



**Figure S1** Bland-Altman plots show differences between the 2 methods for pneumothorax-size calculation against the averages of the 2 methods. Differences in pneumothorax size were calculated by using 4 methods of Rhea's, Light's, Collins's and Choi's calculations, based on chest PA/AP computation. In the plot, the *x*-axis means the average of the 2 evaluation methods and the *y*-axis represents the difference of the 2 evaluation methods. The thick black lines represent the mean, and the thick black dotted upper/lower lines mean the limits of agreement (LOA), defined as the mean difference  $\pm 1.96$  standard deviation (SD) of differences. If these limits do not exceed the maximum difference between the 2 methods, the 2 methods are considered to be in good agreement and can be used interchangeably. Each standard error bar means the 95% confidence intervals (CI) of each means, upper limits of agreement and lower limits of agreement. For accurate detection of a proportional difference, the regression lines (gray dotted lines) and the 95% CI of this regression lines (double gray lines) were depicted in all figures. Only in Figure B, a scatter diagram shows a strong relationship between the data from Light's/Collins's calculations and the magnitude of measurements: differences in arithmetic mean,  $-0.6097$ ; 95% CI,  $-2.5126$  to  $1.2932$ ;  $P=0.5264$ ; lower limit,  $-19.4063$ ; lower limit 95% CI,  $-22.6692$  to  $-16.1434$ ; upper limit,  $18.1869$ ; upper limit 95% CI,  $14.9240$  to  $21.4498$ ; regression equation,  $y=1.5948 + (-0.05893x)$ . This result show that Light's method strongly depends on the magnitude of Collin's measurements. Detailed data are summarized in Tables S1. PA, posteroanterior x-ray view; AP, anteroposterior X-ray view; LOA, limits of agreement; SD, standard deviation; CI, confidence interval; P, statistical probability.

**Table S1** Statistical analyses between the 2 methods for pneumothorax-size calculation

Method A vs. Method B	Rhea's vs. Light's	Light's vs. Collins's	Light's vs. Choi's	Collins's vs. Choi's
Differences between the 2 methods				
Sample size	100	100	100	100
Arithmetic mean	-9.1139	-0.6097	2.5449	3.1546
95% CI	-11.4300 to -6.7978	-2.5126 to 1.2932	0.5016 to 4.5882	1.6690 to 4.6402
P value	<0.0001	0.5264	0.0152	0.0001
Lower limit	-31.9924	-19.4063	-17.6385	-11.5198
95% CI	-35.9639 to -28.0210	-22.6692 to -16.1434	-21.1421 to -14.1349	-14.0671 to -8.9725
Upper limit	13.7646	18.1869	22.7283	17.8290
95% CI	9.7932 to 17.7361	14.9240 to 21.4498	19.2247 to 26.2319	15.2817 to 20.3763
Regression equation	$y = -2.4782 + (-0.2039x)$	$y = 1.5948 + (-0.05893x)$	$y = -2.3097 + 0.1355x$	$y = -3.7231 + 0.1903x$

CI, confidence interval; P, statistical probability.