

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



EDITOR'S COMMENTARY

Commentary on the May 2017 Issue i

EDITOR'S CHOICE

Impact of a Respiratory Therapy Assess-and-Treat Protocol on Adult
Cardiothoracic ICU Readmissions 517
*by Robert T Dailey, Thomas Malinowski, Mitchel Baugher, and
Daniel D Rowley—Charlottesville, Virginia*

ORIGINAL RESEARCH

Short-Term Effect of Autogenic Drainage on Ventilation Inhomogeneity in
Adult Subjects With Stable Non-Cystic Fibrosis Bronchiectasis 524
*by William Poncin, Grégory Reyckler, Noémie Leeuwerck, Nathalie Bauwens,
Anne-Sophie Aubriot, Candice Nader, Giuseppe Liistro, and Sophie Gohy—Brussels, Belgium*

Humidity and Inspired Oxygen Concentration During High-Flow Nasal
Cannula Therapy in Neonatal and Infant Lung Models 532
by Yusuke Chikata, Saki Ohnishi, and Masaji Nishimura—Tokushima, Japan

Effects of Heat and Moisture Exchangers and Exhaled Humidity on Aerosol
Deposition in a Simulated Ventilator-Dependent Adult Lung Model 538
by Arzu Ari, Khalid S Alwadeai, and James B Fink—Atlanta, Georgia

Spiritual Well-Being and Correlated Factors in Subjects With Advanced
COPD or Lung Cancer 544
*by Takaaki Hasegawa, Momoko Kawai, Nanori Kuzuya, Yohei Futamura, Akane Horiba,
Takashi Ishiguro, Tsutomu Yoshida, Toshiyuki Sawa, and Yasuyuki Sugiyama—Gifu, Japan*

Influences of Duration of Inspiratory Effort, Respiratory Mechanics, and
Ventilator Type on Asynchrony With Pressure Support and Proportional
Assist Ventilation 550
*by Renata S Vasconcelos, Raquel P Sales, Lúiz H de P Melo, Liégina S Marinho,
Vasco PD Bastos, Andréa da NC Nogueira, Marcelo A Holanda—Fortaleza, Brazil
and Juliana C Ferreira—São Paulo, Brazil*

Noninvasive Respiratory Support During Pediatric Ground Transport:
Implementation of a Safe and Feasible Procedure 558
*by Nuria Millán, Carme Alexandre, Aina Martínez-Planas, Josep Caritg, Elisabeth Esteban,
and Martí Pons-Odena—Barcelona, Spain*

Use of Cough Peak Flow Measured by a Ventilator to Predict
Re-Intubation When a Spirometer Is Unavailable 566
by Linfu Bai and Jun Duan—Chongqing, China

Clinical and Functional Lung Parameters Associated With Frequent
Exacerbator Phenotype in Subjects With Severe COPD 572
*by Alberto Capozzolo, Pierluigi Carratù, Silvano Dragonieri, Vito Antonio Falcone,
Vitaliano Nicola Quaranta, Vito Liotino, Giuseppina D'Alba, Giorgio Castellana, and
Onofrio Resta—Bari, Italy*

Sedentary Behavior Is an Independent Predictor of Mortality in Subjects
With COPD 579
*by Karina C Furlanetto, Leila Donária, Lorena P Schneider, José R Lopes, Marcos Ribeiro,
Karen BP Fernandes, Nidia A Hernandez, and Fabio Pita—Londrina, Brazil*

Extracorporeal Life Support as a Bridge to Lung Transplantation:
A Single-Center Experience With an Emphasis on Health-Related
Quality of Life 588
*by Annemieke Oude Lansink-Hartgring, Wim van der Bij, Erik A Verschuuren,
Michiel E Erasmus, Adrianus J de Vries, Karin M Vermeulen, and
Walter M van den Bergh—Groningen, Netherlands*

CONTENTS

CONTINUED...

A Novel Method of Measuring Fractional Exhaled Nitric Oxide in Tracheostomized Ventilator-Dependent Children <i>by Vydehi R Murthy, Hugo Escobar, Mike Norberg, Charisse I Lachica, Linda L Gratny, Ashley K Sherman, William E Truog, and Winston M Manimtim—Kansas City, Missouri</i>	595
Pulmonary Function and Retrobulbar Hemodynamics in Subjects With Type 2 Diabetes Mellitus <i>by He Tai, Ming-yue Wang, Yue-ping Zhao, Ling-bing Li, Xiao-lin Jiang, Jing Liu, Qian-yan Dong, Xin-guang Liu, Jin-song Kuang—Shenyang, China Zheng Dong and Xiao-nan Lv—Tianjin, China</i>	602
Mortality of Adult Critically Ill Subjects With Cancer <i>by Regis Goulart Rosa, Tulio Frederico Tonietto, Bruno Achutti Duso, Juçara Gasparetto Maccari, Roselaine Pinheiro de Oliveira, William Rutzen, Laura Madeira, Aline Ascoli, Rachel Hessler, Paola Morandi, Ricardo Viegas Cremonese, Felipe Leopoldo Dexheimer Neto, Luciana Tagliari, Patricia de Campos Balzano, José Hervê Diel Barth, and Cassiano Teixeira—Porto Alegre, Brazil</i>	615
REVIEWS	
2016 Year in Review: Noninvasive Ventilation <i>by Thomas Piraino—Toronto, Ontario, Canada</i>	623
2016 Year in Review: Mechanical Ventilation <i>by Tommaso Pettenuzzo and Eddy Fan—Toronto, Ontario, Canada</i>	629
EDITORIALS	
From Here to There: Vision, Value, and the Advancement of Respiratory Care <i>by Thomas D Jones—Little Rock, Arkansas</i>	636
Draining the Swamp <i>by Bruce K Rubin—Richmond, Virginia</i>	639
High-Flow Nasal Cannula in Neonates <i>by Ola G El-Farghali—Cairo, Egypt</i>	641
CORRESPONDENCE	
Evidence-Based Medicine Analysis of Mechanical Insufflation-Exsufflation Devices <i>by John R Bach, Michael Chiou, Louis R Saporito—Newark, New Jersey and Antonio M Esquinas—Murcia, Spain author reply by Catherine Auger, Vanessa Hernando, and Hubert Galmiche—Saint-Denis La Plaine, France</i>	643