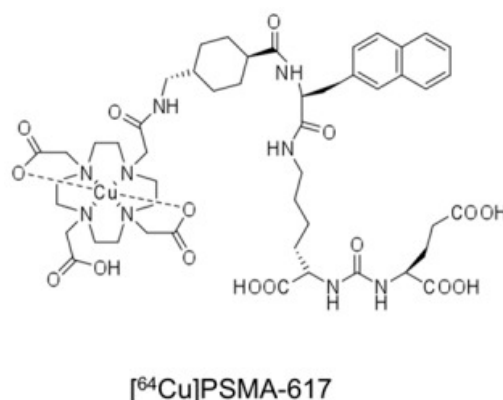
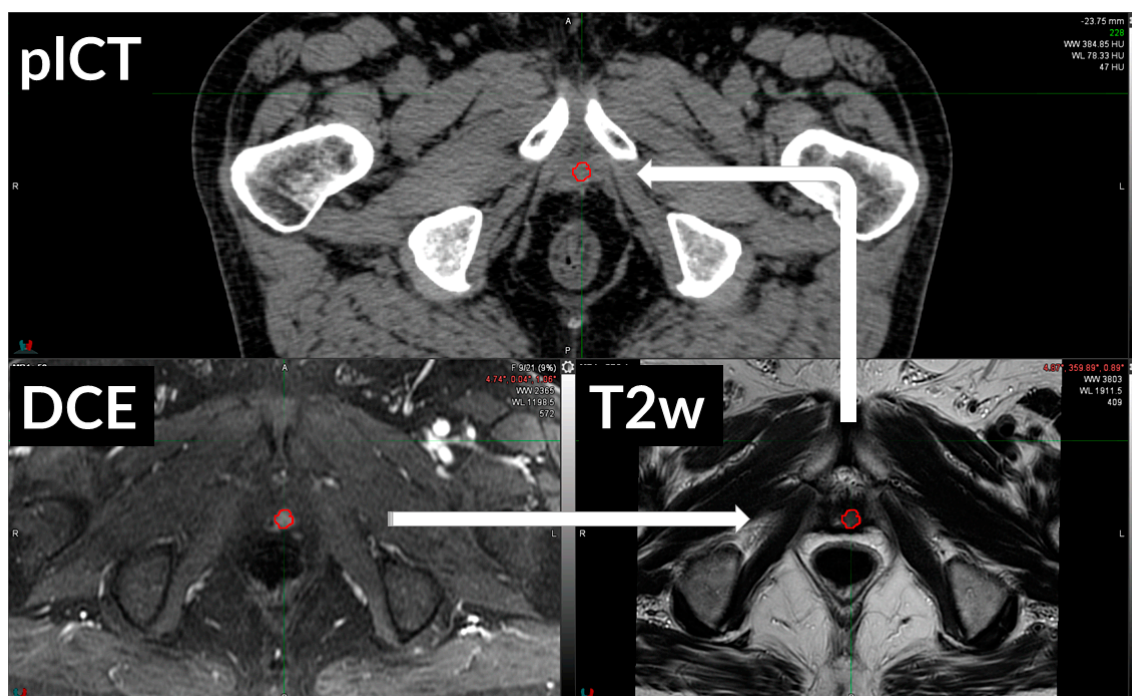


# Supplementary Materials: A Prospective Study Assessing the Post-Prostatectomy Detection Rate of a Presumed Local Failure at mpMR with Either $^{64}\text{CuCl}_2$ or $^{64}\text{CuPSMA}$ PET/CT

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**Figure S1.** Structure of  $^{64}\text{Cu}$ -PSMA-617.  $^{64}\text{Cu}$  was radiolabeled through PSMA-617 (3S,10S,14S)-3-[(naphthalen-2-yl)methyl]-1,4,12-trioxo-1-[(1r,4S)-4-[[2-[4,7,10-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecan-1-yl]acetamido]methyl]cyclo-hexyl]-2,5,11,13-tetraazahexadecane-10,14,16-tricarboxylic acid) provided by ABX, (Radeberg, Germany).



**Figure S2.** Co-registration between mpMR and planning CT (pLCT). The nodule was contoured on the appropriate phase of the DCE sequence. After co-registration between T2w sequence and pLCT, the nodule was transferred to the pLCT.

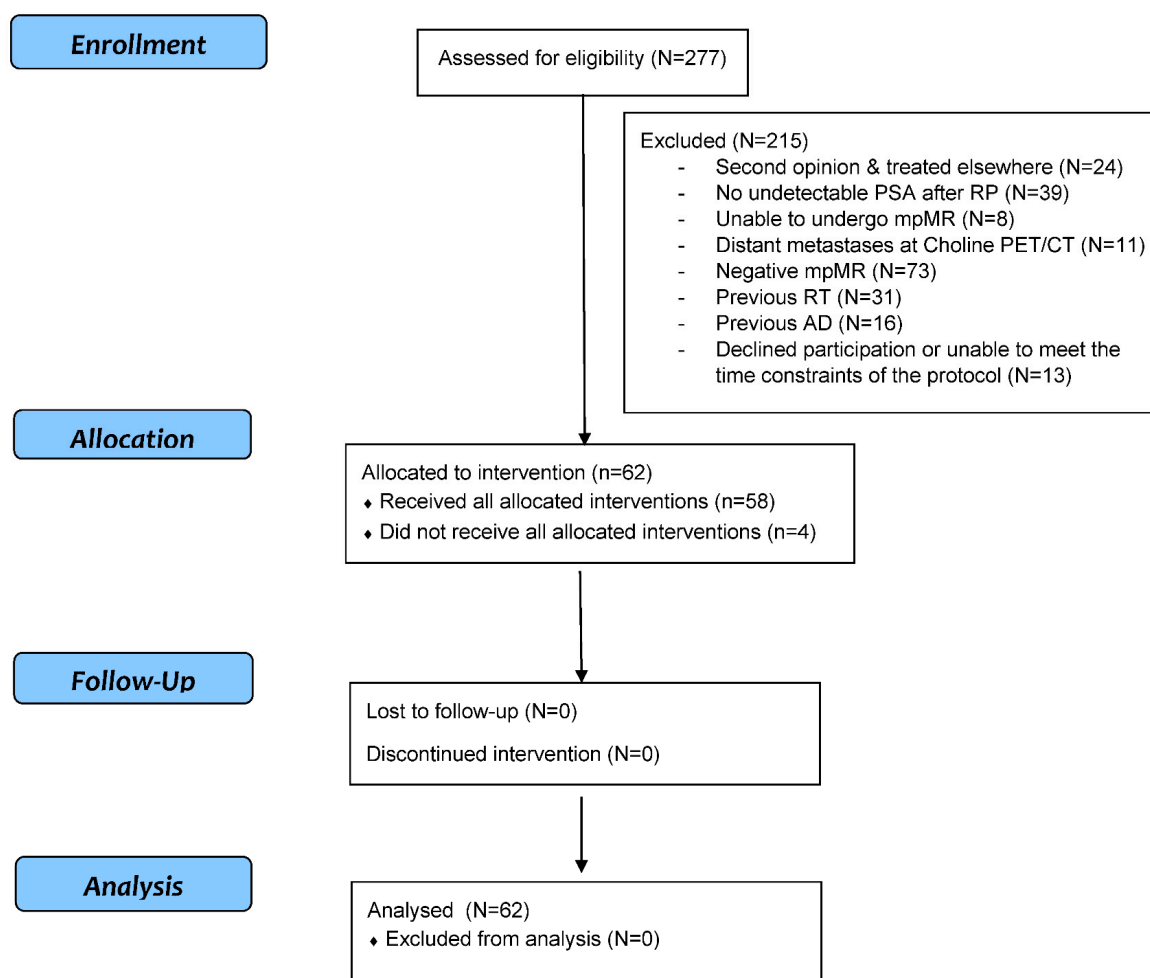


Figure S3. CONSORT flow diagram.

Table S1. Univariable analysis on DR for each PET/CT tracer.

Covariate	Stratification	# nodules	Choline		Cu		PSMA	
			OR (95%CI)	p	OR (95%CI)	p	OR (95%CI)	p
iwPSA (ng/ml)	Continuum	72	3.282 (1.179–9.138)	0.023	4.200 (1.139–15.482)	0.031	12.715 (1.858–86.996)	0.010
PSADT (mth)	Continuum	72	0.996 (0.974–1.019)	0.731	0.968 (0.938–1.000)	0.050	0.988 (0.967–1.009)	0.267
Volume at mpMR (0.1cc)	Continuum	72	1.911 (1.319–2.768)	0.001	1.324 (1.059–1.655)	0.014	1.309 (1.045–1.639)	0.019
Location of the failure	Anastomotic	39	1		1		1	
	Bladder neck	17	0.667 (0.196–2.273)	0.517	1.069 (0.342–3.344)	0.909	0.869 (0.277–2.728)	0.810
	Retrovescical	16	0.229 (0.045–1.150)	0.073	0.432 (0.126–1.477)	0.181	0.464 (0.141–1.530)	0.207
GGG	1–2	33	1		1		1	
	3	29	2.622 (0.860–7.993)	0.090	1.267 (0.464–3.455)	0.644	2.864 (1.020–8.040)	0.046
	4–5	10	1.592 (0.325–7.800)	0.566	2.036 (0.482–8.603)	0.334	4.083 (0.887–18.805)	0.071

Abbreviations: iwPSA, individual weighted PSA; PSADT, PSA doubling time; mpMR, multiparametric MR; GGG, Gleason Grade Group; OR, odds ratio.