraduate level. Along with other work she assists health professionals learn about paediatic palliative care, palliative clinical management and advanced concepts of palliative care.

Kim has also worked for many years as a nurse in acute and palliative care in Australia, the US, the UK and Kenya. She has completed undergraduate studies in Social Sciences (largely research methodology with major studies in the History and Philosophy of Science and Technology) at the University of New South Wales. After her honours year Kim worked on research regarding patient ideas of quality of life, health outcomes and continuity of care in palliative care.

Kim took up a postgraduate research position at Flinders University in Adelaide in 1998. She was appointed Lecturer in 2002. Kim’s research interests include how to best talk with patients about prognosis and self-care for palliative care clinicians.

She lives in Adelaide with her family.

Teenagers resist the urge to tan

Almost 90% of teenagers are now aware of the risk of skin cancer through sun exposure and more are resisting the urge
to tan, according to new data released today.

The Cancer Council’s National Sun Survey showed that 68% of 12 to 17 year olds did not attempt to get a tan in summer
(2003/04), even though 60% indicated they would like one.

The findings were welcomed by the Chair of The Cancer Council’s National Skin Cancer Committee, Craig Sinclair.

“This is good news and indicates messages about skin cancer and sun protection are starting to connect with young
Australians,” Mr Sinclair said.

However, he cautioned the survey results weren’t all good, particularly poor adoption of sun-protection behaviour. “The
fact that 68% of teenagers did not go out and actively attempt to get a tan is a positive result and teenagers should be
commended for that,” Mr Sinclair said. “However, there are some concerning results from the survey; for example 25%
of teenagers are still getting sunburnt on a typical summer weekend.

“We need to protect ourselves not just at the beach, but when we are enjoying a BBQ in the backyard, playing sport or are just
out and about.”

Mr Sinclair said it was encouraging with summer school holidays around the corner.

The Cancer Council was particularly concerned about the prevalence of melanoma in younger people. “It is alarming
that 24% of all cancers in people aged 15-19 are melanomas, the most serious and potentially deadly form of skin cancer.
This is the highest rate of all cancer in this age group.”
Mr Sinclair said the survey provided interesting insights into teenagers' beliefs about skin cancer and sun protection and subsequent actions to protect themselves. "Not only are teenagers more aware of the link between skin cancer risk and sun exposure, fewer teenagers (41%) than adults (50%) believe a tanned person looks more healthy.

"That is a great step forward, but the fact that a quarter of teenagers get sunburned on a typical weekend is a problem we need to overcome. We need to encourage them to take a multifaceted approach to sun protection. That means not just relying on sunscreen, but wearing sunglasses, a hat that protects the face, neck and ears, like the fashionable bucket hats, protective clothing and seeking out shade when they are outdoors."

Workplaces getting the SunSmart message

Austie outdoor workers putting themselves at increased risk of skin cancer as they sweat it out in the harsh Australian sun is an image slowly but surely changing thanks to employer reforms, according to research from The Cancer Council's National Sun Survey.

The findings show that 50% of outdoor workers now have a sun protection policy at their workplace.

With 17% of Australians spending at least half their time at work outdoors and Australia having the highest rate of skin cancer in the world, The Cancer Council Australia stressed the importance of employers putting in place sun protection policies to protect their employees from sun exposure and the risk of skin cancer.

The Cancer Council's Chief Executive Officer, Professor Alan Coates, said he was encouraged by the positive approach by many employers around the country to protect their workers, but cautioned there was a long way to go, especially with small businesses and sub-contractors in the construction industry.

"The most significant changes we are seeing are in the telecommunications and utilities industries, as well as local councils, who are developing and implementing comprehensive sun protection policies," Professor Coates said.

Growth in cancer incidence to put pressure on health system

Australia would be unable to meet the needs of an unprecedented number of cancer patients unless planning for healthcare reform rapidly gathers pace, The Cancer Council Australia’s Chief Executive Officer, Professor Alan Coates said.

Professor Coates was responding to an Australian Institute of Health and Welfare report that predicts cancer incidence will rise from 83,998 in 2001 to 115,400 in 2011, an increase of 31 per cent.

He said although the figures showed the underlying incidence rate of cancer after adjusting for age was relatively steady, both the absolute number of new cases and cancer prevalence (number of people alive after a diagnosis of cancer) in Australia would be markedly higher increasing demands on the health workforce.

"A 31 per cent increase in the number of newly diagnosed cancer patients will place significant pressure on the health system," Professor Coates said. "However, the hidden burden is the compound effect of prevalence, which describes the number of people living with cancer at any one time. Currently, there are around 270,000 people in Australia living with cancer, a figure which is likely to exceed 350,000 by 2011."

Professor Coates said a commensurate investment in the cancer workforce, as well as structural reforms to the system, were needed to help ensure that growing numbers of cancer patients had equitable access to treatment and care. He said it was incongruous that the nation’s most deadly disease only accounted for around 5.8 per cent of healthcare expenditure.

"Australia can take some pride in having one of the world’s best-case survival rates, but this is little comfort to the any thousands of patients who report feeling lost in the health system and at the mercy of a cancer care ‘lottery’," Professor Coates said.

"Standardised models of multidisciplinary care, accreditation and credentialing processes to underwrite best practice and improved access to psychological support are high on the list of things that need to be built into the system to treat cervical cancer vaccine available as early as next year

The Cancer Council Australia’s vice-president, Professor Ian Frazer, is celebrating the stunning results of pivotal clinical trials which show that a vaccine for preventing cervical cancer, which uses technology he helped develop, is 100% effective.

The vaccine protects women against two strains of the human papillomavirus that cause up to 70% of cervical cancer cases worldwide.

Each year around 300,000 women globally die from cervical cancer and the vaccine may have the biggest impact in developing countries that do not have pap-smear screening programs.

The vaccine is designed to be given in three doses over six months and should be given to women before they become sexually active.

CSL and Merck will seek approval for their vaccine (Gardasil) from the US Food and Drug Administration in the next two months, and Australia’s Therapeutic Goods Administration early next year. GSK are also pursuing development of a cervical cancer vaccine using the same technology, which may be available within the next few years.

New position statements

Oral contraceptives

The use of combined oral contraceptives and cancer risk is a subject that has received considerable attention in recent times.

The Cancer Council Australia’s position statement recognises that women found to be positive for human papillomavirus (HPV) who have been using a combined oral contraceptive for 10 years or more are at increased risk of developing cervical cancer.

Women who are using combined oral contraceptives or have used them in the past 10 years are at slightly increased risk of developing breast cancer. The Cancer Council recommends all women aged 18-70 years who have ever been sexually active have a Pap test every two years and all women aged 50-69 have a mammogram every two years through BreastScreen Australia.

Combined oral contraceptives provide some protection against endometrial cancer and ovarian cancer, with this protection extending to women at risk of hereditary ovarian cancer.

Further research is required to assess the benefits and harms of long-term use, i.e. greater than five years, of recently introduced hormonal contraception alternatives on cancer and other health risks.

Complementary and alternative therapies

Complementary and alternative therapies are a contentious subject due to the limited scientific evidence about their safety and efficacy.

The Cancer Council Australia supports a patient’s right to seek information about all treatments and forms of symptom relief. However, as an evidence-based organisation we are not able to endorse treatments not clinically shown to be safe and effective.

We encourage healthcare professionals to respect their patients’ interest in complementary and alternative therapies and to discuss with patients to help them make informed treatment decisions.

Believers support Daffodil Day

On 19 August The Cancer Council held its annual Daffodil Day. Thanks to strong community support, Daffodil Day is one of the most successful fundraising events in Australia.

Daffodil Day is so popular as a fundraising event because it inspires belief that one day cancer will be defeated.

More than two million fresh daffodils and a range of event merchandise lined volunteer stalls at CBD locations, train stations and shopping centres across Australia, raising funds for cancer research and support services.

The funds raised on Daffodil Day contribute directly to Cancer Council initiatives in cancer research, prevention programs, advocacy, patient support and education services. These programs are carried out across all of the Cancer Council’s eight state and territory member organisations.

Daffodil Day is strongly supported by a range of retail outlets that sell the event-related merchandise, including pins, magnets and pins. Another favourite is the Dougal bear, who every year receives a fashion makeover to become the best dressed bear in town.

The Cancer Council Australia would like to thank its national supporters: Coles, HIC network of Medicare offices, Amcal, ANZ, Cartridge World, Miller’s Retail Group, Plants Plus, Quix and Rackmans.

For more information on the event please visit the Daffodil Day website – www.daffodilday.com.au or phone 1300 69...
Interventions and care of central venous access devices, which would be helpful for both the parent and family. Overall it is a good basic resource for families with a child/adolescent being treated for a paediatric malignancy. It was good to see the theme throughout the text that it is a team approach to the health care in a paediatric haematology/oncology setting. The journey takes very much a partnership between the family and the team. Unit specific education could be backed up with this book, it would not be a first line text. This is a cursory glimpse at aspects of caring for a child/adolescent with a paediatric malignancy.

Carina Boethé
Women’s and Children’s Hospital
Adelaide, SA

Appendix 1 Controlling Occupational Exposure to Hazardous Agents

Criteria

Appendix 2 National Cancer Institute Common Toxicity Criteria

Appendix 3 Cancer Chemotherapeutic Regimes (Adult)

Regimens are identified as indicated for specific cancers. This section is thorough, detailing single agent and combination regimes and provides current references. Not all regimes are in use in Australia.

The handbook is a high quality reference tool and is updated annually. Each chapter is well written, with information that is clear, concise and well referenced. It is a valuable resource for all nurses working in oncology. Also available in software for PC or palm pilot there is potential of placing this large handbook in your pocket on the ward.

Nicole Kinnane
Monash Medical Centre, VIC

A CANCER SOURCE BOOK FOR NURSES 8TH EDITION

American Cancer Society
C Varricchio (Ed)
ISBN: 0-7637-3276-1 557 pages plus index
RRP: $46.95

Keeping true to form, the eighth edition of the American Cancer Society’s A Cancer Source Book for Nurses provides an excellent resource on a large number of cancers and cancer nursing related issues. This new edition, edited by Claudette Varrichio, comprises some 580 pages, an increase of nearly 100 pages on the previous edition published in 1997, but unlike many cancer nursing texts is still compact enough for nurses to carry to work or have in their home library if they so desire.

The chapters in this eighth edition have been updated and reviewed by authors, most of whom did not feature in the seventh edition. This has helped in the scope of information contained within the chapters. In addition, the major sections of the book have been redefined to allow effortless navigating of the book for quick reference.

The are 37 chapters from over 50 authors covering many aspects of cancer nursing, together with an overview, albeit brief in many cases, of the major cancer sites and treatment approaches. The chapters are well written and are formatted in a logical sequence discussing the nature of the problem, management and the role of the nurse. Whilst there are chapters that outline cancer as a disease in our community, this is not a book that gives an in-depth description of cancer biology, epidemiology, and screening. Rather, it covers these topics in a simple, easily readable style, giving the reader information without getting too bogged down in detail. Such is the case with many of the appendices in the book which are simple and easily interpreted. Both a comprehensive glossary and index add to the easy readability of this text.

Section 1: Treatment

This is the largest section comprising more than half the 1100 pages of the book. It is dedicated to current and investigational drugs. Also outlined are pre-treatment nursing assessment guidelines.

Chapter one, Introduction to Chemotherapy Drugs, includes a table detailing the mechanism of action of cytotoxic drugs in the cell cycle, a useful reminder for all nurses. Successive chapters cover Biological Response Modifier Therapy; Antineoplastic Treatment: Agents; Radio sensitisers, Chemo sensitisers; Chemical Adjuncts; and Cytoprotective Agents. The final chapter, Molecularly Targeted Therapies, incorporates a detailed section on basic cell biology.

Section 6 Symptom Management

This section deals with pain; nausea and vomiting; anaemia and cachexia, and anxiety and depression.

Section 3 deals with five complications - constipation, hypercalcaemia, infection, constipation and diarrhoea. The chapters provide an introductory outline of incidence of occurrence, reasons for manifestation and treatment options.

Each section of the book contains detailed drug information, including indications for drug use, side effects, mechanisms of action and nursing implications. The nursing implications are provided in a nursing process format. The chemotherapy agent section includes practical self help advice for patients and their families.

Additional to the main text are 3 appendices.

Appendix 1 Controlling Occupational Exposure to Hazardous Drugs

This is very comprehensive, including drugs other than cytotoxic chemotherapy. To be remembered is that the recommendations are American and there may be differences in Australian standard worksafe recommendations.

The 2005 edition of Oncology Nursing Drug Handbook by Gail M. Wilkes & Margaret Barton-Burke continues in the tradition of previous editions. The book is written for nurses by nurses, providing the experienced cancer nurse and those new to the specialty, with a detailed resource concerning current cancer drug information. This edition is updated to include the latest anti-cancer treatments and an additional chapter detailing molecular targeted therapies.

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Section 1: Treatment

This is the largest section comprising more than half the 1100 pages of the book. It is dedicated to current and investigational drugs. Also outlined are pre-treatment nursing assessment guidelines.

Chapter one, Introduction to Chemotherapy Drugs, includes a table detailing the mechanism of action of cytotoxic drugs in the cell cycle, a useful reminder for all nurses. Successive chapters cover Biological Response Modifier Therapy; Antineoplastic Treatment: Agents; Radio sensitisers, Chemo sensitisers; Chemical Adjuncts; and Cytoprotective Agents. The final chapter, Molecularly Targeted Therapies, incorporates a detailed section on basic cell biology.

Section 6 Symptom Management

This section deals with pain; nausea and vomiting; anaemia and cachexia, and anxiety and depression.

Section 3 deals with five complications - constipation, hypercalcaemia, infection, constipation and diarrhoea. The chapters provide an introductory outline of incidence of occurrence, reasons for manifestation and treatment options.

Each section of the book contains detailed drug information, including indications for drug use, side effects, mechanisms of action and nursing implications. The nursing implications are provided in a nursing process format. The chemotherapy agent section includes practical self help advice for patients and their families.

Additional to the main text are 3 appendices.

Appendix 1 Controlling Occupational Exposure to Hazardous Drugs

This is very comprehensive, including drugs other than cytotoxic chemotherapy. To be remembered is that the recommendations are American and there may be differences in Australian standard worksafe recommendations.
Of particular note is a section in the book that is devoted to the experience and management of cancer symptoms. This section covers topics such as myelosuppression and cancer pain, to sleep problems and paediatric symptoms and responses. As one would expect from the American Cancer Society, the book cites American statistics throughout and refers to many of the cancer initiatives and organizations within the US. This however does not make the book less attractive to the Australian nurse, as many of these aspects translate easily to the Australian experience.

I have no hesitation in recommending this book to both novice and experienced nurses as a tool that will complement their knowledge base and act as a quick and easy reference for their practice.

Gordon Poulton
Centre for Palliative Care Research & Education
Brisbane, Queensland

ANGIOGENESIS IN BRAIN TUMOURS

ISBN 1-4020-7704-1 349 pages plus index
RRP: $US180.00

This book is written in 19 chapters covering general concepts of angio genesis including normal embryonal blood vessel formation, experimental models, role of angiogenesis in brain tumours and approaches for anti-angiogenic treatments of brain tumours. The chapters vary widely in content, ranging from short experimental protocols to detailed descriptions of the structure and development of blood vessels and the molecular mechanisms of blood vessel growth regulation and anti-angiogenic clinical treatment protocols.

Due to the large number of authors there is some overlap and repetition, but this is mainly in the chapters dealing with angiogenic growth factors and receptors (chapters one and 13). However, the molecular regulators of angiogenesis and the environmental stimuli that favour angiogenesis in tumours are well covered.

Chapter two gives a very detailed description of the embryonal development of vessels in the CNS in quail. The quail model is of particular value for embryonal developmental studies as interstitially grafting experiments can provide a clue to the origins of particular organ structures.

Chapters three and four deal with mathematical modelling of tumour induced angiogenesis and measurements of blood vessel densities in tumours.

Rather short chapters seven, eight and nine deal with the isolation of blood vessels, MRI monitoring of gloma in the rat brain and in methods for vitro studying angiogenesis in vitro.

Chapter 15 deals with the vascular microenvironment in gliomas and provides a good compilation of the differences of vessel structure in gloma and normal brain leading to the breakdown of the blood-brain-barrier in the gloma microvasculature.

Chapter 16, showing a link of tumour vascularisation and invasion, is very compelling and usable.

Chapter 18 deals with clinical trials using a wide range of anti-angiogenic compounds and leaves the reader with perhaps unjustified optimism, given that in all clinical trials so far conducted on the outcomes were rather disappointing, compared with the outcomes in the preclinical tests done with mice.

Overall, this book is a valuable resource for clinicians with an interest in the biology of brain tumours and provides ample references for those who are interested in getting more information on the subject from primary sources. The best chapters are probably the ones linking the biology of angiogenesis with brain tumour biology as they make the book unique.

Ulikre Novak
University of Melbourne
Department of Surgery
Royal Melbourne Hospital
Melbourne, VIC

CANCER AS AN ENVIRONMENTAL DISEASE

RRP: $US98.00

Consider the dichotomy consequent upon the word, ‘however’ (not boldly in the original) in the following paragraph from the volume under review.

The predominant theory for the past 50 years has been that cancer is the result of cumulative mutations that alter specific locations in the cells DNA and which alter the proteins encoded by cancer-related genes. Susceptibility to mutation has been largely dictated by behavioural patterns. However a growing body of scientific evidence strongly implicates the environment in the causation of cancer. Findings from studies of wildlife, cancer trends, human migration, childhood cancers, twinning and industrial accidents suggest that concentrating solely on genetic origin and behavioural pattern as causes of DNA defects, and consequently the main of cancer needs to be re-evaluated.

Arguably, the dichotomy suggested does not, in fact, exist because, amongst other things, environmental causes of cancer specifically include the impact of lifestyle, and differences in cancer incidence in migrant groups are attributable to behavioural patterns. But the distinction described is crucial to the editors and some contributors to ‘Cancer as an environmental disease’. For these individuals, there is the perception that implicating ‘lifestyle’ and ‘behavioural’ factors in the causation of cancer is akin to a ‘blame the victim’ and is incompatible with attributing cancer to industrial pollution and occupational exposures.

In the first three chapters of this book the notion that ‘environment’ can be separated from ‘lifestyle’ as accounting for cancer causation is pursued at the cost of scientific clarity. No attempt is made to present a clear distinction between the molecular genetic basis of inherited cancer and the molecular genetic explanation for malignant transformation. Increasing incidences of breast and prostate cancers (in Norway) is presented as being attributable to increasing pollution, without any reference to the possible impact of mammography and PSA testing on these targets.

Apart from those chapters concerned with a political agenda, some contributions are most informative. These include the discussion of gene-environment interaction, DNA damage induced by carcinogens and the health impact of accidents involving radioactive material. However, the volume cannot be described as a reasonable assessment of environmental carcinogenesis because key issues such as the role of tobacco, alcohol and ultraviolet exposure are not addressed. People likely to benefit from this volume are individuals who seek to refine their current knowledge of particular issues rather than those hoping to gain an overall assessment of the topic ‘environmental carcinogenesis’.

Bernard W Stewart
South Eastern Sydney and Illawarra Public Health Unit

CONCISE CLINICAL ONCOLOGY 1ST EDITION

RRP: $79.95

In the days when doctors wore white coats, this book would have been referred to as a ‘pocket book’ and would have neatly fitted into the pocket of those coats. With its plastic cover, it would have easily withstood the wear and tear of every day use and its contents ensure that it would indeed be thumbed on a daily basis. The author’s impetus for writing the book was motivated by his being a junior doctor in being hard pressed to source useful information from the huge body of cancer literature that was relevant and easily applicable to patient care. He describes his target audience as medical students, junior doctors, general practitioners, nurses and allied health professionals. To these ends he fulfills a need.

The author is English and the introductory chapter refers to the Calman Hine Report, the NHS Cancer Plan and UK incidence and mortality statistics. However, given that the organisation of cancer services in most states of Australia is following a similar model to that of the UK, the chapter is generally enough to be applicable to the Australian setting and gives a brief background to the ‘politics’ of allocating resources and managing cancer services.

The book is arranged in three sections, plus appendices. Section 1 is titled ‘Principles of Oncology’ and includes basic cell biology, principle of screening, surgery, radiotherapy, systemic therapy, symptom management and clinical trials. Section 2 is literally the A – Z of cancers, with 36 different types of cancer included in alphabetical order, as well as a chapter titled ‘Paediatric Oncology’. Section 3 covers general complications of cancer, oncological emergencies, with several short but important chapters that often don’t rate as ‘stand alone’ chapters in similar texts (eg. metabolic problems and problems in advanced pelvic malignancies) but are commonly encountered in clinical practice. The appendices include tissue tolerances of radiotherapy, an A – Z of commonly used chemotherapy drugs, oncology related websites and ECOG and Karnofsky performance scales.

The disease specific chapters provide a concise overview of the epidemiology, presentation, prevention, emergencies, with several short but important chapters that often don’t rate as ‘stand alone’ chapters in similar texts (eg. metabolic problems and problems in advanced pelvic malignancies) but are commonly encountered in clinical practice. The inclusion of the sections ‘Future Perspectives’ (describing clinical trial treatments with promising results to date), ‘Problems in Advanced Disease’ and ‘Further Reading’ (allowing readers to explore the topic in greater detail) in each chapter are a welcome addition.

The book is easily readable and pitched perfectly at the target audience. If white coats were still in vogue, I would commend this book as an essential item for every coat pocket. Given that they’re long gone, I highly recommend that it grace the desks of all wards, clinics, departments and general practices that might find cancer patients in their midst.

Leitia Lancaster
Westmead Hospital
Westmead, NSW

DEVELOPMENT OF THERAPEUTIC CANCER VACCINES

ISBN: 3-8055-7736-2 236 pages plus index
RRP: $US235.00

Treatment of cancers with tumour vaccines remains a vigorous area of basic and clinical research. The material in this book reflects this as the proceedings of a conference on this topic held in Los Angeles in April 2004 sponsored by Cancer Vaccines, Inc., a company. John Wayne Cancer Institute and the International Association for Biologicals. There is a section on regulatory issues such as how to establish standards of purity, potency and safety which are informative and which illustrate the problems in addressing these issues. The second section describes studies on autologous and allogeneic vaccines and heat shock proteins. The topics are dealt with quite briefly and the reader would need to access references to get more detail on the topics. Nevertheless, they have merit in giving a brief overview of the topics. Questions and answers of limited value are included.

Several chapters are included on dendritic cell vaccine approaches. Again they are presented in a very condensed
book reviews

**LYMPHEDEMA MANAGEMENT: A COMPREHENSIVE GUIDE FOR PRACTITIONERS**

JE Zuther
Thieme Medical Publishers (2005)
RPP: £15.99

This book consists of six chapters on lymphedema management plus a section with sample forms and templates for the lymphedema therapist. Published in 2005, it is an up to date guide to the management of primary and secondary lymphedema. The first half of the book consists of a very comprehensive guide to the anatomy and physiology of the lymphatic system and the etiology of lymphedema. The remainder of the book concentrates on the use of complete decongestive therapy to treat lymphedema.

The instructions are clear and precise with numerous illustrations and photographs. Scattered throughout the book are numerous references as well as a comprehensive list of recommended reading. This is an excellent reference book for any health professional with a specific interest in lymphedema but due to the depth of the information provided is not a quick read.

Linda Liverisidge
Newcastle Mater Misericordiae Hospital, NSW

**MOLECULAR TARGETING AND SIGNAL TRANSDUCTION**

R Kumar (Ed)
ISBN: 1-4020-7822-6 327 pages plus index
RPP: £51.45

The pathogenic mechanisms giving rise to cancer frequently involve altered signal transduction pathways. The elucidation of signal transduction pathways in cancer cells, both at the proteomic and the genomic levels, has led to the design of drug molecules as cancer treatments that are intended to act at specific proteins of the signal transduction cascade. Many drug molecules directed against a wide range of signal transduction elements are being evaluated as potential anticancer therapies and several are currently in clinical trials; others are still in preclinical research and development. This book contains a collection of excellent reviews on various signalling molecules and their suitability as drug targets in cancer treatments. Written by internationally renowned scientists, all leaders in their fields, it examines the most important signalling pathways in cells and provides a clear understanding of the different components of each pathway and their complex interactions. It also describes current knowledge on the design, synthesis, and evaluation of the biochemical and biological activities of inhibiting molecules. Specific topics include a biomolecular survey of cell signals, the role of cell-to-cell communication, growth factor and hormone signalling in cancer; cell cycle deregulation and cell migration and adhesion. The chapters of this book integrate elegantly with one another and provide the reader with both broad and comprehensive viewpoints. Remarkably current and up-to-date, the book promises to be a core text for all university courses in cell signalling and molecular cell biology, and a valuable reference book for all scientists whose work involves or is interested in signal transduction, cancers or indeed any human disease where the pathogenic mechanism of disease involves signalling molecules.

Readinghip: Immunologists, cell biologists, molecular biologists, biochemists, pharmacologists, clinical researchers and students.

Alison Greenway
Institute for Medical Research and Public Health Melbourne, VIC

**OXFORD HANDBOOK OF PALLIATIVE CARE**

M Watson, C Lucas, A Hoy, I Back
Oxford University Press (2005)
RPP: GBP24.95

The Oxford Handbook of Palliative Care, published only this year (2005), is touted to be based on the Oxford Textbook of Palliative Medicine. Indeed, the Handbook is endorsed in a foreword provided by Dr Derek Doyle, one of the principle authors of the Textbook. The Handbook has been prepared by four UK-based palliative care medical specialists in conjunction with another 50 advisors and contributors listed.

The book contains surprisingly extensive palliative care information, including an outline of the development of palliative medicine, associated terminology and opening chapters on ethical issues, communication (specifically breaking bad news) and research. Clinical information commences with discussion about the use of drugs in palliative care, “off-label” usage, patient medication charts, syringe drivers and a comprehensive formula. A chapter on Oncology and Palliative Care is provided, with a useful overview of common cancers, chemotherapy agents and radiotherapy, side effects and their treatments and importantly the fit between oncology and palliative care. Of course, symptom management features significantly in the book.

Welcome inclusions are palliative care for non-malignant conditions, paediatric palliative care and palliative care for the elderly, all currently acknowledged as deserving specific attention from palliative care practitioners. Further topics included in this jam-packed handbook are spiritual care, bereavement, the roles of allied health professions in palliative care, complementary therapies, emergencies in palliative care, and under the heading miscellaneous, issues such as fitness to drive, tissue donation, travel and wills.

Indeed, this is a comprehensive book. Understandably, there is some bias to UK practice, notably with inclusion of diamond and reference to NHS systems and local laws. Extrapolation to local conditions would of course be necessary. One point to mention is whether this book is appropriately labelled a “Handbook”. Some sections provide discussions that are quite textually based, rather than a quick reference dot point format. As well, in order to contain such a volume of information in a compact presentation, the printing is small and not easily read, although I acknowledge this reflects a personal defect, albeit shared with others in my age cohort.

In summary, although the palliative care “bible”, that is the latest edition of the Oxford Textbook of Palliative Medicine, is likely to remain one of the primary references used by palliative care professionals, the Oxford Handbook of Palliative Care provides an amazingly comprehensive overview at a significantly reduced size and cost. This makes the book extremely attractive for individual purchase. Further, the handbook would be a highly appropriate addition to areas such as GP surgeries, as well as the white coat pockets of junior medical officers, and is likely to significantly increase access to palliative care principles in non-specialist areas.

John Greaves
Royal Prince Alfred Hospital
Sydney, NSW

**RADIOThERAPY IN PRACTICE: BRACHYTHERAPY**

P Hoskin and C Coyne (Eds)
Oxford University Press (2005)
ISBN: 0-19-850944-6 193 pages plus index
RPP: GBP29.95

Audience: The book is aimed at Radiation oncologists both training and qualified, medical physicists, radiation therapists and senior nurses.

Purpose: To provide practical guidance on the use of brachytherapy. Each chapter is designed to provide the reader with a sound background in dosimetry as well as providing practical information on the use of brachytherapy in less common disease sites.

Content: This is the first in a series of three books on radiotherapy In practice; following volumes will cover external beam radiotherapy and radiotherapy.

The first two chapters concentrate on isotopes, delivery systems and principles of dosimetry. From a nursing perspective one past this the following chapters were very easy to read and understand. Each chapter is a concise unit which can stand alone. At the end of each chapter there is a list of further reading for anyone who would like more information on the topic. The step by step description of how to perform implants gives the reader a very clear picture of how the implant is to take place in theatre. The information is up to date with discussion of current trials while chapter nine mentions the use of the mmslat balloon. The layout of the colour photographs was less than ideal with all photographs being together irrespective of the chapter treatment area and the topic of the chapter they were placed in. Overall the diagrams were
well used.

Limitations: The main limitation was the lack of nursing information. The amount of information and the layout changed in each chapter. As this is such a specialised area having some comprehensive nursing information would be an advantage.

Comment: This is a concise well written book which would be a great resource for anyone that has a brachytherapy service, or considering setting up a brachytherapy service in the future. This is a very good starting point for anyone with an interest in brachytherapy.

Deborah Stokes
William Buckland Radiotherapy Centre
Alfred Health, VIC

SMOKING CESATION

R West, S Shiffman
ISBN: 1-9037-3442-8
RPP: $35.20

Audience: Health professionals who have an interest in encouraging smoking cessation and/or treating nicotine dependence.

Purpose: To provide the rationale for, and knowledge of, practical and effective smoking cessation interventions for clinicians and other relevant health professionals.

Content: It is a staggering fact that every branch of medicine is represented among the myriad diseases caused by smoking. As Smoking Cessation points out, smoking is a vital sign for the diagnosis of a range of medical conditions. The reason provided is that the cigarette is the most dangerous of nicotine delivery systems, delivering a cocktail of carcinogenic and toxic chemicals along with the nicotine. Furthermore, the cigarette is also the most effective of nicotine delivery systems, delivering the nicotine 'hit' to the brain within a few seconds. This is the crux of the matter; nicotine is powerfully addictive. The booklet shows how medically accepted criteria for drug dependence is clearly applicable to the experience of most smokers.

In addition to explaining the pharmacology of nicotine the booklet touches on the social, psychological and economic influences on smoking at both the individual and population levels. The brief discussion of best practice tobacco control measures such as taxation, advertising bans and public smoking bans may be of value for those interested in public policy approaches to reducing population smoking rates. The 'How to' of the booklet can be found in Chapter 7. It provides as comprehensive a guide to behavioural and pharmacological treatments as could be included in a booklet of this size. The special needs of particular groups of smokers (eg pregnant smokers) are also addressed.

Highlights: The 'Fast Facts' format of this publication allows quick access to the key messages of the booklet. These appear in bullet-point form within coloured boxes at the end of each chapter. The references for each chapter are similarly treated.

The subject matter of this booklet lends itself to technicality. However the authors have skillfully conveyed the content in a most readable way.

Limitations: This booklet comprises few limitations. One that these reviewers noted was that research cited is mainly US and UK sourced. Also, the information about access to medication is based on UK and US availability. For example, in the US some nicotine replacement therapy products are available only on prescription. In Australia however, NRT products are available without a prescription, although they are subject to particular scheduling requirements.

Comment: This booklet is a concise yet comprehensive information source for the busy practitioner. The authors are well-credentialed tobacco control professionals who have written a highly readable guide to smoking cessation approaches.

Greg Souls and Kim Pearce
The Cancer Council NSW
Sydney, NSW

SURVIVORS OF CHILDHOOD AND ADOLESCENT:
A MULTIDISCIPLINARY APPROACH 2ND EDITION

CL Shwartz, WL Hobbs, LS Constine, KS Ruckiow (EDS)
Published by Springer-Verlag (2005)
ISBN: 3 540-40840-1
3434 pages plus index
RPP: €129.95

Childhood and adolescent survivors are a large and growing population. Along with survival there are potentially a range of therapy related long term sequelae. As the survivors move into adulthood they need to be advocates for their own health care needs. The survivor must know what the potential late effects from their therapy and the consequences of the late effect may be. The initial education should be the responsibility of the treating institution, as is the monitoring of late effects until they become young adults. As young adults transition from the paediatric institution to either a primary care provider or adult institution late effect monitoring should be ongoing and referral to appropriate specialty physician as required.

This book provides comprehensive algorithms of late effects by disease along with clear tables to facilitate evaluation and assessment of late effects. The tables indicate causative treatments ie. surgery, chemotherapy, radiotherapy. Signs and symptoms of presenting late effect and indicates the required screening and diagnostic tests required, followed by the recommended management and intervention for each late effect. Chapters are in disease system's which are easy to read with all but two chapters following the same format of pathophysiology, clinical presentation, risk factors, detection and screening. Chapter eight is dedicated to hearing and is very detailed. Chapter 19, Psychological Aspects and Chapter 26, Transition issues, highlight areas of need other than disease focused for survivors.

I would recommend this book as an excellent introduction to establishing a multidisciplinary approach to care for survivors. The Children's Oncology Group Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent and Young Adult Cancers are available free of charge online at www. survivorshipguidelines.org.

Gaye Dadd
Princess Margaret Hospital for Children
Perth, WA

UROLOGIC ONCOLOGY

J Richie, A D'Amico
RPP: $275.00

This is an attractively presented book covering all of the urological cancers which might be met by a practicing urologist. It includes such cancers as adenocarcinomas, which although operated on by an urologist might also be classified as an endocrine tumour. Paediatric tumours such as Wilm's tumours and neuroblastomas are also covered.

The first part of the book begins with a series of primer chapters covering the 'basic science' of urological malignancy. It begins with the molecular and cell biology underpinning urological malignancies. Following these there are chapters covering the basics of radiotherapy, chemotherapy and immunotherapy as they pertain to urological cancer. Each of these chapters covers the basic mechanisms of action of the different modalities and side effects expected. The first part ends with chapters relating to quality of life and imaging.

The second part of the book contains a chapter or two dedicated to each organ and the malignancy associated with it. The content is largely surgical and although other modalities are well represented the information is much briefer. Quite detailed information is provided for many of the urological procedures including blow by blow descriptions of how each operation is performed.

The text is logically set out and relatively easy to read. The information is set at a level at which most physicians (or surgeons) should be able to follow without detailed knowledge of urological malignancy. As such it provides an excellent overview of the topic. Extensive use of the diagrams and graphic photos, particularly in the surgical chapters contributes to the overall understandability of the text. Each chapter is well referenced and indexed.

As a medical oncologist I found the chemotherapy sections brief. Overall concepts and approaches were solidly explained, however descriptions of exact chemotherapy regimens was lacking. I suspect the same is true of the radiation techniques and descriptions. The information was also a little out of date, however no more than I would expect of any text given the rapidity at which this field is moving.

Overall it is more of a surgical text with much greater detail gone into with this modality than with chemotherapy or radiotherapy (or immunotherapy). As a book it is likely to be of greatest use to urologists and surgical oncology trainees, although it is also a handy reference for medical or radiation oncologists with involvement in urological malignancy. Its strength is more as an overview text for oncologists rather than a definitive reference.

Richard North
Newcastle Mater Misericordiae Hospital, NSW

RRP: $275.00

Cancer Forum - Volume 29 Number 3 - November 2005
## CALENDAR OF MEETINGS

### CALENDAR OF MEETINGS – INTERNATIONAL

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<tr>
<th>Date</th>
<th>Name of Meeting</th>
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<td>5-9 November</td>
<td>53rd Annual Scientific Meeting of the American Society of Cytopathology</td>
<td>San Diego, USA</td>
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<td>7-9 November</td>
<td>ONCO Cancer Conference: Cancer and Aging</td>
<td>Madrid, Spain</td>
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<td>Oncology Nurses Society Institutes of Learning</td>
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<td>27-30</td>
<td>91st Meeting of the Radiological Society of North America</td>
<td>Chicago, USA</td>
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<td>47th Annual Meeting of the American Society of Hematology</td>
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<td>28th Annual San Antonio Breast Cancer Symposium</td>
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<td>8-10</td>
<td>12th Hong Kong International Cancer and Congress &amp; 2nd Annual Meeting of Research Centre of Cancer</td>
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<td>10-14</td>
<td>American Society for Cell Biology (ASCB) 45th Annual Meeting</td>
<td>San Francisco, USA</td>
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<td>Suite 750, Bethesda MD 20814-2755 USA</td>
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<td>2-4 February</td>
<td>Breast Cancer: From Gene to Gene</td>
<td>Amsterdam, Netherlands</td>
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### CALENDAR OF MEETINGS – AUSTRALIA AND NEW ZEALAND

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<th>Date</th>
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<tr>
<td>15-18 November</td>
<td>32nd Clinical Oncological Society of Australia Annual Scientific Meeting</td>
<td>Brisbane, QLD</td>
<td>Pharma Events</td>
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<tr>
<td>2006 March</td>
<td>53rd Annual Scientific Meeting of the World Federation of Neurological Societies</td>
<td>Adelaide, SA</td>
<td>World Federation of Neurological Societies (WFNS)</td>
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<td>Email: <a href="mailto:michael.lage@fmc.sa.gov.au">michael.lage@fmc.sa.gov.au</a></td>
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<td>14-17 May</td>
<td>Australsian College of Dermatologists 39th Annual Scientific Meeting</td>
<td>Melbourne, VIC</td>
<td>Australasian College of Dermatologists</td>
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<td>12-14 July</td>
<td>Royal College of Nursing Australia National Conference</td>
<td>Cairns, QLD</td>
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<td>14-15 August</td>
<td>Cancer Nurses Society Of Australia 9th Winter Congress</td>
<td>Adelaide, SA</td>
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<td>9-12 September</td>
<td>Medical Oncology Group Australia Annual Scientific Meeting</td>
<td>Sanctuary Cove, QLD</td>
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<td>3-9 October</td>
<td>ACCORD Workshop – A Workshop in Effective Clinical Trials Design</td>
<td>Sunshine Coast, QLD</td>
<td>The Australia and Asia Pacific Clinical Oncology Research Development (ACCORD) Workshop</td>
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<td>Email: <a href="mailto:mogaccord@racp.edu">mogaccord@racp.edu</a></td>
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<td>26-29 November</td>
<td>RANZCR 57th Annual Scientific Meeting</td>
<td>Christchurch, NZ</td>
<td>Royal Australian and New Zealand College of Radiologists (RANZCR)</td>
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<td>2-4</td>
<td>American Psychosocial Oncology Society (APOS) 3rd Annual Conference</td>
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<td>European Multidisciplinary Colorectal Cancer Congress 2006</td>
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<td>3rd International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR2006)</td>
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<td>Budapest</td>
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**Date**
8-12 UICC World Cancer Congress  
Washington DC  
USA  
American Cancer Society (ACS)  
Atlanta, USA  
Ph: +1 404 417 5998  
Fax: +1 404 728 0133  
Email: secretariat2006@cancer.org  
Web: http://www.worldcancercongress.org

12-15 13th World Conference on Tobacco OR Health  
Washington, DC  
USA  
American Cancer Society (ACS)  
Atlanta, USA  
Ph: +1 404 417 5998  
Fax: +1 404 728 0133  
Email: secretariat2006@cancer.org  
Web: http://www.13thwctoh.org

**August**
17-20 16th World Congress of the World Society of Cardio-Thoracic Surgeons (WSCTS 2006)  
Ottawa  
Canada  
WSCTS 2006  
Ottawa, Canada  
Ph: +1 613 761 5116  
Fax: +1 613 761 4478  
Email: info@wscts2006.com  
Web: http://www.wscts2006.com

**September**
17-21 39th Annual Meeting of the International Society of Pediatric Oncology (SIOP)  
Geneva  
Switzerland  
SIOP Secretariat  
Eindhoven, Netherlands  
Ph: +31 40 269 7544  
Fax: +31 40 269 7545  
Email: secretariat@siop.nl  
Web: http://www.sion.nl/frameset_achter.asp?p=4

27-Oct  
14th International Conference on Cancer Nursing  
Toronto  
Canada  
International Society of Nurses in Cancer Care (ISNCC)  
Chechley, UK  
Ph: +44 116 270 3309  
Fax: +44 116 270 3673  
Email: conference@isncc.org  
Web: http://www.isncc.org

29-Oct 3  
31st European Society for Medical Oncology (ESMO) Congress  
Istanbul  
Turkey  
ESMO Congress  
Viaganello-Lugano, Switzerland  
Ph: +41 91 973 1919  
Fax: +41 91 973 1918  
Email: congress@esmo.org  
Web: http://www.esmo.org

**October**
18-21  
8th World Congress of Psycho-Oncology  
Venice  
Italy  
International Psycho-Oncology Society  
Charloetteville, USA  
Ph: +1 434 293 5350  
Fax: +1 434 977 1856  
Email: info@ipsociety.org  
Web: http://www.ipsociety.org

**November**
5-10  
XVIII FIGO World Congress of Gynecology and Obstetrics  
Kuala Lumpur  
Malaysia  
AOS Conventions and Events Sdn Bhd  
Kuala Lumpur, Malaysia  
Ph: +60 3 4525 9100  
Fax: +60 3 4527 1133  
Email: conscc@figo2006kl.com  
Web: http://www.figo2006kl.com

7-10  
18th EORTC-NCI-AARC Symposium on Molecular Targets and Cancer Therapeutics  
Prague  
Czech Republic  
Federation of European Cancer Societies (FECs)  
Brussels, Belgium  
Ph: +32 2 775 0201  
Fax: +32 2 775 0200  
Email: EKAN2006@feacs.be  
Web: http://www.fecbs.be

29-Dec  
13th Congress of the European Society of Surgical Oncology (ESSO 2006)  
Venice  
Italy  
ESSO 2006 Conference secretariat  
– Federation of European Cancer Societies (FECs)  
Brussels, Belgium  
Ph: +32 2 775 0205  
Fax: +32 2 775 0200  
Email: ESSO2006@feacs.be  
Web: http://www.fecbs.be
THE CANCER COUNCIL AUSTRALIA

The Cancer Council Australia is the peak national cancer control organisation. Its members are the leading state and territory cancer councils, working together to undertake and fund cancer research, prevent and control cancer and provide information and support for people affected by cancer.

MEMBERS
The Cancer Council ACT
The Cancer Council New South Wales
The Cancer Council Northern Territory
The Cancer Council South Australia
The Cancer Council Tasmania
The Cancer Council Victoria
The Cancer Council Western Australia
Queensland Cancer Fund

AFFILIATED ORGANISATIONS
Australasian Association of Cancer Registries
Clinical Oncological Society of Australia Inc
Palliative Care Australia

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CLINICAL ONCOLOGICAL SOCIETY OF AUSTRALIA INC

The Clinical Oncological Society of Australia (COSA) is a multidisciplinary society for health professionals working in cancer research or the treatment, rehabilitation or palliation of cancer patients.

It conducts an annual scientific meeting, seminars and educational activities related to current cancer issues. COSA is affiliated with The Cancer Council Australia.

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MEMBERSHIP
Further information about COSA and membership applications are available from: www.cosa.org.au or cosa@cancer.org.au

Membership fees for 2006
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