Welcome to this Day in Review for Thursday 17th November of the 2016 Clinical Oncology Society of Australia’s (COSA’s) 43rd Annual Scientific Meeting.

COSA’s partnership with the ANZBCTG has helped ensure a vibrant program focussed on breast cancer. The Program Committee worked hard to ensure we developed the broad range of multidisciplinary sessions that the COSA membership has come to appreciate at our conference.

Whether you attended the ASM yourself or have enjoyed reading these reviews, I hope you will agree it has been an excellent event. On behalf of the Program Committee I would like to express our appreciation to the numerous international and national experts for their participation and support in ensuring a vibrant and educational program.

I hope you find this Day in Review stimulating!

Professor Fran Boyle AM
Joint Convenor, 2016 COSA and ANZBCTG ASM

Regional Health Care Group breakfast session: Scalp cooling: Why it’s cool and how to keep your cool

Chairperson: Fran Boyle, Mater Private Hospital, Sydney

Speakers: Vicki Durston - Breast Cancer Services Coordinator, Cabrini Health, Melbourne; Mandy O’Reilly, Patient Support and Education Officer

Panelists: Gina Chant - Cancer Nurse Specialist; Patricia Ritchie Centre - Mater Private Hospital, Sydney

Summary: This breakfast session addressed the latest evidence regarding scalp cooling and the work being undertaken by the CHILL group (www.scalpcooling.org). It discussed why scalp cooling should be available not only for women undergoing breast cancer chemotherapy but also for other cancer types, especially prostate.

A key focus was patient management throughout chair-time while offering scalp cooling. The session discussed practical tips for maximising hair retention with the latest cap innovation and information on cooling times to optimise hair retention. The session also covered the important and emerging role hairdressers can play in helping patients manage their hair during treatment.

The session concluded with a panel discussion on scalp cooling experiences with questions from the floor.

Session: 7.00 – 8.45am, Thursday 17th November 2016

Comment: Since 2013, when the first results of the Australian scalp cooling experience were presented at the COSA ASM, there has been a steady increase in interest for providing this form of supportive care.

Key barriers include the need for additional chair time and the necessity for oncologists and nurses to work together on patient selection and support. Suitable regimens in the breast cancer population include single agent taxanes and combinations with cyclophosphamide and/or trastuzumab. The results with anthracyclines are less satisfactory, however regrowth appears faster and patients may still be satisfied. Key to effectiveness is scalp temperature and cap fit, particularly on the crown. Hair care during treatment is vital and dyeing and styling are still possible if undertaken cautiously. Video resources for patients and hairdressers can be found at mns.org.au in the cancer care section. International research efforts are focussed on developing better measures of hair loss and its impact on patient quality of life. Philanthropic funding for devices has generally been easy to attract as donors appreciate the tangible immediate benefits for patients. It is hoped that scalp cooling will soon become standard of care in all Australian hospitals.

Commentary by Prof Fran Boyle, Prof of Medical Oncology University of Sydney, and Director Patricia Ritchie Centre Mater Hospital North Sydney.
COSA Breakfast session: Reflection & writing in medicine: Why it matters, how to write & where to publish

Speaker: Ranjana Srivastava

Summary: Dr. Ranjana Srivastava, oncologist, award-winning author and columnist for The Guardian, explored the role of reflection and writing in medicine and its importance in improving the self and the doctor-patient relationship. As she reflected upon her own journey, she related the satisfactions and the challenges of writing and discussed some of the pitfalls and ethical dilemmas of writing about patients and doctors. Based on her experiences in print, radio and television, she emphasised the value of demystifying medicine to the public and provided tips on doing so while maintaining a busy professional career.

Session: 7:00 – 8.45am, Thursday 17th November 2016

Comment: Always a skilled writer, Ranjana shared the story of her life as a writer with not a PowerPoint in sight. A writer since childhood, writing for the joy of it not just for publication, she highlighted the opportunity and privilege the healthcare profession has in sharing their stories through writing. She offered important tips for aspiring writers including the need to have a clear message, integrity, courage to be vulnerable and of course good editing skills. The audience was left touched, inspired and wanting more.

Commentary by Prof Bogda Koczwar, Senior staff specialist in Medical Oncology, Flinders Centre for Innovation in Cancer and National Breast Cancer Foundation Practitioner Fellow.

Concurrent session: Coming of age: Hot topics in senior oncology

Chair: Jane Phillips

Breast cancer in seniors

Speaker: Jasotha Sanmugarajah

Summary: More than half of all cancers are diagnosed in patients over 65 years. An average 65 year old patient has an anticipated life expectancy of 20 years. About 25% of breast cancer occurs in patients over 70 years. This presentation discussed the diagnosis, treatment options and challenges of adjuvant treatment, as well as the role of geriatric assessment in senior patients.

Managing menopause in breast cancer

Speaker: Deborah Fenlon

Summary: During menopause, women anticipate an abrupt loss of hormones that heralds sudden changes to how they look and feel, with a loss of status as they feel their physical attraction decline. Breast cancer treatment can accelerate this change, accompanied by troubling and often long-lasting symptoms such as hot flushes and dry vagina. 70% of women have menopausal difficulties after breast cancer, of whom 95% have hot flushes. These can last >5 years in a third of women. 72% of women experiencing hot flushes also record disturbed sleep. Worryingly, in one survey 30% of women said they had considered stopping taking adjuvant hormone therapy because of their hot flushes. It is known that only 50% women adhere to a full 5 years of adjuvant hormone therapy, resulting in a 30% increase in breast cancer mortality. This presentation shared some of the UK current thinking and research around managing menopause in women who have had breast cancer.

Session: 11.00am – 12.30pm, Thursday 17th November 2016

Comment: The overarching theme that emerged from this session was the need to optimise cancer treatment for older people through an interdisciplinary approach and proactive care and management. Ensuring that older women with breast cancer have access to best evidence-based treatment is important in terms of minimising poorer outcomes. Comprehensive geriatric assessment is crucial to identifying the older person’s capacity to complete treatment and to address identified unmet physical, social and psychological needs. Reviewing the older person’s use of prescribed and complementary medicine is also important and can assist in identifying any potentially inappropriate medications. Developing new models of care that integrate geriatric principles into usual cancer care are urgently required.

The final session highlighted the burden of hot flushes experienced by women with breast cancer and highlighted the need to develop new ways of managing this distressing symptom.

Commentary by Professor Jane Phillips, Director, Centre for Cardiovascular and Chronic Care, Faculty of Health, University of Technology Sydney.
Concurrent session: Management of regional node disease: Role of neoadjuvant therapy

Chair: Lizbeth Kenny

Current surgical trials for the management of regional node disease
Speaker: Bruce Mann

Summary: Developments in imaging and early diagnosis, surgical techniques, radiation and medical oncology, and understanding of tumour biology have challenged the simple algorithm of an axillary node dissection for the management of regional node disease for invasive breast cancer. Trials have suggested that less extensive surgery leads to equivalent outcomes, while others suggest that more extensive radiotherapy may have advantages. The most common clinical question facing the breast surgeon is whether to recommend further axillary treatment for a patient with limited disease in the sentinel node. A further question is whether to recommend any axillary surgery in certain low-risk patients. These topics are currently being explored in surgical trials; some of the latest data were reviewed in this presentation.

Regional nodal radiation therapy in early stage breast cancer
Speaker: Sue Pendlebury

Summary: In 2005, the Early Breast Cancer Trials’ Collaborative Group (EBCG) confirmed that radiation therapy (RT) reduces local recurrence and also confers a survival advantage. In 2015, an EORTC trial and the MA.20 study demonstrated advantages for patients who underwent regional nodal irradiation. Both studies addressed the value of the addition of supraclavicular and internal mammary chain (IMC) RT, although neither could assess the independent value of IMC RT. Huang (2008) found that the risk of IMC disease increased with increasing axillary nodal disease and with central and mediastinal tumour location. A population-based cohort study from Denmark has shown an OS benefit of 3.7% when IMC RT is added. This benefit was greatest when the risk of IMC involvement was highest. In contrast, in Z0011, patients with sentinel lymph node positivity were randomised to completion axillary dissection or not; there was no between-group difference in either overall survival or local control at 6.3 years’ follow-up. Hence, indications for regional lymph node RT have become controversial. The addition of regional nodal fields increases treatment complexity. The data for hypofractionation in this setting is less certain and so usually commits patients to longer courses of treatment and increased toxicity that includes pneumonitis, lymphoedema, heart disease and second malignancy.

Regional node recurrence: Challenges for the patient and the doctor
Speaker: John Boyages

Summary: Recurrences in regional nodes following treatment of breast cancer can occur late, particularly for ER-positive tumours. Hellman (1994) stated that breast cancer is probably a spectrum disease and challenged the notion that the disease is simply local (Halstedian hypothesis), or simply metastatic at presentation (Fisher hypothesis) and noted that regional disease may be the only site of metastasis in many patients.

The treatment of regional node recurrence is complex and should be managed by a multidisciplinary team. This presentation described several examples of difficult recurrences that have been treated aggressively with chemotherapy, followed by surgery and then by RT. Treatment of regional node disease can result in long-term remissions and probably “cures” for some patients. Potential undertreatment of the axilla with observation of isolated tumour cells and micrometastases, particularly in patients with mastectomy, may lead to an increased recognition of this problem in the next few years with physical, psychological and potential medico-legal implications.

Session: 11.00am – 12.30pm, Thursday 17th November 2016

Comment: The management of the axilla has become increasingly complex as we try to refine and safely reduce the extent of axillary treatment without compromising either loco-regional or whole body cure in patients with breast cancer.

The conference heard from Bruce Mann, who described progress in surgical trials aimed at reducing the extent of axillary surgery. The supported consensus in women with sentinel node micro-metastases is for no further axillary treatment. For macro-metastatic sentinel node involvement, axillary surgery or radiotherapy provides equivalent control with less morbidity from radiotherapy. Bruce made a plea for enrolment into the POSNOC ANZ 1501 trial. The situation for women treated with upfront chemotherapy is far less clear and concern was expressed from the audience about under treating the axilla in this group of patients.

Sue Pendlebury described the trials which have demonstrated the importance of loco-regional cure and the benefit that regional radiation treatment can bring in women at high risk of regional involvement. There is a direct translation between loco-regional cure with appropriate local treatment and systemic cure. Sue’s message was clear - in women who will benefit from regional radiotherapy, offer this and plan and deliver treatment well and according to guidelines, including the IMC when appropriate.

John Boyages then described the major difficulties in managing regional recurrence both for the patient and for the treating team. Loco-regional recurrence can be extremely morbid for patients and is associated with a poorer survival. Treatment is complex and a curative approach guided by high value anatomical and functional imaging should be offered in the absence of demonstrated systemic relapse.

Management through a committed multidisciplinary team is critical in planning and designing each patient’s treatment plan, using appropriate guidelines. We certainly need to avoid blanket over-treatment of the axilla, but we will serve our women poorly with undertreatment, the worst consequence of which may be uncontrolled loco-regional recurrence.

John reminds us that although modern chemotherapy contributes to loco-regional control, it neither negates not substitutes for excellent loco-regional treatment.

Commentary by Prof Liz Kenny, Senior Radiation Oncologist RBWH and Medical Director Central Integrated Regional Cancer Service, Queensland Health.

Concurrent session: Mammographic density

Chairs: Erik (Rik) Thompson & Susan Fraser

Using mammographic images to predict risk and masking of breast cancer
Speaker: John Hopper

Summary: Information from a mammogram reveals much more than likely existing tumours – that information predicts future tumours (breast cancer), and/or tumours likely to be missed at screening (masking). The challenge is how to get the best predictors (of inherent risk, of interval cancers and of masking) and how to translate this into clinical and population health practice so as to lower the impact of breast cancer. Digital mammography and other screening modalities open new opportunities, especially when combined with sophisticated computer algorithms. This talk highlighted some of the major issues and recent findings. It also considered the feasibility of obtaining measures of risk at a young age that open the door for early life interventions and better screening protocols.

Towards tailored screening: Should breast cancer screening programs routinely measure mammographic density?
Speaker: Jennifer Stone

Summary: The principal goal of breast cancer screening is early detection of disease in asymptomatic women leading to lower treatment costs and an eventual reduction in breast cancer mortality. Whilst population-based mammographic screening provides the best chances of early detection, not all women have an equal opportunity to achieve an earlier diagnosis. Women not only differ in terms of their underlying risk, but also the sensitivity of their mammogram to detect abnormalities. In Australia, most women are screened the same way (every 2 years between ages 50 and 74). A stratified screening program – where women of different categories of risk are recommended different screening intervals or supplemental screening – may be a more efficient and cost-effective way of detecting breast cancer. This presentation reviewed the current evidence to support the implementation of mammographic density and genetic testing into Australian BreastScreen programs.
Breast density change: Towards tailoring of adjuvant endocrine therapy

Speaker: Andrew Redfern

Summary: Despite the estimated 50,000 Australian women currently on adjuvant endocrine therapy, no tools are currently available to assess, either before or during treatment, the likelihood of benefit on these medications beyond the occurrence or otherwise of disease relapse. Mammographic breast density (MBD) has been shown to be a risk factor for initial breast cancer and has also been correlated with local disease relapse. Data showing that MBD frequently falls on anti-oestrogens, particularly tamoxifen, relative to placebo, introduces the possibility that MBD fall on an anti-oestrogen may predict eventual adjuvant efficacy, allowing a change to a more efficacious agent, where lack of MBD change predicts the absence of benefit from the first drug employed. Clinical data were presented that support the use of MBD change as a biomarker of anti-oestrogen efficacy.

Mammographic density in the screening setting

Speaker: Susan Fraser

Summary: In the screening setting, high breast density is responsible for a large percentage of interval cancers. Additional screening modalities can be added to mammography to enhance breast cancer detection in those women with dense breasts. This talk considered what obligations providers face in regard to informing women undergoing routine mammographic screening about their breast density, knowing that it is a significant risk factor for developing breast cancer and may compromise the accuracy of screening. It went on to consider the current situation in Australian state programs and future plans for BreastScreen Australia. Aspects of overseas programs were discussed.

The biology underlying mammographic density and preclinical mouse models to test new therapies

Speaker: Kara Britt

Summary: High mammographic density (HMD) confers a significantly increased risk of breast cancer and is associated with breast cancers of more advanced stages. This research group has examined HMD and low mammographic (LMD) tissue from non-cancer-bearing women in an attempt to determine the pathobiology underlying density. They have developed a mouse biochamber model that facilitates the growth of HMD and LMD tissue in mice and enables the testing of density-modulating therapies. This model has been extended to assess the ability of HMD to drive early-stage cancer growth. Data were presented from investigations into HMD and LMD breast tissue.

Comment: There is clear evidence that mammographic density (MD), when adjusted for age and body mass index, is potentially a stronger risk factor for breast cancer than all genetic risk factors identified in the last two decades. New estimates of this were presented by John Hopper, with the OPERA score, where he predicts improvements can be made in quantifying the risk factors of MD. Timely developments coming at a time when MD is coming to the fore in terms of both predicting risk as well as contributing to so-called interval cancers that arise within a year of a clear mammogram. He has established that overall (percent) MD correlates with masking, measured by a significant increase in interval cancers, whereas the brightest regions are best to predict breast cancer risk. Jennifer Stone contributed work showing the genetic nature of MD in twins, and the modification of MD and risk by tamoxifen. She then presented an alternative method to measure MD without x-rays, which will allow dynamic assessment of MD in younger women and others unsuitable for radiation exposure. This would be useful in many of the studies mentioned, including those presented by Andrew Redfern, a medical oncologist, who summarised published work and work from his own study, confirming that reduction in MD predicted better treatment responses, and looked forward at potential further predictive applications in trials of new drugs. This resonated with the work from Kara Britt, a cancer biologist, who showed data identifying pathobiologic factors that may underpin MD and MD-associated risk, including specific immune cells and collagen organisation patterns. She showed that high MD tissues could promote breast malignancy in a murine biochamber model, which may reflect the known effects of MD on local recurrence rates. Susan Fraser, a GP and breast physician, presented her reflections of MD awareness in the field, and the balancing arguments for providing MD information to women. This triggered robust but again balanced discussion on mammography screening, over diagnosis and over-investigation, the sensitivities on finding the best methods to inform women about their MD status, and the options available to those who are in the higher MD categories. The session reflected a large array of MD studies, ranging from better measuring and understanding MD through to MD applications in tailoring screening and treatment, and the decision processes intrinsic to providing information on MD. Overall, a wide range of avenues under active investigation were presented, and new developments / findings were evident.

Commentary by Prof Erik (Rik) Thompson. Professor in Breast Cancer Research and Associate Director, Institute of Health and Biomedical Innovation, Translational Research Institute, Queensland University of Technology.
KADCYLA FOR 2ND AND LATER LINES OF HER2+ mBC

PBS-reimbursed for 2nd line HER2+ mBC and for eligible grandfathered patients who received HER2-targeted treatment before 1 July 2015.

Please review the complete Product Information before prescribing, available on request from Roche Products Pty Limited (www.roche-australia.com/productinfo/kadcyla).

PBS Information: Section 100 Authority Required for the treatment of HER2-positive breast cancer. Refer to PBS Schedule for full authority information.

KADCYLA® (trastuzumab emtansine, rch). Minimum Product Information. Indications: KADCYLA, as a single agent, is indicated for the treatment of patients with HER2-positive metastatic (Stage IV) breast cancer who previously received trastuzumab and a taxane, separately or in combination. Patients should have either: 1) received prior therapy for metastatic disease, or 2) developed disease recurrence during or within six months of completing adjuvant therapy.

**WARNING:** Do not substitute KADCYLA for or with trastuzumab. In order to prevent medication errors, check the vial labels to ensure the medicine being prepared and administered is KADCYLA (trastuzumab emtansine) and not trastuzumab (HERCEPTIN®).

Dosage and Administration: HER2+ tumour status: IFHC3+ or ISH ratio ≥ 2.0. Recommended dose is 3.6 mg/kg every 3 weeks as an IV infusion (over 90 min). Observe patients during infusion and for at least 90 min following the initial dose. If prior infusions are well tolerated, subsequent infusions may be administered over 30 min and patients observed during the infusion and for at least 30 min following. The infusion rate of KADCYLA should be slowed or interrupted if the patient develops infusion-related symptoms. Discontinue KADCYLA for life threatening infusion reactions. Dose modifications: Management of symptomatic adverse events may require temporary interruption, dose reduction, or treatment discontinuation of KADCYLA as per guidelines provided in full prescribing information (refer to dose modification guidelines for hepatitis, thrombocytopenia and left ventricular cardiac dysfunction). The KADCYLA dose should not be re-administered if a dose reduction is made. Contraindications and Precautions: contraindicated in patients with known hypersensitivity to KADCYLA or any of its excipients. Pulmonary toxicity: interstitial lung disease (ILD) including pneumonitis, some leading to acute respiratory distress syndrome or fatal outcome, have been reported. Permanently discontinue in patients diagnosed with ILD or pneumonitis. Patients with dyspnoea at rest due to complications of advanced malignancy and co-morbidities may be at increased risk of pulmonary events. Hepatotoxicity: hepatotoxicity, liver failure and death have occurred in patients treated with KADCYLA. Monitor hepatic function (serum transaminases and bilirubin) prior to initiation and prior to each KADCYLA dose. Reduce the dose or discontinue as appropriate refer to dose modification guidelines in prescribing information. Serious hepatobiliary disorders, including nodular regenerative hyperplasia (NRH) of the liver and some with fatal outcome due to drug-induced liver injury have been observed. NRH should be considered in all patients with clinical symptoms of portal hypertension and/or cirrhosis-like pattern on liver CT scan but with normal transaminases and no other manifestations of cirrhosis. Permanently discontinue treatment upon diagnosis of NRH. Left ventricular dysfunction: KADCYLA may lead to reductions in LVEF. Symptomatic CHF is a potential risk. Assess LVEF prior to initiation and at regular intervals during treatment (e.g. every 3 months). Monitor and reduce dose or discontinue as appropriate refer to dose modification guidelines in prescribing information. Infusion-related reactions (IRR): treatment is not recommended in patients who permanently discontinued trastuzumab due to an IRR. Treatment should be interrupted in patients with severe IRR and permanently discontinued in the event of a life threatening IRR. Hypersensitivity reactions: observe closely for hypersensitivity reactions, especially during first infusion. Medications to treat serious anaphylactic like reactions, as well as emergency equipment, should be available for immediate use. Thrombocytopenia: bleeding events with a fatal outcome have been observed. Severe cases of haemorrhagic events, including CNS haemorrhage have been reported. Monitor patients with thrombocytopenia and patients on anti-coagulant treatment closely. Platelet counts should be monitored prior to each dose. If platelet count decreases ≥ Grade 3, do not administer KADCYLA until platelet counts recover to Grade 1. Neurotoxicity treatment should be temporarily discontinued in patients experiencing Grade 3 or 4 peripheral neuropathy until symptoms resolve or improve to < Grade 2. Extravasation: the infusion site should be closely monitored for possible subsequent infiltration during administration. Pregnancy Category D: treatment is not recommended for pregnant women. Use effective contraception during treatment, and for at least 7 months after last dose. If a patient becomes pregnant while being treated with KADCYLA or within 7 months following the last dose of KADCYLA, immediately report exposure to the Roche Drug Safety Department by one of the following methods: Email: australia.dng_safety@roche.com; Fax: 02 9971 1401; Mail: Roche Products Pty Limited, c/o Drug Safety, Reply Paid 265, Dee Why NSW 2099. Phone: 02 9454 4444. Additional information will be requested during a KADCYLA-exposed pregnancy and the first year of the infant’s life; this will enable Roche to better understand the safety of KADCYLA and to provide appropriate information to Health Authorities, Healthcare Providers and patients*. Discontinue breastfeeding prior to starting treatment, nursing may begin again 7 months after last dose. Adverse Effects: fatigue, nausea, musculoskeletal pain, haemorrhage, thrombocytopenia, headache, constipation, epistaxis, pyrexia, peripheral neuropathy, diarrhoea, vomiting, cough, arthralgia, abdominal pain, dry mouth, anemia, hypokalaemia, stomatitis, dyspnoea, asthma, urinary tract infection, rash, myalgia, insomnia, chills, eye problems, left ventricular dysfunction, infusion related reaction, hypersensitivity reaction. Date of preparation: 16 December 2014 HER2+ human epidermal growth factor receptor 2-positive: mBC=metastatic breast cancer.


*Please note changes in Product Information
Summary: This systematic review of the literature identified 25 studies published between 2010 and 2015 that examined interventions for cancer patients and those with other conditions returning to work. The aim of this review was to determine the burden of returning to work places on cancer survivors, what predicts success, and what interventions are effective to support return to work. Scant data exist on the effects of factors such as low socioeconomic state or living in rural and remote communities. Few studies have assessed interventions in vulnerable groups. Australian studies have shown that the provision of information and support about return to work is an unmet need.

Financial toxicity and income loss: Can’t pay the copay
Speaker: Louisa G Gordon
Summary: The very high cost of modern cancer treatments is raising the issue of health systems’ and individuals’ capacity to afford these resources. This research group examined the extent and predictors of financial toxicity in cancer survivors and sought to determine the role of income loss through work reductions. Studies consistently showed that adjuvant therapies, more recent diagnosis, younger age and low income was significantly associated with increased financial hardship, increased treatment non-adherence and poorer quality of life.

Facilitating quality employment for cancer survivors – opportunities and challenges
Speaker: Vikki Knott
Summary: This presentation pooled results from a series of qualitative studies conducted since 2012 in South Australia investigating issues surrounding return to work (RTW) and cancer, in order to inform recommendations to facilitate quality RTW outcomes for cancer survivors. Discrimination and stigma about cancer requires ongoing education in workplaces, as well as in the wider community.

Workaftercancer.com.au – an online resource to support cancer survivors
Speaker: Bogda Koczvara
Summary: This talk described the development of a tailored electronic resource to support RTW after cancer that provides information for people with cancer, health care providers and employers.

Comment: While it is now commonly recognised that work provides many benefits including financial, practical and social, cancer patients and survivors have a higher likelihood of unemployment, underemployment and poor quality work as a result of cancer and its treatment. Unemployment has also been recognised as a major driver of financial hardship after cancer. Current strategies to support cancer patients and survivors with regards to work after cancer are limited. A new website, workaftercancer.com.au, aims to provide information and resources for patients, healthcare providers and employers regarding work after cancer. While this is a welcome first step in addressing this important issue, more research is needed in identifying optimal strategies to support work after cancer.

Commentary by Prof Bogda Koczvara, Senior staff specialist in Medical Oncology, Flinders Centre for Innovation in Cancer and National Breast Cancer Foundation Practitioner Fellow.