

## ◆ THIS MONTH IN ANESTHESIOLOGY

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*The authors implemented a patient surveillance system based on pulse oximetry with nursing notification of violation of alarm limits via wireless pager. Data were collected for 11 months before and 10 months after implementation of the system. The primary outcomes were rescue events and transfers to the intensive care unit (ICU) comparing before and after the monitoring change. Rescue events decreased from 3.4 to 1.2 per 1,000 patient discharges and ICU transfers from 5.6 to 2.9 per 1,000 patient days. Continuous patient surveillance can improve outcomes in a postoperative orthopedic ward. This may be useful in other postoperative units also.*
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*Mild to moderate hypercapnia is neuroprotective after transient global cerebral ischemia–reperfusion injury.*
- ◆◆ **Factor VII Levels and International Normalized Ratios in the Early Phase of Warfarin Therapy** 298  
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*Adverse events involving medical devices that were reported in anesthesia and intensive care units in France in 2005–2006 were less severe than in 1998 but were more often related to inappropriate use and manufacturing problems.*

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## Characterization of the Postconditioning Effect of Dexmedetomidine in Mouse Organotypic Hippocampal Slice Cultures Exposed to Oxygen and Glucose Deprivation

Souhayl Dahmani, Danielle Rouelle, Pierre Gressens, and Jean Mantz

*Dexmedetomidine exhibits postconditioning against oxygen and glucose deprivation in mouse organotypic hippocampal slice cultures. These effects involved both the focal adhesion kinase-Akt and the extracellular-regulated kinase 1&2-mitochondrial ATP-dependent K channel pathways.*

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### ■ CRITICAL CARE MEDICINE

#### ◆ Redox Balance and Cellular Inflammation in the Diaphragm, Limb Muscles, and Lungs of Mechanically Ventilated Rats

Judith Marín-Corral, Leticia Martínez-Caro, José A. Lorente, Marta de Paula, Lara Pijuan, Nicolas Nin, Joaquim Gea, Andrés Esteban, and Esther Barreiro

*Early changes in redox balance induced by high tidal volume mechanical ventilation were characterized by increased oxidative stress and inflammation in the lungs, while causing a decline in these phenomena in the diaphragm and limb muscles. SUPPLEMENTAL DIGITAL CONTENT IS AVAILABLE IN THE TEXT*

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#### Estrogen Is Renoprotective *via* a Nonreceptor-dependent Mechanism after Cardiac Arrest *In Vivo*

Michael P. Hutchens, Takaaki Nakano, Yasuharu Kosaka, Jennifer Dunlap, Wenri Zhang, Paco S. Herson, Stephanie J. Murphy, Sharon Anderson, and Patricia D. Hum

*No preventive or treatment for acute kidney injury exists. We found that female mice are protected from acute kidney injury after cardiac arrest by estrogen, but this effect is not mediated by the estrogen receptor.*

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### ■ PAIN MEDICINE

#### Coding of Incisional Pain in the Brain: A Functional Magnetic Resonance Imaging Study in Human Volunteers

Esther M. Pogatzki-Zahn, Christian Wagner, Anne Meinhardt-Renner, Markus Burgmer, Christian Beste, Peter K. Zahn, and Bettina Pfeleiderer

*In this functional magnetic resonance study, we characterized a distinct temporal activation pattern of a cortical pain network during and after a standardized experimental incision in healthy male volunteers.*

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#### Direct Evidence for the Ongoing Brain Activation by Enhanced Dynorphinergic System in the Spinal Cord under Inflammatory Noxious Stimuli

Yasuko Taketa, Keiichi Niikura, Yasuhisa Kobayashi, Masaharu Furuya, Toshikazu Shimizu, Michiko Narita, Satoshi Imai, Naoko Kuzumaki, Yoshie Maitani, Mitsuaki Yamazaki, Eiichi Inada, Masako Iseki, Tsutomu Suzuki, and Minoru Narita

*This study is the first to clarify the ongoing brain activation in the early phase of inflammatory pain associated with an endogenous dynorphinergic pathway in an animal pain model by means of neuroimaging technology.*

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#### Phenyl *N*-tert-butyl nitron, a Free Radical Scavenger, Reduces Mechanical Allodynia in Chemotherapy-induced Neuropathic Pain in Rats

Hee Kee Kim, Yan Ping Zhang, Young Seob Gwak, and Salahadin Abdi

*Administration of phenyl *N*-tert-butyl nitron, a free radical scavenger, prevented and ameliorated the pain behavior in the chemotherapy-induced neuropathic pain model in rats.*

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