

Supplemental Table 4. Multivariable LASSO Regression Analysis of Risk Factors For Hypoxemia In 10-17 Year Including MPOG Site ID.

	Hypoxemia OR (95% CI), P Value
Age (years)	0.87 (0.79 , 0.97) P = 0.013
Male	0.75 (0.45 , 1.24) P = 0.258
ASA 3 or 4	-
Extremes of Weight*	2.26 (1.30 , 3.87) P = 0.003
Type of Surgery	
1 Intrapulmonary**	
2 Mediastinal	-
3 Pleurodesis and/or Decortication	-
4 Other	-
5 Pneumothorax Surgery	-
Right Sided Surgery	2.17 (1.30 , 3.73) P = 0.004
Bronchial Blocker	-
Video Assisted Thoracoscopic Surgery	-
Preoperative Room Air SpO2<98%,	2.52 (1.49 , 4.21) P < 0.001
Low Tidal Volume Ventilation (TV≤6 ml/kg + ≥4cm H2O PEEP)	-
One-Lung Ventilation Duration (Hours)	1.07 (0.91 , 1.24) P = 0.351
MPOG Institutional ID	
819	-
820	-

822	-
825	-
827	-
830	-
834	-
835	0.61 (0.14 , 4.19) P = 0.541
838	0.83 (0.15 , 6.50) P = 0.841
850	-
852	-
853	-
855	-
861	-
862	-
863	-
866	-
868	-
872	-
879	-
880	-
881	-
882	-
883	-

884	-
885	-
890	-
891	-
893	-
896	-
898	-
899	0.65 (0.14 , 4.60) P = 0.606
901	-
903	-
904	0.292 (0.013 , 3.34) P = 0.334
907	-
911	-
913	-
917	-

The optimal Lambda value for the 10-17 Year old cohort was 0.0284 with an Alpha value of 1.

- = Beta coefficient set to 0 by least absolute shrinkage and selection operator.

*Extremes of weight = patient weight >95% or <5% for age according to the Centers for Disease Control and Prevention (Atlanta, Georgia) growth chart.

**Intrapulmonary Surgery used as reference to estimate other odds ratios.

LASSO, least absolute shrinkage and selection operator; ASA, American Society of Anesthesiologists Physical Status; SpO₂, oxygen saturation measured by pulse oximetry; TV, Tidal Volume; PEEP, Positive End Expiratory Pressure.