

**Table E1 Supplement: Odds ratios for adherence to lung protective ventilation for demographic and clinical covariables in the control and adoption cohorts combined.**

	<b>Odds of ordered tidal volume adherent to lung protective ventilation (95% CI)</b>	<b>Odds of delivered tidal volume adherent to lung protective ventilation (95% CI)</b>
<b>Adoption vs. Control cohort</b>	2.44 (95% CI 1.96-3.04)	1.87 (95% CI 1.49-2.34)
<b>Age, years</b>	1.00 (95% CI 0.99-1.01)	1.00 (95% CI 0.99-1.01)
<b>Female vs. Male</b>	0.69 (95% CI 0.53-0.90)	0.85 (95% CI 0.64-1.11)
<b>Height, inches</b>	1.34 (95% CI 1.29-1.40)	1.54 (95% CI 1.47-1.62)
<b>SOFA<sup>a</sup></b>	1.02 (95% CI 0.99-1.06)	1.02 (95% CI 0.99-1.06)

Models additionally adjusted for ICU location, Definition of abbreviation: <sup>a</sup>Sequential organ failure assessment

Table E2 Supplement: Focus group results

RE-AIM Dimension	Theme	Focus Group Quotations
<b><u>Efficacy</u></b> (the proportion of patients receiving volume control IMV <sup>a</sup> with a delivered Vt <sup>b</sup> adherent to LPV <sup>c</sup> )		
	Communication	"...we communicate verbally with the respiratory therapist but we don't end up updating the order"
	Reason for ventilator and IMV order discordance	"I could be better at updating my vent settings, but I feel like they're so fluid that we'd be putting in vent orders all day long, especially on some of these patients that we're doing a lot of work on."
<b><u>Adoption</u></b> (the proportion of patients who had IMV order using the EMR <sup>d</sup> -based LPV order)		
	Users' positive reception of the new IMV order	"I think [the order] guides you and makes sure that you sort of double think before you put it in." "I think the newer set is helpful in that you can just click like 6cc per kilogram and you don't have to look up the height, that part is useful."
	Mixed feelings about the benefit of LPV	"Across the board, I think everyone we put on [a ventilator], we try to do low tidal volume, like 6cc." "[Lung protective ventilation] helps with mortality" "It is unclear if all patients benefit from LPV." "[there is] limited data for [its] use."
<b><u>Implementation</u></b> (the proportion of orders where the prescriber chose a Vt in cc/kg <sup>e</sup> of PBW <sup>f</sup> instead of selecting the 'direct entry' option)		
	Reason for 'direct entry' option use	"We calculate 6cc/kg PBW on rounds and then adjust the ventilator...often we have rounded up or down, so the calculated values are not exactly accurate." "Respiratory therapy will ask to have the tidal volumes rounded up or down when ordered as cc/kg, so I started using cc/kg to see what it should be and then switch to direct entry to round to a number RT is comfortable with."
	Provider desire to retain autonomy	"[Using the direct entry option] is faster, easier and enables the physician to take control of the ventilator, rather than an algorithm."

Definition of abbreviation: <sup>a</sup>Invasive mechanical ventilation; <sup>b</sup>Tidal volume <sup>c</sup>Lung protective ventilation; <sup>d</sup>Electronic medical record; <sup>e</sup>Cubic centimeters per kilograms; <sup>f</sup>Predicted body weight