Table S1 Comparison of image quality rated on a five-point scale (5= better than expected, 1= non-interpretable), calculated image sharpness, and signal-to-noise ratio among Std and short acquisitions and reconstruction with and without deep learning

Acquisition-reconstruction	Median (95% CI)				P	Post-hoc					
	Std (A)	Std-DLR (B)	Short (C)	Short-DLR (D)		(A)-(B)	(A)-(C)	(A)-(D)	(B)-(C)	(B)-(D)	(C)-(D)
Subjective evaluation											
Image noise	4.3 (3.2 to 4.7)	4.7 (3.4 to 5.0)	4.0 (3.0 to 4.3)	4.7 (3.3 to 5.0)	<0.0001	<0.0001	0.052	0.0044	<0.0001	0.71	<0.0001
Image contrast	4.3 (3.5 to 4.7)	5.0 (3.6 to 5.0)	4.0 (3.4 to 4.7)	5.0 (3.6 to 5.0)	<0.0001	<0.0001	0.87	<0.0001	<0.0001	1.0	<0.0001
Image sharpness	4.0 (3.1 to 4.2)	4.7 (3.5 to 5.0)	4.0 (3.1 to 4.3)	4.7 (3.5 to 5.0)	<0.0001	<0.0001	1.0	<0.0001	<0.0001	1.0	<0.0001
NB delineation	4.0 (3.3 to 4.7)	4.7 (3.4 to 5.0)	4.0 (3.1 to 4.7)	4.7 (3.4 to 5.0)	<0.0001	<0.0001	0.98	<0.0001	<0.0001	1.00	<0.0001
Sphincter delineation	4.3 (3.3 to 4.7)	5.0 (3.5 to 5.0)	4.3 (3.1 to 4.7)	5.0 (3.5 to 5.0)	<0.0001	<0.0001	0.96	<0.0001	<0.0001	0.95	<0.0001
Overall	4.3 (3.1 to 4.7)	5.0 (3.4 to 5.0)	4.0 (3.1 to 4.7)	4.7 (3.4 to 5.0)	<0.0001	<0.0001	0.85	<0.0001	<0.0001	0.98	<0.0001
Objective measurements											
Image sharpness	282 (245 to 316)	428 (360 to 497)	314 (260 to 349)	465 (388 to 554)	<0.0001	<0.0001	0.029	<0.0001	<0.0001	0.38	<0.0001
Signal -to-noise ratio	37.2 (35.9 to 40.5)	38.0 (37.2 to 41.4)	28.0 (27.1 to 30.1)	30.2 (29.0 to 32.0)	<0.0001	0.91	<0.0001	<0.0001	<0.0001	<0.0001	0.53

Std, standard acquisition; Short, short acquisition; DLR, deep-learning-based reconstruction; 95% CI, 95% confidence interval; NB, neurovascular bundle.

Table S2 Cross-correlation matrix of objective measurements (image sharpness, signal-to-noise ratio, prostate volume) and subjective ratings

Parameter	Image sharpness		Signal-to-noise ratio		Volume	
	ρ	P	ρ	P	ρ	P
Subjective evaluation						
Image noise	0.438	<0.0001*	0.268	0.0002*	0.439	<0.0001*
Image contrast	0.612	<0.0001*	0.147	0.044*	0.612	<0.0001*
Image sharpness	0.657	<0.0001*	0.153	0.036*	0.657	<0.0001*
Neurovascular bundle delineation	0.517	<0.0001*	0.094	0.199	0.517	<0.0001*
Sphincter delineation	0.645	<0.0001*	0.136	0.062	0.645	<0.0001*
Overall	0.539	<0.0001*	0.195	0.0007*	0.539	<0.0001*
Objective measurements						
Image sharpness	–	–				
Signal-to-noise ratio	–0.016	0.83	–	–		
Prostate volume	0.002	0.97	–0.062	0.395	–	–

*, indicates statistical significance. ρ, Spearmann's rho.

Table S3 Interobserver agreement in domains of subjective rating of image quality

Domain	Agreement	95% CI
Image noise	0.53	0.44 to 0.60
Image contrast	0.49	0.39 to 0.59
Image sharpness	0.72	0.64 to 0.78
Overall	0.57	0.49 to 0.64
NB delineation	0.57	0.48 to 0.64
Sphincter delineation	0.54	0.44 to 0.63

95% CI, 95% confidence interval; NB, neurovascular bundle.