Conclusion: Both SBRT and VMAT treatments were highly successful in terms of PSA control. QOL assessment were found to be mostly similar between treatment modalities. Grade 3 urinary toxicities might be eliminated with careful patient selection for SBRT technique.

PO-0751
Predicting recurrence after 3DC Radiotherapy for prostate cancer: proposal for a new classifier
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Purpose or Objective: To test the hypothesis that rectal/bladder preparation is associated with an increase in Cancer Specific Overall Survival (CSOS), in Clinical Disease Free (CDFS) and Biochemical Disease free Survival (BDFS).

Material and Methods: From October 1999 to March 2012, 1080 prostate cancer patients (PCa) were treated with 3DCRT. 761 patients (pts) were treated with empty rectum and comfortable full bladder while for 319 pts no rectal/bladder preparation (NRBP) protocol was adopted. The mean age was 69.2±5.6 years. The mean prescribed dose was 76±5 Gy. The mean followup was 81±39 months. Survival analysis was performed by Kaplan Meier method. Comparison between groups were made with the log–rank test. A Cox proportional hazards model was applied for univariate (UVA) and multivariate analysis (MVA). Hazard Ratio (HR) was used to measure how rapidly an event occurs.

Results: Pts with rectal/bladder preparation (RBP) have significantly lower biochemical and clinical failures rates and lower risk of dying of PCa respect to NRBP pts (log-rank p<0.0001). At 140 months for RBP and NRBP, the CSOS was 95% vs 85%, the CDFS was 81% vs 71%, the BDFS was 64% vs 48 %, respectively. Table 1 shows UVA and MVA results. In MVA, for CSOS the Gleason Score (GS) and RBP predicted for death from PCa, while for CDFS and BDFS the GS, D’Amico risk classification, PSA, dose>75 Gy, clinical stage and RBP.
predicted for clinical and biochemical failures. MVA indicates that RBP is an independent risk factor for biochemical failure (p=0.003, HR=0.6) while it is the strongest risk factor for clinical failures and PCa deaths (p<0.0001, HR=0.5, regression coefficient b=−0.5). No statistical significant difference in rectal volume between RBP (mean volume 62.4±24.5 cc) and NRPB (mean volume 63.4±27 cc) was observed (chi square p value equal to 0.52).

**Conclusion:**
We found strong evidence that rectal/bladder preparation significantly decreased (HR<0.6, b<−0.5) the probability of death from PCa, biochemical and clinical failures in patients who were treated with 3DCRT for PCa without daily image-guided prostate localization, presumably because pts with RBP are able to maintain a reproducible empty rectum and comfortable full bladder for all the treatment. These results also emphasize the routinely need of image-guided radiotherapy to improve outcome in prostate cancer patients.

**PO-0753**
Prospective evaluation of urinary function in patients with prostate cancer treated with RT

**Purpose or Objective:**
The aim of the study is to prospectively evaluate urinary symptoms using the International Prostate Symptom Score (IPSS) in patients with localized prostate cancer (CaP) treated with radical (RRT) or postprostatectomy (PRT) radiotherapy delivered with conventional (CONV) or moderately hypofractionated (HYPO) fractionation.

**Material and Methods:** We considered patients enrolled in the two multicentric prospective observational studies DUE01 (RRT, CONV and HYPO) and IHU WPRT TOX (RRT and PRT, including irradiation of the pelvic lymph nodal area, CONV and HYPO). The IPSS questionnaire, evaluating 7 symptoms (IPSS1-IPSS7) and a quality of life (IPSS8), is filled in before and at the end of RT, then 3 and 6 after treatment end and every 6 months thereafter up to 5 years after the end of treatment. In this preliminary analysis only data relative to first year will be analyzed. Longitudinal trends were assessed by analysis of variance (anova).

**Results:** The analysis pertains to 146 RRT CONV pts, 104 RRT HYPO pts, 74 PRT CONV pts and 94 PRT HYPO. The median age in the 2 studies was 71 (RRT) and 66 (PRT) years (p = 0.0001). Overall, urinary function was always better in the RRT CONV cohort. Statistically significant differences among the 4 groups have emerged with respect to urinary frequency, urgency, effort, nocturia. When comparing RRT vs PRT, frequency (p = 0.007) and stress (p = 0.01) were significantly more present in PRT, while only a borderline difference in terms of urgency (p = 0.07) was evident. The last item of IPSS shows a significant difference of quality of life between groups, especially at 12 month where RRT cohort, especially CONV, shows a better score than PRT patients. Figure 1 shows the comparison of each group for all IPSS items (incomplete emptying, urinary frequency, intermittence, urgency, urinary stream, obstruction, nocturia, QoL), evaluating the mean response in the first five time of compilation (Rt start, RT end, 3m, 6m, 12m).

**Conclusion:** These preliminary results seem to suggest that RRT would result in less deterioration of urinary symptoms over time than PRT, especially RRT with conventional fractionation. Further analyses are ongoing in order to study the effect of baseline urinary situation, age, doses to the bladder and the impact of each urinary symptoms on quality of life.

**PO-0754**
Whole body Integral dose is associated with radiotherapy related fatigue in prostate cancer
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**Purpose or Objective:**
Whole body Integral dose is associated with radiotherapy related fatigue in prostate cancer

**Conclusion:** These preliminary results seem to suggest that RRT would result in less deterioration of urinary symptoms over time than PRT, especially RRT with conventional fractionation. Further analyses are ongoing in order to study the effect of baseline urinary situation, age, doses to the bladder and the impact of each urinary symptoms on quality of life.