

Supplementary data

S1. Figures

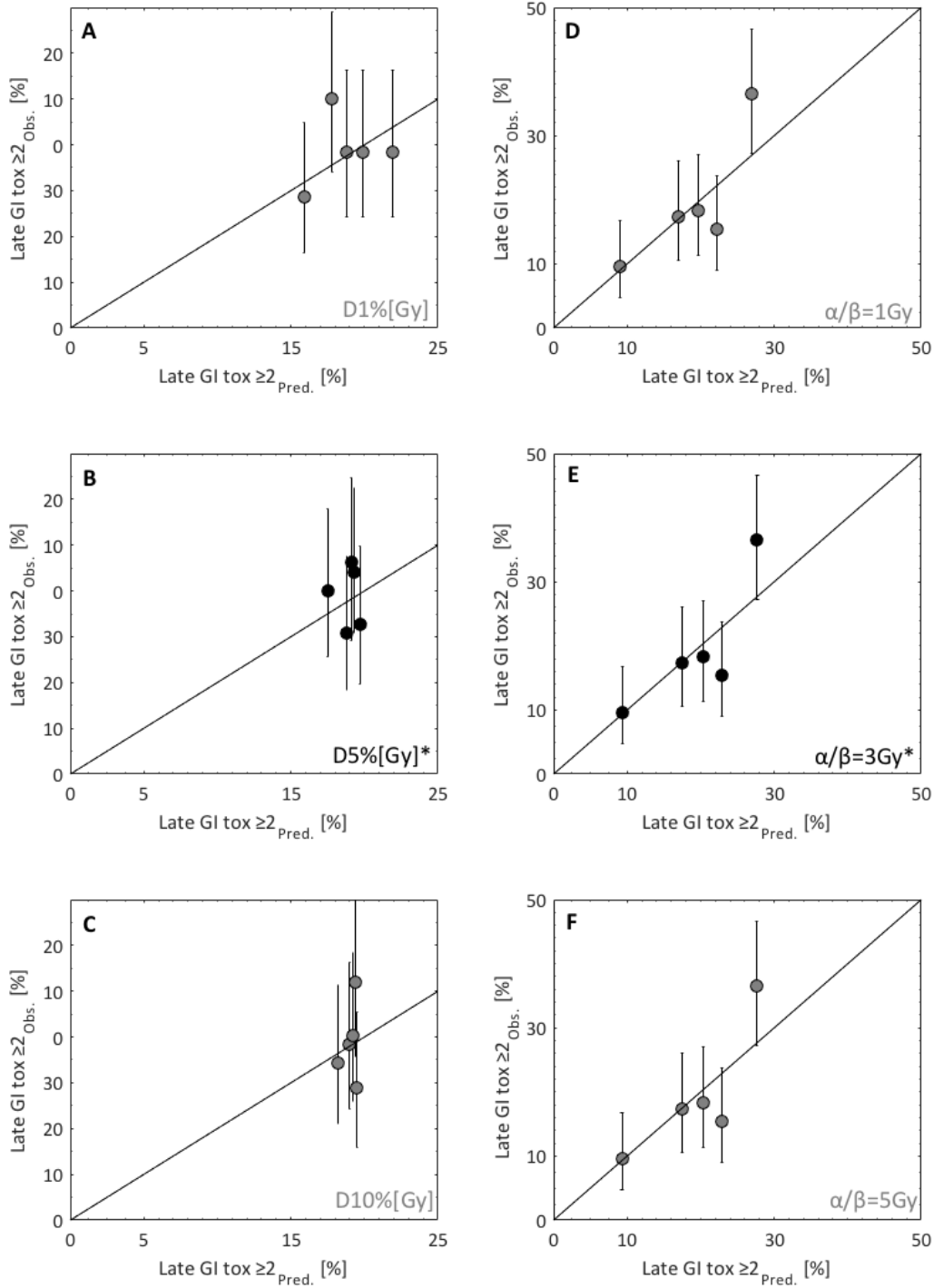


Figure S1. Calibration plots in quintiles for model IV re-fitted in the complete data with A-C. Altered $Dx\%[Gy]$ (A: $D1\%[Gy]$; B*: The used $D5\%[Gy]$; C: $D10\%[Gy]$), and D-F. Altered α/β ratio values (D: $\alpha/\beta=1Gy$; E*: The used $\alpha/\beta=3Gy$; F: $\alpha/\beta=5Gy$). Note: Solid lines: Identity lines; Error bars: exact 95% binomial CIs.

S2. Tables

Table S1. The symptom rate for the late moderate to severe (\geq Grade 2) GI and GU toxicities. *: Analyzed symptoms.

Symptom	Rate (N) [%]
GI	
Colitis	1 (4)
Constipation	2 (8)
Diarrhea	1 (4)
Fecal incontinence	1 (3)
GI toxicity	19 (101)*
Hemorrhoids	1 (5)
Proctitis	14 (73)*
GU	
Bladder obstruction	1 (4)
Bladder spasm	<1 (2)
Cystitis	6 (29)
GU toxicity	28 (145)*
Pollakiuria	18 (92)*
Renal GU Other	5 (24)
Urethral obstruction	1 (4)
Urethral stricture	2 (12)
Urinary incontinence	4 (21)
Urinary retention	4 (23)
Urinary stenosis	<1 (1)

Table S2. Summary of the % of patients fulfilling each of the four rectal dose-planning constraints. *Note:* All dose levels are given as (3)[EQD2Gy].

Proportion fulfilling rectal constraints **V59Gy[%]≤50** **V64Gy[%]≤35** **V69Gy[%]≤25** **V74Gy[%]≤15**

	V59Gy[%]≤50	V64Gy[%]≤35	V69Gy[%]≤25	V74Gy[%]≤15
All patients				
Late GI≥2 (N=101)	0.99	0.97	0.92	0.77
No late GI≥2 (N=420)	0.99	0.97	0.96	0.86
3DCRT				
Late GI≥2 (N=19)	1.00	1.00	0.84	0.74
No late GI≥2 (N=89)	0.99	0.98	0.96	0.81
IMRT				
Late GI≥2 (N=82)	0.99	0.96	0.94	0.78
No late GI≥2 (N=331)	0.99	0.97	0.96	0.88