These practice guidelines update the “Practice guidelines for management of the difficult airway: A report by the American Society of Anesthesiologists Task Force on Management of the Difficult Airway.” These updated guidelines are intended for use by anesthesiologists and all other individuals who deliver or who are responsible for difficult airway management. The update may also serve as a resource for other physicians and healthcare professionals who manage patients with expected, unexpected, or emergency difficult airways. SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT

Perioperative Medicine

CLINICAL SCIENCE

Carbon Dioxide Changes during High-flow Nasal Oxygenation in Apneic Patients: A Single-center Randomized Controlled Noninferiority Trial

T. Riva, R. Greif, H. Kaiser, T. Riedel, M. Huber, L. Theiler, S. Nabecker

Adulst undergoing elective surgery underwent preoxygenation, standardized anesthetic induction, and randomization to 15 min of apneic oxygenation via endotracheal tube (0.25 l/min) or high-flow nasal oxygen (2 to 70 l/min) with jaw thrust or with laryngoscopy. The primary outcome was the linear rate of increase of arterial carbon dioxide, with a predetermined noninferiority margin of 0.3 mmHg · min⁻¹ between groups. All groups met the noninferiority criteria and with comparable arterial partial pressure of carbon dioxide increases between groups, suggesting an absence of ventilatory effects for high-flow humidified nasal oxygen therapy. SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT

Intraoperative Hypotension and Acute Kidney Injury after Noncardiac Surgery in Infants and Children: A Retrospective Cohort Analysis


ON THE COVER: The relationship between late clinical outcomes after injury and early dynamic changes between fibrinolytic states is not fully understood. In this issue of ANESTHESIOLOGY, Rossetto et al. examine temporal transitions in fibrinolysis states using rotational thromboelastometry (ROTEM) in a cohort of trauma patients. In an accompanying editorial, Myles and Medcalf discuss how this article advances our understanding of fibrinolysis and trauma outcomes. Cover Illustration: A. Johnson, Vivo Visuals Studio.

- Rossetto et al.: Temporal Transitions in Fibrinolysis after Trauma: Adverse Outcome Is Principally Related to Late Hypofibrinolysis, p. 148
- Myles and Medcalf: Fibrinolysis and Trauma Outcomes, p. 7
In a large cohort of pediatric surgical patients in whom creatinine concentrations were measured preoperatively and postoperatively, there was no association between lowest mean arterial pressure and acute kidney injury. There was also no association between largest percentage reduction in mean arterial pressure and acute kidney injury. SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT

**Critical Care Medicine**

**CLINICAL SCIENCE**

Temporal Transitions in Fibrinolysis after Trauma: Adverse Outcome Is Principally Related to Late Hypofibrinolysis

A. Rossetto, P. Vulliamy, K. M. Lee, K. Brohi, R. Davenport..............148

In a secondary analysis of previously collected data from injured patients at a major trauma center in the United Kingdom, late outcomes (e.g., multiple organ failure) were most closely related to hypofibrinolysis on thromboelastography 24 h after injury, irrespective of admission lysis parameters. Tranexamic acid is associated with lower early mortality and a shift toward hypofibrinolysis, but not with significant impact on late outcomes. SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT

**Education**

CLASSIC PAPERS REVISITED

A Beautiful Friendship—and a Lesson about Friends and Colleagues: A Classic Partnership Revisited

D. S. Warner, M. M. Todd.............................................................176

REVIEW ARTICLE

Perioperative Pulmonary Atelectasis: Part I. Biology and Mechanisms

C. Zeng, D. Lagier, J.-W. Lee, M. F. Vidal Melo................................181
Up-to-date information on the pathophysiological mechanisms producing atelectasis and its functional, biologic, and biomechanical consequences is reviewed. The mechanistic understanding aims to provide a solid basis for critical assessment of clinical management.

Perioperative Pulmonary Atelectasis: Part II. Clinical Implications
D. Lagier, C. Zeng, A. Fernandez-Bustamante, M. F. Vidal Melo
206

Up-to-date evidence on clinical risk factors and advanced diagnostic approaches of pulmonary atelectasis are reviewed. Novel perspectives on perioperative therapeutic management based on lung imaging studies and recent clinical trials are provided to clinicians.

MIND TO MIND

Images I Will Never Forget from the First Year of COVID-19 in Messina
A. T. Mazzeo
237

Forward, Together
M. Calderon, D. M. Drzymalski
239

SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT

Correspondence

Readability of Patient-reported Outcome Measures in Anesthesiology
L. M. Nosow, S. J. Rao, D. J. Neubauer, L. L. Madden
242

Authorship and Publication Matters: Comment
I. Kissin
244

Authorship and Publication Matters: Reply
E. D. Kharasch
245

2020 Severinghaus Lecture on Translational Science: Comment
R. Ortega
245

2020 Severinghaus Lecture on Translational Science: Reply
B. A. Orser
247

Errata
251

Anesthesiology Reflections from the Wood Library-Museum

No Humbug Here—Celebrating Ether Day in the Spirit of J. C. Warren
M. L. Coleman
114

Gauging the Herrick-Pender Thermistor: Marvelous Monitoring, from Open Fridge to Open Heart
M. L. Coleman
126

Somnoforme Quicks the Pulse, then Slumbers into Oblivion
J. S. Moon
137

Careers & Events
A19