Material and Methods: An integrated on-site imaging, planning and delivery workflow was developed and tested for whole brain radiotherapy. An automated two-opposed-oblique-beam plan is created by utilizing the treatment planning system scripting and simple field-in-field IMRT. The IMRT plan is designed with maximum 8 control points to cover the target volume consisting of the brain to C1/C2 of the spinal cord, with dose homogeneity criteria from -5% to +7% of the prescription dose. Due to inaccuracy of reconstructed Hounsfield unit numbers in CBCT images, the dose distribution is calculated with non-heterogeneity correction introducing only clinically insignificant dose discrepancy. A coherent and synchronized workflow was designed for a team of attending physician, physicist, therapists, and dosimetrist to work closely with the ability to quickly modify, approve, and implement the treatment.

Results: Thirty-one patients have been treated with this OSPD treatment, without compromising the plan quality compared to our regular clinically used parallel opposed 2D plans. The average time for these procedures are 48.02 ±11.55 minutes from the time patient entered the treatment room until s/he exited, and 35.09 ±10.35 minutes from starting CBCT until last beam delivered. This time duration is comparable to the net time when individual tasks are summed up during our regular CT-based whole brain planning and delivery.

Conclusion: The OSPD whole brain treatment has been tested without compromising the plan quality compared to our regular clinically used parallel opposed 2D plans. The average time for these procedures are 48.02 ±11.55 minutes from the time patient entered the treatment room until s/he exited, and 35.09 ±10.35 minutes from starting CBCT until last beam delivered. This time duration is comparable to the net time when individual tasks are summed up during our regular CT-based whole brain planning and delivery.

Electronic Poster: Clinical track: Communication

Purpose or Objective: Only 5-10% of cancer patients eligible for randomized clinical trials (RCT) actually participate. The RAVES RCT (Trans-Tasman Radiation Oncology Group 08.03), compares adjuvant radiotherapy with early salvage radiotherapy for men with high risk features after prostatectomy. We aimed to determine attitudes and knowledge of potential participants regarding RAVES and RCTs, and examine decision-making preferences and decisional-conflict in men deciding on RAVES participation.
Material and Methods: Knowledge, attitudes, decisional conflict and preferences regarding participation in RAVES were measured. Predictors of trial and RAVES knowledge were also determined.

Results: 110 men (median age = 63) eligible for RAVES were recruited through urologists (n=90) and radiation oncologists (n=20). Men preferred collaborative (34%) or semi-active (34%) decision-making roles. Most considered RAVES to be worthwhile (85%), important (81%), 'a good thing' (80%), beneficial (73%) and viewed participation as wise (76%), but over half (51%) had high decisional conflict regarding participation. Objective measures of knowledge regarding RCTs and RAVES were low.

Conclusion: Amongst men considering management after prostatectomy, knowledge of RAVES was poor. Despite positive attitudes towards RCTs and RAVES, there was high decisional-conflict surrounding participation. The utility of decisional support materials to increase RCT knowledge and decrease decisional-conflict is under investigation.

EP-1461 Virtual imaging for patient information on radiotherapy planning and delivery J. Sulé-Suso1, S. Finney1, J. Bisson1, S. Hammersley1, S. Jassal2, C. Knight2, C. Ellis1, S. Sargeant2, K. Lam2, J. Belcher3, D. Collins2, R. Bhana1, F. Adab1, C. O'Donovan1, A. Moloney1
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Purpose or Objective: To assess whether both patients and their relatives would welcome further information on a one-to-one basis on RT planning and delivery using the virtual reality (VR) system VERT.

Material and Methods: One hundred and fifty patients with a variety of solid malignancies receiving radical RT were included in the study (90 prostate tumours, 52 breast tumours, 4 rectal tumours, 3 lung tumours and 1 thymoma). The study was approved by the local ethics committee. For each study patient, their planning CT Scan images and RT plan were uploaded onto the VERT system using the Digital Imaging and Communication in Medicine (DICOM) standard. Patients and relatives were shown using VERT (Figure 1) and on a one-to-one basis with an oncologist or a radiographer, a standard room where RT is given, a linear accelerator, and how RT is planned and delivered using their own planning CT Scans. Emphasis was put on the area to be treated and the organs around it. At the end of the exercise, patients were asked to fill in a questionnaire to assess their expectations. Radiotherapy was performed using 10 or 6 MV photons delivered from a Varian 2100X linear accelerator. Treatment planning was performed on the ‘Eclipse’ system using CT scans.

Results: The analysis of patients’ expectations during the whole process of RT planning and delivery showed that 83.0% (95%CI 76.99% to 89.01%) of patients had a moderate or high need to better understand using 3D imaging how RT is planned, and 83.3% (CI 77.33% to 89.27%) of patients had a moderate or high need to understand using 3D imaging how RT is delivered. Furthermore, 80.6% (CI 74.27% to 86.93%) of patients had a moderate or high need to see the area to be treated using their own CT Scans uploaded onto the VERT 3D system. All respondents cited greater understanding as a positive outcome of the exercise. Patients welcomed this information as it helped them to reduce their fears about RT. Relatives felt also more involved in the treatment of their loved one.

Conclusion: Providing this information using 3D imaging systems rather than 2D helped patients and relatives to better understand the complexity of RT planning and delivery, and reduced their anxieties. The results obtained in this pilot study show that VR aids could become an important tool for delivering information on RT to both patients and relatives, hence, improving patients’ experience and satisfaction. Further work is needed to assess whether such approaches improve patients’ compliance with treatment and whether it could ultimately impact on treatment outcome.

EP-1462 Effects of education using Youtube about radiotherapy process for cancer patients J. Heo1, M. Chun1, Y.T. Oh1, O.K. Noh1, J. Kim2
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Purpose or Objective: The patient’s understanding about radiotherapy process is necessary for safe and accurate delivery of radiation. We developed an education video about radiotherapy process. The purpose of this study was to evaluate the effectiveness of the education contents using YouTube.

Material and Methods: An eleven minutes video was developed instructing whole radiotherapy process including consultation, simulation, radiotherapy treatment planning, verification and irradiation. After consultation for radiotherapy, each patient was required to see the video posted on YouTube through provided lab-top or tablet PC in our clinic. The questionnaire about patient satisfaction with the video and knowledge of radiotherapy was carried out by interviewing after watching video. Also, set up error was measured at the first week of verification process.

Results: In clinic setting, twenty patients who visited to radiation oncology clinic and watched video were enrolled in the study. Of 20 participants, 11 (55%) rated the video as