

Radiation Oncology
Ipswich Rd Campus

Princess Alexandra Hospital

2017

Princess Alexandra Hospital
Radiation Oncology
Annual Research Report

Produced by Professor Sandro V Porceddu
Director of Radiation Oncology Research,
Cancer Services, Metro South Health.



Queensland
Government

Introduction



Professor Sandro Porceddu

It gives me great pleasure to provide you with the 2017 Princess Alexandra Hospital Radiation Oncology Department (Ipswich Road Campus) Annual Research Report. This year's report again highlights the strong research culture embedded within the department and our goal to convert clinical observations and interactions into research events.

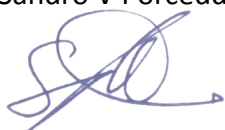
We have achieved an outstanding number of national and international publications and presentations (many which are practice-defining), continue to support research higher degrees, received substantial grant funding and been the recipients of prestigious awards.

As a department with a high clinical throughput we continue to face a number of challenges to maintain our research excellence. With the emergence of immunotherapies in the clinical domain and dominance of industry-led trials, ensuring we continue to develop and support investigator-led trials remains paramount.

Many important scientific questions with or without commercial benefit are still best answered by these trials. We have also seen the emergence of stereotactic radiotherapy trials in a number of disease sites, and as a unit with one of the largest experiences in this field, along with our cutting-edge technology, we remain national leaders in this space.

I would like to take this opportunity to thank the many organisations that partner with us including the PAH Cancer Services Clinical Trials Unit, the PA Foundation, PAH SERTA, QFAB and TRI.

Sandro V Porceddu

A handwritten signature in blue ink, appearing to be 'S. Porceddu', written in a cursive style.

Director, Radiation Oncology Research
Princess Alexandra Hospital

Cancer Services Clinical Trials Unit Report

2017 Study Review

In 2017, 4 new studies were opened under the Radiation Oncology Cancer Trials banner – 2 Collaborative Group Studies (1 Phase III & 1 Phase II) and two Investigator initiated studies (1 Phase II & 1 Phase I/II). The nature of the majority of new trials being proposed is a reflection of the changing global face of radiation oncology, trending towards newer technologies such as Stereotactic Body Radiotherapy, Gamma Knife and Stereotactic Radiosurgery.

With this comes the challenge of ensuring we have the technical capabilities to be able to deliver on this new wave of research protocols. In 2017, several niche trials opened in diseases that previously had limited treatment options such as “FASTRACK” (Focal Ablative Stereotactic Radiosurgery for Cancer of the Kidney) and “CORE” (conventional care versus radioablation – Stereotactic Ablative Body Radiotherapy (SABR) for extracranial Oligometastases).

The combination of immunotherapy and these newer technologies has also come to the forefront resulting in collaboration with our medical oncology colleagues to offer our patients the most current treatment and research options such as “RAPPORT” (Stereotactic Radiotherapy and Anti-PD1 antibody for Oligometastatic Renal Tumours) and “NIVORAD” (Nivolumab and SABR in advanced Non small cell lung cancer).

Across the Radiation Oncology Cancer Trials portfolio there are currently 11 other recruiting studies (7 Phase III, 3 Phase II and 1 Phase I/II). All but two of these studies are collaborative group studies badged under the auspices of TROG. Two studies were closed to follow-up during the year, with 5 other studies still undergoing follow-up.

2017 saw the amalgamation of the Cancer trials unit at Radiation Oncology Raymond Terrace (ROPART) to come under the umbrella of the CTU PAH. This presents exciting opportunities for combined research resources, staffing support and greater collaboration across the two campuses to ensure patients have the best opportunity to access ground breaking research studies.

The greatest challenge to the Radiation Oncology Cancer Trials team remains around the research dollar. With reduced grant funding from the NHMRC, there have been a higher proportion of investigator-initiated studies in collaboration with our southern counterparts with little to no funding. Whilst this puts a greater burden on our resources, the PAH CTU remains committed to continue to forge the way in radiation oncology research trials and maintain our proud record of being a significant contributor to the ever evolving nature of radiation oncology research and treatment technologies.

Adrienne See
Manager, Clinical Trials Unit
Cancer Services
Princess Alexandra Hospital

Individual Achievements

Awards and Prizes

Elizabeth Brown

Faculty of Health, Queensland University of Technology, 2017 Vice Chancellor Performance Award

Luke Nicholls

Varian Prize, RANZCR Annual Scientific Meeting, Perth 2017

Nicola Jones

Varian Harold Anderson Memorial Radiation Therapist Student Prize (paper), ASMMIRT 2017

Nina Lin

Best Radiation Therapy Paper Student, ASMMIRT 2017

ScreenIT

- Winner "Shaping our Future" MSHHS Board Chair's Award
- eHealth Award Finalist "Clinical Innovator"

Laurelie Wall

- Head and Neck Cancer Alliance Award, Dysphagia Research Society 25th Scientific Meeting (USA)
- Oral Presentation, Dysphagia Research Society 25th Scientific Meeting (USA) - 2nd place.

Sandro Porceddu

TROG – Outstanding Contribution by a member

Research Higher Degrees (Masters Projects)

Alisha Wintour

Development and Evaluation of an Information Pamphlet for HPV Positive Oropharyngeal Cancer patients, Queensland University of Technology
Supervisors - E Brown, SV Porceddu, P Yates, S Chambers.

Helen Frewen

Failure Mode and Effects Analysis in a Paperless Radiotherapy Department, Queensland University of Technology
Supervisors - E Brown, A O'Donovan (TCD) M Jenkins.

Grant Funding

Projects and Recipients

Improving outcomes for patients with melanoma brain metastases using novel personalised and response-adapted treatment strategies

PA Research Foundation Translation Research Innovation Award - \$500,000 over 5 years.

MB Pinkham, M Foote, V Atkinson, S Olson, T Watkins, N Haas, H Schaidler, M Stark, S Stehbens

Use of a telehealth platform to improve mental health and quality of life in people with brain tumour and their families: a pilot study

PAH Research Support Scheme Project Grant - \$25,000

MB Pinkham, T Ownsworth, M Foote, Melissa Kendall, S Chambers, J Oram, K Lucas

Pre-Implementation of ScreenIT Lung/Oesophagus: Evaluation of baseline services, needs analysis and psychometric testing

PAH Research Support Scheme Project Grant \$75,000 over 2 years.

B Cartmill, M Lehman, E Ward, L Wall, S Chambers, E Isenring, J Nixon

ScreenIT: Optimising allied health intervention in patients with head and neck cancer and their carers using an electronic screening program. The expansion of the ScreenIT model of care across the full head and neck cancer service at the Princess Alexandra Hospital

Health Practitioner Research Scheme - \$99,924

B Cartmill, L Ward, L Wall, S Porceddu, B Panizza, K Hancock, J Nixon, S Pang, K Sutherland, E Pinkham

A randomised trial of osimertinib and SRS in mutation-driven NSCLC patients with small volume brain metastases (OUTRUN)

Astra Zeneca - \$1.73m

Fiona Hegi-Johnson, Chee Lee, YY Soon, MB Pinkham, et al.

Trial Highlights & Clinical Impact

PAH Radiation Oncology Wins Varian Prize

Dr Luke Nicholls was awarded the prestigious 2017 Varian Prize for his research paper titled “Radiological kinetics of brain metastases and clinical implications for patients treated with stereotactic radiosurgery (SRS)”.

This is a highly contested award given to the best scientific paper presented by a radiation oncology trainee at the RANZCR annual scientific meeting.

Anecdotally, certain patients experienced significant progression between diagnostic MRI and the MRI on the day of Gamma Knife treatment. We aimed to characterise the kinetics of brain metastases (both in size and number) in patients treated with SRS and find potential predictive factors. Clinically significant progression (>3mm growth or 1 new met) occurred in 60% of patients. Faster growth was associated with younger age, poorer performance status, non-small cell lung cancer, melanoma and uncontrolled extra-cranial disease.

Patients with significant progression were also more likely to develop distant intracranial recurrence. This has implications for any centre treating patients with (SRS), as certain patient populations would benefit from an MRI closer to SRS and/or closer MRI surveillance after treatment.

PAH Radiation Oncology Awarded \$500,000 for Melanoma Research

Dr Mark Pinkham and his team were awarded the PA Research Foundation Translation Research Innovation Award to conduct innovative research into brain metastases from metastatic melanoma. Brain metastases are a serious complication of advanced melanoma. Various treatment options exist, but sometimes it is uncertain if one approach is preferred over another. This project lays the foundation for a translational research programme between PAH and TRI to focus on this problem.

We are building a clinical database and biobank of blood and tissue samples from patients with melanoma at different stages of their disease. By looking for genetic signals in routine blood tests, we aim to better understand which treatment options might be best suited to an individual patient. By analysing tissue samples, we also aim to investigate how melanoma in the brain can become resistant to current treatments and how this might be overcome. This could lead to new treatments or combinations of treatments in the future.

World First in Advanced Skin Cancer

Led by investigators at the Princess Alexandra Hospital Radiation Oncology Unit and the Peter MacCallum Cancer Centre in collaboration with the Trans Tasman Radiation Oncology Group the results of the TROG 05.01 POST Trial were presented at the American Society of Clinical Oncology (ASCO) meeting in 2017.

The first and only Phase III randomised trial of its kind demonstrated that the addition of chemotherapy to post-operative radiotherapy did not improve cure rates in patients with advanced cutaneous squamous cell carcinoma of the head and neck. Contrary to previously published retrospective series the study demonstrated that cure rates in excess of 85% could be achieved with surgery & high quality post-operative radiotherapy. It also demonstrated that the rate of severe long-term effects from the radiotherapy was less than 3%, and will save many patients from the unnecessary side effects of chemotherapy.

Trial Highlights & Clinical Impact

New Dimension to ScreenIT; Mask Anxiety Detection and Management

ScreenIT is a web-based screening tool designed to capture patient-reported outcomes regarding the presence of chemoradiotherapy-induced side-effects, and their impact on swallowing, nutrition and distress, to enable appropriate management by the oncology multi-disciplinary team. It was introduced into the Radiation Oncology Unit, Princess Alexandra Hospital, Ipswich Road Campus in 2014, and has undergone multiple phases of development.

One of the areas that has benefited from this research is for patients who experience mask anxiety while undergoing treatment for head and neck cancer. The incidence of mask anxiety is under-reported and can have major psychological implications throughout the course of head and neck cancer treatment. A distress score of greater than four generates a referral to the occupational therapist. This allows the patient to receive timely support and strategies to manage mask anxiety prior to the commencement of radiation therapy.

Over the next 12 months we plan to use the ScreenIT tool to assess the incidence and experience of patients with mask anxiety with a view to developing more effective interventions in this group of patients.

Evaluation of Respiratory Induced Kidney Motion to Reduce Treatment Toxicity

Stereotactic ablative body radiotherapy (SABR), a high precision technique used to deliver large radiation therapy doses to small areas of the body, is a promising emerging treatment for primary renal cell carcinoma. However, respiratory induced kidney motion can be a limiting factor in the optimal delivery of SABR to this region. SABR to the abdominal region requires effective motion management strategies to reduce the risk of missing the tumour and increasing normal tissue damage.

In our paper by West K et al (JMIRO 2018) we assessed the effectiveness of a pneumatic abdominal compression belt in reducing respiratory induced kidney motion.

This study found that at least one kidney in all patients had greater than 5 mm motion as a result of respiration without the use of compression. With the use of the pneumatic abdominal compression belt, kidney motion was reduced by 5-10 mm. This study showed that the pneumatic abdominal compression belt was effective in reducing kidney motion and facilitates the safe and accurate delivery of SABR to patients with renal cell carcinoma. As a result of this study, our department utilises this device clinically as part of our motion management strategy to minimise respiratory induced abdominal motion for patients receiving SABR.

Presentations

1. Cubis L, Ownsworth T, Pinkham M, Legg M, Chambers S. Staying connected after brain tumour: changes in social networks and relationship to wellbeing after brain tumour. 14th World Federation for Neurorehabilitation conference, South Africa 2017.
2. Nicholls L, Foote M, Pinkham M. An assessment of the clinical impact of same day MRI prior to Gamma Knife radiosurgery for brain metastases. RANZCR ASM, Perth 2017. **Awarded Varian Prize
3. Jones N, Taylor-Brown M, Smith K. The viability of surgical clips for the use in breast radiation therapy. Oral presentation. ASMMIRT March 2017, Perth.
4. White D. Can you make a silk purse out of a sow's ear. Oral presentation. ASMMIRT March 2017, Perth
5. Lin N. Reaching out for Support: Adolescent and Young Adult Survivorship. Oral presentation. ASMMIRT March 2017, Perth.
6. Lin N. The role of stereotactic body radiation therapy in the management of paediatric tumours. Oral presentation. ASMMIRT March 2017, Perth.
7. Lin N. Spinal metastases: a comparison of stereotactic body radiotherapy (SBRT) and conventional radiotherapy. Oral presentation. Student Conference ASMMIRT March 2017, Perth.
8. Porceddu SV. Head and Neck Oral Abstract Session. Post-operative concurrent chemo-radiotherapy versus post-operative radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck: A randomized Phase III trial (Trans Tasman Radiation Oncology Group 05.01 Trial). American Society of Clinical Oncology, Chicago, 2017.
9. Porceddu SV. Results of Post-operative concurrent chemo-radiotherapy versus post-operative radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck: A randomized Phase III trial (Trans Tasman Radiation Oncology Group 05.01 Trial). Trans Tasman Radiation Oncology Group Annual Scientific Meeting 2017, Auckland.
10. Porceddu SV. Benefits and pitfalls of national/regional guidelines in oral cavity cancer. International Academy Oral Oncology, Bangalore, India, 2017.
11. Porceddu SV. Challenging the treatment paradigm that all patients with locally advanced cSCCHN require surgery. Australian and New Zealand Head and Neck Cancer Society Annual Scientific Meeting, Brisbane 2017.
12. Porceddu SV. Results of a randomised trial of post-operative chemo-radiotherapy versus radiotherapy in high-risk cutaneous SCCHN (TROG 05.01-POST Trial). Australian Skin and Skin Cancer Group, 2018 Annual Scientific Meeting, Brisbane 2017.
13. Shanker M, Foote M, Pinkham M Stereotactic radiotherapy re-irradiation in recurrent high grade gliomas. RANZCR ASM, Perth 2017.

Presentations

14. Wall, L. "SwallowIT": A randomised controlled trial investigating the delivery of prophylactic swallowing therapy to head/neck cancer patients via telepractice. Dysphagia Research Society 25th Annual Scientific Meeting, Portland, Oregon USA, 2017.
15. Cartmill, B. ScreenIT: Implementation analysis of a consumer-centred screening tool to guide supportive care during chemoradiation for head and neck cancer. Supportive Care in Cancer, Washington DC USA, 2017.
16. Frewen H. Failure Modes and Effects Analysis in a Paperless Radiotherapy Department. Poster presentation. PAH Symposium, 2017.
17. West K. Evaluation of Kidney Motion With and Without a Pneumatic Abdominal Compression Belt: Considerations for Stereotactic Radiotherapy. Poster presentation. PAH Symposium, 2017.
18. Cartmill B. Does pre-treatment education model impact on swallow and nutrition outcomes in head and neck cancer patients receiving (chemo)radiotherapy? Oral presentation. European Society for Swallowing Disorders/World Dysphagia Summit, Barcelona, 2017.
19. Brown E. Development of a predictive adaptive radiotherapy approach to head and neck cancer. Oral presentation. Radiation Therapy for Head and Neck cancer seminar, Perth, 2017.
20. Pinkham M. Integrating immunotherapy and stereotactic radiosurgery in the management of patients with brain metastases. Clinical Oncology Society of Australia (COSA) ASM, Sydney, 2017.
21. Pinkham M. Contemporary management of brain metastases and future clinical trial concepts. Genomic Cancer Clinical Trials Initiative (GCCTI) Workshop, Melbourne, 2017.
22. Pinkham M. Session Chair. Brain metastases session, Brisbane Cancer Conference, 2017.
23. Liu E. Dose Grid Origin in the Pinnacle Treatment Planning System (TPS) for QA using the Octavius PTW-VeriSoft Patient Plan Verification Software. Poster presentation. EPSM, Nov 2017, Sydney.
24. Perrett B & Seshadri V. Verification of Elekta EPID pixel scale factor using an independent technique. Poster presentation. EPSM, 2017, Sydney.
25. Perrett B & Seshadri V. High-accuracy MLC leaf position QA using the Hancock test in RITG142. Oral presentation. EPSM, 2017, Sydney.
26. Charles P. Can photon beam approximation models be used in Monte Carlo simulations involving severe disruption of the electron fluence? Poster presentation. EPSM, 2017, Sydney.
27. Jones C & Livingstone A. Dcm2Egs: A data conversion application for transferring TPS exported DICOM files for Monte Carlo simulations in the EGSnrc suite. Poster presentation. EPSM, 2017, Sydney.

Presentations

28. Jones C. Dcm2Egs: EGS_chamber_array: A new EGSnrc user code developed for efficient Monto Carlo simulations through detector arrays. Oral presentation. EPSM, 2017, Sydney.
29. Hanlon P. The impact of linear accelerator settings and acquisition methodology on the radiation isocentre radius as measured with RIT Virtual Star Shot. Oral presentation. EPSM, 2017, Sydney.
30. Seshadri V. Validation of RIT Virtual Star Shot. Poster presentation. EPSM, 2017, Sydney.
31. Webb L. Monaco 5.10 as an independent plan checking solution. Oral presentation. EPSM, 2017, Sydney.
32. De Chavez R. Small field output factor determination using an IBA Round Stealth Chamber. Oral presentation. EPSM, 2017, Sydney.
33. Ward, L. 2017 Chris O'Brien Oration, Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
34. Brown E. Adapting to change: Head and neck replanning. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
35. Brown E. Adaptive replanning and advanced radiotherapy techniques. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
36. Wall L. Evaluation of a speech pathology/dietetic pre-treatment group education model for patients with head and neck cancer receiving (chemo)radiotherapy. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
37. Wall L. What are the costs of delivering intensive, prophylactic swallowing therapy to patients with head and neck cancer via Telehealth? An economic analysis of a 3 arm RCT. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
38. Wall L. Applications of telehealth in the management of head and neck cancer: ScreenIT and SwallowIT. Scottish Digital Health & Care Week, Glasgow, 2017.
39. Cooney L. Debate: PEG vs no PEG for CRT for oropharyngeal cancer. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
40. Cartmill B. Development and validation of the Significant Other Scale for Dysphagia in Head and Neck Cancer (SOS-Dysphagia H&N). Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
41. Nixon J. "I looked like an elephant": Exploring the distress and quality of life associated with head and neck lymphoedema. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.

Presentations

42. Nixon J. Distress in head and neck cancer: Can you recognise it, can you respond to it. The benefits of a brief communication training intervention. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
43. Hutchison A. "ScreenIT Carer": Computerised screening of distress in carers of head and neck cancer patients receiving (chemo)radiotherapy. Australia and New Zealand Head and Neck Cancer Society, Annual Scientific Meeting, Brisbane, 2017.
44. Browne P. "DIBH – PRIME Trial Investigates. Predictive Factors, Intrafraction Motion and the Patient Experience" RANZCR 68th Annual Scientific Meeting, 2017, Perth.
45. Watson S. "A Question of Experience" ASMIRT Sunshine Coast Weekend Seminar 3-5 November 2017, Caloundra.
46. Jones N. "Deciphering the 'I'm fine' response: an investigation of current support services for male cancer patients" ASMIRT Sunshine Coast Weekend Seminar, 2017, Caloundra.
47. McNamara C. "DIBH SBRT FFF Lung Case Report" Elekta Australasian Users Meeting, 2017, Newcastle.
48. Brown E. "Paper and the PA" Elekta Australasian Users Meeting, 2017, Newcastle.
49. Frewen H & Brown E. Failure mode and effects analysis in a paperless radiotherapy department. Elekta Australasian Users Meeting, 2017, Newcastle.

Publications

1. A Phase II trial of concurrent chemotherapy with intravenous cisplatin and vinorelbine and radiotherapy followed by consolidation chemotherapy with oral vinorelbine in locally advanced non-small cell lung cancer (NSCLC): The CONCAVE study. Hughes B, Ahern E, Lehman M, Pratt G, Dauth M, Pritchard W et al. *Asia Pac J Clin Oncol* 2017.
2. Are Future Radiation Oncologists Equipped with the knowledge to manage elderly patients with cancer? Morris L, Thiruthaneeswaran N, Lehman M, Hasselburg G, Turner S. *Int J Radiat Oncol Biol Phys.* 2017;98(4): 743-747.
3. Vector-model-supported optimization in volumetric-modulated arc stereotactic radiotherapy planning for brain metastasis. Eva Sau Fan Liu, Vincent Wing Cheung Wu, Benjamin Harris, Matthew Foote, Margot Lehman, and Lawrence Wing Chi Chan. *Medical Dosimetry* 42 (2017) 85-89.
4. Vector-model-supported approach in prostate plan optimization. Eva Sau Fan Liu, Vincent Wing Cheung Wu, Benjamin Harris, Margot Lehman, David Pryor, and Lawrence Wing Chi Chan. *Medical Dosimetry* 42 (2017) 79-84.
5. Stereotactic spine radiosurgery: Review of safety and efficacy with respect to dose and fractionation. Review article Huo M, et al. *Surg Neurol Int.* 2017.
6. Short-Course Radiation plus Temozolomide in Elderly Patients with Glioblastoma. Randomized controlled trial Perry JR, et al. *N Engl J Med.* 2017.
7. Stereotactic Ablative Body Radiotherapy for the Treatment of Spinal Oligometastases. Chang JH, et al. *Clin Oncol (R Coll Radiol).* 2017.
8. Results of a phase II, open-label, non-comparative study of intralesional PV-10 followed by radiotherapy for the treatment of in-transit or metastatic melanoma. Foote M, et al. *J Surg Oncol.* 2017.
9. A multinational report of technical factors on stereotactic body radiotherapy for oligometastases. Redmond KJ, et al. *Future Oncol.* 2017.
10. Risk Profiles for Sensorineural Hearing Loss in Patients with Head and Neck Cancer Receiving Cisplatin-based Chemoradiation. Phorter P, Harden F, Owen R, Panizza B, Burmeister BH, Sommerville J, Mengersen K, Foote M. *Journal of Medical Imaging and Radiation Sciences*, 2017 Vol. 48, Issue 1, p61–67.
11. Evidence-based Peer Review for Radiation Therapy - Updated Review of the Literature with a Focus on Tumour Subsite and Treatment Modality. Huo M, Gorayski P, Poulsen M, Thompson K, Pinkham MB. *Clin Oncol (R Coll Radiol).* 2017 May 18. pii: S0936-6555(17)30225-X. doi: 10.1016/j.clon.2017.04.038.
12. The social trajectory of brain tumor: a qualitative metasynthesis. Cubis L, Ownsworth T, Pinkham MB, Chambers S. *Disabil Rehabil.* 2017 Apr 19:1-13. doi: 10.1080/09638288.2017.1315183.
13. Management of elderly patients with locoregionally confined head and neck cancer. Porceddu SV, Haddad RI. *Lancet Oncol.* 2017 May;18(5):e274-e283.

14. Validation of the ICON-S staging for HPV-associated oropharyngeal carcinoma using a pre-defined treatment policy. Porceddu SV, Milne R, Brown E, Bernard A, Rahbari R, Cartmill B, Foote M, McGrath M, Coward J, Panizza B. *Oral Oncol.* 2017;66:81-86.
15. Improving plan quality for prostate volumetric-modulated arc therapy. Wright K, Ferrari-Anderson J, Barry T, Bernard A, Brown E, Lehman M, Pryor D. *Medical Dosimetry* 2017.
16. Radiation oncology directors of training survey 2016: Perspectives and challenges. Leung J, Lehman M. *J Med Imaging Radiat Oncol* 2017.
17. Postoperative stereotactic radiosurgery for limited brain metastases: are we ready for prime time? Lo SS, Brown PD, Foote M, Chao ST, Chang EL, Sahgal A. *Expert Rev Anticancer Ther.* 2017 Jul 24:1-3.
18. Consider Adjuvant Intensity Modulated Radiation Therapy to the Lymph Node Basin, Especially If the Melanoma Is BRAF Wild Type. Foote M. *Int J Radiat Oncol Biol Phys.* 2017 May 1;98(1):15.
19. Adherence to a prophylactic swallowing therapy program during (chemo) radiotherapy: Impact of service-delivery model and patient factors. Wall, L. R., Ward, E. C., Cartmill, B., Hill, A. J., & Porceddu, S. V. (2017). *Dysphagia* DOI: 10.1007/s00455-016-9757-z
20. Application of telepractice for head and neck cancer management: A review of speech language pathology service models. Ward EC, Wall LR, Burns CL, Cartmill B, & Hill AJ. (2017). *Current Opinion in Otolaryngology & Head & Neck Surgery.*
21. Margins Matter: current radiation therapy practice and future directions. Hargrave C, Holt T. *J Med Imaging Radiat Oncol.* 2017. 64(2):79–81.
22. Olfactory neuroblastoma: 14-year experience at an Australian tertiary centre and the role for longer-term surveillance. Schmidt C, Potter N, Porceddu S, Panizza B. *J Laryngol Otol.* 2017;131(S2):29-34.
23. Adherence to a Prophylactic Swallowing Therapy Program During (Chemo) Radiotherapy: Impact of Service-Delivery Model and Patient Factors. Wall LR, Ward EC, Cartmill B, Hill AJ, Porceddu SV. *Dysphagia.* 2017;32(2):279-292.
24. Surgery plus PORT. Porceddu SV. *Int J Radiat Oncol Biol Phys.* 2017;97(1):3-4.
25. Past sexual behaviors and risks of oropharyngeal squamous cell carcinoma: a case-case comparison. Schnelle C, Whiteman DC, Porceddu SV, Panizza BJ, Antonsson A. *Int J Cancer.* 2017;140(5):1027-1034.
26. Radiotherapy-associated dental extractions and osteoradionecrosis. Beech NM, Porceddu S, Batstone MD. *Head Neck.* 2017;39(1):128-132.
27. Smith C, Lee V, Schuessler A, Beagley L, Rehan S, Tsang J, Li V, Tiu R, Smith D, A Neller M, Matthews KK, Gostick E, Price DA, Burrows J, Boyle GM, Chua D, Panizza B, Porceddu SV, Nicholls J, Kwong D, Khanna R. Pre-emptive and therapeutic adoptive immunotherapy for nasopharyngeal carcinoma: Phenotype and effector function of T cells impact on clinical response. *Oncoimmunology.* 2017;6(2).

28. Evaluation of kidney motion with and without a pneumatic abdominal compression belt: Considerations for stereotactic radiotherapy. West K, Russo M, Brown E, Barry T, Hargrave C, Pryor D. *J Med Imaging Radiat Oncol*. 2018;62(1):128-132.
29. Patterns of care for ductal carcinoma in situ of the breast: Queensland's experience over a decade. Barbour S, Moore J, Dunn N, Effeney R, Harden H, McCarthy A, Walpole E, Lehman M. *Breast* 2017. Jul 27: 35: 169-176.
30. Delineation of the primary tumour Clinical Target Volumes (CTV-P) in laryngeal, hypopharyngeal, oropharyngeal and oral cavity squamous cell carcinoma: AIRO, CACA, DAHANCA, EORTC, GEORCC, GORTEC, HKNPCSG, HNCIG, IAG-KHT, LPRHHT, NCIC CTG, NCRI, NRG Oncology, PHNS, SBRT, SOMERA, SRO, SSHNO, TROG consensus guidelines. Grégoire V, Evans M, Le QT, Bourhis J, Budach V, Chen A, Eisbruch A, Feng M, Giralt J, Gupta T, Hamoir M, Helito JK, Hu C, Hunter K, Johansen J, Kaanders J, Laskar SG, Lee A, Maingon P, Mäkitie A, Micciche' F, Nicolai P, O'Sullivan B, Poitevin A, Porceddu S, Skłodowski K, Tribius S, Waldron J, Wee J, Yao M, Yom SS, Zimmermann F, Grau C. *Radiother Oncol*. 2017 Nov 24. pii: S0167-8140(17)32656-7. doi: 10.1016/j.radonc.2017.10.016.
31. Computer Literacy and Health Locus of Control as Determinants for Readiness and Acceptability of Telepractice in a Head and Neck Cancer Population. Cartmill B, Wall LR, Ward EC, Hill AJ, Porceddu SV. *Int J Telerehabil*. 2016 Dec 15;8(2):49-60.
32. Prospective Study of Cetuximab, Carboplatin, and Radiation Therapy for Patients With Locally Advanced Head and Neck Squamous Cell Cancer Unfit for Cisplatin. Corry J, Bressel M, Fua T, Herschtal A, Solomon B, Porceddu SV, Wratten C, Rischin D. *Int J Radiat Oncol Biol Phys*. 2017;98(4):948-954.
33. DEBATE: in response to Fogarty et al and why adjuvant whole brain radiotherapy is not recommended routinely. MB Pinkham, A Sahgal, AP Pullar, MC Foote. *BMC Cancer* 2017. 17:768.
34. Utility of 68Ga prostate specific membrane antigen – positron emission tomography in diagnosis and response assessment of recurrent renal cell carcinoma. S Siva; J Callahan, D Pryor, J Martin, N Lawrentschuk, MS Hofman. *J Med Imaging Radiat Oncol*. 2017.
35. Stereotactic Radiotherapy for Renal Cell Carcinoma – Time for larger scale prospective studies Pryor DI, Wood S. *BJU Int* 2017.
36. Stereotactic Body Radiotherapy in Kidney and Adrenal Cancer. G Kothari, A Louie, D Pryor, I Vela, S Lo, B Teh, S Siva. *Chinese Clinical Oncology*. 2017.
37. Adjuvant external beam radiotherapy after therapeutic groin lymphadenectomy for patients with melanoma: a dosimetric comparison of three-dimensional conformal and intensity-modulated radiotherapy techniques. Adams G, Foote M, Brown S, Burmeister B. *Melanoma research*. 2017;27(1):50-6.
38. Achieving success in clinically based research: the importance of mentoring. Ward EC, Hargrave C, Brown E, Halkett G, Hogg P. *Journal of Medical Radiation Sciences*. 2017;64(4):315-320.

Publications

39. A Comparison of Non-coplanar Three-dimensional Conformal Radiation Therapy, Intensity Modulated Radiation Therapy, and Volumetric Modulated Radiation Therapy for the Delivery of Stereotactic Ablative Radiation Therapy to Peripheral Lung Cancer. Fitzgerald R, Owen R, Hargrave C, Pryor D, Lehman M, Bernard A, Mai T, Seshadri V, Fielding A. *Journal of Medical Imaging and Radiation Sciences*. 2017;48(4):360-369.
40. The development and implementation of a performance appraisal framework for radiation therapists in planning and simulation. JBecker J, Bridge P, Brown E, Ferrari-Anderson J, Lusk R. *Journal of Medical Radiation Sciences*. 2017;64(4):321-327.
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Collaborative & industry-led studies

Princess Alexandra Hospital Radiation Oncology Dept Study Participation List

STUDY	PHASE	SPONSOR/ INVESTIGATOR	DISEASE SITE	STATUS
COMBI-RT	I/II	ANZMTG	Melanoma	Open to recruitment
CORE	II/III	ICR (UK)/TROG	Oligometastases	Open to recruitment
ENZARAD	III	ANZUP/TROG	Prostate	Open to recruitment
FASTRACK	II	TROG/ANZUP	Renal	Open to recruitment
HPV	III	TROG	H&N	Open to recruitment
P-LUNG	III	TROG/ALTG	Lung	Open to recruitment
PROMETHEUS	II	Investigator	Prostate	Open to recruitment
RAIDER	II	ICR (UK)/TROG	Bladder	Open to recruitment
RAPPORT	Ib/II	Investigator	Renal	Open to recruitment
RTN2	III	ANZMTG/TROG	Melanoma	Open to recruitment
Split Course Prostate	II	Investigator	Prostate	Open to recruitment
APBI	II	TROG	Breast	Follow-up
DCIS	III	TROG/BIG	Breast	Follow-up
MP3	III	TROG	Merkel	Follow-up
NIMORAL	III	EORTC/TROG	H&N	Follow-up
RAVES	III	TROG	Prostate	Follow-up
STARS	III	TROG	Breast	Follow-up
STARS (Pilot)	II	Investigator	Breast	Follow-up
SAFRON	II	TROG/ALTG	Lung (Mets)	Follow-up

ALTG: Australasian Lung Cancer Trials Group
 ANZMTG: Australia New Zealand Melanoma Trials Group
 ANZUP: Australia New Zealand Urogenital and Prostate Cancer Trials Group
 BIG: Breast International Group
 EORTC: European Organisation for Research and Treatment of Cancer
 ICR (UK): Institution of Cancer Research (UK)
 TROG: Trans Tasman Radiation Oncology Group

Collaborators & Acknowledgements



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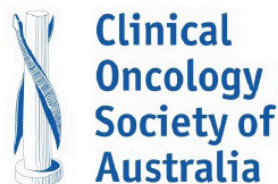
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The Princess Alexandra Hospital Radiation Oncology wish to sincerely thank all those who have kindly donated over the past year.



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