conservative surgery for early breast cancer (five right-sided breast and two left-sided breast). Four pts were obese. For all pts it was given indication for WBRT alone without lymph nodes irradiation. All pts have performed two non contrast simul CT (slice-thickness 5 mm) in supine and in prone position. For supine TC scan, each patient was positioned using breast board with variable angles. The omolateral arm was carried on the head while contralateral arm was along the body. The head was straight. One radio-opaque marker was placed on mediosternal line at level of sternal manubrium. This is considered as 'point zero' of TC scan (that is used as referent for set up shifts). For prone position the pts were lying on carbon fiber *ClearVue ™ prone position table* that have an ergonomic cushion profile designed to equally distribute the weight and with an opening interchangeable mid-section with a dedicated breast space. The arms were stretched to keep in the indexed handlebars. The head was rotated controlaterally to the breast to be treated. The breast to be treated hanged vertically downwards away from chest-wall to the center of the notch without lie on the medial border of the table. Three radiopaque markers were placed in correspondence of line crossing towards nipple aligneated with centimetric scale localized on ClearVue ™ table. After CT scan, 4 tattoos were made both in supine position than in prone position, and photoes were made for each patient.

Results: All pts referred more comfort in standard supine position. The elderly pts and the obese pts had difficulty in climbing onto the platform and in achieving prolonged adequate immobilization without experiencing chest pain or arm pain. So prone position appears less reproducible in this category of patients. In advantage breast tends to be dislocated away from the chest wall by gravity, increasing the separation of the target and critical organs and minimizes target motion caused by breathing and cardiac systole, limiting the excursion of the chest wall to less than 5 mm.
Conclusions: The prone position is a valid alternative for irradiation of the mammary gland especially in patients with large pendulous breasts but further experience is required to optimize the feasibility and reproducibility of the prone treatment-platform before it can become a standard treatment option at our Institution.

EP-1327
Positioning and interfraction movement in stereotactic body radiation for lung cancer:
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Purpose/Objective: To evaluate the positioning and interfraction patient movement of our stereotactic hypofractionationated radiotherapy protocol used for the treatment of lung tumors.
Materials and Methods: Since May 2012, 9 patients with a non-operable non-small cells lung cancer stage I and size ≤ 3 cm and having no indication for conventional radiation therapy have undergone a hypofractionated treatment in our centre. The ITV was defined through imaging witha 4DCT or a PET-CT in the patient's treatment position. A personalized vacuum fixed device was made for each patient. PTV margins were chosen as small aspossible with a maximum of 5 mm from the ITV. VMATwas used to treat the patient with a dose of 60Gy in 8 fractions or 5 fractions or 3 fractions, depending on the tumor location. Positioning of the patient pre-treatmentand patient movement during the treatment is verified by imaged guidedradiotherapy (IGRT). Exactrac, CBCT and KV were performed before, during and after treatment.
Results: Comparison between pre- and post-treatment CBCTs showed an average movement of 0.13 cm in the anterior-posterior direction and no movement in the left-right and superior-inferior directions. The standard deviation in the ant-post direction was 0.3 cm and 0.2 cm in the other directions.
Conclusions: There is no statistically significantdifference in the measurements in the pre- and post-CBCT images. Due to a stable immobilisation system,the speed of delivering with VMAT, and the use of IGRT, our method of positioning is relatively precise and effective.

ELECTRONIC POSTER: RTT TRACK: VOLUME DEFINITION, TREATMENT MARGINS, GEOMETRIC UNCERTAINTIES AND TREATMENT ACCURACY

EP-1328
Bilateral hip prosthesis prostate cancer patient with spaceOARô gel insertion - a case study.
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Purpose/Objective: Rectal toxicity due to unintended rectal irradiation in prostate cancer patients is due to the close proximity of these two structures (Zelefsky et al, 2008). Recently, a synthetic polyethylene glycol based material has been developed specifically as a rectum-prostate spacer for rectal sparing in patients undergoing prostate radiotherapy. The purpose of this case study is to illustrate the observed rectal sparing advantage of SpaceOAR™ in a patient with bilateral metallic hip prostheses.
Materials and Methods: 78 Gy was planned simultaneously with an initial 56 Gy to the prostate and seminal vesicles, and an additional 22 Gy to the prostate alone for this intermediate risk prostate cancer patient. Due to the artifacts caused by bi-lateral metallic prostheses, T2-weighted MRI images were co-registered with the planning CT to facilitate target delineation. Planning was undertaken using a seven field intensity modulated radiation threapy technique, with gantry angles optimised to avoid direct irradiation of the metal hips.
Results: A separation of approximately 1.2 centimeters was created following the injection of SpaceOAR™ gel in the perirectal space. The resultant Dose Volume Histogram showed the rectal V70Gy and V75Gy to be 7.23% and 0.6% respectively.
Conclusions: Physical separation of the prostate and rectum through the use of SpaceOAR™ reduces dependence on complex planning and treatment delivery techniques.

EP-1329
Preliminary experience of interfractional set-up errors evaluation by EPIs imaging of IMRT in H & N cancer patients
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Purpose/Objective: The Electronic portal imaging has become available recently at our institution**.** There is a general concern about IMRT treatments being more sensitive to patient positioning than conventional treatments. EPIs are taken daily to check patient positioning prior to head and neck IMRT treatment. Set-up errors are an inherent part of radiation treatment process . Interfractional set-up errors were assessed from EPIs. Isocenter misalignments are corrected using a couch shift (3 mm action level). The aim of this study was to evaluate and investigate the interfractional set-up errors in head and neck during IMRT using electronic portal imaging**.**
Materials and Methods: During February 2012 to September 2012, EPIs were obtained for 23 patients treated for head and neck IMRT using 6 MV X-ray beam from Varian Clinac ix, who were treated in supine position with mask immobilization system. The interfractional set-up errors tested and collected by taking EPIs in the 1st 5 days of treatment and every weekly by using the online protocol system. A total of 838 portal images were obtained. The image were collected in anterior-posterior and lateral directions for both simulator and electronic portal images. This images were matched with the referent image from Varian Acuity simulator using the ARIA offline review software. Comparison between a simulator image set as a reference image and portal image was done using Anatomy Matching. Radiologist created an anatomy layer that was required for the matching process. Anatomical contours of bony landmarks, with were skull bones, the first cervical vertebral body and the fourth cervical vertebral body for lateral field and mandible, clavicle and spinous process foranterior-posterior field. Then the radiologist aligned the portal images and the reference image according to the defined match points on the matching anatomy layers. The patient misalignment is indicated in the image and the displacement of portal image from the reference image was record in X (Left – Right), Y (Superior –Inferior) direction for anterior field, and Z (Anterior-Posterior), Y (S-I) for lateral field. The