## FOR INFORMATION, CONTACT:

### **AARC** Membership and Other AARC Services

American Association for **Respiratory Care** 9425 N MacArthur Blvd, Suite 100 Irving, TX 75063-4706 (972) 243-2272 • Fax (972) 484-2720 http://www.aarc.org

#### **Credentialing Organization** for RRT, CRT

National Board for **Respiratory Care** 10801 Mastin St, Suite 300 Overland Park, KS 66210 (913) 895-4900 • Fax (913) 712-9283 http://www.nbrc.org

### Accreditation of Education **Programs**

Commission on Accreditation for **Respiratory Care** 1248 Harwood Rd Bedford, TX 76021-4244 (817) 283-2835 • Fax (817) 354-8519 http://www.coarc.com

### Grants, Scholarships,

**Community Projects** American Respiratory Care Foundation 9425 N MacArthur Blvd, Suite 100 Irving, TX 75063-4706 (972) 243-2272 • Fax (972) 484-2720 http://www.arcfoundation.org



A Monthly Science Journal Established in 1956

The Official Journal of the American Association for **Respiratory Care** 



# CONTENT April 2018 / VOLUME 63 / NUMBER 4

## EDITOR'S COMMENTARY

Commentary on April 2018 Issue

## EDITOD'C CHOICE

EDITOR S CHOICE	
Lack of Benefit of Heliox During Mechanical Ventilation of Sul Severe Air-Flow Obstruction by James W Leatherman, Ramiro Saavedra Romero, and Robert S Shapiro-Minneapolis, Minnesota	bjects With <b>375</b>
Original Research	
Home Mechanical Ventilation: A 12-Year Population-Based Ret Cohort Study by Marcus Povitz, Louise Rose, Salimah Z Shariff, Sean Leonard, Blayne Welk, Krista Bray Jenkyn, David J Leasa, and Andrea S Gershon—Ontario, Canada	rospective <b>380</b>
Characteristics of Subjects Who Failed a 120-Minute Spontaneo Breathing Trial by Guopeng Liang, Tingting Liu, Yihua Zeng, Yunfeng Shi, Wei Yang, Yunqin Ya	ang.
and Yan Kang—Chengdu, China	388
Evaluation of a Low-Cost Bubble CPAP System Designed for R Limited Settings by Desmond J Bennett, Ryan W Carroll, and Robert M Kacmarek—Boston, Mas	005
High-Frequency Oscillatory Ventilation Use and Severe Pediatric the Pediatric Hematopoietic Cell Transplant Recipient by Courtney M Rowan, Mara E Nitu, Elizabeth AS Moser—Indianapolis, Indian Ashley Loomis—Minneapolis, Minnesota Jennifer McArthur—Memphis, Tennessee Lincoln S Smith—Seattle, Washington Shira J Gertz—Livingston, New Jersey Julie C Fitzgerald—Philadelphia, Pennsylvania Deyin D Hsing—New York, New York Christine N Duncan—Boston, Massachusetts Kris M Mahadeo—Bronx, New York Jerelyn Moffet, Ira M Cheifetz—Durham, North Carolina Mark W Hall—Columbus, Ohio and Emily L Pinos, Robert F Tamburro—Hershey, Pennsylvania	c ARDS in
Evaluation of Safety and Cost of an Open-Design Oxygen Mask Community Hospital by Patricia A DeJuilio, Maya B Jenkins, and Jeffrey P Huml–Winfield, Illinois	t in a Large <b>412</b>
Ventilator Boot Camp Improves the Knowledge and Skills Asso Mechanical Ventilator Use During Interfacility Transport of Intu Pediatric Patients by Jennifer L Walton, Diane K Dunn, Nhi Y Haines, Michael T Bigham, Teresa A Volsko—Akron, Ohio and Ilana Heisler—Chicago, Illinois	
A Modified Tie Technique for Securing Endotracheal Tubes by Huw RF Walters, Holly E Young, and Peter J Young—Norfolk, United Kinga	
The Role of Multidetector Computed Tomography and the Force Oscillation Technique in Assessing Lung Damage in Adults Wit Fibrosis by Letícia S Lacerda, Pedro L Melo, Agnaldo J Lopes, Mônica C Firmida, Marcos C S Castro, Alysson R S Carvalho, Alan R M Guimarães, and Roberto Mogami—Rio de Janeiro, Brazil	
Inhalation Sedation in Subjects With ARDS Undergoing Continu Lateral Rotational Therapy	

by Andreas Meiser, Heinrich V Groesdonk, Sarah Bonnekessel, Thomas Volk, and Hagen Bomberg-Homburg, Germany

# CONTENTS CONTINUED...

Respiratory Volume Monitoring Reduces Hypoventilation and Apnea in Subjects Undergoing Procedural Sedation by Robert H Nichols, Justin A Blinn, Thuan M Ho, Robert A McQuitty, and Michael P Kinsky—Galveston, Texas	448
Helmet Versus Nasal-Prong CPAP in Infants With Acute Bronchiolitis by Juan Mayordomo-Colunga, Corsino Rey, Alberto Medina, Andrés Concha, Ana Vivanco-Allende—Oviedo, Spain and Pablo Martínez-Camblor—Santiago, Chile	455
Invited Review	
Minimizing Asynchronies in Mechanical Ventilation: Current and Future Trends by Carles Subirà, Rafael Fernández—Manresa, Spain Candelaria de Haro, Lluís Blanch, and Rudys Magrans—Sabadell, Spain	464
Narrative Review	
Perioperative Implementation of Noninvasive Positive Airway Pressure Therapies by David R Hillman—Perth, Australia Carla R Jungquist—Buffalo, New York and Dennis Auckley—Cleveland, Ohio	479
Editorials	
Helium: Is the Sky the Limit? by Amanda M Kleiman and Julie L Huffmyer—Charlottesville, Virginia	488
Approach to Home Mechanical Ventilation Prevalence: Databases or Surveys? by Javier Sayas Catalán—Madrid, Spain and Manel Luján Torné—Sabadell, Spain	491
Advancing Weaning Science: Shorter or Longer Duration of SBT? Illuminating the Road Ahead by Rahul S Nanchal and Jonathon D Truwit—Milwaukee, Wisconsin	493





Become a fan! www. facebook.com/ RespiratoryCare

