Results: Median follow and median age were 75 m (range: 60-99) and 74 y (57-84) respectively, while median Gleason score (G5) was 6 (3-10); G5=7: 75; G5=7: 39; G5=7: 13 ; missing:2. 73 pts were staged as T1, 46 as T2: 6 as T3; and for 3 pts the stage was unclear (Tx). The median initial Psa (iPsa) was 7.8 (1.2-826). The 75-m bRFS was 92.5% (LR: 94.2%; IR: 96.9%; HR: 84.5%); OS was 94.6% (LR:95.9%; IR: 95.8%; HR: 91.1%) and CSS was 97.4% (LR: 100%;IR:94.5%;HR: 97.1%). AD and class risk were not correlated with bRFS/OS/CSS. The incidence of G3 toxicity was around 6% with drastically reduction of the prevalence at the last follow-up for both ≥G2 and ≥G3 toxicities indicating that symptoms were recovered in most patients.

Conclusion: The combination of pelvic LN irradiation and high dose to the prostate, (EQD2=88Gy) delivered with daily image-guided, intensity-modulated, moderate hypofractionation resulted in an excellent 75-m outcome, even in IR/HR patients. This encouraging result seems to be without correlation with AD considering the long time elapsed between the end of the AD and the last follow up of pts. The toxicity profile was acceptable

EP-1350
Postoperative radiation therapy following radical prostatectomy
J.A. Dominguez Rullan1, A. Hervás1, T. Muñoz1, F. López1, C. Vallejo1, D. Candín1, C. De la Pinta1, D. Ordoñez1, M. Martín1, S. Sancho1
1Hospital Ramón y Cajal, Radiation Oncology, Madrid, Spain

Purpose or Objective: To compare clinical results of adjuvant and salvage radiotherapy after radical prostatectomy for prostate cancer and to determinate prognostic factors of biochemical relapse free survival (BRFS).

Material and Methods: 302 patients were treated at our institution over a 12-year period. Overall survival and biochemical-relapse free survival were analyzed using Kaplan-Meier and multivariate Cox regression analysis was used to assess differences between groups.

Results: Mean age at diagnosis was 65 years (42-80). All patients underwent radical prostatectomy combined with pelvic lymphadenectomy in 47.1% of cases. Neoadjuvant androgen deprivation before surgery was given to 36.5% . Mean pre-RT PSA of 0.46ng/ml (0-12.8 ng/ml), Adjuvant RT (ART) was performed in 113 patients and salvage RT (SRT) in 183 (9 for local recurrence) and mean dosis to surgical bed was 70 Gy (60-76 Gy). The distribution of patients by pT stage was pTa/b (30.3%), pT2c (35%), pT3 (29%) and pT4 (2.3%). Upgrade in Gleason Score between transrectal biopsy and prostatectomy was experienced by 46.7% of patients. Positive surgical margins were reported in 56.5% of cases. Mean follow-up was 58.85 months (1-153 months). Overall survival at 5 and 10 years was 98.1% and 94.3%, respectively and BRFS at 5 and 10 years was 76.5% vs. 61.8%, respectively. The timing of RT (ART vs. SRT) and pre-RT PSA <0.5 ng/ml were significant predictors of longer BRFS.

Conclusion: Postoperative radiation therapy provides excellent long-term overall survival results with an aceptable BRFS with pre-RT PSA <0.5 ng/ml and adjuvant radiotherapy as predictors of better outcomes.

EP-1351
Developing a prostate decision aid tool considering patients and clinicians decisional needs
A.J. Berlanga1, B.G.L. Vanneste1, E. Bloemen1, D. Rijnkels1, P. Lambin1
1MAASTRO Clinic, GROW School for Oncology and Developmental Biology- Maastricht University Medical Centre, Maastricht, The Netherlands

Purpose or Objective: To facilitate shared decision making, we aim to develop a decision aid tool that helps prostate cancer patients to understand the benefits and side-effects of the treatments offered by their clinicians. The tool should follow the International Patient Decision Aid Standard, and therefore patient’s and doctor’s views on decisional needs must be considered. The tool should have a new slant on existing tools: it should personalize the information, guide patients to identify their preferences, and help doctors to understand patients’ preferences.

Material and Methods: Patients and clinicians were interviewed to assess their decisional needs. A prototypical tool was developed. Its clarity and acceptability was evaluated by the technology acceptance questionnaire (5-Likert scale).

Results: Prostate cancer patients already treated (N=16) mentioned the need of visual and free of medical jargon information about prostate cancer, treatments, side-effects, and treatment experience. Medical specialists (N=8; radiation oncologists, urologists, nurses) mentioned the need of information about basic anatomy, contraindications, hospital specific figures, and psychological support. Results about comprehensibility of the prototypical tool showed that most the patients fully agree (69%) or agree (31%) that the prototypical tool provides clear information about treatments, their side-effects, the differences between treatments, and eases comparison. Likewise, most of the patients fully agree (69%) or agree (31%) on using the tool if it would became available, and will recommend it to others (67% fully agree; 33% agree).

After considering the views of patients and medical specialists, the result is an alpha version of a web-decision aid tool for prostate cancer patients (http://www.treatmentchoice.info). The tool personalizes information for each patient. It assists patients to decide what their preferences regarding quality of life and treatment experience are, and to think how important are the side-effects for them. It provides a printed report of patients’ preferences to be using during consultation. Fig below gives an impression.
Conclusion: The alpha version of the tool is a first step towards its implementation in the clinical practice. The tool will be tested further by patients, to investigate whether it (a) influences the quality of the decision; (b) can be used without support. The tool is available in Dutch, English and Italian. Future efforts include the development of decision tools for other primary tumors.

EP-1352
Early clinical experience from MRI-only based radiotherapy of localized prostate cancer
M. Tenhunen1, J. Korhonen1, M. Kapanen1, T. Seppälä1, J. Collan1, K. Saariluht1, H. Visapää1
1Helsinki University Central Hospital, Cancer Centre, Helsinki, Finland
2Tampere University Central Hospital, Department of Oncology, Tampere, Finland

Purpose or Objective: The increased use of magnetic resonance imaging (MRI) for radiotherapy (RT) target delineation has encouraged method development to enable the entire RT treatment planning workflow based on MRI only. Earlier we have presented a procedure for MRI only based treatment planning replacing planning CT in all phases of RT including simulation, target volume definition, dose calculation based on a pseudo-CT image set generated from MRI, and image guidance where comparison between MR or pseudo-CT reference set and MV/kV planar images or cone-beam CT is performed. The method has been applied clinically for RT planning of localized prostate cancer since November, 2012. Here we present our early clinical experience.

Material and Methods: We have followed n = 125 patients treated with MRI only procedure with serum prostate-specific antigen (PSA) at the beginning (baseline) and end of the RT course. As a reference, similar group of patients has been chosen where RT were planned with similar irradiation technique, margins, dosage (prostate 76 Gy in 2 Gy fractions, seminal vesicles 66 Gy in 2 Gy fractions) and image guidance method (gold seeds + daily KV/MV imaging), but where CT planning image set has been used as a primary data set in treatment planning replacing planning CT. Longer treatment planning workflow based on MRI (MRI only) was used for the entire RT treatment planning procedure. Results: Median follow-up was 12 months (range 3–20 months). Mean dose to PTV1 was 60.15 Gy ( range 59.98-60.27), mean dose to PTV2 was 54.65 Gy. According to CTCAE 3.0 scale, acute G1 and G2 gastrointestinal toxicity occurred in 3 (25%) and 1 (8%) patients, respectively; no patients experienced G3 toxicity. G1 genitourinary toxicity occurred in 3 (25%) and 1 (8%) patients, respectively; no patients experienced G3 toxicity. G1 genitourinary toxicity occurred in 3 (25%) and 1 (8%) patients, respectively; G2 toxicity occurred in 6 (50%) patients and no G2 or higher grade side effects were observed. According to the Expanded Prostate Cancer Index Composite (EPIC) questionnaire, urinary function declined 3 months post-treatment but it was similar to baseline at 12 months; bowel related quality of life remained stable during follow-up. IPSS remained similar to baseline for all patients. The contourd volume analysis showed that CTV and PTV based on MRI were always lower than CT based volumes (mean 38.07-87.10 vs 50.84-106). No patients experienced biochemical failure during follow-up.

Conclusion: Our preliminary data support the safety of a 20-fraction hypofractionated schedule delivered with HT in patients with localized prostate cancer.

EP-1354
Meta analysis of carbon ion therapy prostatic cancer
Q. Zhang1, J. Tian1, X. Wang1
1Gansu Cancer Hospital, Department of Radiotherapy, Lanzhou, China

Purpose or Objective: Carbon ion is characterized by unique physical and biological properties which is expected to be suitable to treat localized prostate cancer. In order to assess validate the feasibility and efficacy of carbon-ion radiotherapy for prostatic cancer, we synthesize and