

		Driver Flow			Lung model without TPR
		8 L/min	10 L/min	15 L/min	
Model	Crs	PEEP	τ_{rs} [s]	τ_{rs} [s]	τ_{rs} [s]
0.5	5 cm		0.08 (0.08-0.08)	0.08 (0.08-0.08)	0.09 (0.09-0.09) ^A
	8 cm		0.10 (0.09-0.10)	0.08 (0.08-0.09)	
	10 cm		0.10 (0.10-0.10)	0.09 (0.09-0.09)	
1.1	5 cm		0.13 (0.13-0.13)	0.11 (0.11-0.11)	0.09 (0.09-0.09) ^B
	8 cm		0.17 (0.17-0.17)	0.14 (0.14-0.14)	
	10 cm		0.18 (0.17-0.18)	0.15 (0.15-0.15)	
2.2	5 cm		0.25 (0.25-0.25)	0.21 (0.21-0.21)	0.11 (0.11-0.11) ^C
	8 cm		0.33 (0.33-0.33) ^C	0.27 (0.27-0.27)	
	10 cm		0.33 (0.33-0.33) ^C	0.30 (0.30-0.30)	
3.4	5 cm		0.37 (0.37-0.37)	0.32 (0.31-0.32)	0.16 (0.16-0.16) ^D
	8 cm		0.48 (0.47-0.49)	0.40 (0.40-0.40)	
	10 cm		0.51 (0.50-0.52)	0.46 (0.45-0.46)	

Supplement table 2a: Effect of driver flow, PEEP level (cm H2O) and compliance on expiratory time constants (τ_{rs}). Simulations without endotracheal tubes and airway resistance (Rp50). Simulations at PEEP 5 cm H2O and inflation pressures 15cm H2O. Lung model reference with Rp50 and inflation pressure of 15 cm H2O included (right) to allow comparison. Means (95% CI) for 10 consecutive inflations. All comparisons of compliance (Crs), driver flow and PEEP statistically significant exempt A-C.

		Driver Flow			Lung model without TPR
		8 L/min	10 L/min	15 L/min	
Model	Crs	PEEP	Max VR (Ti 0.5s)	Max VR (Ti 0.5s)	Max VR (Ti 0.5s)
0.5	5 cm		79.9 (79.55-80.34)	81.1 (80.85-81.40)	77.3 (76.64-77.94) ^A
	8 cm		76.3 (75.89-76.71)	79.5 (79.27-79.73)	
	10 cm		75.4 (75.03-75.67)	78.4 (78.23-78.58)	
1.1	5 cm		67.2 (67.10-67.30)	72.0 (71.89-72.04)	77.0 (76.69-77.30) ^B
	8 cm		60.0 (59.75-60.27)	65.9 (65.84-65.96)	
	10 cm		58.3 (57.96-58.61)	63.1 (62.92-63.29)	
2.2	5 cm		47.9 (47.82-47.99)	53.0 (52.95-53.06)	71.2 (71.06-71.26) ^C
	8 cm		40.5 (40.37-40.64) ^C	46.2 (46.13-46.27)	
	10 cm		40.3 (40.03-40.56) ^C	42.9 (42.75-42.97)	
3.4	5 cm		37.0 (36.94-37.09)	41.5 (41.47-41.53)	61.1 (61.00-61.18) ^D
	8 cm		30.9 (30.43-31.35)	35.3 (35.23-35.40)	
	10 cm		29.5 (29.25-29.83)	32.1 (32.03-32.23)	

Supplement table 2b: Effect of driver flow, PEEP level (cm H2O) and compliance on calculated maximum ventilator rate that assure complete exhalation (Max VR). Complete exhalation defined as three expiratory time constants after a fixed inflation time of 0.5 seconds. Simulations without endotracheal tubes and airway resistance (Rp50). Simulations at PEEP 5 cm H2O and inflation pressures 15cm H2O. Lung model reference with Rp50 and inflation pressure of 15 cm H2O included (right) to allow comparison. Means (95% CI) for 10 consecutive inflations. All comparisons of compliance (Crs), driver flow and PEEP statistically significant exempt A-C.