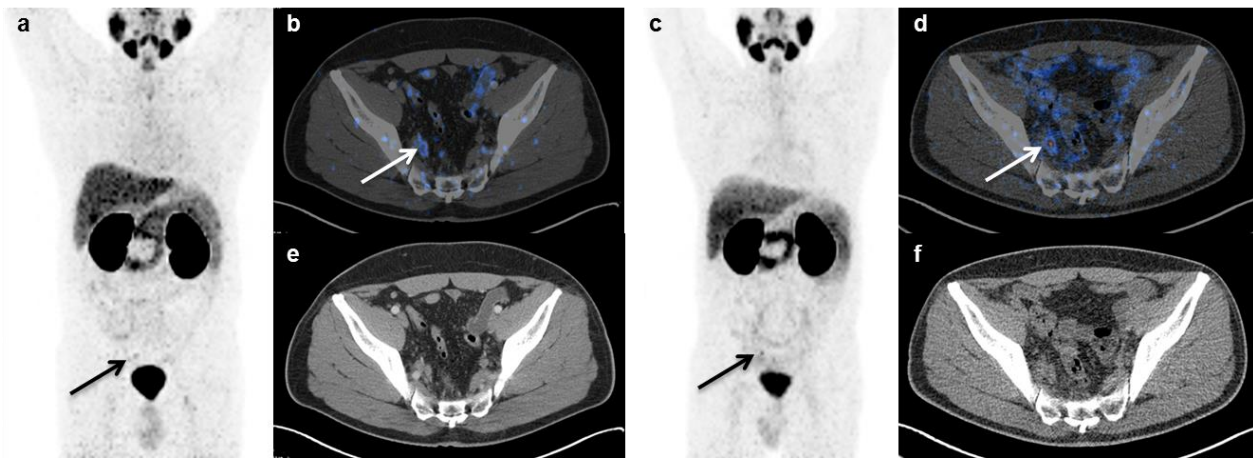


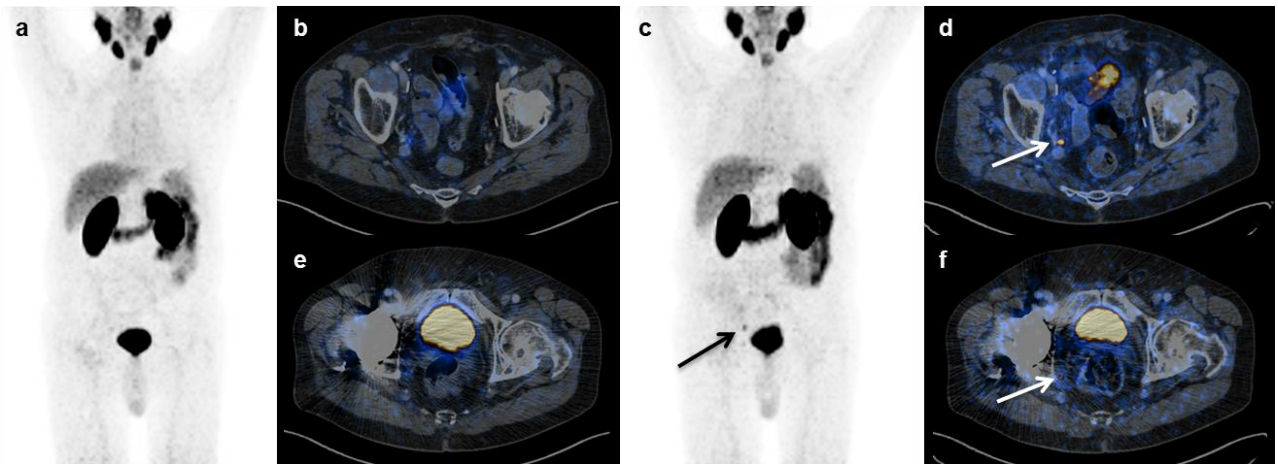
**Supplemental Figure 1. Persistence of one internal iliac lymph node metastasis.**

53 year-old man initially treated with radical prostatectomy and lymph node dissection for high risk PCa (ISUP grade group 4, pT3b pN1 R0) underwent  $^{68}\text{Ga}$ -PSMA-11 PET/CT for disease restaging in October 2015 (PSA=0.36 ng/mL). Maximum-intensity-projection (a), axial PET/CT (b) and axial CT (e) demonstrated focal uptake in one right internal iliac node (arrows; 14x8 mm;  $\text{SUV}_{\text{max}}=4.5$ ). With known PET-information, the patient was treated three weeks later with salvage lymph node dissection using a standard template (bilateral EI, II, CI resection). Histopathology confirmed adenocarcinoma in 1/12 right internal iliac nodes. Six weeks after the intervention PSA was 0.18 ng/mL and the patient underwent repeat  $^{68}\text{Ga}$ -PSMA-11 PET/CT confirming now more intense uptake in a growing right internal iliac node positive on pre-PET (c-d; arrows; 20x9 mm;  $\text{SUV}_{\text{max}}=5.7$ ; PET persistence).



### Supplemental Figure 2. Recurrence of two obturator lymph node metastases.

83 year-old man initially treated with radical prostatectomy and lymph node dissection for high risk PCa (ISUP grade group 4, pT3a pN0 R0) underwent  $^{68}\text{Ga}$ -PSMA-11 PET/CT for disease restaging in December 2015 with PSA=4.8 ng/mL. Maximum-intensity-projection (a) and axial PET/CT (b and e) demonstrate the absence of focal uptake within pelvis. With known information of PET and previous surgical fields, the patient was treated in January 2016 with more extended salvage lymph node dissection. Ten lymph nodes were removed from the following regions: right presacral, right obturator, right iliac and paracaval; 1/10 resulted positive for PCa metastasis in the presacral region. Six weeks after the intervention PSA was 3.0 ng/mL and the patient underwent repeat  $^{68}\text{Ga}$ -PSMA-11 PET/CT showing the appearance of two small right internal iliac nodes (8x6 mm) with PSMA uptake.



**Supplemental Table 1. Pre-SLND PET findings.**

<b>Characteristic</b>	<b>Overall population (n=16; 100%)</b>
<b>ADT</b>	
No	14 (88)
Yes	2 (12)
<b>Positive PSMA-PET</b>	
<b>15 (94)</b>	
Pelvic nodes only (N1)	9 (60)
Retroperitoneal nodes only (M1a)	2 (13)
Both (N1 M1a)	3 (20)
Other	1 (7)
<b>N/M disease extent</b>	
1 (unifocal)	6 (38)
2-3 (oligo)	4 (25)
≥4 (multiple/disseminated)	5 (31)