

Symposium

Introduction

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Symposium Editor

Advances in Pulmonary Critical Care Nursing

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The articles in this symposium on advances in pulmonary critical care nursing offer top-quality research, evidence-based practice, and education for current advanced nursing clinical practices. This symposium presents cutting-edge advances in pulmonary nursing for transferring patients with refractory hypoxemia to a regional extracorporeal membrane oxygenation (ECMO) center, advanced chest imaging interpretation of acute pulmonary disorders, and blunt pulmonary injury. In addition, nurses and other health care professionals will have the opportunity to consider current standards of care, as well as recommendations for optimizing patient care.

Technological developments in ECMO for patients with refractory hypoxemia are highlighted by Schulman and colleagues, who provide an overview of ECMO therapy, tertiary referral support center resources, and expert roles for optimal patient outcomes. ECMO therapy became a worldwide treatment option for the 2009 influenza A (H1N1) pandemic. The use of ECMO for acute respiratory distress syndrome and care considerations of patients being treated with ECMO therapy, including indications, contraindications, ECMO circuit function, and supporting the patient's hemodynamic and lung function, are discussed. The tertiary referral team, ECMO logistics, communication, team support, and expertise are highlighted. The end point of care for patients being treated with ECMO therapy is complete cardiac and pulmonary recovery without complications.

The article by Siela discusses the application of advanced interpretation skills for chest radiographs and chest computed tomography (CT) images for common acute and critical care pulmonary disorders. Four main tissue densities, silhouette sign, and chest radiograph views with images and similarities, differences, and advantages of chest radiographs and CT scans are discussed. Acute and critical pulmonary illnesses, including pulmonary embolus, chest trauma, air leak disorders, and airspace diseases, are highlighted with images for the reader to gain additional skills in radiographic interpretation. This new knowledge and interpretation skill provide bedside and advanced practice nurses with the best practice tools to improve their clinical thinking and judgment to provide quality patient care.

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Rapid and systematic evaluation of patients with chest trauma to identify and manage these injuries is essential to reduce associated death and disability. Blunt chest injuries result from falls, motor vehicle or motorcycle crashes, pedestrian/vehicle collisions, explosions, and other blunt force mechanisms. The scope of injury, clinical manifestation, diagnosis, management, treatment, nursing considerations, mechanical ventilation, and patient positioning are discussed along with current evidence-based research. Blunt pulmonary injuries are common and require early identification during initial assessment and resuscitation, especially to decrease mortality and morbidity rates. The article by Gallagher

describes management of hemorrhage, balanced volume resuscitation and adjunctive support strategies to include pain management, positioning, and pulmonary hygiene, which are essential for critical care nurses' knowledge to improve patient comfort and limit pulmonary complications of acutely and critically ill patients.

This symposium provides current and practical information in addition to hot topic discussions covering the latest in pulmonary critical care nursing. In summary, these 3 pulmonary articles discuss current evidence-based practices and cutting-edge research for advanced critical care nurses to provide quality and safe patient care for acutely and critically ill patients.