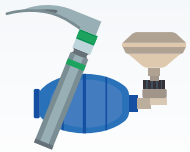
Could a Modified Cuff Leak Test Approach Be Superior in Predicting Reintubation Compared With the Traditional Method?

STUDY DESIGN

- Prospective, multicenter, randomized controlled trial (N for modified cuff leak test [CLT], 268, and control, 268)
- Traditional CLT method: Cuff leak volume < 110 ml or gas leak < 15.5% as the best cutoff value to predict postextubation stridor (PES)
- Modified CLT method: Semirecumbent position, lower flow, and square waveform

RESULTS

	Modified CLT	Control/ Traditional	Odds Ratio (95% CI)
Reintubation w/in 48 hours	4.87%	7.12%	
Incidence of PES	5.22%	1.49%	0.275 [0.089, 0.846]
Invasive mechanical ventilation (IMV) duration (hours)	137	159	1.001 [1.000, 1.002]
Incidence of PES in patients with IMV > 6 days	2.95%	0.74%	0.203 [0.042, 0.975]



- The incidence of reintubation within 48 hours of extubation did not differ between the groups
- But PES within 24 hours of extubation was more frequent in the modified CLT group than in the control group

Compared with the control group, the modified CLT approach might better predict PES within 24 hours of extubation, especially for patients with IMV duration longer than 6 days, but it was not shown to help decrease reintubation incidence and mortality.

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