

Supplementary table 1. Association between fall and LUTS severity by age group

	Total	Total falls		Indoor falls	
	N(weighted %)	n(weighted %)	p-value*	n(weighted %)	p-value*
LUTS severity (20-39 years)					
Normal	20,720(70.5%)	2,811(14.8%)	<0.001	257(1.3%)	<0.001
Mild	7,926(27.8%)	1,765(23.8%)		193(2.5%)	
Moderate	451(1.6%)	153(35.7%)		19(3.8%)	
Severe	35(0.1%)	8(17.1%)		4(10.7%)	
Total	29,192(100.0)	4,737(17.6%)		473(1.7%)	
LUTS severity (40-59 years)					
Normal	21,583(50.5%)	2,001(9.6%)	<0.001	215(1.0%)	<0.001
Mild	17,725(43.4%)	2,434(13.9%)		295(1.5%)	
Moderate	2,152(5.3%)	482(22.6%)		87(3.8%)	
Severe	363(0.8%)	100(26.9%)		30(8.8%)	
Total	41,823(100.0)	5,017(12.3%)		627(1.5%)	
LUTS severity (60-79 years)					
Normal	5,132(17.5%)	516(10.3%)	<0.001	82(1.6%)	<0.001
Mild	14,368(51.7%)	2,072(15.7%)		423(2.8%)	
Moderate	6,409(23.2%)	1,290(20.4%)		337(4.8%)	
Severe	2,144(7.6%)	576(26.4%)		218(8.7%)	
Total	28,053(100.0%)	4,454(16.7%)		1,060(3.5%)	
LUTS severity (≥80 years)					
Normal	231(7.1%)	30(12.4%)	<0.001	13(4.2%)	<0.001
Mild	999(34.5%)	172(19.8%)		53(5.8%)	
Moderate	1,029(37.3%)	196(20.5%)		72(6.3%)	
Severe	595(21.2%)	149(30.9%)		85(16.2%)	
Total	2,854(100.0%)	547(21.9%)		223(8.1%)	

*: p-value by Pearson chi-square test

LUTS: Lower Urinary Tract Symptom

Supplementary table 2. Association between of the risk of fall and individual symptoms within LUTS by multiple logistic regression analysis

LUTS	Total falls			Indoor falls		
	Symptom frequency			Symptom frequency		
	NAA	<1/2 the time	≥1/2 the time	NAA	<1/2 the time	≥1/2 the time
Incomplete emptying	1.00 (ref)	1.03 (0.95-1.12)	1.09 (0.95-1.25)	1.00 (ref)	1.12 (0.93-1.36)	1.24 (0.96-1.61)
Frequency	1.00 (ref)	1.42 (1.32-1.53)	1.37 (1.19-1.57)	1.00 (ref)	1.21 (1.09-1.45)	1.18 (0.91-1.52)
Intermittency	1.00 (ref)	1.13 (1.04-1.24)	1.07 (0.92-1.25)	1.00 (ref)	1.03 (0.84-1.26)	0.99 (0.76-1.29)
Urgency	1.00 (ref)	1.16 (1.06-1.26)	1.21 (1.05-1.40)	1.00 (ref)	1.22 (1.01-1.47)	1.45 (1.11-1.90)
Weak urine stream	1.00 (ref)	1.14 (1.04-1.24)	1.27 (1.12-1.45)	1.00 (ref)	1.02 (0.82-1.27)	1.08 (0.83-1.38)
Hesitancy	1.00 (ref)	1.06 (0.96-1.16)	1.19 (1.03-1.38)	1.00 (ref)	1.05 (0.87-1.27)	1.59 (1.22-2.06)
Nocturia*	1.00 (ref)	1.27 (1.20-1.35)	1.50 (1.34-1.67)	1.00 (ref)	1.34 (1.17-1.53)	1.65 (1.32-2.04)

adjusted for age, subjective health status, BMI, drinking frequency, average drinking amount, vigorous physical activity time per day, moderate physical activity time per day and walking time per day

* Nocturia is stratified as 1-2times/night, and 3-5 times/night with 0 times/night, as the reference value.

LUTS: Lower Urinary Tract Symptom, NAA: Not at all