## CONTENTS

EDITOD'C COMMENTADY

August 2016 / VOLUME 61 / NUMBER 8

## 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 18000 W 105th St Olathe KS 66061 (913) 895-4900 • Fax (913) 895-4650 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



<u>EDITOR'S COMMENTARY</u>		
Commentary on the August 2016 Issue		i
Editor's Choice		
Resistance of Colorimetric Carbon Dioxide Detectors Commonly Utilized in Neonates by Melissa K Brown, Danielle V Lazarus, Sarah R Gonzales, Wade D Rich, Madeline J Wozniak, Debra M Poeltler, and Anup C Katheria—San Diego, California	10	03
Original Research		
Intratracheal Administration of Antimicrobial Agents in Mechanically Ventilated Adults: An International Survey on Delivery Practices and Safety by Candela Solé-Lleonart—Toronto, Canada Jean-Jacques Rouby, Jean Chastre, Charles-Eduard Luyt—Paris, France Garyfallia Poulakou—Athens, Greece Lucy B Palmer—Stony Brook, New York Stijn Blot—Ghent, Belgium Tim Felton—Manchester, United Kingdom Matteo Bassetti—Udine, Italy Joao Manuel Pereira—Porto, Portugal Jordi Riera, Jordi Rello—Barcelona, Spain Tobias Welte—Hannover, Germany and Jason A Roberts—Brisbane, Australia	10	08
Mechanisms of Orthopnea in Stable Obese Subjects by Emilie Perino, Pascale Nesme, Michèle Germain, and Claude Guérin—Lyon, France	10	15
Adherence and Subthreshold Adherence in Sleep Apnea Subjects Receiving Positive Airway Pressure Therapy: A Retrospective Study Evaluating Differences in Adherence Versus Use by Barry Krakow, Victor A Ulibarri, Michelle R Foley-Shea, Alyssa Tidler, and Natalia D McIver—Albuquerque, New Mexico	10	23
Respiratory Inductance Plethysmography Improved Diagnostic Sensitivity and Specificity of Obstructive Sleep Apnea by Dmitriy Kogan—Milwaukee, Wisconsin Arad Jain—Alexandria, Virginia Shawn Kimbro, Guillermo Gutierrez, and Vivek Jain—Washington, DC	10	33
Increased Asymmetric Dimethylarginine and Ischemia-Modified Albumin Levels in Obstructive Sleep Apnea by Aysel Sunnetcioglu, Selvi Asker, Hamit Hakan Alp, and Hulya Gunbatar—Van, Turkey	10	38
Factors Influencing Cognitive Function in Subjects With COPD by Ersel Dag, Emel Bulcun, Yakup Turkel, Aydanur Ekici, and Mehmet Ekici—Kırıkkale, Turkey	10	44
Effect of High-Frequency Oscillations on Cough Peak Flows Generated by		

by Jesús Sancho, Enric Bures, Saray de La Asunción, and Emilio Servera—Valencia, Spain Preoperative Peak Oxygen Uptake in Lung Cancer Subjects With Neoadjuvant Chemotherapy: A Cross-Sectional Study

Lateral Sclerosis

by Isabelle Fresard, Marc Licker, Dan Adler, John Robert, Wolfram Karenovics, John Diaper, Jean-Paul Janssens, Frederic Triponez, Frederic Lador, Thierry Rochat, Vicente Espinosa, Chetna Bhatia, Bengt Kayser, Pierre-Olivier Bridevaux—Geneva, Switzerland and Alban Lovis—Lausanne, Switzerland

Mechanical In-Exsufflation in Medically Stable Subjects With Amyotrophic

1051

1059

1073

Sinopulmonary Complications in Subjects With Primary Immunodeficiency by Abdullah Owayed and Waleed Al-Herz—Kuwait City, Kuwait

The Effect of Pulmonary Function Testing on the Success of Smoking Cessation

by Banu Salepci, Benan Caglayan, Ali Fidan, Elif Torun Parmaksiz, Nesrin Kiral, Sevda Sener Comert, Coskun Dogan, and Esma Coskun—Istanbul, Turkey

# CONTENTS

CONTINUED...

1081
1090
1100
1110
1122
1129
1131
1133
1135





