goodness-of-fit of the final model. Optimism-corrected survival proportions were calculated. All analyses were performed according to the TRIPOD statement.

Results: 28 (45%) patients died from PCA after mean (±SD) 82 (±36) months. Median total follow-up was 78 months (range 5-139). In total, 36 patients (58%) patients died after mean 84 (±40) months. PSA doubling time (PSADT) remained as a predictive factor for both PCaSM and OM: corrected hazard ratio’s (HR’s) 0.92 (95%-CI: 0.86-0.98, p=0.02) and 0.94 (95%-CI: 0.90-0.99, p=0.01), respectively. The adjusted C-statistics were 0.71 and 0.69, respectively. Predictive ability (calibration) was good up to 96 months follow-up. Over 80% of patients can survive 8 years if PSADT>24 months (PCaSM) and >33 months (OM) (Figure 1).

Survival proportion at 8 years

Figure 1: Prostate cancer specific survival (PCaSS) and overall survival (OS) as a function of PSADT.

Conclusion: A PSADT >24 months and >33 months can result in a high probability (>80%) of prostate cancer specific and overall survival 8 years after TS I-125 BT. Larger series and external validation are necessary.

PV-0039
Urinary incontinence rates in salvage high-dose-rate brachytherapy prostate cancer patients
P. Wojcieszek1, M. Szała1, A. Cholewa1, B. Białas1, S. Kellas-Sleczka1, M. Fijałkowski1, A.Andrejczuk1
1Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology III Dept, Brachytherapy Department, Gliwice, Poland

Purpose or Objective: Locally recurrent prostate cancer reirradiation may lead to urethral stricture and increase of urinary symptoms including urinary retention. Such patients may undergo urethrectomy or transurethral resection of the prostate (TURP), which may cause urinary incontinence. Our purpose was to evaluate risk of urinary incontinence after salvage high-dose-rate brachytherapy (HDR BT) with or without urological intervention.

Material and Methods: We included in the analysis all salvage HDR BT patients with at least 6 months of follow-up. Urinary retention, urological interventions and urinary incontinence rates were assessed. 5-year adverse event-free survivals were calculated.

Results: One hundred and two men were enrolled in this retrospective analysis. Median age was 71 years (57-81). Median follow-up was 37 months (6-76). Twenty-three men (23%) underwent urological intervention after salvage HDR BT. Fourteen of them suffered from urinary retention. 9 men were treated due to refractory obstructive urinary symptoms. TURP or urethretomy was performed 15 and 12 times, respectively. Four patients underwent combination of both. Twelve patients suffered from urinary incontinence with no intervention, twenty men developed it after urological intervention. Five patients needed suprapubic catheter. 5-year urological intervention-free survival was 65%. 5-year urinary incontinence-free survival (UIFS) was 69%. Any urological intervention was linked with higher urinary incontinence probability (4-year UIFS 88% vs 5%, p=0.0000; HR:14.05; 95% CI 13.25-14.85).

Conclusion: There is high probability of urinary incontinence in salvage HDR BT prostate cancer patients after urological intervention (TURP/urethretomy). Therefore patients suffering from refractory obstructive urinary symptoms without urinary retention should be carefully evaluated and counseled before any urological management.

PV-0040
MRI guided focal primary and (secondary) salvage HDR-BT in prostate cancer patients seems safe
M. Maenhout1, M.A. Moerland1, K.M. Van Vliet-van den Ende1, R.I. Schokker1, M. Borot de Battisti1, M. Peters1, M. Van Vulpen1, J.R.N. Van der Voort van Zyp1
1UMC Utrecht, Department of Radiation Oncology, Utrecht, The Netherlands

Purpose or Objective: To evaluate the technical feasibility and safety of focal MRI guided HDR brachytherapy as a primary, salvage or secondary salvage treatment in 37 patient with a localized (recurrent) prostate cancer.

Material and Methods: From May 2013 until October 2015, 37 patients were treated with focal MRI guided HDR brachytherapy. 26 patients received MRI guided primary focal HDR brachytherapy, 8 patients salvage treatment and 3 patient secondary salvage treatment. The prescribed dose to the PTV was 19 Gy, with strict limitations to the organs at risk. Patients with a (recurrent) PA proven prostate cancer were included in this evaluation. Before treatment, a diagnostic multiparametric MR was performed to define the tumor region. In patients with recurrent disease, a choline PET scan or PSMA scan was performed to exclude patients with early distant metastasis. The treatment was performed through MR guidance, in a combined MR/HDR facility (Figure 1).

After ultrasound guided insertion of the catheters, an MRI of the prostate was performed for the reconstruction of the inserted catheters. Consequently, a per-operative treatment plan was performed prior to dose delivery. Toxicity was measured using the CTCAE version 4.