

**Supplementary Table 3. Multivariable Logistic Regression Analysis for Willingness to Immediately Change to 2-mSv CT**

Covariates	Willingness to Immediately Change to 2-mSv CT*	Univariable Analysis		Multivariable Analysis	
		Odds Ratio (95% CI)	<i>P</i>	Odds Ratio (95% CI)	<i>P</i>
<b>Participant characteristics</b>					
<b>Department</b>					
Radiology	62/221 (28.1%)	Reference		Reference	
Emergency medicine	45/196 (23%)	0.8 (0.5–1.2)	0.24	0.7 (0.4–1.1)	0.130
Surgery	51/162 (32%)	1.2 (0.8–1.8)	0.47	1.2 (0.7–1.9)	0.57
<b>Job title</b>					
Attendings	73/203 (36.0%)	1.9 (1.3–2.8)	0.001	1.9 (1.2–2.9)	0.004
Trainees	85/376 (22.6%)	Reference		Reference	
<b>Q4. Acceptance of 2-mSv CT<sup>†</sup></b>					
Yes	150/396 (37.9%)	13.3 (6.4–27.9)	< 0.001		
Partly or no <sup>‡</sup>	8/183 (4%)	Reference			
<b>Q5. Maintaining dedicated appendix CT protocol in hospital information system</b>					
Yes	120/298 (40.3%)	4.3 (2.9–6.5)	< 0.001	4.2 (2.7–6.5)	< 0.001
Partly or no <sup>‡</sup>	38/281 (13.5%)	Reference		Reference	
<b>Q6. Timeliness and accuracy of CT reports<sup>†</sup></b>					
Yes	137/471 (29.1%)	1.7 (1.0–2.8)	0.044		
Partly or no <sup>‡</sup>	21/108 (19%)	Reference			
<b>Q7. Timeliness and accuracy of 2-mSv CT reports<sup>†</sup></b>					
Yes	136/468 (29.1%)	1.7 (1.0–2.8)	0.051		
Partly or no <sup>‡</sup>	22/111(20%)	Reference			
<b>Q8. In comparison to natural background radiation</b>					
0.4-fold or less <sup>‡</sup>	44/178 (25%)	0.7 (0.5–1.1)	0.145	0.8 (0.5–1.3)	0.40
4-fold	63/200 (31.5%)	Reference		Reference	
40-fold or more <sup>‡</sup>	51/201 (25.4%)	0.7 (0.5–1.1)	0.174	0.8 (0.5–1.3)	0.32
<b>Q9. Evidence level of carcinogenic risk</b>					
Yes	64/181 (35%)	1.8 (1.2–2.6)	0.003	1.6 (1.1–2.5)	0.028
Partly or no <sup>‡</sup>	94/398 (23.6%)	Reference		Reference	
<b>Hospital characteristics</b>					
<b>Using iterative reconstruction</b>					
Yes	78/268 (29.1%)	0.8 (0.6–1.2)	0.36	1.1 (0.7–1.7)	0.73
No	80/311 (25.7%)	Reference		Reference	
<b>Number of annual appendectomies</b>					
< 200	58/200 (29.0%)	Reference		Reference	
200–399	55/183 (30%)	1.1 (0.7–1.6)	0.82	0.9 (0.5–1.6)	0.66
≥ 400	45/196 (23%)	0.7 (0.5–1.1)	0.171	0.7 (0.4–1.2)	0.195
<b>Number of beds</b>					
< 700	23/99 (23%)	Reference		Reference	
700–999	43/190 (23%)	1.0 (0.5–1.7)	0.91	1.4 (0.7–2.9)	0.37
≥ 1000	92/290 (31.7%)	1.5 (0.9–2.6)	0.111	2.0 (1.1–3.9)	0.031
<b>Number of enrolled patients in LOCAT</b>					
< 100	74/263 (28.1%)	Reference		Reference	
≥ 100	84/316 (26.6%)	0.9 (0.6–1.3)	0.68	0.9 (0.5–1.4)	0.55

For questions regarding willingness or acceptance, “yes” indicated ‘completely and consistently’ while “partly” indicated ‘not consistently but selectively (e.g., during working hours).’ \*Data are numbers of participants who responded as “yes” to Q1 out of all participants in category (and percentages), †Not included in multivariable analysis, ‡Categories with small numbers of patients (< 50) were merged into nearby categories. CI = confidence interval, LOCAT = Low-d0se CT for Appendicitis Trial