

Table 3. Assumed factors associated with measurement errors by the groups according to the range of % error volume

Method of measurement	Group of error	*No.	Body mass index	Thickness of abdominal wall	Prostate volume (cc)	Pelvic volume (cc)	Pelvic flattening	Bladder flattening
CUSVe	Non-error	165	24.02 ± 3.11	29 ± 9	33 ± 18	521 ± 80	0.89 ± 0.11	^a 1.38 ± 0.30
	Overestimate	15	24.57 ± 3.27	26 ± 12	28 ± 10	551 ± 126	0.85 ± 0.14	^b 1.27 ± 0.30
	Underestimate	256	23.44 ± 3.09	29 ± 8	30 ± 14	534 ± 98	0.89 ± 0.11	1.61 ± 0.43
CUSVs	Non-error	164	23.85 ± 3.07	28 ± 8	33 ± 18	522 ± 83	0.88 ± 0.11	^a 1.43 ± 0.35
	Overestimate	13	25.05 ± 3.40	28 ± 13	27 ± 9	560 ± 119	0.89 ± 0.15	^b 1.36 ± 0.43
	Underestimate	259	23.53 ± 3.12	29 ± 9	30 ± 14	532 ± 97	0.90 ± 0.11	1.57 ± 0.41
LiVmea	Non-error	150	23.79 ± 3.26	30 ± 9	^a 32.82 ± 14	534 ± 91	0.89 ± 0.12	^a 1.47 ± 0.36
	Overestimate	104	23.80 ± 2.34	28 ± 6	^b 34.49 ± 19	524 ± 83	0.90 ± 0.11	^b 1.41 ± 0.34
	Underestimate	182	23.59 ± 3.40	29 ± 10	28 ± 13	531 ± 99	0.89 ± 0.10	1.59 ± 0.44
LiVmax	Non-error	160	23.86 ± 3.48	29 ± 9	^c 29.57 ± 14	524 ± 95	0.89 ± 0.11	^c 1.53 ± 0.36
	Overestimate	197	23.70 ± 2.59	28 ± 7	^b 33.79 ± 17	533 ± 88	0.90 ± 0.11	^b 1.46 ± 0.39
	Underestimate	79	23.37 ± 3.58	28 ± 11	27 ± 11	533 ± 100	0.89 ± 0.11	1.60 ± 0.46

Non-error: $-20 \leq \%EV \leq 20$, Overestimate: $\%EV > 20$, Underestimate: $\%EV < -20$

EV: error volume, CUSVe, CUSVs: measurement by conventional ultrasound (CUS) using the ellipsoid formula or the spherical formula, respectively

LiVmea, LiVmax: measurement by the Liliun α -200 for mean values and maximum values, respectively

* total number of measurement in 109 subjects, Data were expressed as mean ± SD.

Significant differences were found between a: non-error and underestimate, b: overestimate and underestimate, and c: non-error and overestimate, respectively by the Mann Whiteny U- test.