Tri-Society Head & Neck Oncology Meeting 2014

Thursday 14 - Saturday 16 August 2014

Darwin Convention Centre, Darwin, Northern Territory, Australia

Final Program

Australian and New Zealand Head & Neck Cancer Society
Hong Kong Head & Neck Society
Head & Neck Cancer Society, Singapore

www.anzhncs.org

Platinum Sponsor:

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Welcome Letter

Dear Colleagues

On behalf of the Organising Committee, it is my pleasure to warmly welcome you to Darwin for the Tri-Society Head & Neck Oncology Meeting 2014 jointly organised by the Australian and New Zealand Head & Neck Cancer Society, Hong Kong Head & Neck Society and Head & Neck Cancer Society, Singapore.

We especially welcome our International Keynote Speakers: Professor Anil D'Cruz, Ms Amanda Dear, Professor Arlene Forastiere, and Associate Professor Harry Quon. We are certain you will enjoy your time in Darwin and thank you for your valuable contribution to our joint meeting.

We welcome also our other invited guest speakers from around Australia and overseas, and thank you for your participation.

We are very pleased to have Dr Leonard Notaras, Chief Executive, Department of Health, Northern Territory Government present The Chris O'Brien Oration.

We would like to clearly acknowledge the support of Sponsors and Exhibitors whose continuous commitment and involvement is pivotal to the ongoing success of our Scientific Meetings. We especially thank our Platinum Sponsor: Merck Serono; Silver Sponsor: Novartis Pharmaceuticals and our Bronze Sponsors: Elekta and Arthrocare. We also thank all the other companies participating in the industry exhibition.

We encourage delegates to meet with Exhibitors during program breaks and to take the opportunity to view the scientific posters in the exhibition area.

With the Darwin Festival coinciding with the meeting, there is much to do and see in Darwin. We trust that you will not only enjoy a valuable professional educational experience at the Tri-Society Head & Neck Oncology Meeting, but also find time to experience the rich culture Darwin offers.

Yours sincerely,

Associate Professor Suren Krishnan OAM FRACS
Convener, Tri-Society Head & Neck Oncology Meeting 2014

Contents

2014 Organising Committee

Convener	Associate Professor Suren Krishnan, Surgeon, Adelaide
Organising Committee	Mr Jimmy Chan, Surgeon, Hong Kong
	Dr N Gopalakrishna Iyer, Surgeon, Singapore
	Dr Martin Borg, Radiation Oncologist, Adelaide
	Ms Robyn Burnett, Speech Pathologist, Adelaide
	Dr J-C Hodge, Surgeon, Adelaide
	Mr Gus Hunter, Surgeon, Darwin
	Mr Hemi Patel, Surgeon, Darwin
	Mr Guy Rees, Surgeon, Adelaide
	Dr Brian Stein, Medical Oncologist, Adelaide
	Mr Michael Switajewski, Surgeon, Adelaide
	Mr Mahiban Thomas, Surgeon, Darwin
	Dr Veronika van Dijck, Surgeon, Auckland

ANZHNCS Executive Committee

President	Dr Janelle Heywood, Radiation Oncologist, Perth
Vice President	Dr Kerwin Shannon, Surgeon, Sydney
Secretary	Dr Martin Batstone, Surgeon, Brisbane
Treasurer	Dr Julia Maclean, Speech Pathologist, Sydney
Executives	Dr John Chaplin, Surgeon, Auckland, New Zealand
	Dr Michael Collins, Radiology Oncologist, Douglas, Townsville
	Dr Tim Iseli, Surgeon, Melbourne
	Dr Lyndell Kelly, Radiation Oncologist, Dunedin, New Zealand
	Dr Richard Lewis, Surgeon, Perth
	Dr Nicholas Marshall, Plastic Surgeon, Adelaide
	Associate Professor Ben Panizza, Surgeon, Brisbane
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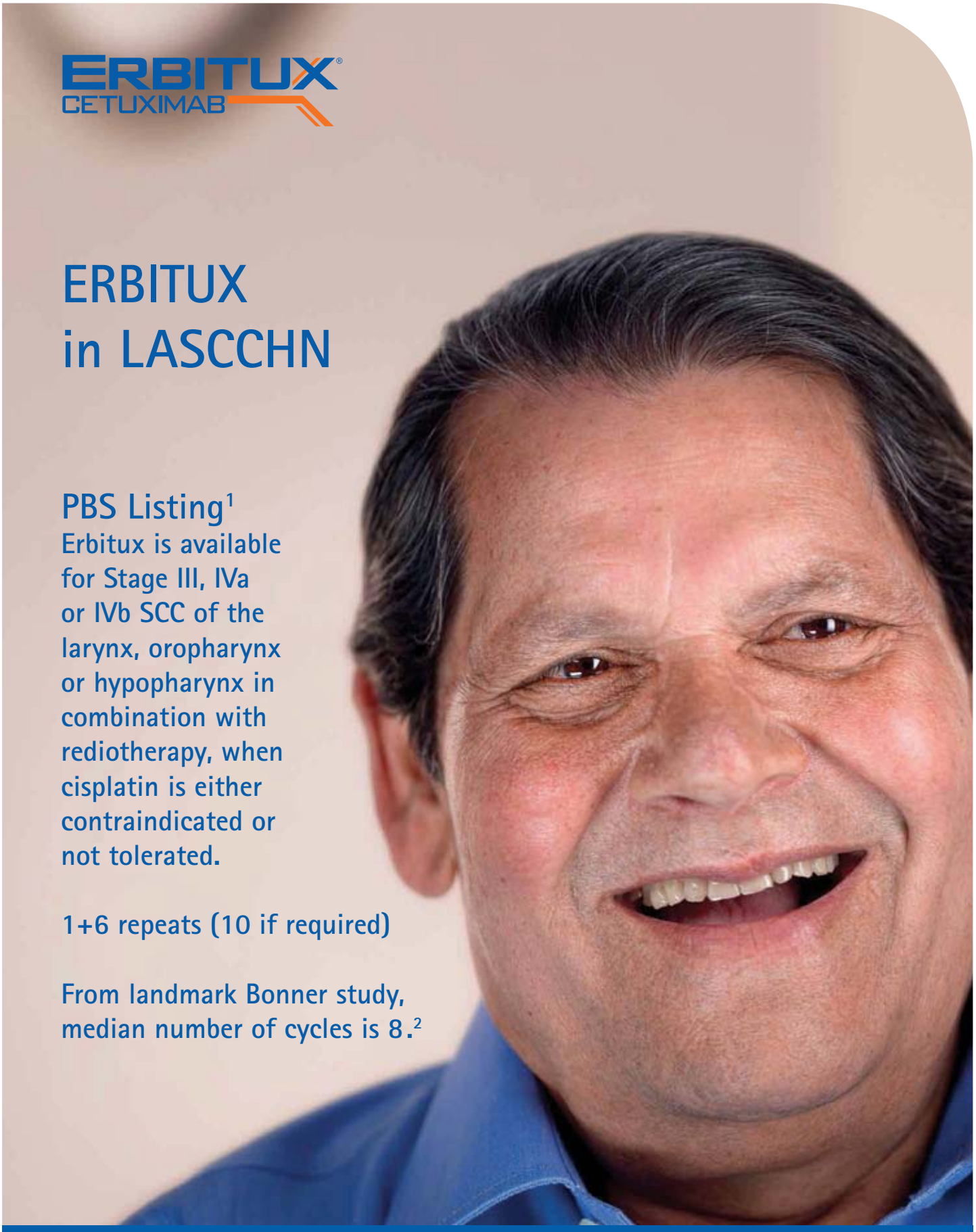

PBS Listing[1]

Erbitux is available for Stage III, IVa or IVb SCC of the larynx, oropharynx or hypopharynx in combination with rediotherapy, when cisplatin is either contraindicated or not tolerated.

1+6 repeats (10 if required)

From landmark Bonner study, median number of cycles is 8.[2]

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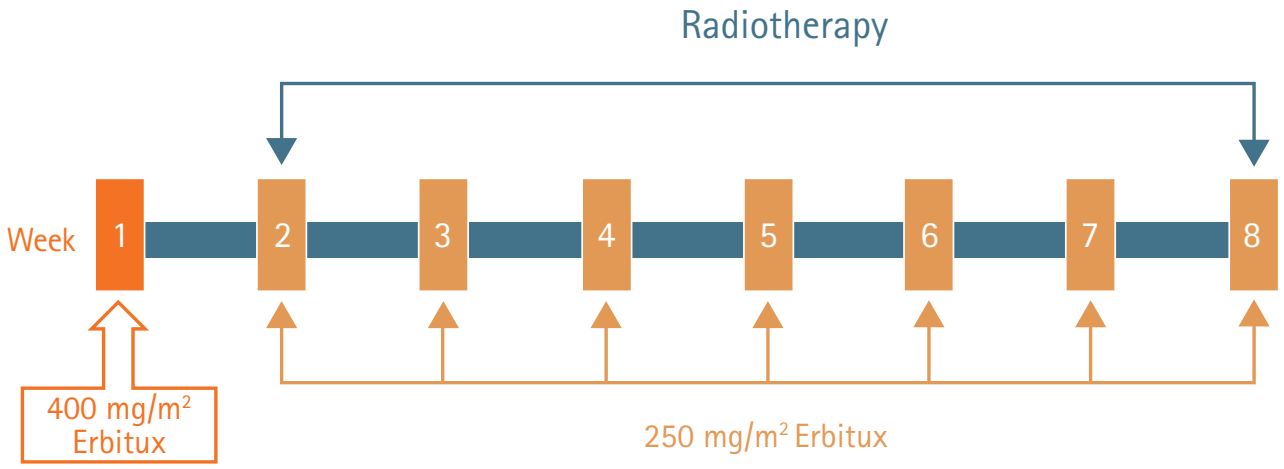
This is what tumour shrinkage looks like

Locally advanced SCCHN dosing regimen: Erbitux + radiotherapy[3]



Erbitux 250mg/m² (except the initial dose which is 400mg/m²). Radiotherapy (70-77 Gy).

PBS Information: Authority required. Refer to PBS Schedule for full authority information.

Please review approved Product Information before prescribing. Product Information is available upon request from Merck Serono or via the TGA website https://www.ebs.tga.gov.au

Erbitux® Minimum PI: Indications: For the treatment of patients with epidermal growth factor receptor (EGFR)-expressing, *RAS* wild-type metastatic colorectal cancer (mCRC)*: 1) in combination with: infusional 5-fluorouracil/folinic acid plus irinotecan*, irinotecan in patients who are refractory to first-line chemotherapy* or in first-line with FOLFOX*, 2) as a single agent in patients who have failed or are intolerant to oxaliplatin-based therapy and irinotecan-based therapy. Also for the treatment of patients with squamous cell cancer of the head and neck (SCCHN): 1) in combination with radiation therapy for locally advanced disease, 2) in combination with platinum-based chemotherapy for recurrent and/or metastatic disease. **Contraindications:** Known severe (grade 3 or 4) hypersensitivity reaction to cetuximab, mutant or unknown *RAS* mCRC status*. Contraindications for concomitant therapy must be considered. **Precautions:** Infusion-related reactions; respiratory disorders; skin reactions; electrolyte disturbances; cardiovascular disorders; eye disorders; mCRC patients with *RAS* mutations or for whom *RAS* status is unknown*; combination with capecitabine + irinotecan*; pregnancy Category D; no breast-feeding. **Interactions:** Increased incidence of specific adverse reactions in combination with chemo- or radiotherapy (see below). **Adverse effects:** *Very Common:* skin reactions, hypomagnesaemia, mild to moderate infusion-related reactions, mucositis, increased liver enzyme levels. *Common:* headache, conjunctivitis, diarrhoea, nausea, vomiting, dehydration, hypocalcaemia, anorexia, severe infusion-related reactions, fatigue. The risk of adverse events due to chemotherapy or radiotherapy may be higher when combined with Erbitux: severe leukopenia/neutropenia, infections and infectious complications (with platinum-based agents); cardiac ischaemia, hand-foot syndrome (with fluoropyrimidines); severe diarrhoea (with capecitabine and oxaliplatin); hypokalaemia (with irinotecan or platinum/fluorouracil); radiation-related effects (with radiotherapy). **Dosage:** Initial dose 400 mg/m²; subsequent weekly doses 250 mg/m². Administer intravenously over 120 min for initial dose; 60 min for subsequent doses. Premedicate with antihistamine and corticosteroid for first infusion; recommended for subsequent infusions. Monitor closely during and for at least 1 hour after the end of the infusion. Do not administer chemotherapy agents until at least 1 hour after cetuximab infusion. For mCRC: *RAS* status must be determined prior to first infusion*; in combination with chemotherapy or as monotherapy, continue until disease progression. For locally advanced SCCHN: start one week prior to and then use concomitantly with radiation therapy. For recurrent/metastatic SCCHN: in combination with platinum-based chemotherapy agent then as monotherapy until disease progression. Based on PI dated 3 April 2014.

* Please note change in Product Information

References: 1. http://www.pbs.gov.au/medicine/item/4312Y-4436L-4731B-7223E-7240C-7242E-7273T. **2.** Bonner J A, *et al.* N Engl J Med 2006; 354(6): 567-78. **3.** Erbitux Approved Product Information. Date of last amendment: 3 April 2014.

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ABN: 72 006 900 830. PA: ONC-JUN-14-AU-0005. July 2014.

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Keynote Speaker Profiles

Ms Amanda Dear

Amanda Dear RGN, Dip H.S., BSc, is a Head and Neck Clinical Nurse Specialist at the Northern Head and Neck Cancer Unit, based at the Freeman Hospital, Newcastle upon Tyne, England; this post is supported by Macmillan Cancer Support.

Amanda has experience of working in the oncology setting for over 30 years. On qualifying Amanda took up a Staff Nurse position in Oncology at the Northern Centre for Cancer Care in Newcastle, progressing to Ward Sister on a general oncology ward in 1985.

Amanda became a Head and Neck Macmillan Nurse Specialist in 1998, and was instrumental in setting up multi-disciplinary working at this centre, which was one of the first centres to do so in the UK. The Northern Head and Neck Cancer Unit is now made up of a large multi-disciplinary team having a throughput of approximately 200 new patients per year with cancers of the upper aerodigestive tract. The Unit offers the full spectrum of head and neck surgical and oncologic care, including Trans Oral Robotic Surgery, Intensity Modulated Radiotherapy and Tomotherapy. Amanda and her team provide ongoing support to patients from diagnosis throughout their cancer journey providing nurse led on treatment and post radiotherapy treatment review. Amanda is keen to continually improve practice having developed telephone clinics to aid Holistic Assessment and post-operative discharge follow up. Amanda has been instrumental in driving forward an awareness campaign which increases in size and diversity year on year. Amanda also runs a 'Let's Face It' support group as part of a survivorship programme for patients.

In her spare time Amanda manages two holiday homes on the Northumberland Coast and three boys including her husband!

Arlene A. Forastiere, MD

Dr Arlene Forastiere is Professor of Oncology at the Johns Hopkins University School of Medicine and Sidney Kimmel Comprehensive Cancer Center and since 2009, the Senior Vice President, Medical Affairs for eviti, Inc., an independent company providing web-based decision-support tools to improve quality of care and outcomes in cancer. She is internationally recognized for her clinical research contributions that have established standards of care for the management of head & neck and esophageal cancers. Over the course of her career, she has held numerous leadership positions including Chair of the National Comprehensive Cancer Network guidelines panel for head and neck cancer, Chair of the National Cancer Institute Steering Committee for Head and Neck Clinical Trials Research, and Chair of the head and neck committees of the Eastern Cooperative Oncology Group and the Radiation Therapy Oncology Group.

Dr Forastiere is a member of the American Head and Neck Society, a founding member of the International Federation of Head and Neck Oncologic Societies (IFHNOS) and faculty of the inaugural IFHNOS global teaching program in 2008. She is a member of the American Society of Clinical Oncology (ASCO) serving on the Board of Directors and was Chair of the Public Issues and Education Committees. She has been honored with the ASCO Statesman award for contributions to research, education and patient care. She was an Associate Editor for the Journal of Clinical Oncology from 1999-2010.

Dr Forastiere is a graduate of Trinity College, Hartford, CT and New York Medical College. She completed a fellowship in Hematology-Oncology at Memorial Sloan-Kettering Cancer Center, New York, NY and then held a research position at the Baltimore Cancer Research Program of the National Cancer Institute. This was followed by a faculty appointment at the University of Michigan Medical School, Ann Arbor, MI. She joined the faculty of Johns Hopkins in 1988. Dr Forastiere has over 200 publications in peer-review journals. She is a Diplomate of the American Board of Internal Medicine with certification in Medical Oncology.

Anil K. D'Cruz MS, DNB, FRCS

Dr D'Cruz is Director at the Tata Memorial Hospital, Mumbai, India as well as Professor & Surgeon, Department of Head & Neck Surgery. His department treats over 8000 new head and neck cases and performs over 3000 major surgeries annually. In recognition of his professional standing in the field of surgery and oncology he was awarded the Honorary FRCS from the Royal College of Surgeons London.

Dr D'Cruz is a distinguished leader in the field of oncology. He is an elected member on the Board of Directors of the Union for International Cancer Control (UICC), Geneva. He is currently also on the board of Governors of the Foundation of Head Neck Oncology India. He has served as President of Foundation of Head & Neck Oncology, India, President of the Asian Society of Head Neck Oncology, Scientific Committee of the American Society of Head Neck Cancers & Executive Committee of the Indian Society of Surgical Oncology. He has been a member of the Task force for Chronic Diseases at the department of Biotechnology, Ministry of Science and Technology, Government of India and at present is on the task force for Cancer Guidelines at the Indian Council of Medical Research. He is also on the advisory board of the All India Institute of Medical Sciences, Rishikesh, National Institute of Biomedical Genomics, West Bengal, Prince Aly Khan Hospital Mumbai and Kamala Nehru Cancer hospital Allahabad. He has been Secretary of Action Council for Tobacco committed to the cause of tobacco eradication.

Dr D'Cruz is actively involved in research in head and neck cancers and plays a pivotal role in nearly 50 trials to date. He has been Global Principal Investigator as well on the Steering Committee of a number of multicentric, multinational trials. These include Phase I studies and new treatments using photodynamic therapy in the treatment of head and neck cancers, as well as targeted therapy in the concurrent, adjuvant and palliative settings. Findings of these trials have been published in reputed peer reviewed international journals. He is currently leading a large prospective, randomized, controlled trial to evaluate the role of elective neck dissection in the management of early oral cancers. This is the largest trial of its kind globally that has recruited over 550 patients and will soon answer an unanswered question in head and neck oncology. He worked on research in the use of curcumin in head and neck cancer patients for which he received funding from the Government of India's Ministry of Science and Technology, Department of Biotechnology. He is a part of a studies of the Cancer Genome Consortium & Proteomics in oral cancers. Results of some of this work have been filed for a patent.

Dr D'Cruz has more than 150 peer-reviewed publications and chapters to his name and is also an editor for a two volume text book on Head and Neck Surgery. He is Associate Editor of Head Neck Oncology Journal and member of the Editorial Board of many reputed national and international journals - Head & Neck, Oral Oncology, International Journal of Surgery, International Journal of Surgical Oncology, Indian Journal of Surgical Oncology and South Asian Journal of Cancer.

Associate Professor Harry Quon

Dr Harry Quon is an Associate Professor in the Department of Radiation Oncology and Molecular Radiation Sciences with secondary appointments in the Department(s) of Otolaryngology-Head and Neck Surgery and Oncology at the Johns Hopkins University in the Sidney Kimmel Comprehensive Cancer Center in Baltimore, MD. His training included residency training at the Princess Margaret Hospital in Toronto, CA followed by a head and neck radiotherapy fellowship also at the Princess Margaret Hospital and a brachytherapy fellowship with Dr Louis B. Harrison at Beth Israel Medical Center in New York, NY. While in New York, Dr Quon completed further training in the Albert Einstein NIH K30 sponsored Masters in Clinical Research Methodology. He went on to become the Director of Head and Neck Radiotherapy at the University of Pennsylvania and currently is the Co-Director of the Johns Hopkins Multidisciplinary Head and Neck Program.

Dr Quon's current research focus has been the study of radiotherapy treatment toxicities in the head and neck. This interest has several focuses including the development of alternative strategies for the treatment of human papillomavirus-associated head and neck carcinomas including the role of transoral surgery with risk adapted adjuvant therapies and is the radiation oncology PI on ECOG 3311 a randomized phase II study which is reducing the dose of adjuvant postoperative radiotherapy. The incorporation of transoral surgery is an example of incorporating alternative strategies with potentially non-overlapping toxicities to reduce current radiotherapy toxicities. Alternative strategies which Dr Quon is further investigating include the use of photodynamic therapy and the study of the impact of radiotherapy on immune regulation to guide the future use of immunomodulation. Dr Quon also has an active research focus studying the impact of radiotherapy on swallow function including developing strategies to improve the measurement of this injury and strategies to reduce this injury.

Major Sponsors

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Exhibitors

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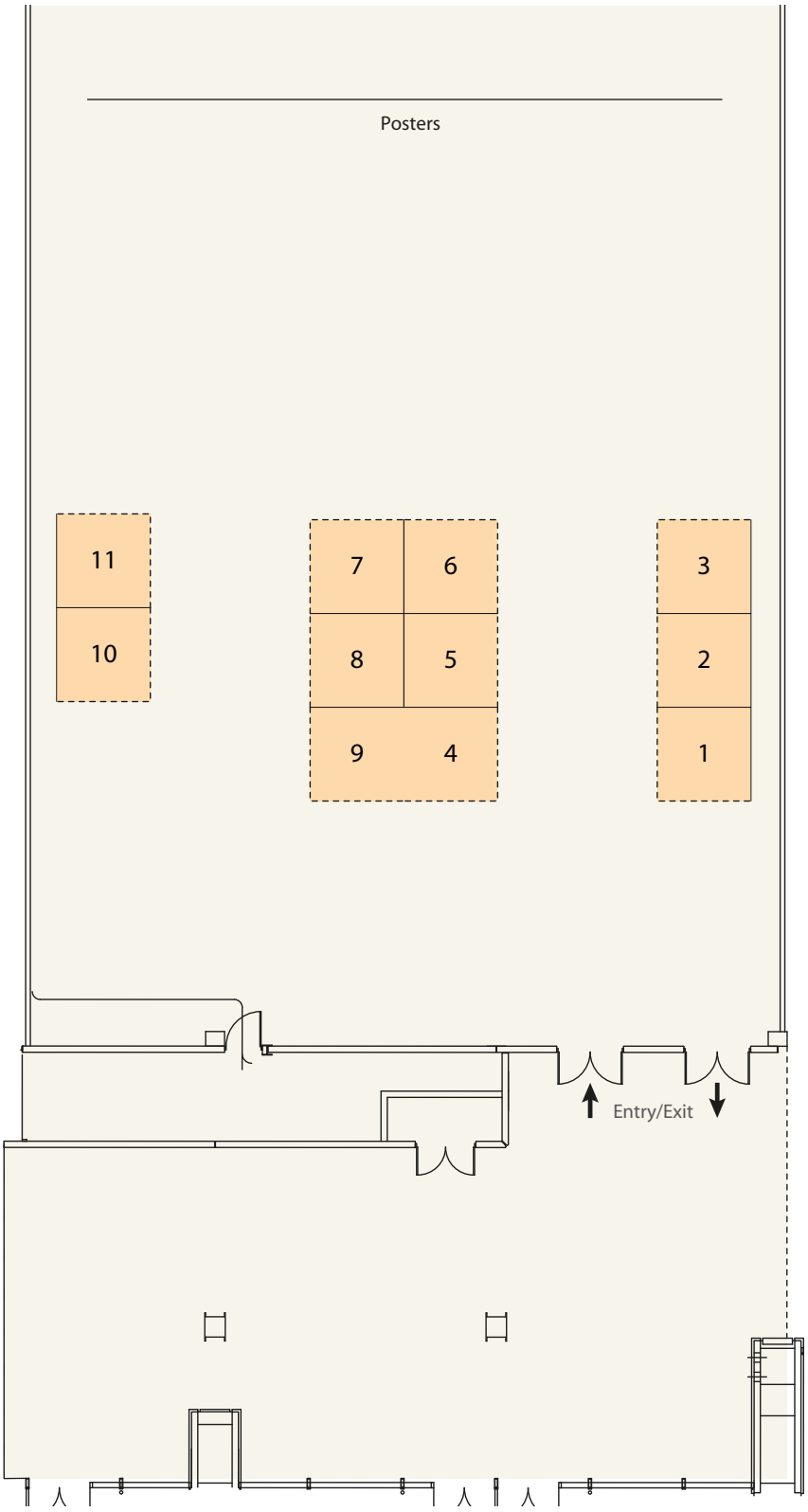
Teleflex Medical Australia
Varian Medical Systems

Industry Exhibition

Hall 1, Darwin Convention Centre

Exhibitors:

10	Arthrocare
2	DePuy Synthes
6	Device Technologies
5	Elekta
11	Experien Insurance Services
1	Medtronic
9,4	Merck Serono
3	Olympus
8	Teleflex Medical Australia
7	Varian Medical Systems



General Information

Registration Information

Full registration includes: all scientific sessions, final program, lunch, morning and afternoon tea on nominated days, entry to the industry exhibition, Welcome Reception and Meeting Dinner.

One day registration includes: all scientific sessions, final program, lunch, morning and afternoon tea on nominated days where applicable and entry to the industry exhibition. Tickets to the Welcome Reception and Meeting Dinner are an additional cost.

Registration Desk

The registration desk is located on the ground floor of the Darwin Convention Centre, opening hours are:

Thursday 14 August 2014:	7.30am – 5.00pm
Friday 15 August 2014:	7.30am – 5.00pm
Saturday 16 August 2014:	8.00am – 1.30pm

Car Parking

Parking is available at the Centre Basement Car Park, Darwin Convention Centre. Rates per car are $5.00 per day or part thereof.

Speakers' Support

Presenters are requested to submit their PowerPoint presentations to the speakers' support desk at least one hour prior to the commencement of the session in which they are speaking. The speaker's support desk is located outside Auditorium 2 (ground level). A technician will be available at the speaker's support desk one hour prior to the commencement of the first session and during the catering breaks from Thursday 14 August to Saturday 16 August 2014.

Dress

Scientific Sessions:	Smart Casual
Welcome Reception:	Smart Casual
Meeting Dinner:	Smart Casual

Business Meetings

ANZHNCS Executive Committee Meeting
Wednesday 13 August 2014, 5.00pm - 7.00pm
Meeting Room 1, Darwin Convention Centre
(Executive Members only)

ANZHNCS Foundation Meeting
Thursday 14 August 2014, 12.30pm – 1.30pm
Meeting Room 3, Darwin Convention Centre
(Foundation Members Only)

ANZHNCS Annual General Meeting
Friday 15 August 2014, 12.30pm – 1.30pm
Auditorium 2, Darwin Convention Centre
(ANZHNCS Members Only)

CME/CPD Points

This educational activity has been approved in the Royal Australasian College of Surgeons CPD Program. Fellows who participate can claim one point per hour (maximum 16 points) in Category 4: Maintenance of Knowledge and Skill towards 2014 CPD total.

Certificate of Attendance

A certificate of attendance will be included in the delegate Meeting materials and can be collected from the registration desk upon arrival at the Meeting.

Intention to Photograph

Delegates are advised that photographs may be taken during the Meeting and reproduced.

Official Functions

Welcome Reception
Thursday 14 August 2014
6.00pm – 8.00pm
Crocosaurus Cove
58 Mitchell Street
(Corner of Mitchell & Peel Street)
Darwin City

Delegates to make their own way to Crocosaurus Cove.

This function includes canapés and beverages. Guests will have the opportunity to view the reptiles and have a photo taken with a baby crocodile.

Cost: Included for full registration, bookings essential
Additional tickets $88.00 inc GST

Tickets Essential: If you have a full registration and would like to attend or if you would like to purchase an additional ticket, please enquire with the staff at the registration desk regarding availability.

Meeting Dinner
Friday 15 August 2014
7.00pm – 10.30pm
Pee Wee's at the Point
Alec Fong Lim Drive
East Point Reserve, Darwin

Coach Departure Times:
6.30pm – Adina Apartments and Vibe Hotel – Please meet in the lobby
6.30pm – Hilton Darwin – Please meet in the lobby
6.30pm – Palms City Resort – Please meet at reception
6.40pm – Mantra on the Esplanade – Please meet at reception
6.40pm – Travelodge Mirambeena Resort – Please meet at reception

If you are not staying at the above properties and would like to join the coach transfer, please make your way to the closest hotel by the scheduled departure time.

Return Coach Transfers:
Coaches return to the above properties departing Pee Wee's at the Point from 10.30pm. Please note coaches will return to the Meeting hotels only. If you are staying elsewhere you may join a transfer back to the closest hotel to your accommodation.

Located inside the East Point Nature Reserve and nestled amongst tropical palms, Pee Wee's offers sweeping sea views and a unique dining experience. The evening includes a three course sit down dinner and entertainment.

Cost: Included for full registration, bookings essential
Additional tickets $155.00 inc GST

Tickets Essential: If you have a full registration and would like to attend or if you would like to purchase an additional ticket, please enquire with the staff at the registration desk regarding availability.

Dietary Requirements

Please note that the venue is responsible for all catering at the Meeting and RACS does not inspect or control food preparation areas or attempt to monitor ingredients used. You should contact the venue directly for all special dietary requirements during the event, irrespective of whether details have been provided to RACS. If RACS requests information about your dietary requirements for a specific event RACS will endeavour to forward the information provided to the venue (time permitting). RACS will not retain information provided for future events, so you must verify your requirements for each event. Even if information is requested or provided, RACS takes no responsibility for ensuring that the venue acknowledges your dietary requirements or that these requirements can be met. In all cases you must verify for yourself that your dietary requirements have been met and RACS refutes any and all liability for any failure to adequately provide your special dietary requirements or any consequential damage resulting from such failure.

Chris O'Brien

Christopher O'Brien, A.O. graduated in Medicine from the University of Sydney in 1976 and then completed his residency and surgical training at Royal Prince Alfred Hospital (RPAH). He then completed clinical fellowships in head and neck surgery and oncology in England and the United States and, in 1987, returned to Australia, where he joined the staff of RPAH as a consultant head and neck surgeon. There he contributed to the expansion of the clinical service, making it one of the largest in the country. He also established a comprehensive head and neck database, a basic research program and an international clinical fellowship program under the umbrella of the Sydney Head and Neck Cancer Institute, which he founded in 2002.

He had authored more than 100 scientific papers and 17 book chapters and had been honoured with invitations to many countries and institutions as a Visiting Professor and guest lecturer, including invitations to give numerous prestigious named lectures: the Hayes Martin Lecture in Washington in 2004, the Eugene Myers International Lecture in Los Angeles in 2005, the Inaugural Jatin P. Shah Lecture in Prague in 2006, and the Semon Lecture in London in 2006. He was awarded Honorary Fellowship of the Royal College of Surgeons of England in recognition of his contribution to the training of young British Surgeons.

In 1988, Profession O'Brien founded the Australian and New Zealand Head and Neck Society, a multidisciplinary society comprising surgeons of all disciplines, radiation and medical oncologists, and allied health professionals. He was President of the Society in 2004. The Society is continuing to flourish and held its 15th Annual Scientific Meeting in 2013. Professor O'Brien was also a member of the American Head and Neck Society and was invited to join the Council in 2005.

In 2003, Professor O'Brien became Director of the Sydney Cancer Centre, based at Royal Prince Alfred Hospital and the University of Sydney, whilst maintaining all of his clinical, teaching, and research responsibilities. He had developed a proposal to transform the Sydney Cancer Centre into a $150 million world class comprehensive cancer centre, and that project is moving forward with great momentum, named as The Chris O'Brien Lifehouse Centre at Royal Prince Alfred Hospital (RPA).

Unfortunately, in November 2006, Professor O'Brien was diagnosed with a malignant brain tumour and despite receiving treatment, passed away in June 2009. Christopher O'Brien was awarded Officer of the Order of Australia posthumously "For continued service to medicine and to the community through advocacy and fundraising roles for the development of integrated care and clinical research facilities for people with cancer, particularly the establishment of the Lifehouse Centre at Royal Prince Alfred Hospital".

Chris O'Brien Oration

In 2010, the Executive of the Australian and New Zealand Head and Neck Cancer Society (ANZHNCS) decided to dedicate the first lecture of each Annual Scientific Meeting as the Chris O'Brien Oration in celebration of his achievements.

2014 ANZHNCS - Chris O'Brien Orator

Dr Leonard Notaras, Chief Executive, Department of Health, Northern Territory Government

2014 Chris O'Brien Award Recipient

Associate Professor Michael E. Kupferman (USA)

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KEYNOTE TOPICS:

- Larynx cancer and its place in history
- The patient as a variable in defining outcome
- Clinical trials and larynx cancer
- Pre-malignant lesions
- Staging and surgical anatomy
- Voice assessment methods
- Molecular biology and translational research
- Public health issues around the world including the status of anti-smoking campaigns in China
- Patient support structures
- Databases
- Larynx cancer in the developing world
- Non-open laryngeal surgery including robots
- Voice restoration/preservation
- Reconstruction
- Radiotherapy-where to for the future
- Poor prognostic factors for survival and function
- Chemotherapy-good to use alone?
- Swallowing assessment/rehabilitation
- Transplant
- Survivorship

Further information: T: +61 3 9249 1273 E: wclc2015@surgeons.org

AUSTRALIAN AND NEW ZEALAND HEAD & NECK CANCER SOCIETY





PRE-MEETING TRANS ORAL ROBOTIC SURGERY COURSE

Wednesday 13 August 2014

7.00am – 5.30pm
Meeting Room 3 & 4, Darwin Convention Centre

Chair

Associate Professor Suren Krishnan

Guest Faculty

Scott Magnuson, Director of Head & Neck Surgery, Florida Hospital, Celebration Health System, Florida, USA
Kim Sae Onh, Professor of Head and Neck Surgery, Yonsei University, Severanace Hospital Health System, Seoul, South Korea

Local Faculty

Dr JC Hodge, Consultant Head & Neck Surgeon, Royal Adelaide Hospital, Adelaide, SA
Mr Tim Iseli, Head & Neck Surgeon, Royal Melbourne Hospital, Melbourne, VIC

Program

7.00am	Registration
8.00am	Welcome and introduction: Why TORS and TOLMS for head and neck surgery **Suren Krishnan**
8.15am	da Vinci surgery – A historical perspective **Dominic Breuker (Device Technologies and Engineer)**
8.30am	TORS for management of oral and oropharyngeal cancer **Scott Magnuson**
9.00am	TORS for oropharyngeal cancer – RAH results **JC Hodge**
9.15am	TORS experience with laryngectomy **Suren Krishnan**
9.30am	TORS for parapharyngeal space surgery **Kim Sae Onh**
10.00am	Setting up a TORS service in Australia **Tim Iseli**
10.30am	**Morning Tea – Meeting Room 3 & 4 Foyer**
11.00am	Case demonstration with robotic surgery videos
12.30pm	**Lunch – Meeting Room 3 & 4 Foyer**
1.30pm	Hands on robotic experience with the da Vinci Skills Simulator
2.30pm	The case for robotic thyroidectomy **Scott Magnuson**
3.00pm	The case for robotics in surgery for sleep disordered breathing **JC Hodge**
3.30pm	**Afternoon Tea – Meeting Room 3 & 4 Foyer**
3.45pm	Robotic cases and panel discussion **Suren Krishnan, Tim Iseli, JC Hodge, Kim Sae Onh and Scott Magnuson**
4.30pm	Hands on robotic experience with the da Vinci Skills Simulator
5.30pm	Close

Information correct at the time of printing, however the Meeting Organisers reserve the right to change the program without notice.

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FINAL PROGRAM

(Final Program correct at the time of printing. However, the Meeting Organisers reserve the right to change the program without notice)

Wednesday 13 August 2014

5.00pm – 7.00pm ANZHNCS Executive Committee Meeting (Executive Members Only)
Meeting Room 1, Darwin Convention Centre

DAY ONE – THURSDAY 14 AUGUST 2014

Session 1 – Introduction and Oropharyngeal Cancer

8.30am – 10.30am
Chairs: Janelle Heywood (WA) and Gus Hunter (NT)
Room: Auditorium 2

8.30am Opening Cerermony
Introduction
Janelle Heywood (WA) **and Gus Hunter** (NT)

8.45am **ANZHNCS – Chris O'Brien Oration**
Embracing the opportunity…the power of passion
Leonard Notaras (NT)

9.00am **Keynote Lecture**
Quality control and delivery of cancer care
Arlene Forastiere (USA)

9.15am **Keynote Lecture**
De-intensification strategies in head and neck cancer
Harry Quon (USA)

9.30am **Keynote Lecture**
Networks for coordination of head and neck cancer care
Amanda Dear (UK)

9.45am **Keynote Lecture**
Managing the T6 Cancer!
Anil D'Cruz (India)

10.00am **Address by the Chris O'Brien Fellow**
Evolving treatment patterns for oropharyngeal carcinoma in the United States
Michael Kupferman (USA)

10.15am **Panel Session**
De-escalation in practice – the oropharynx
Moderator – **Suren Krishnan** (SA)
Panellists:
Harry Quon (USA)
Arlene Forastiere (USA)
Anil D'Cruz (India)
Michael Kupferman (USA)

10.30am – 11.00am Morning tea with the industry, Exhibition Hall 1

Session 2 – Oral Cancer

11.00am – 12.30pm
Chairs: Mahiban Thomas (NT) and Peter Thomson (VIC)
Room: Auditorium 2

11.00am Oral Cancer – early diagnosis and prevention
Pankaj Chaturvedi (India)
Sponsored by the South Australian Foundation for Otorhinolaryngology, Head and Neck Surgery

11.15am Improved surgical margin definition by narrow band imaging for resection of oral squamous cell carcinoma
Camile Farah (QLD)

11.30am Tumour depth of invasion of pT1 oral tongue carcinoma and risk of pathologically detected neck metastases: A multi-centre study
Kendrick Koo (VIC)

11.45am What are the outcomes? Use of tongue ultrasound as visual feedback following partial glossectomy
Katrina Blyth (NSW)

11.55am Depth of invasion alone as an indication for adjuvant radiotherapy in T1-2 oral squamous cell carcinoma: An international study
Ardalan Ebrahimi (NSW)

12.05pm **Panel Session**
Oral cancer – cases for discussion
Moderator: **Martin Batstone** (QLD)
Panellists:
Pankaj Chaturvedi (India)
Mahiban Thomas (NT)
Peter Thomson (VIC)

12.30pm – 1.30pm ANZHNCS Foundation Meeting (Foundation Members Only)
Meeting Room 3, Darwin Convention Centre

12.30pm – 1.30pm Lunch with the industry, Exhibition Hall 1

Session 3 – Thyroid Cancer

1.30pm – 3.00pm

Chair: Chris Perry (QLD) and Melissa Bochner (SA)

Room: Auditorium 2

1.30pm **Keynote Lecture**
IMRT for thyroid cancer
Harry Quon (USA)

1.45pm TORS Thyroidectomy
Scott Magnuson (USA)
South Australian Foundation for Otorhinolaryngology, Head and Neck Surgery - Grant Bates Visiting Professor

1.55pm Thyroid cancer presentation and treatment in an Australian Indigenous population
Mahiban Thomas (NT)

2.05pm Setting up a minimally invasive/ distal access thyroidectomy program – endoscopic and robotic thyroid surgery
Hiang-Khoon Tan (Singapore)

2.15pm Energy devices in thyroidectomy
Gopal Iyer (Singapore)

2.25pm New molecular markers in assessing the thyroid nodule
Melissa Bochner (SA)
Sponsored by the South Australian Foundation for Otorhinolaryngology, Head and Neck Surgery

2.35pm **Panel Session**
Thyroid Discussion of Clinical Cases
Moderator: **Melissa Bochner** (SA)
Panellists:
Chris Perry (QLD)
Harry Quon (USA)
Scott Magnuson (USA)
Gopal Iyer (Singapore)

3.00pm – 3.30pm Afternoon tea with the industry, Exhibition Hall 1

Session 4 – Salivary Glands

3.30pm – 5.00pm

Chairs: Kerwin Shannon (NSW) and Raymond King-yin Tsang (Hong Kong)

Room: Auditorium 2

3.30pm Salivary gland
Anil D'Cruz (India)

3.45pm Contemporary management of salivary gland malignancies in the USA
Michael Kupferman (USA)

3.55pm Salivary gland malignancy – perineural spread and the skullbase
Raymond King-yin Tsang (Hong Kong)

4.05pm Salivary glands – benign and para pharyngeal space tumours
Suren Krishnan (SA)

4.15pm Malignancy of the minor salivary glands
Jimmy Yu-wai Chan (Hong Kong)

4.25pm Protecting salivary gland function
Martin Borg (SA)

4.35pm Recurrence and survival analysis of metastatic squamous cell carcinoma to the parotid gland
Adam Cammerman (WA)

4.45pm **Panel Session**
Salivary glands: Discussion of clinical cases
Moderator: **Gopal Iyer** (Singapore)
Panellists:
Anil D'Cruz (India)
Michael Kupferman (USA)
Raymond King-yin Tsang (Hong Kong)
Kerwin Shannon (NSW)

DAY TWO – FRIDAY 15 AUGUST 2014

Session 5A (Concurrent A) – Nasopharynx

8.30am – 10.30am

Chairs: Gopal Iyer (Singapore) and Jimmy Yu-wai Chan (Hong Kong)

Room: Auditorium 2

8.30am Chemoradiotherapy for nasopharyngeal carcinoma: Does sequence matter?
Dora Lai-wan Kwong (Hong Kong)

8.45am Palliative chemotherapy for recurrent or metastatic nasopharyngeal carcinoma – can anything be done after progression?
Victor Ho-fun Lee (Hong Kong)

9.00am Conformal radiotherapy for nasopharyngeal carcinoma: Potentials and caveats
Dora Lai-wan Kwong (Hong Kong)

9.15am Salvage nasopharyngectomy – limits and outcomes
Jimmy Yu-wai Chan (Hong Kong)

9.30am Salve nasopharyngectomy – morbidities and quality of life
Jimmy Yu-wai Chan (Hong Kong)

9.40am Radiation-induced squamous cell carcinoma – an emerging entity post-treatment of nasopharyngeal carcinoma
Gerald Tay (Singapore)

9.50am Robotic and endoscopic nasopharyngectomy
Hiang-Khoon Tan and **Constance Teo** (Singapore)

10.05am **Panel Session**
Nasopharyngeal carcinoma clinical cases and discussion
Moderator: **Jimmy Yu-wai Chan** (Hong Kong)
Panellists:
Hiang Khoon Tan (Singapore)
Constance Teo (Singapore)
Dora Lai-wan Kwong (Hong Kong)
Victor Ho-fun Lee (Hong Kong)

10.30am – 11.00am Morning tea with the industry, Exhibition Hall 1

Session 5B (Concurrent B) – Free Papers

9.00am – 10.30am

Chairs: Suren Krishnan (SA) and Robyn Burnett (SA)

Room: Meeting Room 3 & 4

9.00am Aboriginal people with experience of head and neck cancer; self-reported health-related quality of life assessment in South and Central Australia
Jasmine Micklem (SA)

9.10am The burden of head & neck cancer in the Northern Territory – a 5 year review of Head & Neck Cancer Services at ENT department, Royal Darwin Hospital, Northern Territory
Ajmal Masood (NT)

9.20am Management and prevention of amputation neuroma of the great auricular nerve following parotidectomy
Joshua Goldblatt (VIC)

9.30am Nutritional status in patients post trans-oral robotic surgery
Julia Crawford (USA)

9.40am Weight loss and the use of enteral feeding in patients with oropharyngeal cancers undergoing radiotherapy
Belinda Vangelov (NSW)

9.50am Speech pathology and dietetic services offered during (chemo) radiotherapy for head and neck cancer: An examination of practice patterns and consumer perceptions
Laurelie Wall (QLD)

10.00am Does malnutrition at PEG placement predict complications
Jane Harrowfield (VIC)

10.10am Referral patterns for oral squamous cell carcinoma: 20 years progress
Tran Lee Kaing (WA)

10.20am A novel approach to classifying defects of the mid face: The SECONDI MAPZ© system
Sophia Richardson (VIC)

10.30am – 11.00am Morning tea with the industry, Exhibition Hall 1

Session 6A (Concurrent A) – Skullbase/Cutaneous and Head & Neck Cancer

11.00am – 12.30pm

Chairs: Ben Panizza (QLD) and Martin Borg (SA)

Room: Auditorium 2

11.00am Endoscopic management of sinonasal tumours – a paradigm shift in management
Prathamesh Pai (India)
Sponsored by the South Australian Foundation for Otorhinolaryngology, Head and Neck Surgery

11.10am The new therapeutics of metastatic melanoma
Brian Stein (SA)

11.15am LDE225 (sonidegib) for advanced basal cell cancer – BOLT study
Alex Guminski (NSW)
Proudly sponsored by NOVARTIS PHARMACEUTICALS

11.30am Regional control of melanoma: where to after TROG
Sandro Porceddu (QLD)

11.40am Does head and neck mucosal melanoma resemble the cutaneous type?
Victor Ho-fun Lee (Hong Kong)

11.50am Perineural spread of cutaneous malignancy: An update
Ben Panizza (QLD)

12noon A retrospective analysis of the management of locally advanced nasopharyngeal carcinoma (NPC) in South West Sydney: A diverse patient population
Tim Tse (NSW)

12.10pm EBC-46: A novel treatment for head and neck squamous cell carcinoma
Ben Panizza (QLD)

12.20pm Oral metronomic chemotherapy in oral cancers a low cost solution possibility
Prathamesh Pai (India)
Sponsored by the South Australian Foundation for Otorhinolaryngology, Head and Neck Surgery

12.30pm – 1.30pm ANZHNCS Annual General Meeting (ANZHNCS Members Only)
Auditorium 2, Darwin Convention Centre

12.30pm – 1.30pm Lunch with the industry, Exhibition Hall 1

Session 6B (Concurrent B) – Free Papers

11.00am – 12.30pm

Chairs: Suren Krishnan (SA) and Emma Clover (SA)

Room: Meeting Room 3 & 4

11.00am The prognostic value of 18F-FDG PET-CT scan performed in the third week of chemoradiation for locally advanced head and neck squamous cell carcinoma
Myo Min (NSW)

11.10am Exome mutation data from the cancer genome atlas suggests role of human papilloma virus in oral squamous cell carcinoma
Kendrick Koo (VIC)

11.20am Patterns of care and outcome of patients with HPV p16+ oropharyngeal squamous cell carcinoma treated at a tertiary hospital: an update
Myo Min (NSW)

11.30am Gallium-68 / Lutetium-177 Theranostic paradigm in head and neck squamous cell carcinoma
Timothy Marr (WA)

11.40am Incidence of human papilloma virus related oro-pharyngeal squamous cell carcinoma in Northern Territory, Australia
Ajmal Masood (NT)

11.50am Improving dietitian knowledge, confidence and provision of evidence-based medical nutrition therapy for management of chyle leak
Kim McEachern (VIC)

12noon Response assessment FDG-PET CT scan in radically treated head and neck squamous cell cancer – results of a prospective study
Naveen Mummudi (India)

12.10pm Parotid neurofibroma
Mansi Khanna (WA)

12.20pm The clinical utility of PET/CT in head and neck cancer
Charlene Munasinghe (WA)

12.30pm – 1.30pm Lunch with the industry, Exhibition Hall 1

Session 7 - Larynx and Hypopharynx

1.30pm – 3.00pm
Chairs: Michael Switajewski (SA) and Gopal Iyer (Singapore)
Room: Auditorium 2

1.30pm **Keynote Lecture**
Reflections and projections on organ sparing protocols for cancer of the larynx and hypopharynx
Arlene Forastiere (USA)

1.45pm **Keynote Lecture**
MacMillan Cancer Support, history & future aims in the UK
Amanda Dear (UK)

1.55pm MINT – Meeting Information Needs Together
Leearna Bennett (NSW)

2.05pm Micro-aspiration and late laryngeal dysfunction following non-surgical treatement for larynx/hypopharyngeal cancer
Julia Maclean (NSW)

2.15pm Management of recurrent tumours in the pharyngo-oesophageal region
Velda Ling-yu Chow (Hong Kong)

2.25pm Heat moisture exchanger (HME) equipment provision to patients immediately post laryngectomy – does it make a difference with tracheostoma and voice outcomes?
Penny Chapman (VIC)

2.35pm **Panel Session**
Larynx and hypopharynx clinical cases and discussion
Moderator: **Michael Switajewski** (SA)
Panellists:
Julia Maclean (NSW)
Paolo De Ieso (NT)
Arlene Forastiere (USA)
Tim Iseli (VIC)

3.00pm – 3.30pm Afternoon tea with the industry, Exhibition Hall 1

Session 8 - Reconstruction in Head and Neck Surgery

3.30pm – 5.00pm
Chairs: Yugesh Caplash (SA) and Nicholas Marshall (SA)
Room: Auditorium 2

3.30pm Decision making in head and neck reconstructions with cosmetic, functional and donor site considerations
Swee T Tan (New Zealand)

3.45pm Lateral approach ALT Harvest for head and neck reconstruction
Ngian-Chye Tan (Singapore)

3.55pm Jejunum free flap for hypopharyngeal reconstruction. Experience of 36 consecutive cases
Vinay Kant Shankhdhar (India)

4.05pm Regional flaps in head and neck reconstruction
Rajinikanth J (India)

4.15pm Reconstruction for late complications of treatment
Jimmy Yu-wai Chan (Hong Kong)

4.25pm Long-term results of a prospective study of PET-directed management of node-positive head and neck cancer following definitive radiotherapy
Sandro Porceddu (QLD)

4.35pm Choice of recipient vessels in post radiotherapy and vessel depleted neck
Vinay Kant Shankhdhar (India)

4.45pm **Panel Session**
The head and neck defect: Is reconstruction necessary?
Moderator: **Yugesh Caplash** (SA)
Panellists:
Nicholas Marshall (SA)
Swee Tan (New Zealand)
Marcus Wagstaff (SA)
Shiby Ninan (NT)
Amanda Dear (UK)
Rob Coren (SA)

DAY THREE – SATURDAY 16 AUGUST 2014

Session 9 – Cancer Awareness

9.00am – 10.30am

Chairs: Veronika van Dijck (New Zealand) and Brian Stein (SA)

Room: Auditorium 2

9.00am **Keynote Lecture**
Mouth cancer awareness campaigning
Amanda Dear (UK)

9.15am **Keynote Lecture**
Prescribing patterns in head & neck cancer and opportunities to improve quality
Arlene Forastiere (USA)

9.30am How do you develop a comprehensive cancer service in a small radiotherapy unit?
Michael Penniment (SA)

9.45am Identification and characterisation of cancer stem cells in squamous cell carcinoma of the oral tongue
Ranui Baillie (New Zealand)

9.55am A four-year report of mucosal primary head and neck cancer patients treated with radical intent radiotherapy at Northern Territory Radiation Oncology (NTRO): Comparison between indigenous and non-indigenous patients
Thanuja Thachil (NT)

10.05am Utilising RNA sequencing to evaluate the role of HPV in oral cavity carcinogenesis
Andrew Zammit (QLD)

10.15am **Panel Session**
The unknown primary
Moderator: **Tim Iseli** (VIC)
Panellists:
Veronika van Dijck (New Zealand)
Brian Stein (SA)
Michael Penniment (SA)

10.30am – 11.00am Morning tea with the industry, Exhibition Hall 1

Session 10 – Management of the neck

11.00am – 12.30pm

Chairs: Janelle Heywood (WA) and Mahiban Thomas (NT)

Room: Auditorium 2

11.00am **Keynote Lecture**
Radiation induced sarcomas
Harry Quon (USA)

11.15am **Keynote Lecture**
Management of the neck after chemoradiotherapy
Anil D'Cruz (India)

11.30am Travails in the Top End. Five years' experience in Head and Neck Cancer Service provision in Darwin
Brandon Cadd (NT)

11.40am Prognostic value of lymph node density in squamous cell carcinoma of the tongue
Wilson Ong (Singapore)

11.50am Sentinel lymph node biopsy for oral cavity SCC: Can Australia do it?
Muzib Abdul-Razak (NSW)

12noon ECS and other histological prognostic markers in HNSCC
Enyi Ofo (SA)

12.10pm Panel: do we still believe in the classical post-operative indicators for chemoradiotherapy?
Moderator: **Brian Stein** (SA)
Panellists:
Harry Quon (USA)
Arlene Forastiere (USA)
Anil D'Cruz (India)

12.25pm Awarding of prizes
Closing remarks

12.30pm – 1.30pm Lunch with the industry, Exhibition Hall 1

MEETING CLOSE

ABSTRACTS

- Listed in session order
- Presenters appear in bold
- Information correct at time of printing

THURSDAY 14 AUGUST 2014

Session 1 – Introduction and Oropharyngeal Cancer

QUALITY CONTROL AND DELIVERY OF CANCER CARE

Arlene A. Forastiere, MD

Johns Hopkins University and the Sydney Kimmel Comprehensive Cancer Center, Baltimore, Maryland, USA

A high quality cancer care delivery system must be patient-centered, maintain an adequately staffed and trained workforce, and the treatment must be evidence-based. There are multiple challenges today that include projected increase in cancer incidence due to the aging population, increasing complexity of treatment, a shrinking workforce, new technology expanding treatment options and rising costs. Wide variability in care exists, both access to care and available resources. With a global burden of head and neck cancer that will approach 1 million new cases by 2020, establishing and monitoring quality indicators is necessary. Patterns of care studies show that for larynx, hypopharynx and oropharynx cancers, surgery is more likely to be in the salvage setting and that this care given at high volume centers by high volume surgeons leads to better outcomes and lower hospital-associated costs. Studies of patients with recurrent head and neck cancer show that the deviation rate from evidence-based standards is over 40%. This is due to inadequate surgery in over half of cases and due to misdiagnosis in 15%. Quality indicators can be established for surgical compliance, monitored, and compared with published benchmarks. Oncology decision-support tools that are web-based and required before treatment is started reduce inappropriate care, improve quality and provide real-time metrics on practice patterns.

Conflict of Interest Declaration: Professor Forastiere is an employee of eviti, Inc, Philadelphia, PA, USA. eviti, Inc is a health information technology company providing decision-support tools for improving the quality of cancer care.

DE-INTENSIFICATION STRATEGIES IN HEAD AND NECK CANCER

Harry Quon, MD, MS

Department(s) of Radiation Oncology and Molecular Radiation Sciences, Otolaryngology-Head and Neck Surgery and Oncology, Johns Hopkins University

Various treatment intensification strategies for head and neck cancers have demonstrated significant survival gains. With long-term follow-up, it is now clear that the late treatment toxicity burden can be significant. This has prompted re-evaluation of current treatment approaches accelerated by the recognition that patients with HPV-associated oropharyngeal squamous cell carcinomas (OPSCC) have a favourable survival with either surgical or non-surgical treatment approaches. Treatment de-intensification strategies include both surgical and non-surgical approaches with several clinical trials accruing including trials evaluating radiotherapy dose de-escalation. Surgical approaches have been made possible due to technical innovations readily facilitating transoral surgery. This has allowed for the immediate application of the adjuvant therapy paradigm with several potential advantages that may reduce late swallowing complications. This includes pathologic risk stratification guiding the use of concurrent chemotherapy (which has been assumed to be valid for HPV-associated OPSCC) and potentially significant dosimetric benefits in the appropriately selected patient. Early institutional experiences suggest that this may help to reduce the risk of RTOG grade 3/4 swallowing complications though the generalizability of these results and how it compares to non-surgical approaches cannot be concluded at this time. However, new de-intensification surgical and non-surgical approaches are likely to be needed in the future to offer a more personalized treatment approach. To achieve this, new approaches are needed to better identify, quantify and systematically record late treatment toxicities in a manner that can be robustly related to the treatment delivered including the radiotherapy dosimetry. One strategy to achieve this will be presented.

Conflict of Interest Declaration: None.

NETWORKS FOR COORDINATION OF HEAD AND NECK CANCER CARE

Amanda Dear RGN, Dip HS, Bsc

Head & Neck Macmillan Nurse Specialist, Freeman Hospital, Newcastle upon Tyne, England

Following the publication of The NHS Cancer Plan in 2000 Cancer Networks were established, the networks were the organisational model for services to implement the suggested reforms.

Each network consists of a number of NHS organisations working together to deliver high quality integrated cancer services for their local population.

Network central and regional aims are discussed and how these aims hope to be met. Networking is crucial to the role of a nurse specialist and operates at three levels - across England, regionally and locally.

Ms Dear will explain her involvement at all three levels and how this has impacted on patient care. To demonstrate networking locally a case study is used to show how this impacts on an individual's cancer care pathway.

MANAGING THE T6 CANCER!

Dr. Anil D'Cruz

Treating the advanced head and neck cancer is always a challenge to the clinician. T4 is the maximal staging for non metastatic disease which in turn may be operable or inoperable. However, there are some patients who present with the proverbial "T6" tumours, the extent of which is not defined or much larger than the T4 group. These so called "T6" cancers would logically imply a grave prognosis requiring palliation. Lack of awareness, limitations of infrastructure and inadequate access to medical care are common causes for such late presentation, commonly seen in a country like India. Ours is a large tertiary referral cancer centre catering to patients from different socio-economic strata across the country. A large proportion of our patients present with such tumours (20% of over 9000 new cases annually). Surprisingly, about a third of these patients can be brought into the realm of curative treatment by downstaging with neo-adjuvant chemotherapy. Our data suggests a definite subset of patients who would benefit from this approach. Upfront curative surgery in the T6 group is also a possibility, but beneficial in a properly selected group of patients. The unfortunate T6 that are too advanced for curative treatment need palliation which must be cost-effective and easy to administer. We advocate an interesting variation of chemotherapy in the form of meteronomic dosing that has the advantages of ease of administration, limited or no toxicity and effective palliation.

Session 2 – Oral Cancer

IMPROVED SURGICAL MARGIN DEFINITION BY NARROW BAND IMAGING FOR RESECTION OF ORAL SQUAMOUS CELL CARCINOMA

Camile S. Farah, PhD, [1]*Andrew J. Dalley, Ph.D, [1] Phan Nguyen, MBBS, [2] Martin Batstone, MBBS, [1,3] Farzaneh Kordbacheh, Ph.D,[1] Joanna Perry-Keene, MBBS and [4] David Fielding, MBBS [5]

[1]UQ Centre for Clinical Research, The University of Queensland, Brisbane, Queensland, Australia; [2]The Department of Thoracic Medicine, Royal Adelaide Hospital, Adelaide, Australia; [3] The Maxillofacial Unit, Royal Brisbane and Women's Hospital, Brisbane, Queensland, Australia; [4] Pathology Queensland, Royal Brisbane and Women's Hospital, Brisbane, Queensland, Australia; [5]The Department of Thoracic Medicine, Royal Brisbane and Women's Hospital, Brisbane, Queensland, Australia.

Purpose: Localised post-surgical recurrence of oral squamous cell carcinoma (OSCC) is commonplace. Incomplete primary tumour excision is a leading cause, due in part to suboptimal definition of surgical margins with conventional panendoscopy. Improved tumour margin definition through high resolution visualisation using Narrow Band Imaging (NBI) may result in less potentially malignant residual tissue at the surgical site and thereby increase the procedure's curative success. The objective was to provide molecular evidence that surgical margin definition using NBI achieves more complete removal of OSCC than results from conventional tumour appraisal under white light (WL).

Methodology: This study used gene expression profiling (GeneChip®U133-plus-2.0) to compare molecular divergence between biopsies radiating out from tumour to WL and NBI defined surgical margins in 18 patients with intra-oral OSCC.

Results: Relative to tumour core, the numbers of differentially expressed genes was 25.6% higher for NBI (4387) than for WL (3266), signifying that NBI placed margins into less involved tissue than WL examination. Principal Component Analysis segregated tumour, WL and NBI tissues appropriately based solely on mRNA profiles. Unsupervised hierarchical clustering identified four patients (22%) who benefited directly from surgical margin definition by NBI. Gene ontology enrichment portrayed a pattern of increasing cell phenotypic diversity at biopsy sites radiating out from the tumour core; this being influenced by both the overall numbers of differentially expressed genes and the breadth of their molecular actions.

Conclusions: Resection to NBI defined margins leaves less dysplastic or malignant residual tissue and thereby increases ablative surgery success rates.

Funding: Financial support for this work was provided through academic consultancy funds generated and held by C.S. Farah. No financial support was received from Olympus Australia to undertake this study. C. S. Farah is currently undertaking clinical research on NBI with assistance from Olympus Australia.

Conflict of Interest Declaration: None.

TUMOUR DEPTH OF INVASION OF PT1 ORAL TONGUE CARCINOMA AND RISK OF PATHOLOGICALLY DETECTED NECK METASTASES: A MULTI-CENTRE STUDY

Abu-Serriah Dr, D Wiesenfeld Prof, K Koo Dr, A Fasanmade Mr, J Graystone Mrs, RJ Banks Mr, IC Martin Mr, PJ Ameerally Mr, KA Shah Dr, S Gerry Mr and S Bond

Oxford University Hospitals NHS Trust; Royal Melbourne Hospital, Melbourne, Australia; Sunderland Royal Hospital, Sunderland, UK; Northampton General Hospital, Northampton, UK; Centre for Statistics in Medicine, University of Oxford, UK

Management of the neck in T1 SCCs of the oral tongue remains controversial, with some advocating elective neck dissection (END), and others, watchful waiting. The controversy stems from the dilemma in striking a balance between early capture of patients harbouring microscopic neck disease thereby avoiding surgical and prognostic morbidity of subsequent neck salvage surgery, versus unnecessary treatment (surgery or radical radiotherapy to the neck) with its avoidable morbidity Tumour depth of invasion (TDI) is considered a predictor of pathologically detected neck metastases (PDNM) for squamous cell carcinoma (SCC) of the oral cavity, but different investigators have arrived at different cut-off of TDI. As a result of which the relationship between TDI of pT1 SCC of the oral tongue and PDNM remains unknown.

Method: Retrospective data was collected from the Head and Neck Cancer Database at four different centres (Oxford, Melbourne, Sunderland and Northampton). For each patient: TDI, neurovascular invasion, pattern of invasion, follow-up more than 6 months and presence of PDNM were recorded. Disease pattern among different centres was noted and the relationship between data was studied using logistic regression and ROC methods.

Results: 300 consecutive cases of pT1 SCC of the oral tongue were identified across the 4 centers. Variations in disease pattern between different patient populations are noted. The correlation between TDI were analyzed along with other previously noted microscopic features of the primary tumour and the risk of PDNM is expressed. The accuracy of TDI in predicting the risk of PDNM will also be measured.

Conclusion: Preliminary analysis shows that TDI is not a reliable or accurate predictor of PDNM. Caution should be exercised if it is to be used to decide on the requirement of END.

Conflict of Interest Declaration: None.

WHAT ARE THE OUTCOMES? USE OF TONGUE ULTRASOUND AS VISUAL FEEDBACK FOLLOWING PARTIAL GLOSSECTOMY

K.M. Blyth, P. McCabe, C. Madill, J. Clark and K. Ballard

The University of Sydney, Royal Prince Alfred Hospital

Ultrasound is non-invasive and when placed under the chin, clearly shows the tongue in motion for patient training. Considering both speech and swallowing are affected by altered shape and movement following partial glossectomy, the authors predicted ultrasound imaging of the tongue would be of therapeutic benefit to these patients. This study is the first to present functional outcomes using tongue ultrasound as a visual biofeedback tool in head & neck cancer rehabilitation. The authors conducted a case series with multiple baseline ABA(CA) design. Participants were eligible if they underwent partial glossectomy at Royal Prince Alfred Hospital (RPAH). Primary outcomes included sentence intelligibility, oral transit time, penetration-aspiration scores as well as food and fluid textures consumed. Secondary outcomes included tongue range of movement and meal duration. Participant self evaluation and comfort with the ultrasound probe was also documented. To date, visual biofeedback using tongue ultrasound has resulted in improved and maintained speech and swallowing measures. Participants reported comfort with the ultrasound probe as well as ease in self evaluation during the visual biofeedback process.

Conflict of Interest Declaration: None.

DEPTH OF INVASION ALONE AS AN INDICATION FOR ADJUVANT RADIOTHERAPY IN T1-2 ORAL SQUAMOUS CELL CARCINOMA: AN INTERNATIONAL COLLABORATIVE STUDY

A. Ebrahimi, Z. Gil, M. Amit, T. C. Yen, C. T. Liao, P. Chaturvedi, J. P. Agarwal, L. P. Kowalski, M. Kreppel, C. R. Cernea, S. J. Brandao, G. Bachar, A. Bolzoni Villaret, D. Fliss, E. Fridman, K. T. Robbins, J. P. Shah, S. G. Patel and J. R. Clark

1 Sydney Head and Neck Cancer Institute, Royal Prince Alfred Hospital, Sydney, NSW, Australia, 2 Department of Head and Neck Surgery, Liverpool Hospital, Sydney, NSW, Australia, 3 Australian School of Advanced Medicine, Macquarie University, Sydney, NSW, Australia, 4 The Laboratory for Applied Cancer Research, 5 Department of Otolaryngology Rambam Medical Center, Rappaport School of Medicine, the Technion, Israel institute of technology, Haifa, Israel, 6 Chang Gung Memorial Hospital, Taoyuan, Taiwan, 7 Tata Memorial Hospital, India, 8 Hospital A.C. Camargo, São Paulo, Brazil, 9 Department of Oral and Cranio-Maxillo and Facial Plastic Surgery University of Cologne, Germany, 10 Department of Head and Neck Surgery, University of São Paulo Medical School, São Paulo, Brazil, 11 Department of Otolaryngology Head and Neck Surgery, Rabin Medical Center, Petach Tikva, Israel, 12 Department of ENT, University of Brescia, Italy, 13 Department of Otolaryngology Head and Neck Surgery, Tel Aviv Medical Center, Tel Aviv, Israel, 14 Southern Illinois University School of Medicine, Illinois, USA, 15 Head and Neck Surgery Service, Memorial Sloan-Kettering Cancer Center, NY, USA.

Purpose: Depth of invasion (DOI) is an established prognostic factor in oral squamous cell carcinoma (SCC) but it remains unclear if DOI alone should be an indication for post-operative radiotherapy (PORT). We aimed to determine the impact of DOI on survival in T1-2 oral SCC in the absence of other adverse pathological features and to investigate the benefit of PORT in this context.

Methodology: The study population consisted of 1,409 patients with T1-2 oral SCC treated at 11 comprehensive cancer centers worldwide between 1990-2011. Depth of invasion was analysed as a categorical variable (<5mm, 5 to <10mm, ≥10mm) for association with disease-specific survival (DSS) using the Kaplan-Meier method.

Results: In the subset of patients with at least one additional adverse prognostic factor (pathological nodal metastases, extracapsular spread, close or involved margins), increasing DOI was associated with reduced DSS irrespective of whether PORT was administered (P=0.029) or not (P=0.017). However, in the absence of other adverse factors, there was no association between DOI and DSS with an excellent prognosis observed even in patients with thick tumors. In the absence of PORT, the 5-year disease-specific mortality was 10% with DOI≥10mm, 8% with DOI 5-10mm, and 6% with DOI<5mm (P=0.169). Similarly, in those that received PORT, 5-year disease-specific mortality was 12% with DOI≥10mm, 6% with DOI 5-10mm, and 0% with DOI<5mm (P=0.280).

Conclusion: The deterioration in prognosis with increasing DOI reflects collinearity with other poor prognostic factors. In the absence of these, DOI alone should not be an indication for PORT.

Conflict of Interest Declaration: None.

Session 3 – Thyroid Cancer

IMRT FOR THYROID CANCER

Harry Quon, MD, MS

Department(s) of Radiation Oncology and Molecular Radiation Sciences, Otolaryngology-Head and Neck Surgery and Oncology, Johns Hopkins University

The indications for external beam radiotherapy (EBRT) have been the subject of systematic expert consensus review and are well established based primarily on institutional retrospective quality of evidence. The primary gross tumour volume or more commonly the postoperative volume regarded as requiring treatment often is adjacent to critical normal structures. As such, effective and safe delivery of EBRT for thyroid cancers is technically challenging and lends itself to the conformal advantages of intensity modulated radiotherapy (IMRT). Evidence to support the role of IMRT has also been the subject of expert consensus review again noting the limited quality and evidence for IMRT though recommending its use for the reduction of treatment toxicity. For well-differentiated thyroid carcinomas (WDTC) and anaplastic carcinomas (ATC), limited evidence does not support improved oncologic efficacy. Efforts to dose-intensify therapy with the use of simultaneous-in-field boost (SIB) IMRT (WDTC) and concurrent chemoradiation (ATC) are underway. Reports on the rates of acute toxicities do not clearly demonstrate a clear benefit however this is complicated by reporting bias and a lack of established guidelines regarding the volume of the central neck that requires elective radiation. However, late-treatment complications especially esophageal strictures may be reduced despite again a lack of established guidelines regarding the volume of the neck that requires radiation. In conclusion, routine use of IMRT for thyroid cancers has largely been favoured given the potential to reduce treatment toxicities which may be further exploited with the establishment of evidence-based guidelines regarding the volumes of the neck requiring treatment.

Conflict of Interest Declaration: None.

Session 4 – Salivary Glands

SALIVARY GLAND

Dr. Anil D'Cruz

Salivary gland tumours are rare. Most publications therefore are small series or if with larger numbers, are reported over prolonged periods of time. Further, these tumours present with a myriad of distinctive histologies, resulting in even smaller numbers within each subtype. Despite these limitations, there are well established management guidelines. The parotid is the most frequently affected with majority of tumours being benign in contrast to the ectopic salivary gland where tumours are more likely malignant. The role of fine needle aspiration cytology in diagnostic work-up has always been contentious but has definite advantages. MRI is the investigation of choice when imaging is warranted. Surgery is the mainstay of treatment as these tumours are relatively radio and chemo-resistant. The goal in the management of salivary tumours is adequate excision with minimum morbidity. The age old dictum that superficial parotidectomy is the minimum surgery on the parotid is replaced by the concept of adequate parotidectomy. The facial nerve must be preserved at all costs. Appropriate neck dissection is indicated for high grade and large (>T2) tumours. Adjuvant radiotherapy is indicated in most malignant tumours barring low grade T1/T2 tumours. Its role in the recurrent benign setting is debatable. Neutrons have shown more benefit than conventional radiotherapy in a randomised setting. Cisplatin based chemotherapy seems to be beneficial but responses are seen in a disappointingly low number of patients. Targeted therapy shows some promise. Each histological subtype of salivary tumours has its own characteristics which must be considered when treating patients. Intra-operative nerve monitoring, microvascular reconstruction, nerve grafting, facial re-animation are some of the advances that facilitate salivary gland surgery.

SALIVARY GLAND MALIGNANCY – PERINEURAL SPREAD AND THE SKULLBASE

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Perineural spread (PNS) is a distinct form of tumour spread with special significance in salivary gland tumours. The incidence of PNS in salivary cancer depends on histological subtype. Adenoid cystic carcinoma, salivary duct carcinoma have high incidence of PNS while mucoepidermoid carcinoma and acinic cell carcinoma have lower incidence. The presence of PNS is a significant negative factor for local recurrence and disease free survival but may not affect overall survival.

The facial nerve (CNVII), the maxillary branch (CNV2) and mandibular branch (CNV3) of trigeminal nerve are the commonest nerves involved by PNS. Clinical symptoms indicating PNS included nerve palsy, parathesia and pain. MRI is the best imaging option to detect PNS.

Gross surgical resection of the primary and the involved nerve should be the primary treatment of salivary cancer with PNS. This may imply facial nerve resection, lateral temporal bone resection or resection of trigeminal ganglion.

Adjuvant radiation reduces the incidence of local recurrence and recurrence in the skull base but the impact on overall survival is debatable. The radiation field should include the skull base to prevent recurrence in the skull base. Intensity modulated radiotherapy (IMRT) allowed the delivery of high dose radiation to the targeted volume in the skull base while avoiding critical neural structures.

In conclusion, PNS should be taken into consideration in the overall management of salivary cancer. Appropriate imaging to detect PNS; complete resection of the involved nerve with clear margins and post-operative adjuvant radiotherapy should be employed to achieve best possible cure.

Conflict of Interest Declaration: None.

RECURRENCE AND SURVIVAL ANALYSIS OF METASTATIC SQUAMOUS CELL CARCINOMA TO THE PAROTID GLAND

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Purpose: Cutaneous malignancy in particular SCC is common in Australia. Regional metastases to the parotid and neck are often encountered. With known or presumed cutaneous primaries surgery and post-operative radiation is the regime of choice. The present study investigated recurrence rates and predictors of survival following a diagnosis of metastatic parotid SCC.

Methods: A retrospective single-unit cohort study identified N=58 individuals undergoing parotidectomy (+/- neck dissection; N=40) for SCC between July 2003 to June 2013. Follow-up periods ranged from 1 month to almost 10 years. Complete Post-op radiation (PORT) was completed by N=45.

Results: Nineteen cases (33%) demonstrated recurrent disease: 6 recurred at primary site, 4 in parotid bed, 4 in neck, and 6 with distant metastases. Eight of the 19 recurrence cases underwent further surgery for local and/or regional control. Recurrence risk was increased by the presence of multiple intraparotid nodes, closeness of parotid resection margin, and presence of lymphovascular invasion. Those with recurrent disease had significantly lower survival at 2 and 5 years. Of the 19 recurrent cases, 12 (60%) had cause of death directly related to their recurrence.

Conclusion: SCC was the most common tumour of the parotid, with most describing a prior/active history of cutaneous SCC. Recurrence occurred in one-third of patients despite the majority receiving surgery followed by radiation. Tumour characteristics and surgical margin appeared to be related to recurrence, the latter being potentially modifiable. Yet, completeness of neck dissection when performed was not related to recurrence. Diligent monitoring is required in this high-risk group.

Conflict of Interest Declaration: None.

FRIDAY 15 AUGUST 2014

Session 5A (Concurrent A) – Nasopharynx

CHEMORADIOTHERAPY FOR NASOPHARYNGEAL CARCINOMA: DOES SEQUENCE MATTER?

Dora Kwong, Hong Kong

Nasopharyngeal carcinoma (NPC) is sensitive to both radiotherapy and chemotherapy. Since the pivotal trial of Intergroup 0099 study, concurrent chemoradiotherapy has been adopted as the standard of care for advanced stage NPC. That is in consistency with treatment of other head and neck cancers. However, the value of adjuvant chemotherapy on top of the concurrent chemoradiotherapy part is always controversial. In 2 previous phase III trials, the use of adjuvant chemotherapy alone was not effective. However, in these older studies, the standard intensive cisplatin and 5 fluorouracil regime was not used. In a phase III trial comparing concurrent vs concurrent and adjuvant chemotherapy reported from China, there was no significant improvement of survival of adding adjuvant chemotherapy to concurrent chemotherapy. However, there was a small absolute survival benefit with addition of adjuvant chemotherapy and the study was not powered to show non-inferiority. In an updated metaanalyisis, the hazard ratio of concurrent and adjuvant chemotherapy is better than concurrent chemoradiotherapy alone. There are other retrospective reports showing that the total dose of chemotherapy does matter, thus adjuvant chemotherapy may still have value by adding on to the total dose of chemotherapy used for treatment of NPC.

However, giving intensive adjuvant chemotherapy after concurrent chemoradiotherapy is challenging because of poor tolerance. Only about 50-60% of the patients would be able to complete all 3 cycles of adjuvant chemotherapy. There are smaller studies reporting effectiveness of induction chemotherapy before concurrent chemoradiotherapy. The NPC 0501 study performed in Hong Kong has recently reported the preliminary results showing that induction + concurrent chemotherapy is non-inferior to concurrent+adjuvant chemotherapy. There was better tolerance of induction chemotherapy than adjuvant chemotherapy. Induction cisplatin and capecitabine may be more effective than induction cisplatin and infusional 5 fluorouracil also.

In conclusion, concurrent chemoradiotherapy is the backbone of chemoradiotherapy for locally advanced NPC. Whether adjuvant chemotherapy can be replaced by induction chemotherapy would still need more data and longer follow up from current studies.

CONFORMAL RADIOTHERAPY FOR NASOPHARYNGEAL CARCINOMA: POTENTIALS AND CAVEATS

Dora Kwong, Hong Kong

Radiotherapy is the backbone of primary treatment for nasopharyngeal carcinoma (NPC). With the advance in imaging and radiotherapy, intensity modulated radiotherapy (IMRT) has gradually replaced 2 dimensional radiotherapy or 3 dimensional conformal radiotherapy as standard of care. Most series reported local control of NPC in excess of 80% even for locally advanced NPC. For early disease, local control is 90% or more.

For early disease, besides improving local control, IMRT have also been shown to be parotid sparing and improved parotid salivary flow. However, symptomatic improvement in xerostomia is less apparent, probably due to irradiation to submandibular gland in the neck since level IB lymphatics is usually irradiated. With modern imaging, if patient has N0 disease, it is recommended to spare level IB irradiation and thus further reduce the xerostomia after treatment. Quality of life have been shown to be improved with IMRT also. With early disease, some preliminary reports have shown safety in reducing the volume of irradiation to the primary. However, there is always the potential risk of marginal miss with reduced volume irradiation. Isolated parotid lymph node recurrence was rare in 2 dimensional radiotherapy era but was observed after common use of IMRT. Also with sparing of more and more structures, packets of high doses may be deposited in other normal tissue instead and lead to unexpected and previously unknown side effects such as increased oral mucositis or osteonecrosis of mandible.

For locally advanced disease, local control is still a problem. Reports from larger series with IMRT and chemotherapy in China showed local control of 82.9-86.8% for T3/4 NPC. Local control of NPC is dose dependent. With better ability to spare critical organs, IMRT offers the potential of dose escalation. However, dose escalation carries potential risks due to increased dose inhomogeneity in targets. Much attention is usually paid to spare critical organs like brainstem, spinal cord and optic pathways from excessive radiation. However, this may lead to high dose deposited in skull base and carotid artery leading to unexpected complications like cranial nerve palsies, skull base necrosis and carotid aneurysm. Caution needs to be exercised in evaluating isodose distribution of individual plan. Also, at present, patients are treated uniformly with chemoradiotherapy according to clinical staging. Future studies should concentrate more on stratification of tumor and treatment strategies for individualized treatment. Biomarkers or early response assessment during treatment may be useful in selecting tumors that are more resistant to treatment and require more aggressive treatment.

RADIATION-INDUCED SQUAMOUS CELL CARCINOMA - AN EMERGING ENTITY POST-TREATMENT OF NASOPHARYNGEAL CARCINOMA

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Purpose: To assess if Radiation-induced Squamous Cell Carcinoma (RISCC) of the head and neck have different clinical outcomes and pathological features than de novo squamous cell carcinoma cases.

Methodology: 34 cases of RISCC of the head and neck were identified and matched with 136 cases of de novo SCC of the head and neck. Matching was done by age, gender, site of primary tumour and smoking status. Clinical and pathological features of both groups of patients were compared.

Results: 32 out of 34 RISCC cases arose after radiotherapy for Nasopharyngeal Carcinoma (NPC). RISCC patients were more likely to have N0 stage disease at diagnosis (70.6 vs 42.9%, p=0.024). There was no significant difference in tumour size at diagnosis, overall stage, extracapsular spread, lymphovascular invasion or perineural invasion. RISCC patients had poorer median 5-year overall survival (33.6 vs. 50.5%, p=0.018) and disease specific survival (35.3 vs 66.1%, p=0.001). Patients from both groups who were able to undergo curative treatment had no significant difference in overall survival, disease specific survival, disease free interval or locoregional recurrence free interval.

Conclusion: The majority of RISCC cases arose after radiotherapy for NPC. RISCC patients have worse overall and disease specific survival than de novo squamous cell carcinoma patients. However, those able to undergo curative treatment have equivalent overall survival and disease specific survival. Locoregional control of these tumours appears paramount in achieving the best outcomes for patients with RISCC.

Conflict of Interest Declaration: None.

Session 5B (Concurrent B) – Free Papers

ABORIGINAL PEOPLE WITH EXPERIENCE OF HEAD AND NECK CANCER; SELF-REPORTED HEALTH-RELATED QUALITY OF LIFE ASSESSMENT IN SOUTH AND CENTRAL AUSTRALIA

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Purpose: To identify and address barriers to active and meaningful participation in self-reported health-related quality of life (HRQoL) assessment for Aboriginal patients with experience of head and neck cancer (HNC).

Methodology: 19 semi-structured interviews based around two global-standard, HNC-specific, HRQoL instruments, were conducted with 12 Aboriginal patients with experience of HNC in South and Central Australia. Interviews were transcribed and recurring HRQoL issues were identified to form the basis of a novel HRQoL assessment (UHRQoL-HN). UHRQoL-HN was refined through consultation with 40 key informants including health care professionals, family members and others involved in the care of Aboriginal patients with HNC. UHRQoL-HN's face and content validity, cultural acceptability, utility and relevancy were assessed by 12 key informants and by trialling with five Aboriginal patients with experience of HNC.

Results: Cultural disparities and other pragmatic factors adversely affected the usability, reliability and validity of traditional tools and methods for assessing HRQoL within this cohort population. UHRQoL-HN shows promising face and content validity, cultural acceptability, utility and relevance for both Aboriginal patients with experience of HNC and health care professionals. Data yielded utilising UHRQoL-HN was of good quality and depth; enabling patient's HRQoL concerns to be identified and addressed in a timely fashion and showed clinical correlation with ECOG status, TNM staging and clinical intervention.

Conclusions: Wider trialling and validation of this instrument is recommended as UHRQoL-HN shows promise as a useful, clinically relevant tool to assess the HRQoL of Aboriginal people with experience of HNC.

Conflict of Interest Declaration: Jasmine Micklem was supported to complete this research by a Post-honours Doctorate divisional scholarship from the Northern Community Health Foundation Incorporated and the University of Adelaide. The authors declare they have no competing interest.

THE BURDEN OF HEAD & NECK CANCER IN THE NORTHERN TERRITORY – A 5 YEAR REVIEW OF HEAD & NECK CANCER SERVICES AT ENT DEPARTMENT, ROYAL DARWIN HOSPITAL, NORTHERN TERRITORY

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Royal Darwin Hospital

Aim: ENT department at Royal Darwin Hospital (RDH), Northern Territory, provides a full-fledged head and neck cancer service serving a population of approximately 140,000 at the Top End of Northern Territory. Being the only major hospital in this region, it has steadily developed Head & Neck Cancer (HNC) service provision with increase in patient input and workload noted in the past five years. Although still a low volume centre for HNC services, this audit highlights the burden of this disease in the local population and brings forth the associated complexities of treating cancer patients located in remote communities.

Methodology: Retrospective review of HNC patients at Royal Darwin Hospital between Jan 2009 to Dec 2013. Inclusion criteria were all patients initially referred, diagnosed and managed by ENT Head & Neck surgery unit in conjunction with other departments. Patient were identified from ENT departmental records, NT Cancer Registry and electronic medical records at Royal Darwin hospital.

Results: 146 new H&N cancer patients were identified with 159 treatment episodes over a five year period from Jan 2009 to Dec 2013. Demographic data showed 80.9% male (n=118), female 19.1% (n = 28) with Indigenous (31.5%, n=46) and non-Indigenous (68.5%, n=100) patients identified. Majority of cases were AJCC stage III/IV. Stages identified were stage I =2.7%, II=6.8%, III=10.3%, IV=68.5% with 6.8% un-staged. There were 74 definitive surgery performed with overall complication rate of 12.1%.

Conclusion: ENT department at Royal Darwin Hospital is a low volume head neck cancer management centre. This audit is a first of its' kind to assess the burden of Head Neck cancer in NT over a five year period and provides insight into the complexities and challenges associated with a large geographical area and diverse population.

Conflict of Interest Declaration: None.

MANAGEMENT AND PREVENTION OF AMPUTATION NEUROMA OF THE GREAT AURICULAR NERVE FOLLOWING PAROTIDECTOMY

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Purpose: To explore the incidence and management of amputation neuroma after sectioning of the great auricular nerve during parotidectomy and to identify measures to prevent this painful complication.

Methodology: We present a case of amputation neuroma involving the great auricular nerve following parotidectomy. We also performed an OvidMedline search investigating the incidence and techniques involved in preventing neuroma formation following parotidectomy.

Results: A review of the literature revealed optimal management of neuromas in general involved excision and burying of the exposed stump in adjacent muscle or vein. However, performing similar measures during the initial operation may prevent neuroma development. We discuss the case of a forty-seven year old male who developed a painful nodule directly beneath the previous incision eighteen months following parotidectomy for a pleomorphic adenoma. Excision of the nodule revealed an amputation neuroma of the sectioned stump of the great auricular nerve. The nerve stump was subsequently clipped and folded back on itself, before being buried in the sternocleidomastoid muscle. Postoperatively, his neuropathic pain had resolved.

Conclusion: Amputation neuroma formation after sectioning the great auricular nerve during parotidectomy is a painful complication that may be avoided by either preserving the great auricular nerve, or if not possible, by burying the exposed stump in adjacent muscle tissue.

Conflict of Interest Declaration: None.

NUTRITIONAL STATUS IN PATIENTS POST TRANS-ORAL ROBOTIC SURGERY

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With the recent trend of increasing incidence and change in epidemiology of oropharyngeal tumors, it is important to consider the treatment options that are available for patients. The widely accepted primary treated is currently chemoradiotherapy however there has been a growing trend towards the use of Trans-oral Robotic Surgery (TORS). The aim of TORS is to spare these increasingly young HPV positive patients the short-term and long-reaching side-effects of chemoradiotherapy. One of the important side effects, particularly related to quality of life, is dysphagia. With any new therapy it is important to compare it with the current best established practice and results. We present the initial report of 40 patients in a newly established Head and Neck practice. The T stages for these patients range from T1-T3 and the focus is on looking at whether patients with advanced stage tumors require longer term nutritional support. In our practice, adjuvant radiotherapy is given to those patients with more than 2 nodes positive in the neck and chemotherapy is added for close margins and extracapsular spread. As part of the treatment plan in Celebration all patients are assessed before and after treatment by a nutritionist who assesses body weight composition. The early results show that patients who need to receive adjuvant chemoradiotherapy following TORS will lose a high percentage of lean muscle mass and may actually gain body fat. Our initial policy had been to NOT place gastrostomy tubes for these patients, however our results indicate that patients who will require chemoradiotherapy post TORS develop severe dyspagia initially, lose a significant amount of lean body mass and typically require enteral supplementation.

Conflict of Interest Declaration: Dr J Scott Magnuson- Da Vinci, Medrobotics, Luminis

WEIGHT LOSS AND THE USE OF ENTERAL FEEDING IN PATIENTS WITH OROPHARYNGEAL CANCERS UNDERGOING RADIOTHERAPY

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Introduction: Patients with oropharyngeal cancers undergoing radiotherapy can experience varying degrees of weight loss during treatment and this may continue for weeks after. Concurrent chemotherapy can impact on the severity of toxicities, potentially leading to inadequate calorie consumption and subsequent weight loss. Feeding tubes are often used to ensure caloric intake is maintained and to minimise weight loss. This retrospective review aims to investigate the use of prophylactic and reactive feeding tubes and the impact on weight.

Method: A retrospective review is being undertaken in the department of Radiation Oncology at the Prince of Wales Hospital. Patients include those with oropharynx cancer (tonsil, base of tongue and soft palate), who have undergone radiotherapy +/- chemotherapy during 2005-2013.

An initial database included those subjects who had treatment in 2005-2010 and additional data is now being incorporated. Parameters include percentage weight loss, duration of feeding and feeding tube use at various time points up to 24 weeks post treatment.

Results: Analysis of the initial database of 37 patients who had concurrent chemoradiation, revealed patients who had a prophylactic PEG lost significantly less weight during treatment (mean loss 1.75%, $p=0.007$) when compared to patients who received reactive feeding tubes (8.67%) and those with no tube(6.10%). This was also observed at the 6 week post treatment interval ($p<0.05$). Whether this trend continues is being investigated.

Conclusion: It is anticipated the additional data will allow more extensive review of weight changes during and post treatment and the impact of enteral feeding in this patient population.

Conflict of Interest Declaration: None.

SPEECH PATHOLOGY AND DIETETIC SERVICES OFFERED DURING (CHEMO) RADIOTHERAPY FOR HEAD AND NECK CANCER: AN EXAMINATION OF PRACTICE PATTERNS AND CONSUMER PERCEPTIONS

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National and international cancer agencies recommend regular involvement of speech pathologists to provide supportive care intervention during and following non-surgical treatment for head and neck cancer (HNC). Unfortunately, growing patient numbers and the recognised insufficiency of available specialist services has the potential to deprive patients of best-practice care. Hence, it is necessary to examine current care models and identify clinical shortfalls and strengths, to enhance services for this population within staff/service constraints. This project therefore aimed to examine current practice patterns and perceptions of key stakeholders (patient, carer, clinician), to inform the optimisation of speech pathology services for this population. Cross-sectional data was collected on patient and clinician perceptions regarding their perceived need to attend scheduled speech pathology/dietitian sessions (standard care), the prevalence of patient- and carer-reported distress, and clinicians' perceptions of current service provision and its constraints. Analysis revealed a significant clinical need for routine speech pathology/dietetic intervention. However, a proportion of sessions were shown to be over-servicing aspects of swallowing and nutrition whilst simultaneously under-servicing patient and carer distress. Such findings call for the development of alternate service models to better identify HNC patients and carers in need of services, to ultimately provide more efficient, and comprehensive intervention. This presentation will discuss the implications of the data collected, and propose potential solutions, including the use of computerised screening of swallowing, nutritional, and distress status, which may enhance patient triage and the provision of holistic supportive care intervention in the future.

Conflict of Interest Declaration: None.

DOES MALNUTRITION AT PEG PLACEMENT PREDICT COMPLICATIONS

J. Harrowfield and J. Dumbrell

Peter MacCallum Cancer Centre

Purpose: Currently Peter MacCallum Cancer Centre places approximately 85 percutaneous endoscopic gastrostomy (PEG) tubes per year. Complication rates as a result of PEG placement have previously been studied. This study aims to examine; 1) the current PEG related complication rates for patients at Peter Mac and 2) the possible relationship between nutrition status at PEG insertion and both PEG related complications and nutrition related outcomes.

Methodology: A retrospective audit of radically treated head and neck patients who underwent PEG insertion in 2013. Primary outcome measures are presence of PEG infection and change in nutritional status using the patient generated subjective global assessment (PGSGA) tool. Secondary outcome measures include chest infections, PEG displacement, % weight loss and nutrition related hospital admissions. The collection period is from PEG insertion to 8 weeks post (chemo) radiotherapy.

Results/Outcomes: In total 70 patients will be examined. Data is currently being collected and will subsequently be statistically analysed. Complication rates will be compared to rates found in previous studies. Patients who are malnourished at PEG insertion according to the PGSGA score will be compared with well-nourished patients. Preliminary results indicate that patients that are malnourished on PEG insertion are more likely to experience a deterioration in nutritional status. It is too early to predict the difference in other complication rates. Statistical analysis will be completed by July 2014.

Conclusion: It is predicted that a relationship between nutritional status at PEG insertion and complications exist, especially in relation to nutritional status.

Conflict of Interest Declaration: None.

REFERRAL PATTERNS FOR ORAL SQUAMOUS CELL CARCINOMA: 20 YEARS PROGRESS

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Royal Melbourne Hospital

Background: The prognosis for patients with advanced disease is generally worse than for patients with small volume disease. The oral cavity is accessible for examination and biopsy, and yet many patients present with advanced disease.

Objectives: The purpose of this study was to review the referral patterns for patients with OSCC managed by the RMH Head and Neck Oncology Stream and to evaluate changes in referral patterns and management delay compared to a study published 20 years ago.

Methods: The ACCORD Database and hospital records of all patients treated at RMH for OSCC between Jan 1 2008 and Dec 31 2010 were reviewed retrospectively. Clinical data (including demographics, symptoms, TNM staging, referral source, dates of presentation, diagnosis, management) were obtained. The data was transferred to al datasheet and analysed.

Results: Of the 101 patients, fifty-two patients first sought help from general medical practitioners, whilst 43% initially attended a dentist. The time between the onset of symptoms to diagnosis ranged from zero to over 3 years, with a median time of 11 weeks. The most common presentation was of an ulcer. Seventy percent of patients presented with T1 (39%) or T2 (31%) SCC. 37% of people were initially managed inappropriately, of these 21% were initially treated with antibiotics. 50% of patients were referred to specialist as initial management.

Conclusion: The results of this study show a reduction in the overall diagnostic delay. A shift towards initial presentation to a medical practitioner is noted. There are multiple factors contributing to delay including denial of the significance of symptoms by patients, inappropriate initial management and failure to recognise the malignancy by practitioners. Further improvement should be possible with both community and clinician education.

Conflict of Interest Declaration: None.

Session 6A (Concurrent A) – Skullbase/ Cutaneous And Head & Neck Cancer

THE NEW THERAPEUTICS OF METASTATIC MELANOMA

Brian Stein

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Background: Metastatic melanoma is regarded with apprehension because of its capricious behaviour, tendency to unusual metastatic spread, proclivity to CNS metastasis and chemotherapy resistance.

Survival depends on pattern of metastasis and serum LDH. Large databases show ~5% 10 year survival

Stage	Metastasis	LDH	1 year survival
M1a	Skin, nodes	Normal	~60%
M1b	Lung	Normal	~55%
M1c	Other	Or elevated	~40%

Melanoma biology: About 2/3 of melanomas have mutations in B-raf and inhibitors result in responses in about 50% (~ 5% to chemotherapy) with a survival advantage over chemotherapy. MEK (a molecule involved in B-raf resistance) inhibitors are also active in raf mutated patients and combinations of MEK and Raf inhibitors produces more responses and longer response times, however patients do progress and these agents are only active in mutated melanoma.

Co-opting adaptive immunity: melanoma has always been the flag bearer defending the concept that immunity had any value in oncology with low rates of complete durable responses with non-specific immunological stimulation with IL2, but this typically required administration in an ICU limiting popularity. Several agents that essentially target immune tolerance by interfering with co-stimulatory molecules (e.g. CTLA4, PD1) have shown similar results with far better tolerance, but immune related adverse effects can still be spectacular or lethal. Combining different immune targeting agents and combinations with molecular inhibitors are being explored.

Conclusion: understanding of immunology and molecular biology has been applied with positive results, but toxicity, resistance, and cost remain obstacles.

A RETROSPECTIVE ANALYSIS OF THE MANAGEMENT OF LOCALLY ADVANCED NASOPHARYNGEAL CARCINOMA (NPC) IN SOUTH WEST SYDNEY: A DIVERSE PATIENT POPULATION

T. Tse, M. Lee, V. Bray, A. Fowler and D. Forstner

University of New South Wales Liverpool Cancer Therapy Centre

Purpose: Our institution treats a diverse population with NPC. Current standard of care management for locally-advanced NPC is concurrent chemoradiation followed by adjuvant chemotherapy (CCRT+ACT). Compliance (completion of all proposed treatment) of CCRT+ACT is low and distant failure is high. Neoadjuvant chemotherapy followed by concurrent chemoradiation (NACT+CCRT) may improve chemotherapy delivery resulting in superior outcomes.

Methodology: Medical records of 68 consecutive NPC patients presenting between May-2000 to October-2012 at Liverpool Cancer Therapy Centre were reviewed and Kaplan-Meier survival analysis performed on 51 patients receiving definitive treatment.

Results: Median age at diagnosis was 50 years (31-79)with 84% male. 86% of patients were born outside of Australia; 65% in South-East Asia. Stage: III 28%; IV 33%. Median follow-up; 4.7 years (0.6-13.3 years). 5-year overall survival (OS), progression-free survival, locoregional-control (LRC) & distant metastasis-free survival (DMFS) were 81.4%, 73.3%, 87.8% & 81.4% respectively. 4 patients received radiotherapy alone. 21 patients (Stage IV: n= 13; 62%) received NACT+CCRT with 81% compliance. 26 patients (Stage IV: n=4; 15%) received CCRT+ACT with 35% compliance. 5-year OS of patients undergoing NACT+CCRT vs. CCRT+ACT were 81.9% and 77.6% (p=0.72). 5-year DMFS of patients undergoing NACT+CCRT vs. CCRT+ACT were 80.0% and 79.5% (p=0.72).

Conclusion: Our high LRC suggests improvements in survival should target distant failure with improved chemotherapy delivery schedules such as NACT+CCRT. OS and DMFS remain similar between NACT+CCRT vs. CCRT+ACT despite higher proportions of Stage IV patients receiving NACT+CCRT. The utility of NACT+CCRT vs. CCRT+ACT is being explored by the Phase-III NPC-0501 trial in Hong Kong.

Conflict of Interest Declaration: None.

PATTERNS OF CARE AND OUTCOME OF PATIENTS WITH HPV P16+ OROPHARYNGEAL SQUAMOUS CELL CARCINOMA TREATED AT A TERTIARY HOSPITAL: AN UPDATE

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Purpose: To evaluate patterns of care and the oncologic outcomes of p16 positive oropharyngeal squamous cell carcinoma (OPSCC+) patients treated at a tertiary hospital.

Methodology: Primary endpoints were locoregional control (LC), disease free survival for distance recurrence (DFS-DR) and overall survival (OS). Secondary endpoint was late toxicity outcome. The University of Washington Quality of Life (QoL) Questionnaire (version 4.0) was used for toxicity assessment.

Results: A total of 86 consecutive OPSCC+ patients were treated with radical intent between July 2009 and December 2013. Median age was 57 (range 38 – 81), the male:female ratio was 80%:20% and 63 (73.3%) were smokers/ex-smokers. Sixty (70%) patients had primary surgery (PS) with the majority (57, 95%) requiring adjuvant therapy (59.6% chemoradiotherapy, 38.3% radiotherapy). 26 (30%) had primary radiotherapy (PRT) with (24) or without (2) chemotherapy. After a median follow up of 15 months (range 3-56), there were no statistically significant differences in the hazard of death, distant recurrence or locoregional recurrence by primary treatment group. 59 (68.6%) patients completed the QoL survey (45 PS and 14 PRT). Only saliva toxicity was found to have a statistically significant association with treatment group, worse with PRT (P = 0.0017).

Conclusion: The majority of patients having PS required adjuvant therapy but there were no significant differences in oncological outcome between PS and PRT in this cohort. Randomised controlled trials will be required to compare these two approaches as appropriate initial treatment in OPSCC+.

Conflict of Interest Declaration: None.

Session 6B (Concurrent B) – Free Papers

THE PROGNOSTIC VALUE OF 18F-FDG PET-CT SCAN PERFORMED IN THE THIRD WEEK OF CHEMORADIATION FOR LOCALLY ADVANCED HEAD AND NECK SQUAMOUS CELL CARCINOMA

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Purpose: To evaluate the prognostic value of 18F-FDG PET-CT performed in the 3rd week of treatment in patients with locally advanced head and neck squamous cell carcinoma (HNSCC) treated with primary radiotherapy (RT) +/- chemotherapy.

Methodology: Seventy-three patients with HNSCC (47 Oropharynx, 19 Larynx, 4 hypopharyx and 3 oral cavity) treated with radical chemo/radiotherapy received PET-CT scans pre-, intra- (iPET, 3rd Week of RT) and post-treatment (pPET, 3 months post-treatment) and metabolic response was assessed using visual (compared to mediastinal blood pool and liver) and semiquantitative assessments with standardised uptake value. Primary endpoints were iPET response in correlation with 3 year locoregional recurrence free survival (LRFS), distant recurrence free survival (DRFS) and overall survival (OS). Comparison of iPET CMR and non-CMR groups with 3-year LRFS, DRFS and OS was performed.

Results: Median age was 60 years (range 39-81) and AJCC 7th Edition clinical stage II, III and IV were 4, 21 and 48 patients respectively. Forty-nine, 13 and 11 patients received concurrent Cisplatin/Carboplatin, Cetuximab and no chemotherapy respectively. Sixteen patients were found to have iPET-CMR. After a median follow-up of 21 months (range 3-60), 3 years Kaplan Meier LRFS, DRFS and OS estimates for CMR and non-CMR groups were 91.7% Vs 71.0%, 85.9% Vs 82.8% and 83.9% Vs 73.0% respectively.

Conclusion: CMR during radiotherapy appears to be associated with better local control and OS but no difference in DRFS, compared to non-CMR. The use of intra-treatment FDG-PET may have a role in determining adaptive radiotherapy treatment escalation or de-escalation.

Conflict of Interest Declaration: None.

EXOME MUTATION DATA FROM THE CANCER GENOME ATLAS SUGGESTS ROLE OF HUMAN PAPILLOMA VIRUS IN ORAL SQUAMOUS CELL CARCINOMA

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Department of Surgery, The Royal Melbourne Hospital, The University of Melbourne Walter and Eliza Hall Institute, Melbourne, Victoria Melbourne Dental School, The University of Melbourne

Introduction: The role of HPV in oropharyngeal carcinoma has been well described, although its role in oral cavity carcinomas is uncertain. Through an analysis of The Cancer Genome Atlas, we examine molecular profiles of tumours of HPV-positive and HPV-negative cancers.

Methods: Somatic mutation data from whole exome sequencing and matching clinical data for 407 cases was retrieved from the TCGA data portal. Gene expression data was available for a subset of 263 cases.

Results: Of the 407 cases, 74 were HPV-positive, the majority of which were HPV-16. HPV-positive tumours were more common in males and oropharyngeal subsites. Decreased mutation of TP53, FAT1, CDKN2A, NOTCH1, CASP8 and RAS were observed in HPV-positive versus HPV-negative cancers. Mutation rates of TP53, FAT1 and CDKN2A were decreased in HPV-positive oropharyngeal cancers. Intriguingly, TP53 mutations were also less common in HPV-positive oral cancers. Increased expression of CDKN2A and TP53 was found in HPV-positive oropharyngeal cancers. Considering the oral cavity only, CDKN2A remained more highly expressed in HPV-positive cancers.

Discussion: TP53 mutation is a key oncogenic driver. Where TP53 has been inactivated by the HPV E6 protein, inactivating mutations are not required. Decreased TP53 mutation may serve as an indicator of HPV activity in the oropharynx. Decreased TP53 mutation in HPV-positive oral cancers suggests a causal role for HPV in oral cavity subsites. Increased CDKN2A expression, which codes for the p16 protein up-regulated in HPV infection, in HPV-positive oral cancers provides corroborating evidence. This data suggests that HPV plays a role in oral carcinoma oncogenesis, and HPV status of oral cancers should therefore be determined as part of routine pathologic examination.

Conflict of Interest Declaration: None.

EBC-46: A NOVEL TREATMENT FOR HEAD AND NECK SQUAMOUS CELL CARCINOMA

C. M. E. Barnett, R. A. Adams, B. Panizza, G. Boyle, P. Reddell and P. G. Parsons

Princess Alexandra Hospital, Brisbane, QLD

Queensland Institute of Medical Research Berghofer, Brisbane, QLD

The University of Queensland, Brisbane, QLD QBiotics Ltd, QLD

Purpose: The five-year survival rate for patients with head and neck squamous cell carcinoma (HNSCC) has remained at ~50% for the past 30 years despite advances in surgical technique, chemotherapy agents and radiation therapy technology. EBC-46, is a novel diterpene ester discovered by QBiotics Pty Ltd (QLD, Australia). The compound is extracted from the seed of the fruit from the Blushwood tree, Fontainea picrosperma. Veterinary clinical trials, involving over 100 horses, dogs and cats with solid tumours found that nearly all tumours were eradicated by intratumoural injection of EBC-46.The purpose of this study was to confirm the efficacy and safety of intratumoural treatment of HNSCC with EBC-46 in mouse models.

Methodology: Subcutaneous xenografts of three different HNSCC cell lines were grown in 30 Balb/c (FoxN1-/-) mice and treated with intratumoural injection of 30 μg EBC-46 or a control solution. Tumour size and adverse effects were longitudinally recorded.

Results: Treatment with EBC-46 completely ablated the HNSCC xenografts via haemorrhagic necrosis and stimulation of the innate immune response within 6-10 days. A small humber of tumours (6/30) recurred at the edge of the treatment site, however were subsequently ablated with further EBC-46 injection. The control solution had no effect on tumour growth. No significant adverse effects were identified.

Conclusion: Intratumoural injection of EBC-46 into HNSCC xenografts effectively and safely ablates the tumour. Tumour ablation did not occur in xenografts treated with a control solution. Recurrence at the edge of the EBC-46 treatment site may have been secondary to early local spread by an inherent aggressive tumour phenotype. These significant results provide the foundation required for progression to human clinical trials.

Conflict of Interest Declaration: P.G. Parsons is a paid consultant for QBiotics. P. Reddell is a paid employee of QBiotics.

GALLIUM-68 / LUTETIUM-177 THERANOSTIC PARADIGM IN HEAD AND NECK SQUAMOUS CELL CARCINOMA

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Fremantle Hospital The University of Western Australia, Royal North Shore Hospital

The objective of this study was to establish, as proof-in-principle of a new theranostic paradigm for head and neck squamous cell carcinoma using Gallium-68-DOTATATE for molecular diagnostic PET/CT imaging with the option for escalation to therapy with Lutetium-177-DOTATATE.

Methods: A single centre prospective pragmatic phase 2 theranostic clinical trial of gallium-68-DOTATATE PET/CT with 18F-FDG PET/CT as a comparator and selected pre-targeted therapeutic escalation with Lutetium-177 DOTATATE with disease uptake confirmed on SPECT. Imaging results are correlated, where possible with immunohistochemical staining of surgical/biopsy specimens for somatostain receptor (SSTR) expression.

Results: SSTR is highly and differentially expressed in HNSCC and this represents an effective target for Molecular diagnostic imaging which is a valuable investigational adjunct especially for the oropharynx and where comorbid inflammatory, post-surgical or post radiotherapy changes reduce the efficacy of 18F-FDG-PET/CT. Theranostic progression to Lutetium-177-DOTATATE therapy is a feasible adjuvant or palliative treatment option and is highly correlated with pre-targeted Gallium-68-DOTATATE uptake on PET/CT. Immunohistochemical SSTR expression does not appear to correlate with imaging outcome.

Conclusions: This study establishes proof-in-principle that SSTR can be specifically targeted with Gallium-68-DOTATATE for molecular diagnostic imaging as a useful adjunct in the diagnosis of HNSCC as it adresses a number of limitations of non-specific 18F-FDG-PET/CT imaging for malignancy, especially for the oropharynx. In addition, this study provides proof-in-principle for a theranostic paradigm as a new approach to molecular targeted adjuvant therapy with Lutetium-177-DOTATATE that can be pre-targeted with Gallium-68-DOTATATE.

Conflict of Interest Declaration: None.

INCIDENCE OF HUMAN PAPILLOMA VIRUS RELATED ORO-PHARYNGEAL SQUAMOUS CELL CARCINOMA IN NORTHERN TERRITORY, AUSTRALIA

A. Masood, N. Fitzpatrick and H. Patel

Royal Darwin Hospital

Background: Compared with other Australians, Indigenous population of Northern Territory have higher incidence of head and neck cancer; around 32.78 per 100,000 compared to 19.5 per 100,000 for the rest of Australia. Human Papilloma (HPV) and its link to head & neck cancer is of significant interest currently as it has been noted that oro-pharyngeal cancers have been on the rise. The aim of the current study was to quantify the rising incidence of Human Papilloma Virus associated oro-pharyngeal squamous cell carcinoma (SCC) in the Northern Territory.

Methods: Royal Darwin Hospital is the only public hospital in the TopEnd of Northern Territory providing comprehensive management of Head & Neck cancers including surgery and chemo-radiotherapy. A retrospective review of Royal Darwin Hospital histopathology database was carried out over a five year period between 2008 to 2013 identifying P16 positive oro-pharyngeal squamous cell carcinoma.

Results: 79 cases of oro-pharyngeal SCC were diagnosed between 2008 and 2013. 47%(n=37) had P16 immunochemistry performed of which 62%(n=23) tested positive. 53% had not had HPV immunochemistry performed.

Conclusion: There is a paucity of literature regarding HPV related oro-pharyngeal SCC in the Northern Territory. Although, the cohort of patients is small, this study quantifies and notes the high incidence of HPV-related oro-pharyngeal SCC in the Northern Territory.

Conflict of Interest Declaration: None.

IMPROVING DIETITIAN KNOWLEDGE, CONFIDENCE AND PROVISION OF EVIDENCE-BASED MEDICAL NUTRITION THERAPY FOR MANAGEMENT OF CHYLE LEAK

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Purpose: Chyle leak is an uncommon complication of head and neck surgery, yet it can be challenging to manage in a population with a high prevalence of malnutrition. Medical Nutrition Therapy (MNT) can provide effective conservative treatment for chyle leak, preventing unplanned returns to theatre and decreased hospital costs; however few evidenced-based guidelines exist. Evidence on delivery of safe and effective MNT for chyle leak using the enteral route is also lacking. For patients allowed oral intake, translating recommendations for very low fat/fat free diets into appropriate hospital menu options, along with educating patients, families and nursing staff on appropriate therapeutic diet can be challenging.

Methodology: St Vincent's Hospital Melbourne (SVHM) Nutrition Department conducted a literature search, consulted with surgeons, dietitians and in-house Food Services to create evidence-based MNT guidelines for chyle leak via oral, enteral and parenteral routes, education materials and therapeutic menus.

Results: An anonymous survey completed by SVHM Dietitians (n=11) was used to evaluate the guidelines. Self-rated knowledge and confidence in providing MNT for patients with chyle leak improved following implementation of the guidelines, from 4.45 to 8.09 and 3.91 to 8.09 out of 10 respectively (both p=<0.05). Perceived ease of overall nutritional management of this patient population also improved from 'difficult' to 'very easy'.

Conclusion: Implementation of evidenced-based guidelines at SVHM for the nutritional management of chyle leak has successfully improved the confidence, knowledge and perceived ease of Dietitians' management. Further research is required to determine if the guidelines have had a positive effect on patient outcomes and hospital costs.

Conflict of Interest Declaration: None.

RESPONSE ASSESSMENT FDG-PET CT SCAN IN RADICALLY TREATED HEAD AND NECK SQUAMOUS CELL CANCER – RESULTS OF A PROSPECTIVE STUDY

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Objective: To evaluate the diagnostic and prognostic ability of FDG PET-CT scan in patients with head & neck squamous cell cancer (HNSCC) treated with chemoradiotherapy or radiotherapy only.

Materials and methods: 59 patients with HNSCC planned for radical non-surgical treatment were randomized to receive either LA based 3D conformal RT (3DCRT) or Intensity Modulated Radiation Therapy (IMRT). In addition to routine clinical examination and staging investigations, patients had a FDG PET-CT scan at baseline and on

first follow up for response assessment. No evidence of disease for at least 6 months after the completion of treatment was considered confirmation of complete clinical response.

Main outcome measures: Presence or absence of disease during the follow-up period was used to calculate the sensitivity, specificity, positive and negative predictive values of PET-CT for the primary site and node.

Results: At a median follow-up of 52.5 months, 55.6% patients were alive and disease free, Response assessment PET-CT was done at a median of 9 weeks (range 5 – 18 weeks). PET-CT assessment of the primary had sensitivity, specificity, positive and negative predictive values of 81.8%, 93%, 75% and 95.2% respectively; the corresponding figures for the node were 44.4%, 95.6%, 66.7% and 89.6%. The median baseline SUVmax at primary and node were 14.9 and 8.1, respectively. When PET-CT was done after 10 weeks, no false positive or false negative findings were seen. Patients with negative PET at first follow-up had a significantly better progression free and overall survival.

Conclusions: Disease evaluation using PET-CT has an overall accuracy of 80%. High baseline SUVmax correlates with worse clinical outcomes. Negative PET-CT at first follow up is a predictor of survival.

Conflict of Interest Declaration: None.

PAROTID NEUROFIBROMA

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Royal Perth Hospital, Western Australia

Purpose: This case report demonstrates a rare case of extracranial plexiform neurofibroma in an adult with parotid and neck disease. It will highlight the clinical presentation and challenges in diagnosis and management.

Methodology: A 50 year old gentleman presented with chronic intermittent left sided neck pain in association with left sided preauricular and upper cervical neck masses. 10 year prior to presentation he had undergone a superficial left parotidectomy for pleomorphic adenoma. Computer Tomography scan showed a soft tissue mass within the left inferior alveolar nerve canal with multiple lesions in the parotid tissue, left masseter muscle and left parapharyngeal fat. MRI confirmed a nerve sheath tumour involving the trigeminal nerve branch (V3) within the inferior alveolar canal with multiple lymph nodes. Fine needle aspirations were non diagnostic.

Results: The patient underwent a revision left total parotidectomy with selective neck dissection. Histology revealed plexiform neurofibroma of the left inferior alveolar nerve with multiple deposits in lymph nodes and the deep parotid gland.

Conclusions: An MRI looking for spread of neurofibromas and genetic testing for NF1 is pending and the results will be discussed in the presentation.

Conflict of Interest Declaration: None.

THE CLINICAL UTILITY OF PET/CT IN HEAD AND NECK CANCER

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Monash Health, Victoria

Purpose: The aim of this study was to determine the utility of position emission tomography and computed tomography (PET/CT) in patient management during Head and Neck Multidisciplinary Team Meetings.

Methodology: A single-centre retrospective study was performed on patients who had PET/CT and discussed at the Head and Neck multidisciplinary meeting (MDT) from January to December 2013. Patient demographics, tumour types, imaging details, treatment and outcomes were analysed. The application of PET in the diagnosis, staging, assessment for treatment response and restaging or recurrence was assessed.

Results: 203 PET/CT scans were performed on 177 patients in 2013. Data on patient demographics and tumour characteristics will be presented. PET was utilised at Monash as follows: 60 scans were performed for diagnosis, 130 for staging, 22 to assess treatment response, 13 for disease surveillance, 16 for detection of recurrence and 27 for restaging of recurrence. 52 scans were performed to aid both diagnosis and staging, and 8 scans were performed for both detection and restaging of recurrence.

Conclusion: PET/CT plays a key role in the management of head and neck cancer. In our experience, PET/CT has been utilised largely to workup patients who initially present with a head and neck malignancy, although it plays a key role in workup of patients with recurrent disease. As PET/CT is increasingly recommended as an imaging modality in head and neck cancer, it is important to understand the way in which it is being used in the clinical setting.

Conflict of Interest Declaration: None.

Session 7 – Larynx And Hypopharynx

REFLECTIONS AND PROJECTIONS ON ORGAN SPARING PROTOCOLS FOR CANCER OF THE LARYNX AND HYPOPHARYNX

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Organ sparing approaches for larynx and hypopharynx cancers requiring total laryngectomy have been investigated since the mid-1980s. Currently there are two evidence-based approaches: induction taxane, 5-fluorouracil, cisplatin (TPF) followed by radiotherapy in responding patients (favored in Europe) and concomitant cisplatin and radiotherapy (favored in North America). The duel goals are increased survival and a functional preserved larynx. Comprehensive reporting of acute and late effects and measurements of function are critical to evaluating the overall benefit of protocol driven treatments. The long term results of the RTOG 91-11 trial in larynx cancer and the preliminary results of the GORTEC comparison of induction fluorouracil, cisplatin versus TPF in larynx and hypopharynx are the justifying trials. Additional questions concern the use of sequential induction chemotherapy followed by chemoradiation and the use of concurrent cetuximab versus cisplatin. The TREMPLIN randomized phase II trial evaluating concurrent cisplatin or cetuximab with radiotherapy following induction TPF sought to define a least toxic, intensified regimen. The negative outcome of this study will be reviewed and consideration to a path forward for more innovative approaches discussed.

Conflict of Interest Disclosure: None.

MACMILLAN CANCER SUPPORT, HISTORY & FUTURE AIMS IN THE UK

Amanda Dear RGN, Dip HS,Bsc

Head & Neck Macmillan Nurse Specialist, Freeman Hospital, Newcastle upon Tyne, England

Douglas Macmillan as a young man back in 1911 watched his father die of cancer, his father's pain and suffering moved him so much he founded 'The Society for the Prevention and Relief of Cancer'.

Macmillan Cancer Support is a large charitable organisation in the UK. With a lot of hard work and dedication its supporters raised a record breaking £186.6 million last year.

This presentation will answer how Macmillan Cancer Support started and the significant milestones in the growth of this charity. Macmillan Cancer Support provides support in many different ways and has as its aim for the future that 'by 2030 the 4 million people living in the UK with cancer will be able to state 9 outcomes'. These 9 outcomes will be shared and how Macmillan Cancer Support intends to achieve them.

MINT MEETING INFORMATION NEEDS TOGETHER

L. Bennett [1]. V. GRAHAM [1]. I. Bardon [1], D. Bellamy [2], R. Eisenberg [1], S. Lambert [3], S. McKendry [1], V. Parker [4,5,6], H. Shortland [1], G. Shylan [7] and J Smith [1]

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Introduction: In this presentation we will discuss the development of a DVD education resource developed for use by patients and their families before, during and/or after surgery. The DVD was produced collaboratively between health professionals, Non-Government Organisations, patients and their families. Impetus for the DVD was a previous qualitative descriptive study conducted by the team that provided insight into the experience of people undergoing head and neck cancer surgery.

Purpose: The aim of the DVD is to provide a comprehensive and flexible resource for patients and their families with the outcome being, empowerment throughout the treatment trajectory. The purpose of the evaluation is to measure the impact of the DVD on self-efficacy, coping, uncertainty, distress, and information need, and to ensure it has no deleterious effects.

Methodology: A mixed method study, conducted across multiple sites, involving a quantitative pilot survey and a Randomised Control Trial, together with, qualitative inquiry on how and when people use the DVD. The pilot serves to validate the tool for use in this population and will be used to measure outcomes in the RCT.

Results: The survey has been distributed and this paper will present preliminary findings of the pilot data and how this will inform the survey for the RCT.

Conclusion: Our person centred and consumer focus has ensured that patients and their families views, values and need have informed the development of the DVD resource. Robust evaluation will ensure the resource is used in a meaningful way, making a difference to reduce distress and increase their ability to participate in their care.

Conflict of Interest Declaration: None.

MICRO-ASPIRATION AND LATE LARYNGEAL DYSFUNCTION FOLLOWING NON-SURGICAL TREATMENT FOR LARYNX/HYPOPHARYNGEAL CANCER

J Maclean [1], M Szczesniak [2], E Hau [3], P Graham [3] and IJ Cook [2]

Dept. Speech Pathology[1], Dept. Gastroenterology & Hepatology[2] & Dept. Radiation Oncology[3], St George Hospital, Sydney

Late dysphagia following head and neck cancer treatment is an under recognised and under reported problem with a significant associated morbidity and mortality. Micro-aspiration and laryngeal dysfunction are recognised sequelae, however, there is little reliable long-term data regarding the prevalence and risk of aspiration in long-term survivors. Our database of survivors (1-8 years following non-surgical treatment) records the prevalence of late dysphagia is as high as 64%. The implications of significant aspiration are serious, in our series, 20% of non-cancer related deaths were as a result of aspiration.

There are three areas that will be discussed during this presentation;

First, the likely prevalence of micro-aspiration in patients treated with non-surgical treatments for larynx/hypopharyngeal cancer. Discussion will be based from our long-term dysphagia follow up studies and recent reports in the literature. Second the mechanisms of aspiration will be discussed and finally the implications and treatment options for patients presenting with aspiration will be presented.

HEAT MOISTURE EXCHANGER (HME) EQUIPMENT PROVISION TO PATIENTS IMMEDIATELY POST LARYNGECTOMY - DOES IT MAKE A DIFFERENCE WITH TRACHEOSTOMA AND VOICE OUTCOMES?

P. Chapman, B. Lyons, G. Dickinson, K. McKinley, T. West and S. Brinkmann

St. Vincent's Hospital Melbourne

Heat Moisture Exchanger (HME) equipment is critical for tracheostoma care post laryngectomy, as it filters, heats and retains moisture, to protect the lower airway from drying and cooling, without obstructing breathing. It is not standard care post laryngectomy.

Purpose: To investigate if early provision of HME equipment to patients post laryngectomy improves their care and confidence with managing a tracheostoma and voice, compared to standard care.

Methodology: During April 2011-May 2013, 32 patients planned for a total laryngectomy were recruited and randomly assigned to a control (n=15) or intervention (n=17) arm. 27/32 had a primary TEP and insertion of an indwelling voice prosthesis. The control arm received standard care. The intervention arm received HME equipment. All participants completed questionnaires at 1, 2 and 4 weeks post-surgery. Voice samples at 2 and 4 weeks post-surgery were analysed. Data was analysed using Fisher's Exact test and McNemar's test.

Results: 32 week 1, 30 week 2 and 29 week 4 questionnaires were analysed. The HME arm had increased tracheostoma care confidence at week 1 and 2 post-surgery compared to control arm ($p<0.001$). The HME arm had thinner secretions and no/minimal suctioning at week 1 and 2 post-surgery ($p<0.002$). Voice outcomes improved with HME.

Conclusion: The HME arm had significant improvements in tracheostoma care confidence and secretions. These results add further evidence to support HME provision to patients immediately post laryngectomy, to assist with earlier confidence in tracheostoma care, thin secretions and aid voicing. HME use post laryngectomy should be the new standard care.

Conflict of Interest Declaration: None.

Session 8 – Reconstruction in Head and Neck Surgery

DECISION MAKING IN HEAD AND NECK RECONSTRUCTIONS WITH COSMETIC, FUNCTIONAL AND DONOR SITE CONSIDERATIONS

Swee T Tan

Head and Neck / Skull Base Surgery Programme, Hutt Hospital; and Gillies McIndoe Research Institute, Wellington, New Zealand

Resection defects resulting from head and neck cancer surgery are heterogeneous and challenging with a plethora of reconstructive procedures available. In this presentation, the author outlines the guiding principles underscoring decision making in head and neck reconstructions with particular attention to cosmetic and function considerations. This will be illustrated by a series of clinical cases with varying requirements ranging from replacement of single (skin cover, skeletal or lining) elements, through 3-dimentional composite defects and dynamic restitution, in an attempt to restore form and function. Central philosophy and practicalities will be offered on minimising donor site morbidity as an integral part of the global approach to preservation of quality of life in the treatment of head and neck cancer.

Conflict of Interest Declaration: None.

JEJUNUM FREE FLAP FOR HYPOPHARYNGEAL RECONSTRUCTION. EXPERIENCE OF 36 CONSECUTIVE CASES

V. K. Shankhdhar, P. Yadav and D. Jaiswal

Tata Memorial Hospital, Mumbai,Maharashtra, India

Aim and objectives: Extensive hypopharyngeal cancers result in total circumferential laryngopharyngectomies requiring a conduit between base of tongue and cervical esophagus. Such defects are best reconstructed using jejunum free flaps.Jejunum free flaps are best suited for such defects. The flap is still not popular due to short ischemia time and inability to salvage in cases of vascular compromise. This study is a review of these cases and lessons learnt to improve outcome and success rate of the procedure.

Methods: A total of 36 free jejunum flaps were done since January 2005 to April 2013. The jejunal flaps were done only in cases where the esophageal stump was in the neck. Most commonly facial artery and external jugular vein were used followed by superior thyroid artery and Internal jugular vein. To reduce ischemia time only a few sutures were taken for the jejunum and the vessel preparation at both the recipient site and flap vessel were done prior to jejunum detachment. The jejunal vascularity was restored within two hours always and with certain modifications even within one hour.

Observations: Male to female ratio of 4:1with an average age of 51 years. Time taken for reconstruction was least with jejunum flaps as vertical suture line is avoided. Tracheal esophageal prosthesis can be easily used for speech rehabilitation.Results:4/34 had fistulas and no strictures were observed. Total reexplorations for venous congestions were two and both the flaps were lost. All of them healed with conservative management.The success rate was 94%. In both the cases pectoralis major flap was done as salvage procedure.

Conclusions: The jejunal flap is a very good option for reconstructing circumferential defects after laryngopharyngectomy. It has a high success and minimal complication rate.

Conflict of Interest Declaration: None.

REGIONAL FLAPS IN HEAD AND NECK RECONSTRUCTION

Dr. Rajinikanth, Associate Professor in the Department of General Surgery including Head and Neck Oncology

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Advances in reconstruction techniques, mainly free flaps have improved the results in function and aesthetic outcome after head and neck ablative surgery. Although pectoralis major flap (PM flap) has been used as the workhorse flap in head and neck reconstruction, its use in head and neck defects seems to fall out of favour in the era of free tissue transfer. The aim of this presentation was to evaluate the current role and the factors that decide the use of regional flaps in the era of free flaps. Various studies show that regional flaps can obtain good functional results by careful selection of patients.

The selection of regional flap (like PMMC flap) over free flap was influenced by patient factors in most cases. Resource constraints remain a major deciding factor in a developing country setting.

A NOVEL APPROACH TO CLASSIFYING DEFECTS OF THE MID FACE: THE SECONDI MAPZ© SYSTEM

M Abu-Serriah, L Wong, S Richardson, A Fasanmade, D Wiesenfeld and IC Martin

Oxford University Hospitals NHS Trust, Oxford, UK; The Royal Melbourne Hospital, Melbourne, Australia; Sunderland Royal Hospital, Sunderland, UK

Defects of the midface can be complex due to the proximity of many important structures. Whilst there are several existing classifications of midfacial defects, none have gained universal agreement. The urgent need for a new approach to mapping midfacial defects does not stem from a simple philosophical concept or a trivial academic argument, but from logical, scientific, and strategic oncological principles. Current systems have serious drawbacks, which prevent rigorous outcome comparisons, and thus, impede research and development in this field. Modern surgical practice must be evidence based, and the lack of a simple and agreeable classification system of midfacial oncology jeopardises the opportunity of gathering and reaching such evidence. We propose a novel approach to classifying defects of the midface, which may potentially revolutionise methods of recording, communication and outcome reporting worldwide. The SECONDI MAPZ© system overcomes many of the problems associated with current classifications. SECONDI MAPZ© is a simple, concise, logical, and memorable classification that will allow more accurate reporting of disease patterns, defect extent, and treatment outcomes. The system may transform and facilitate communication amongst various members of the Head and Neck Oncology multidisciplinary team and enable the development of evidence-based midfacial oncological practice through precise and consistent data reporting and outcome comparisons, hence fostering a suitable environment for the development of evidence-based midfacial oncological practice.

Conflict of Interest Declaration: None.

CHOICE OF RECIPIENT VESSELS IN POST RADIOTHERAPY AND VESSEL DEPLETED NECK

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Aim and objectives: Head and neck free flap reconstruction after radiation with or without previous neck dissection can be very challenging as the vessels commonly used as recipient may be already excised. The dissection also is technically difficult due to fibrosis. This is a review of these cases, the recipient vessels used and the techniques used for anastomosis.

Methods: As recipient artery, facial was used in 26 cases, superior thyroid in 6 cases, end to side with external carotid in 3 cases, transverse cervical in 2 cases. As recipient vein, end to side with Internal jugular vein in 32 cases and with external jugular vein in 3 cases, in 2 cases the cephalic vein was used. A total of 37 such cases were operated from January 2012 to May April 2014.

Observations: The best and easiest option is to use the opposite side of the neck if it is healthy and vessels are available but sometimes due to the nature of the defect the vessel depleted side of the neck only is available. For venous anastomosis, internal jugular vein is invariably present and even cephalic vein can be used. For the artery, transverse cervical is usually available but the distal lumen is very small. Sometimes only external carotid is available and can be successfully used for end to side anastomosis.

Results: Total reexplorations for venous thrombosis were 2 and one was salvaged with a success rate of 97%. Complications like orocutaneous fistulas and infections occurred in 5 patients but were managed conservatively.

Conclusions: Even in recurrent and post radiation necks the recipient vessels are always available and good microvascular reconstruction is still possible. End to side anastomosis with the vein and artery is a very important tool in the armamentarium of a reconstructive microvascular surgeon.

Conflict of Interest Declaration: None.

SATURDAY 16 AUGUST 2014

Session 9 – Cancer Awareness

MOUTH CANCER AWARENESS CAMPAIGNING

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After being inspired by a patient Mouth Cancer Awareness Campaigning takes place annually in Newcastle upon Tyne, England, these campaigns have been growing year on year since commencing in 2007.

How the campaigns started, the aims, method and referral routes are discussed and a typical years campaign outcomes and results are shared.

Collaborative working is at the heart of these campaigns which have led to awareness building that not only involves the general public, but a wider audience including General Dental Practitioners, General Practitioners and other Health Care Professionals.

With financial backing from The Northern Head and Neck Cancer Fund the Northern Head and Neck Cancer Unit has been able to extend its awareness events programme this year.

PRESCRIBING PATTERNS IN HEAD & NECK CANCER AND OPPORTUNITIES TO IMPROVE QUALITY

Arlene A. Forastiere, William Flood, Elaine Whyler and Vlad Kozlovsky

Johns Hopkins University and Sidney Kimmel Comprehensive Cancer Center, Baltimore, MD; eviti, Inc, Philadelphia, PA, USA

Background: Variability in prescribing and deviations from evidence-based (EB) standards contribute to the high cost of cancer care and affect quality. We sought to evaluate prescribing patterns for curative treatment of HNSCC.

Methodology: The eviti® web based decision-support platform database of chemotherapy (CT) and radiation therapy (RT) treatment plans submitted for insurance pre-authorization between Feb 2011 and Nov 2013 was queried for analysis of patient characteristics and first line curative treatment.

Results: A total of 902 individual RT and CT treatment plans were submitted constituting 426 episodes of curative treatment (single or multimodality); 414 had sufficient detail for analysis. Only 9 of 414 pts were enrolled in a clinical trial. Approaches to definitive treatment by site were: oral cavity-surgery + adjuvant RT +/- CT in 89% of pts, chemoradiation(CRT) 11%; oropharynx & unknown primary: CRT 63%, surgery + adjuvant RT+/- CT 17%, RT alone 8.7%; larynx stage III/IV(M0)- CRT 73%, laryngectomy 17%, RT alone 10%; NPC- 92% cisplatin/RT, 61% adjuvant cisplatin/5-FU, and 27% an induction

regimen. CT regimens and variability: CRT was prescribed as definitive therapy in 215 pts. Single agent cisplatin prescribed in 63.7%, cetuximab 13.4%, carboplatin 8.8%, platinum + taxane 6.9%, other 6.9%. Induction CT was prescribed for 69 pts of which 37 (53.6%) had T4 or N3 tumors. Combination taxane, cisplatin, 5-FU was prescribed in 57%.

Conclusion: Few HNSCC pts are enrolled in clinical trials. NPC is usually managed according to the EB standard. Single agent cisplatin was prescribed for CRT in 64%, regimens with less evidence used in approx. 25% potentially over or under treat. When induction CT is prescribed, the EB regimen is often not used. Variability in prescribing provides an opportunity to improve quality.

Conflict of Interest Declaration: Professor Forastiere is an employee of eviti, Inc, Philadelphia, PA, USA. eviti, Inc is a health information technology company providing decision-support tools for improving the quality of cancer care.

HOW DO YOU DEVELOP A COMPREHENSIVE CANCER SERVICE IN A SMALL RADIOTHERAPY UNIT?

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Purpose: To discuss the development of a comprehensive high quality radiation oncology practice in a regional centre.

Methodology: Royal Adelaide Hospital's experience of developing a satellite single linear accelerator service at the Lyell McEwin Hospital in Adelaide then expanding this to a full head and neck service will be discussed in detail. This replicated the systematic 3 year process that preceded the opening of the Alan Walker Cancer Care Centre, Darwin in 2010.

Results: The Alan Walker Cancer Care Centre has 4 years of treating complex head and neck patients. The quality of the service provision and efforts to provide a culturally appropriate service led to a high level of compliance and satisfaction. The Lyell McEwin service is commencing this journey and a template will be discussed regarding endorsement of the essential components before a radiation oncology facility is able to deliver even standard head and neck radiation treatment, let alone IMRT.

Conclusions: The Australian and New Zealand Head & Neck Society is in a unique position with representatives from all major health practitioners' treating head and neck patients. The society may wish to have a role auditing or assisting smaller regional centres co-ordinate their care with major head and neck facilities in the capital centres. Co-ordination and delivery of service is complex, however lessons learnt at the Alan Walker Cancer Care Centre are now bearing fruit in the considerations for the care at the Lyell McEwin service.

Conflict of Interest Declaration: None.

IDENTIFICATION AND CHARACTERISATION OF CANCER STEM CELLS IN SQUAMOUS CELL CARCINOMA OF THE ORAL TONGUE

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Background: Squamous cell carcinoma of the oral tongue (SCCOT) is the most common subsite of oral cavity SCC. It causes significant morbidity and mortality and despite advances in treatment, 5-year survival is 60% which has remained unchanged for decades. The identification of cancer stem cells, initially in haematopoietic malignancies, has now been shown in many solid cancers. This study aimed to identify and characterise the cancer stem cell population within SCCOT.

Methods: Formalin-fixed and paraffin-embedded (FFPE) and snap-frozen SCCOT specimens were obtained from our tissue bank in accordance with HDEC-approved protocol. Fluorescent immunohistochemistry (IHC) was performed in SCCOT from 12 patients for the stem cell (CD44, Oct-4 and Nanog), lymphatic (Lyve-1 and VEGFR-3), vascular (CD34) and SCC (p63 and EMA) markers. IHC results were confirmed by western blot on snap-frozen SCCOT from 6 patients.

Results: IHC identified a population of cells within SCCOT that expressed the cancer stem cell markers CD44, Oct-4 and Nanog. The lymphatic endothelial markers, Lyve-1 and VEGFR-3, but not the vascular endothelial marker CD34, were also expressed by the same cells. Furthermore, this same putative stem cell population also expressed the SCC marker p63 but not EMA.

Conclusion: The identification of a cell population expressing stem cell, lymphatic endothelial and SCC markers highlights a novel phenotype of the cancer stem cells within SCCOT. The expression of lymphatic but not vascular endothelial markers by these cells offers novel insights into the biology and potential metastatic spread of these tumours.

Conflict of Interest Declaration: None.

A FOUR-YEAR REPORT OF MUCOSAL PRIMARY HEAD AND NECK CANCER PATIENTS TREATED WITH RADICAL INTENT RADIOTHERAPY AT NORTHERN TERRITORY RADIATION ONCOLOGY (NTRO): COMPARISON BETWEEN INDIGENOUS AND NON-INDIGENOUS PATIENTS

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Purpose: To evaluate the oncological outcomes of patients with mucosal primary head and neck cancer (MPHNC) treated at Northern Territory Radiation Oncology, Darwin, Australia.

Methodology: All MPHNC patients treated with radical intent from March 2010 to December 2013 were included. Oncological outcomes, including loco regional recurrence free survival (LRFS), distant recurrence free survival (DRFS) and overall survival (OS) rates, were compared for indigenous versus non-indigenous patients.

Results: Eighty patients (38 oropharynx, 23 larynx, 3 nasopharynx, 2 hypopharynx, 3 unknown primary), with a minimum of 3 months follow-up, were eligible for the study. Median age was 49 years (range 35-88), male:female ratio was 69:12, indigenous:non-indigenous ratio was 22:58, and AJCC 7th Edition clinical stage 0-I, II, III and IV were 7, 10, 13, 50 patients respectively. Forty three, 7 and 30 patients received concurrent Cisplatin/Carboplatin, Cetuximab and no chemotherapy respectively. Median time from the consultation to radiotherapy start date was 19 days (range 6-40) and 37 (46.3%) were treated with intensity modulated radiotherapy (IMRT). After a median follow-up of 13 months (3-47), 2 year Kaplan-Meier LRFS, DRFS and OS estimates for indigenous versus non-indigenous groups were 55.8% Vs 64.5%, 85.4% Vs 78.7% and 50.0% Vs 69.1% respectively.

Conclusions: Indigenous patients appear to be associated with poorer OS and LRFS but better DRFS, compared to non-indigenous patients. A larger study with a longer follow-up will be required to confirm this finding.

Conflict of Interest Declaration: None.

UTILISING RNA SEQUENCING TO EVALUATE THE ROLE OF HPV IN ORAL CAVITY CARCINOGENESIS

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Purpose: To establish the role of the human papilloma virus (HPV) in carcinogenesis within the oral cavity.

Methodology: The most comprehensive testing of a cohort of oral cavity samples has been performed. RNA sequencing has been performed, allowing for identification of activated and suppressed gene sequences. To identify HPV DNA sequences within the tissues, PCR and the hybrid-capture 2 system was also used.

Results: Results from PCR and HC2 testing has shown that in oral cavity cancer samples, HPV DNA has not been present. From RNA sequencing, gene sequences that are typically upregulated in HPV induced disease are not present within oral cavity cancer samples.

Conclusion: The cause of oral cavity cancer in the non-smoking population remains elusive and further testing is required to analyse for the presence of other causes of carcinogenesis.

Conflict of Interest Declaration: Andrew Zammit (Presenter) and Christopher Perry have no conflict of interest to declare. Ian Frazer developed the technology behind the HPV Vaccine.

Session 10 – Management of the Neck

RADIATION INDUCED SARCOMAS

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Radiation-induced sarcomas (RIS) of the head and neck are rare with the incidence ranging from 0.03% to 0.3%. Despite this, it is potentially a significant management issue in light of the increased effective role of radiotherapy in the management of head and neck cancers including the management of human-papillomavirus (HPV) associated oropharyngeal squamous cell carcinomas (OPSCC) with its favourable prognosis occurring in younger patients with less co-morbidity.

Past investigations including long-term follow-up of atomic-bomb survivors and analysis of data from the NCI SEER Program form much of the basis of our current yet limited understanding of RIS. These have demonstrated that RIS arise within heavily irradiated tissues typically within or at the periphery of the irradiated volume with a latency period of 5 years or longer. Whether the risk is proportional to the radiotherapy dose and what that threshold dose may be has been variably reported and unestablished. It is not clear that current efforts to selectively de-escalate the radiotherapy dose for HPV-associated OPSCC will have an impact on the risk of RIS. These observations have several additional implications. It suggests that long-term follow-up care of cancer survivors beyond the traditional period of 5 years warrants consideration. New models of survivorship care that add focus to the development of cost-effective treatment toxicity surveillance strategies including RIS are needed. Integrating this within the context of a health information system that can robustly relate late toxicities to the treatment delivered including the radiotherapy dosimetry will facilitate insight into the management of RIS.

Conflict of Interest Declaration: None.

MANAGEMENT OF THE NECK AFTER CHEMORADIOTHERAPY

Dr. Anil D'Cruz

Management of head and neck cancer has undergone a paradigm shift from surgery to nonsurgical chemo-radiation protocols. This shift was influenced by three pivotal trials- VA, EORTC & RTOG 91-11 as well as the MACH-NC meta-analysis. While these studies focused on the effectiveness of chemoradiotherapy for organ preservation, none of them addressed the management of the neck. This was important as cervical adenopathy is one of the most important prognostic factors in head and neck cancers. Moreover, traditionally, the effectiveness of neck control decreased when surgery was not factored into the treatment algorithm, particularly with increasing volume (N2/N3 nodal metastases). These trials were very selective and had few patients accrued with N2/N3 cervical adenopathy unlike that seen in routine practice (26 % in VA, 18 % in RTOG).

This therefore resulted in varied options in the management of the post-chemorad neck which included observation, conventional imaging, planned elective neck dissection and PET biological imaging. The pendulum seems to have now shifted towards a non-surgical approach with PET imaging away from the planned elective neck dissection 8-12 weeks following conclusion of chemoradiotherapy. However, PET has its limitations and there are still some grey areas that need to be resolved which include ideal timing of the PET scan, false positive uptakes and assessment of the viability of the cancer cells in image positive adenopathy. The role of super-selective neck dissection in these patients is also evolving in decreasing the surgical morbidity in this setting.

TRAVAILS IN THE TOP END. FIVE YEARS' EXPERIENCE IN HEAD AND NECK CANCER SERVICE PROVISION IN DARWIN

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Royal Darwin Hospital

Purpose: The Head and Neck (H&N) surgery service provided at the Royal Darwin Hospital (RDH) is a small volume service which encounters advanced disease in a population with a wide range of social backgrounds. We present an analysis of the throughput, outcomes and socio-demographic data of the RDH H&N unit over the 5 years covering 2009 to 2013.

Methodology: All patients treated within the unit between the years 2009 to 2013 have had a retrospective analysis of data to examine outcomes (including disease specific mortality), staging at presentation (SAP), time to treatment (TTT), p16 status, demographics and range of disease encountered for the indigenous, non-indigenous and combined patient populations.

Results: A total of 146 H&N patients were treated by the unit, with 46 indigenous and 100 non-indigenous patients. The combined all-cause mortality was 46% with 67 total mortalities for the period. 27 indigenous (64%) and 36 (36%) non indigenous deaths were recorded. Oral and Oro-pharyngeal (70 patients, 53 SAP ≥IVA), Laryngeal (33 patients, 12 SAP≥IVA), cutaneous and parotid (17 patients, 9 SAP≥ IV) nasal and nasopharyngeal (14 patients, 9 SAP≥ IVA) and hypo-pharyngeal (13 patients, 9 SAP≥ IVA) subgroups also showed differences in outcomes between indigenous and nonindigenous populations as well as differing presentation and outcome data dependent on distance from Darwin.

Conclusion: Population demographics and geographical idiosyncrasies have shaped the provision of care by our unit which provides high quality service to the NT population. We analyse our results and contributing factors for subgroup variance in the top end.

Conflict of Interest Declaration: None.

LONG-TERM RESULTS OF A PROSPECTIVE STUDY OF PET-DIRECTED MANAGEMENT OF NODE-POSITIVE HEAD AND NECK CANCER FOLLOWING DEFINITIVE RADIOTHERAPY

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Purpose: Our study aimed to evaluate the utility of 18-fluorodeoxyglucose positron-emission tomography (PET) computed tomography (CT) in directing management of the neck following definitive radiotherapy (RT) for head and neck cancer. We present the long-term results of this approach.

Methodology: 112 consecutive patients who achieved a complete response at the primary site following RT with or without concurrent chemotherapy, underwent a PET-CT scan at 12 weeks post treatment to evaluate metabolic response in the neck. Patients with equivocal PET findings underwent a further PET-CT 4-6 weeks later. Patients failing to achieve a complete metabolic response in the neck underwent a neck dissection while those who were PET-negative were observed.

Results: 103 patients (92%) achieved a complete metabolic response in the neck, and of these 41 (37%) had residual structural abnormality on CT. All were observed. At median follow-up of 54 months (range 12-105), one patient (1%) who was both CT- and PET- negative following treatment had a nodal relapse. Of the 9 patients (8%) who failed to achieve a complete metabolic response in the neck, 8 underwent a salvage neck dissection and 5 remained disease-free at last follow-up.

Conclusion: Long-term follow-up is consistent with our previously published results which confirmed the safety of this protocol. Only one PET-negative patient subsequently failed in the neck alone and potentially benefited from a planned neck dissection, and all patients with residual structural abnormalities after treatment were successfully observed with no instances of isolated nodal failure.

Conflict of Interest Declaration: None.

PROGNOSTIC VALUE OF LYMPH NODE DENSITY IN SQUAMOUS CELL CARCINOMA OF THE TONGUE

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Singapore, Singapore General Hospital National University of Singapore, Yong Loo Lin School of Medicine

Purpose: This study validates prognostic value of LND in SCC of the tongue.

Methodology: A retrospective review of 106 patients with SCC of the tongue who underwent curative surgery and neck dissection from 2006 to 2010 was conducted. LND is defined as the ratio of positive lymph nodes to total lymph nodes removed. Patients were divided into 3 distinct LND groups: A) LND = 0 B) LND = 0.06. Overall survival (OS) and disease-free survival (DFS) for each group were calculated using the Kaplan Meier method and compared. Multivariate analysis was further performed using the Cox's proportional hazards model.

Results: Median age of patients is 62 years (23 - 94) with 56% male and 44% female. The distribution of Stage I to IV disease in the study cohort was 26.3%, 27.4%, 18.9% and 27.4% respectively. 41.9% of patients underwent selective neck dissection while the rest had radical/modified radical neck dissection. 43% of the cohort had node positive disease. Five-year OS and DFS rates were significantly different between the three groups: OS- 79.0%, 58.2% and 47.4% ($p = 0.04$) and DFS 78.9%, 52.9% and 47.7% ($p = 0.03$) for groups A, B and C respectively. The impact of LND on OS and DFS remained significant on multivariate analysis ($p=0.022$ and $p=0.004$).

Conclusion: LND is a strong prognostic indicator for disease recurrence and survival in tongue cancer. Future editions of TNM staging may require refinements to lymph node staging strategies.

Conflict of Interest Declaration: None.

SENTINEL LYMPH NODE BIOPSY FOR ORAL CAVITY SCC: CAN AUSTRALIA DO IT?

H. Chung, **M. Abdul-Razak**, E. Wong, C. Palme, M. Veness and G. Morgan

Head and Neck Unit Westmead Cancer Care Centre Westmead Hospital

Purpose: Sentinel lymph node biopsy has become an alternative standard of care to elective neck dissection for early oral cavity SCC outside of Australia. We seek to assess the technical feasibility of sentinel lymph node biopsy and validate its accuracy against that of elective neck dissection in an Australian setting.

Methodology: We performed a prospective cohort study consisting of 30 consecutive patients with cT1-2N0 oral cavity squamous cell carcinoma treated by the Head and Neck Unit, Westmead Hospital between 1st Apr 2011 and 15th May 2014. All patients underwent sentinel lymph node biopsy followed by immediate elective neck dissection.

Results: The median age of our study population was 55yrs. 23 patients had a cT2 lesion with the majority of patients having SCC involving the anterior 2/3 of the tongue. 50% of patients had a positive sentinel node biopsy. No false positive sentinel nodes were identified using elective neck dissection as the gold standard. The negative predictor value of sentinel node biopsy was 100%. 40% of patients had sentinel nodes identified outside the field of planned neck dissection on lymphoscintigraphy. Of these, one patient had positive sentinel nodes outside the ipsilateral upper neck dissection. The sentinel nodes were identified on lymphoscintigraphy in all cases and were all successfully retrieved surgically.

Conclusion: Sentinel lymph node biopsy for early oral cavity SCC is technically feasible in an Australian setting. It has a high negative predictor value and can help identify at risk lymphatic basins outside the traditional supraomohyoid levels even in well lateralised lesions.

Conflict of Interest Declaration: None.

POSTER ABSTRACTS

- Listed in alphabetical order according to presenter's surname
- Presenters appear in bold
- Information correct at time of printing

CHANGING PATTERNS OF PROGRESSION IN PATIENTS TREATED WITH SURGERY AND RADIOTHERAPY FOR CUTANEOUS SCC WITH LARGE-NERVE PERINEURAL INVASION

Paul Bullen, Matthew Foote, Damian Amato and Ben Panizza

Princess Alexandra Hospital

Purpose: This report highlights challenges in the management of complex cutaneous malignancy with large-nerve perineural invasion (LNPNI) treated with surgery and radiotherapy.

Method: This is a case-based review of the complex management of a patient with cutaneous SCC with LNPNI.

Results: After initial local surgery and radiotherapy for a right cheek SCC, the patient presented with right V2/V3 paraesthesia with MRI findings of perineural disease in the right V3 segment. The patient underwent a right radical parotidectomy, mandibulectomy, lateral temporal bone resection, craniotomy and resection of V2/V3 with free flap reconstruction. There was positive microscopic margins in V3 at the Gasserian ganglion. The patient had 63 Gy in 30 fractions of IMRT to the site of positive margins with 56-60 Gy to the entire surgical bed. The patient had two further cutaneous relapses treated with WLE and radiotherapy. The patient then presented with neck pain and MRI found thickening of the right greater occipital nerve to the dorsal root ganglia at C1/2. A WLE of the greater occipital nerve, C1-C2 laminectomy and free flap reconstruction was undertaken followed by radiotherapy (60 Gy in 30 fractions). The patient then presented with right periorbital oedema and MRI Neurogram found frontal nerve thickening to the superior orbital fissure. The patient is currently alive with progressive disease.

Conclusion: With advances in surgery and radiotherapy, central control of LNPNI may be improved and distant cutaneous and perineural relapse may become more of a management issue. Changing patterns of relapse including perineural spread to contralateral cranial nerves despite surgery and radiotherapy is becoming increasingly recognised. Many challenges exist in managing these complex head and neck recurrences involving cutaneous SCC with LNPNI.

Conflict of Interest Declaration: None.

HYALINIZING CLEAR CELL CARCINOMA: A CASE SERIES AND REVIEW

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Purpose: Hyalinizing clear cell carcinoma (HCCC) is a rare malignant neoplasm of the salivary glands. It is usually slow growing with a low incidence of metastasis. Treatment consists of wide local excision, local lymph node dissection with or without adjuvant radiotherapy. The aim of the study is to present the characteristics of two unique cases in our hospital.

Method: Two cases of HCCC are presented. Clinical, surgical and pathological features are described. Immunohistochemical studies and FISH analysis was performed.

Results: Case one was noted in a 48 year old woman with a right palatal lump of 12 months duration. Biopsy of the lesion revealed HCCC. She underwent wide local excision, free flap reconstruction and post-operative radiotherapy. The patient remains disease free at 12 months post excision. Case two was noted in a 52 year old man, incidentally identified on PET. Submandibular gland HCCC was diagnosed. He underwent wide local excision with free flap reconstruction and post-operative radiotherapy. No locoregional recurrence has been identified 6 months postoperatively. The tumors revealed characteristic histological and immunohistochemical features of HCCC. In addition, the t (11:22) translocation was confirmed by FISH.

Conclusion: HCCC was difficult to distinguish from other primary and metastatic oral malignancies. It can occur in uncommon locations. A high index of suspicion is needed for the diagnosis of HCCC and relies on a combination of clinical characteristics and pathological features. No large clinical series with long-term follow-up exists. Further data is needed characterizing its clinical behavior.

Conflict of Interest Declaration: None.

A TELEHEALTH KIND OF WORLD: CHANGING POST TREATMENT REVIEWS OF HEAD AND NECK CANCER PATIENTS

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The Townsville Cancer Centre services a large geographical area and as such, many patients travel a considerable distance for post-radiation reviews. Telehealth services are a way for health professionals to interact via state-of-the-art videoconference technology without the inconvenience of long distance travel for patients. Head and neck cancer patients heavily utilise this telemedicine system, and represent a unique group in terms of side effect management following radiation. Radiation Therapists are ideally placed to apply technical knowledge of radiation treatment techniques to review these side effects, and Dietitians and Speech Pathologists routinely assist in the management of many of these symptoms for this patient group.

Collaboration between the Radiation Therapist, Dietitian and Speech Pathologist was instigated to prepare a framework for post-radiation treatment telehealth reviews, to fit within The Townsville Cancer Centre's current infrastructure. A procedural flowchart was developed, along with a documentation template and training modules designed to increase the knowledge base of Radiation Therapists. Surveys were created to evaluate the effectiveness of the planned intervention.

An adaptive framework has been developed for combined allied health post-radiation reviews of head and neck cancer patients, and has strengthened allied health relationships in the process. The new role of Radiation Therapists as advanced practitioners is intended to allow better utilisation of department resources. This multidisciplinary approach to patient care through increasing clinical skills and maximising opportunities has the ability to reduce workload and improve patient satisfaction.

This project is an example that multidisciplinary collaboration can lead to effective frameworks for service delivery.

Conflict of Interest Declaration: None.

UPDATE ON NUTRITIONAL MANAGEMENT OF PATIENTS WITH HEAD AND NECK CANCER: MAINTAINING EVIDENCE-BASED GUIDELINES ONLINE

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Purpose: To update the evidence-based guidelines for nutritional management of patients with head and neck cancer published online in 2011 and; to ensure currency of the best available evidence on a widely accessible and easily updated web-based wiki platform.

Methodology: Traditional guideline development methodology was employed to critically appraise levels of evidence, quality ratings and grades of recommendations addressing the existing 27 clinical questions. Cancer Council Australia provided technical support facilitating online collaboration with proposed updates posted in a closed domain prior to publication in the live domain.

Results: Ongoing literature searches yielded 748 hits with a total of 35 new publications identified for inclusion, adding to the 288 studies appraised in the development phase. While high level evidence still exists for the benefit of nutrition intervention, most new studies were level III or IV and of neutral quality. Therefore, few changes were made to existing recommendation statements and uncertainty regarding best practice persists in some areas. New statements were added regarding the impact of developing treatment regimens, however, evidence is limited. Google analytics facilitated website usage comparison between October 2011, March 2013 and May 2014, demonstrating increased page views, unique page views and number of countries accessing the guidelines.

Conclusion: The updated guidelines continue to provide clinicians with access to the best-available evidence for nutritional care of this patient group. The wiki platform has proven successful in ensuring content remains current through facilitating online collaboration, rapid updates, version control and international dissemination.

Conflict of Interest Declaration: None.

A SURVEY OF THE TRAINIING AND SUPPPORT NEEDS OF AUSTRALIAN SPEECH PATHOLOGISTS WORKING IN TRACHEOSOPHAGEAL SPEECH

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Purpose: The increased need for training and support in advanced clinical areas of Speech Pathology has been identified. A survey was designed to examine areas of need in training and support regarding speech pathology management of tracheoesophageal speech post laryngectomy.

Methodology: A secure online survey (10 questions) was distributed via the Speech Pathology Head and Neck Cancer Google group. Eligible participants were those (a) working in Australian clinical services, and (b) who were the main/lead/sole speech pathologist responsible for managing a caseload that includes patients with a laryngectomy who use tracheoesophageal speech.

Results: Thirty-five clinicians completed the survey (87% response rate) with representation from each state/territory. All reported having staff with sufficient skills to manage this caseload across the normal working week, though 36% experience difficulties maintaining this in times of leave. When training new staff, a combination of mentoring, informal and external professional development opportunities are being employed, with 42% (largely tertiary/metro settings) indicating they have formal competency programs. Eighty-seven percent accessed external PD with 68% reporting adequate available opportunities. The majority of sites (94%) are able to access other speech pathologists to assists in complex cases and 77% have readily available access to ENT colleagues. Challenges accessing ENT services were mainly experienced by regional settings.

Conclusion: The data indicates Australian clinicians have access to training and support for this specialised clinical area, though a desire for more advanced professional development opportunities was highlighted. Solutions are needed to enhance ENT access for regional services to support complex troubleshooting.

Conflict of Interest Declaration: None.

LARYNGECTOMY SURGERY AND TRACHEOSOPHAGEAL SPEECH: COMPARISON OF INSERTION OF VOICE PROSTHESIS AT TIME OF SURGERY VS DELAYED FITTING POST SURGERY

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Purpose: Voice prosthesis insertion at the time of Laryngectomy surgery has been standard practice internationally for over 20 years. In 2010 the Princess Alexandra Hospital introduced this practice for all patients planned for Total Laryngectomy or Pharyngolaryngectomy with Primary Tracheoesophageal Puncture (TEP).

Methodology: A retrospective chart audit of all patients who underwent the above surgery and procedure between 2010 and 2013 occurred (Group 1). Information regarding device inserted at time of surgery, inpatient length of stay, post surgical and device related complications and initial device life was collected. This was compared to a retrospective chart audit of all patients from 2008 to 2010 that underwent the same surgery but where a catheter was inserted into the TEP and voice prosthesis inserted 7-14 days post surgery (Group 2).

Results: Group 1 consisted of 28 patients. The majority received a 17Fr 8mm Provox Vega Voice Prosthesis inserted at time of initial surgery. Complications related to sizing was noted in one case. There were no surgical complications relating to insertion of the device. Initial device life and reasons for replacement corresponded well with international literature. Group 2 consisted of 24 patients. Variability in initial device length (4mm – 22mm) and device life was observed. Comparable length of stay and post-op complication rates were seen between the two groups.

Conclusion: Results support continuation of insertion of the Provox Vega 17Fr 8mm Voice Prosthesis at the time of Laryngectomy surgery. Comparable length of stay and post operative complication rates were observed between the two groups.

Conflict of Interest Declaration: None.

HEAD AND NECK CANCER IN ORGAN TRANSPLANT RECIPIENTS: A TREATMENT DILEMMA

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Purpose: Organ Transplant Recipients (OTRs) have an increased risk of developing Head and Neck malignancies, predominantly Squamous Cell Carcinoma (HNSCC). Current teaching is that immunosuppressive therapy to prevent donor rejection impairs the native defense mechanism against these cancers. The transplant population is particularly difficult to treat given comorbidities and concurrent therapies. We wished to explore the treatment decisions and the underlying evidence.

Methodology: The demography of HNSCCs is well documented, however, there is a paucity of literature on the optimal treatments for transplant patients, especially in those with advanced donor organ failure. We review our recent experiences with OTR HNSCC patients and discuss the treatment dilemmas and management considerations we faced when making multidisciplinary decisions about their care. We also performed a review of the literature.

Results: We identified three recent cases of HNSCC in OTRs within our unit, each of which raise difficult management issues regarding immunosuppression, donor organ survival and toxic treatment regimens. The first case was an advanced sinonasal SCC in a young patient with a lung transplant. The second was a supraglottic SCC in a patient with a renal transplant. The third was a patient with glottic SCC also with a renal transplant. Literature review revealed a lack of evidence regarding unique treatment dilemmas in this select population.

Conclusion: Treatment of HNSCC in OTRs requires complex clinical decisions made by the multidisciplinary team, including the treating transplant team. This complexity is compounded in the ORT population, who are unique cases and represent a significant health investment.

Conflict of Interest Declaration: None.

MANAGEMENT OF ELDERLY PATIENTS WITH ADVANCED HEAD AND NECK SQUAMOUS CELL CARCINOMA: DOES AGGRESSIVE TREATMENT RESULT IN BETTER OUTCOMES?

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Introduction: Contrary to recommendations from NCCN, elderly patients with advanced head and neck squamous cell carcinoma (HNSCC) often receive sub-optimal treatment. The aim of this study was to evaluate whether the purported optimal treatment translated into better outcomes in the elderly.

Methods: Between 1991-2010, 98 patients over 60 years old were treated at our institution with advanced (Stage 3/4) HNSCC. They were classified as having optimal treatment (comprising primary chemoRT, surgery+RT or surgery+chemoRT) or sub-optimal treatment (single modality of surgery/RT, or surgery+RT despite having risk factors of extracapsular-spread or positive margins). Overall survival (OS), locoregional recurrence-free survival (LRFS) and distant recurrence-free survival (DRFS) rates were calculated using Kaplan–Meier method, and predictive factors analyzed by univariate and multivariate analyses.

Results: Overall, no major outcome differences were found between patients less than 70 compared to those more than 70 years old. Optimal treatment resulted in significantly higher OS compared to those who received sub-optimal treatment (2-year survival rates of 54% versus 37.8%; $p=0.044$). However, this benefit was limited to patients less than 70, where those who received optimal treatment showed significantly higher OS and LRFS ($p=0.052$ and $p=0.003$, respectively). In contrast, patients older than 70 years showed no difference in outcome between those who received optimal versus sub-optimal treatment.

Conclusion: We therefore conclude that patients over 70 years derive no benefit from optimal treatment regimes which tend to be more aggressive. Oncologists should consider other factors such as quality of life, patient autonomy and views of family members when deciding on the management for such patients.

Conflict of Interest Declaration: None.

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