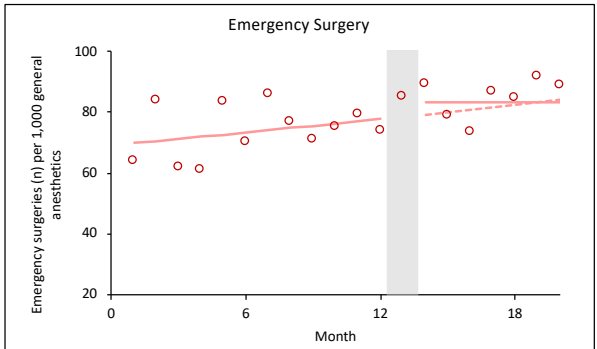
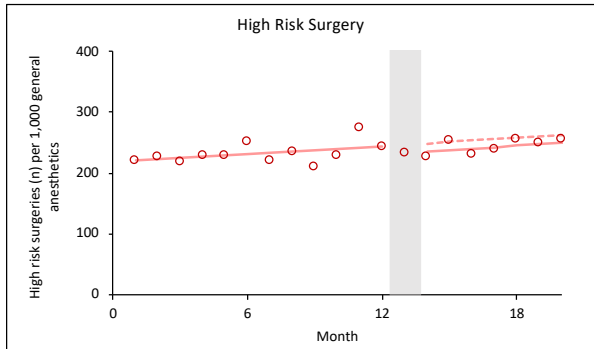
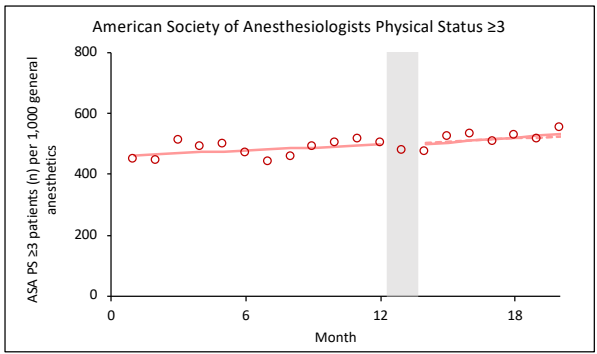
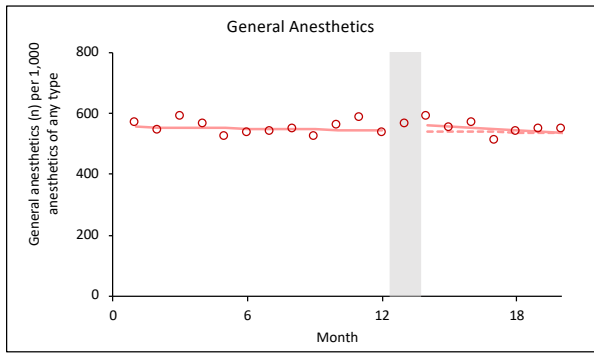
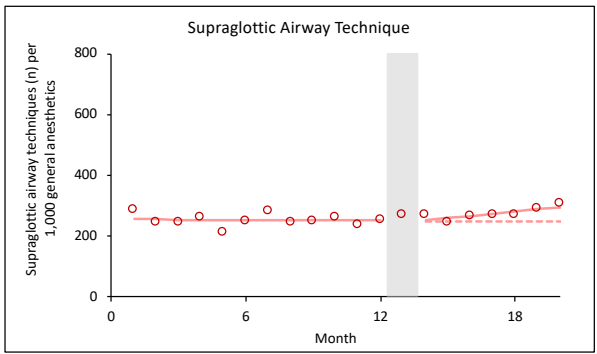
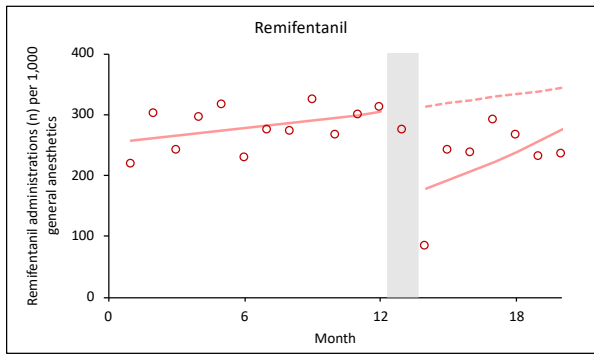
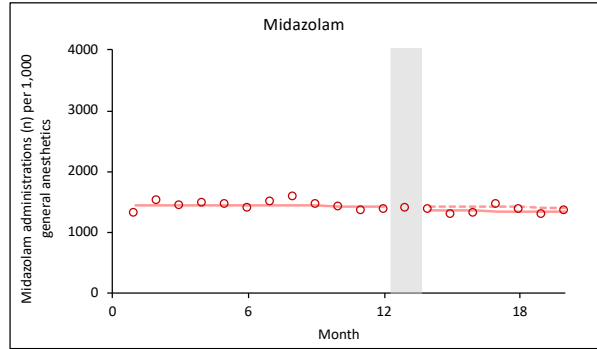
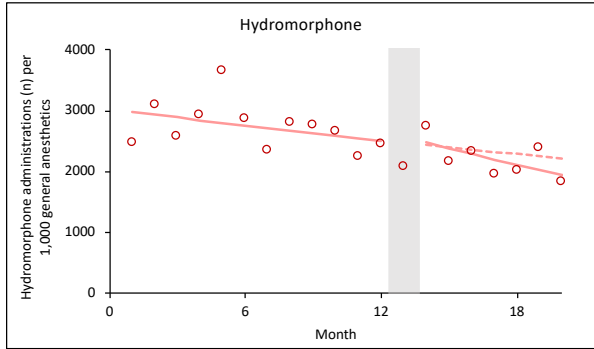
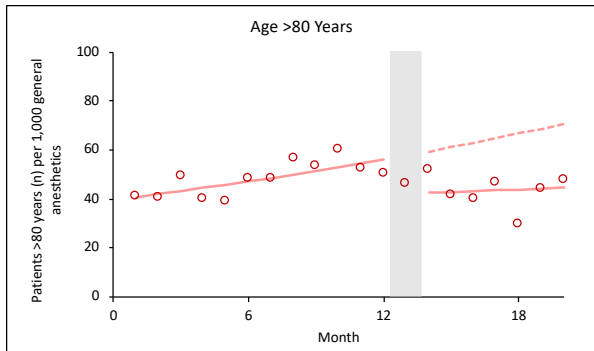
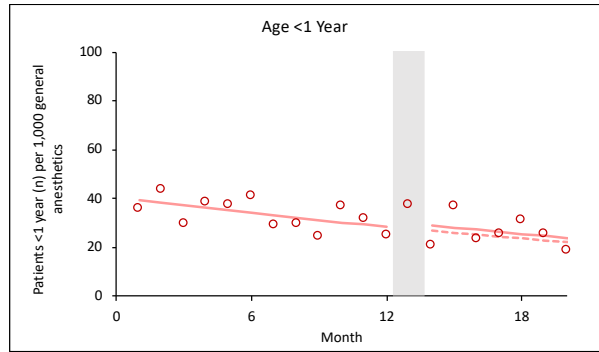
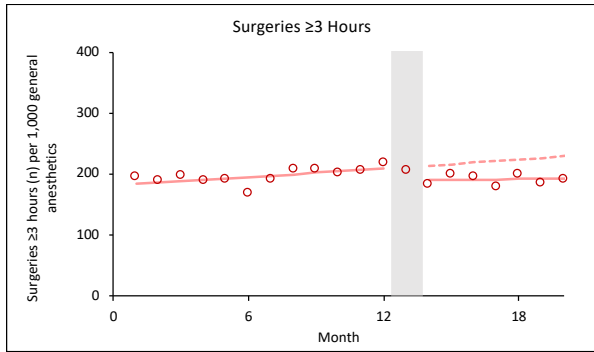


# Supplemental Digital Content 2

## Supplemental Figure 2





High risk surgery was defined as cardiac surgery, cardiac catheterization, thoracic surgery, otolaryngology surgery, and interventional pulmonology, per reference (Rujirojindakul et al.: Risk factors for reintubation in the post-anaesthetic care unit: a case-control study. Br J Anaesth 2012; 109: 636-42)

Supplemental Table 1 Results from segmented regression analysis (parameter estimate and 95% CI) for sugammadex, neuromuscular blocking drugs, total acquisition cost, adverse respiratory events, and emergence duration

**Main Analyses**

	<b>Sugammadex</b>	<b>Rocuronium</b>	<b>Vecuronium</b>	<b>Atracurium</b>
Intercept (baseline rate)	-1.25 (-1.35 to -1.14)*	-0.34 (-0.40 to -0.27)*	-2.04 (-2.16 to -1.91)*	-3.55 (-3.89 to -3.20)*
Preintervention slope (per month)	0.05 (0.04 to 0.06)*	0.004 (-0.01 to 0.01)	-0.0006 (-0.02 to 0.02)	-0.03 (-0.08 to 0.01)
Change in level after intervention	-0.78 (-0.94 to -0.61)*	-0.03 (-0.13 to 0.07)	0.16 (-0.02 to 0.34)	0.64 (0.12 to 1.17)*
Change in slope (per month) after intervention	-0.03 (-0.07 to -0.003)*	-0.01 (-0.03 to 0.01)	-0.001 (-0.03 to 0.03)	-0.002 (-0.10 to 0.09)
Postintervention slope (preintervention slope plus change in slope)	0.01 (-0.02 to 0.04)	-0.01 (-0.03 to 0.01)	-0.002 (-0.03 to 0.03)	-0.04 (-0.12 to 0.05)

	<b>Suxamethonium</b>	<b>Total acquisition cost</b>	<b>Adverse respiratory events</b>	<b>Emergence duration</b>
Intercept (baseline rate)	-1.28 (-1.40 to -1.16)*	3.99 (3.92 to 4.05)*	-5.32 (-5.89 to -4.75)*	6.48 (5.78 to 7.19)*
Preintervention slope (per month)	-0.04 (-0.05 to -0.02)*	0.003 (-0.01 to 0.01)	0.01 (-0.06 to 0.09)	-0.01 (-0.11 to 0.09)
Change in level after intervention	0.17 (-0.03 to 0.36)	-0.20 (-0.30 to -0.10)*	0.23 (-0.55 to 1.01)	0.22 (-0.91 to 1.36)
Change in slope (per month) after intervention	0.04 (-0.001 to 0.07)	-0.005 (-0.02 to 0.01)	-0.04 (-0.19 to 0.10)	-0.14 (-0.34 to 0.06)
Postintervention slope (preintervention slope plus change in slope)	0.0002 (-0.03 to 0.03)	-0.002 (-0.02 to 0.01)	-0.03 (-0.15 to 0.10)	-0.15 (-0.33 to 0.02)

\*P<0.05

CI = confidence interval

Supplemental Table 2 Results from segmented regression analysis (parameter estimate and 95% CI) for control drugs, risk factors for perioperative respiratory complications, supraglottic airway techniques and general anesthetics

**Control Analyses**

	<b>Hydromorphone</b>	<b>Midazolam</b>	<b>Remifentanyl</b>		
Intercept (baseline rate)	1.11 (0.97 to 1.24)*	0.38 (0.32 to 0.43)*	-1.37 (-1.60 to -1.14)*		
Preintervention slope (per month)	-0.02 (-0.03 to 0.003)	-0.002 (-0.01 to 0.01)	0.02 (-0.02 to 0.05)		
Change in level after intervention	0.05 (-0.17 to 0.26)	-0.05 (-0.14 to 0.04)	-0.62 (-1.00 to -0.23)*		
Change in slope (per month) after intervention	-0.03 (-0.06 to 0.01)	0.0004 (-0.02 to 0.02)	0.06 (-0.01 to 0.13)		
Postintervention slope (preintervention slope plus change in slope)	-0.04 (-0.07 to -0.01)*	-0.001 (-0.02 to 0.01)	0.07 (0.01 to 0.13)*		
	<b>High Risk Surgery</b>	<b>Emergency Surgery</b>	<b>ASA PS ≥3</b>	<b>Surgeries ≥3 hours</b>	
Intercept (baseline rate)	-1.52 (-1.60 to -1.44)*	-2.67 (-2.82 to -2.52)*	-0.78 (-0.84 to -0.71)*	-1.70 (-1.77 to -1.63)*	
Preintervention slope (per month)	0.01 (-0.001 to 0.02)	0.01 (-0.01 to 0.03)	0.007 (-0.002 to 0.02)	0.01 (0.003 to 0.02)*	
Change in level after intervention	-0.06 (-0.18 to 0.06)	0.06 (-0.16 to 0.27)	-0.01 (-0.11 to 0.08)	-0.05 (-0.21 to -0.01)*	
Change in slope (per month) after intervention	0.001 (-0.02 to 0.02)	-0.01 (-0.05 to 0.03)	0.004 (-0.01 to 0.02)	-0.01 (-0.03 to 0.01)	
Postintervention slope (preintervention slope plus change in slope)	0.01 (-0.01 to 0.03)	0 (0.99 to 0.99)	0.01 (-0.01 to 0.03)	0.003 (-0.01 to 0.02)	
	<b>Age &lt;1 Year</b>	<b>Age &gt;80 Years</b>	<b>Supraglottic Airway Techniques</b>	<b>General Anesthetics</b>	
Intercept (baseline rate)	-3.20 (-3.42 to -2.97)*	-3.23 (-3.41 to -3.04)*	-1.36 (-1.45 to -1.28)*	-0.59 (-0.64 to -0.53)*	
Preintervention slope (per month)	-0.03 (-0.06 to 0.001)	0.03 (0.01 to 0.05)*	-0.002 (-0.01 to 0.01)	-0.002 (-0.009 to 0.01)	
Change in level after intervention	0.09 (-0.29 to 0.47)	-0.31 (-0.59 to -0.04)*	-0.01 (-0.14 to 0.12)	0.04 (-0.04 to 0.12)	
Change in slope (per month) after intervention	-0.003 (-0.8 to 0.07)	-0.02 (-0.07 to 0.03)	0.03 (0.004 to 0.05)*	-0.01 (-0.02 to 0.01)	
Postintervention slope (preintervention slope plus change in slope)	-0.03 (-0.10 to 0.03)	0.01 (-0.04 to 0.05)	0.03 (0.005 to 0.05)*	-0.01 (-0.02 to 0.01)	

\*P<0.05

CI = confidence interval

ASA PS = American Society of Anesthesiologists

Physical Status

Supplemental Table 3 Absolute effects at 8 months following cognitive aid

Indicators	Absolute difference from predicted (95% CI)
Sugammadex	-509 (-653 to -366)*
Rocuronium	-99 (-208 to 10)
Vecuronium	13 (-15 to 58)
Atracurium	14 (-2 to 27)
Suxamethonium	75 (32 to 119)*
Total acquisition cost	-\$11,947 (-\$19,851 to -\$4,043)*
Adverse respiratory events	-1 (-10 to 8)
Emergence duration	-1 (-3 to 1)
Hydromorphone	-322 (-977 to 333)
Midazolam	-63 (-236 to 110)
Remifentanyl	-54 (-238 to 130)
High risk surgery	-13 (-59 to 33)
Emergency surgery	-2 (-29 to 26)
ASA PS ≥3	9 (-65 to 83)
Surgeries ≥3 hours	-38 (-72 to -5)*
Age <1 year	2 (-11 to 14)
Age >80 years	-28 (-54 to -2)*
Supraglottic airway techniques	57 (7 to 106)*
General Anesthetics	-2 (-66 to 61)

\*P<0.05

CI = confidence interval

ASA PS = American Society of Anesthesiologists Physical Status