

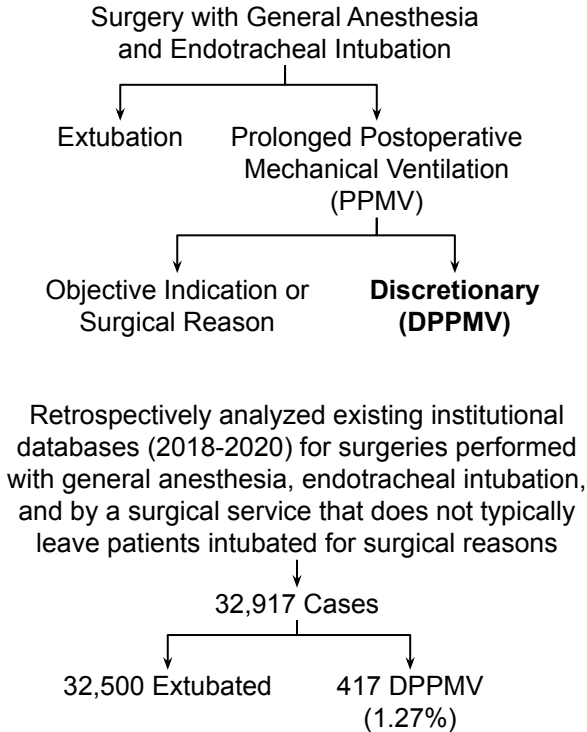
Patient and Operative Factors Predict Risk of Discretionary Prolonged Postoperative Mechanical Ventilation in a Broad Surgical Cohort

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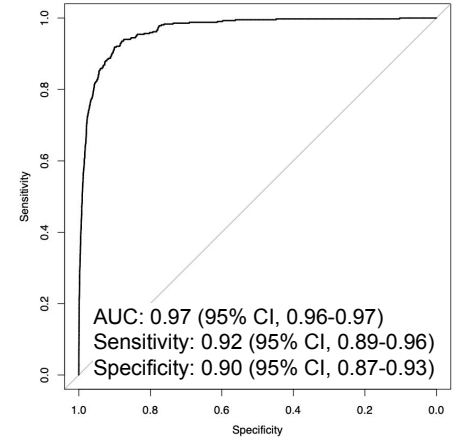
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Multiple Logistic Regression Model of Discretionary PPMV Risk

Variable	aOR	95% CI	P Value
Demographics			
ASA Class			
ASA class 2	1.15	[0.25, 5.23]	0.852
ASA class 3	1.86	[0.42, 8.15]	0.410
ASA class 4	5.34	[1.21, 23.6]	0.027 ***
ASA class 5	21.3	[3.33, 136.]	0.001 ***
ASA E designation	11.1	[8.39, 14.8]	<0.001 ***
Elixhauser comorbidities			
Peripheral vascular disease	1.22	[0.90, 1.66]	0.205
Arrhythmia	1.60	[1.24, 2.07]	<0.001 ***
Coagulopathy	2.51	[1.88, 3.34]	<0.001 ***
Fluid/electrolyte disorder	4.52	[3.44, 5.92]	<0.001 ***
Operative Characteristics			
Case during ICU stay	4.96	[3.72, 6.62]	<0.001 ***
OR duration, min.	1.01	[1.00, 1.01]	<0.001 ***
Case end 1601-0659	1.64	[1.25, 2.16]	<0.001 ***
Estimated handoffs	1.19	[1.05, 1.35]	0.006 ***
Intraoperative Medications			
Vasopressor infusion	2.07	[1.63, 2.64]	<0.001 ***
Albuterol administration	3.41	[2.33, 4.99]	<0.001 ***
Bicarbonate administration	4.94	[3.30, 7.39]	<0.001 ***

Receiver Operating Characteristic Curve



Applications

- Preoperative risk stratification
- Postoperative resource allocation
- Prospective trials