BREAS NEWSLETTER



News from ERS and AARC 2014

The European Respiratory Society (ERS) meeting is the largest respiratory meeting in the world, and the AARC Congress is the largest respiratory meeting & expo in the U.S. This year ERS was held in Munich, Germany Sept 6-10, and AARC was held in Las Vegas, Nevada Dec 9-12. Many of the clinical sessions at these shows were attended by the Breas Clinical Services team and some of the information obtained will be shared in this edition of the Breas Clinical Services Newsletter.

Breas/HDM had a strong presence with a lot of traffic at the booth at both shows and a lot of interest expressed by current and potential customers.

BREAS Clinical Services ... we're here to serve you

Breas Clinical Service's mission is to champion excellence in innovation, demonstrate clinical expertise, and provide clinical leadership to the company and the customers we serve. We plan to do this by partnering with key opinion leaders to help design and develop products and services that are clinically relevant and beneficial in improving patient care and quality of life.

DECEMBER 2014

News from ERS & AARC 2014 – pertinent clinical topics and new equipment highlighted both shows



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AARC Congress 2014

When it comes to clinical knowledge, "what happens in Vegas doesn't stay in Vegas," and there was plenty of good clinical knowledge to be had at the 2014 AARC Congress. This year's congress was full of great clinical lectures on a variety of topics including pediatric ventilation, which included topics such as "6 mL/kg Is the Optimal Tidal Volume for Pediatric ARDS - Pro/Con." Although 6 ml/kg is commonly accepted as the optimal tidal volume for adults with ARDS, conclusive data in pediatrics are lacking.

The optimal tidal volume for infants and children with ARDS is unknown and may be lower (or higher) than 6 ml/kg. This interactive pro/con presentation debated the available data and the various thoughts on the optimal tidal volume for pediatric acute lung injury.

"Aerosol Therapy During Mechanical Ventilation" dealt with the clinical evidence (or lack there of) showing the benefit of administering aerosolized medications to the ventilated patient. Although dozens of bench & clinical studies exist, none show evidence of patient benefit.



New Clinical Services section on Breas.com.

Be sure to check out the new Clinical Services section on the Breas.com website for the latest Newsletters, articles, white papers, case studies, forms, protocols and other valuable clinical information

The following White Papers are available for download at the Clinical Services site on Breas.com:

• Interest of EtCO2 monitoring with the Vivo 50 by

comparing it to transcutaneous capnography (TOSCA 500) and capillary PaCO2

Usage of the Vivo 60 Pediatric long-term ventilation in Guillain-Barre' syndrome due to HSV1 infection: a case report
Application and benefit of mechanical ventilation using the Breas Vivo 60 ventilator in paediatric mode in a hospital environment with a view to the patient being discharged home
Usage of the Vivo 50 for Cystic Fibrosis patients at home: The All Wales Adult CF Centre's experience.

Having first-hand knowledge of the new technology and procedural advancements will help Breas Clinical Services in providing the clinical sales & marketing team with valuable tools and assistance in making Breas Medical a well respected company in the Medical Community in Europe, the United States and the rest of the world (ROW).

One thing common to both the U.S. and Europe is the growing popularity of mouthpiece ventilation (MPV) particularly for the neuromuscular disease patient population (ALS, Duchene's Muscular Dystrophy, etc.). Although MPV can be done currently with the Vivo 50 and 60 neither device has

a dedicated mode for MPV but that design change is in the works and hopefully it be available soon. There are studies underway to help document the efficacy of this mode of ventilation in those patient populations in both the U.S. and Europe.

There is also a growing interest in end tidal CO2 (EtCO2) monitoring, which should help increase interest in the Vivo 50 and 60 in both the U.S. and Europe. Use of EtCO2 in ALS and other neuromuscular disease patient populations is starting to take off now that this technology is available for homecare via the Vivo 50 & 60. Customers are expressing an interest for this technology in the COPD patient population and studies are also underway to help document the value of EtCO2 monitoring in that patient population.

A new White Paper on the successful use of the Vivo 50 in the Cystic Fibrosis (CF) patient population was released during the first part of the 4th Qtr of 2014. That study was based in Europe and had some very positive results, which could open the door for increased use of the Vivo 50 for noninvasive ventilation (NIV).

A White Paper demonstrating successful use of the Vivo 60 in the pediatric patient population was also released in the 4th

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Qtr of 2014. That study was also conducted in Europe. And studies are underway in the U.S. to demonstrate the accuracy and reliability of EtCO2 monitoring, and whether it has an application in the NIV patient population, as well as comparison bench study with the Vivo 50. In addition there are other studies planned for 2015.

So this time next year we should have a lot of exciting things to offer our customers at ERS and AARC. The Clinical Services Team at Breas Medical is excited for the future as we help lead the company toward becoming a major player in the ventilation market in the U.S., Europe and the ROW.

Great things lie ahead because we have great people in our company - from Management and Administration, to Clinical, to Sales and Marketing, to all of the technical and support services personnel. Great people make a great difference and 2015 is going to be a great year for Breas Medical!

ERS Lecture Highlights:

Dr Crimi from Italy showed interesting data from a European survey about indications and practices of domiciliary noninvasive ventilation (NIV) in severe COPD patients. It turns out that the prescription rate for NIV for COPD patients is lowest in Belgium and Holland (<20% of total prescriptions for NIV), is between 20-40% for most other European countries (38.5% as overall average) and is exceeding 50% in Denmark and Turkey. The expected benefits are a decrease in hospital readmission and dyspnea and an improvement in quality of life and gas exchange. Most patients are treated with a 'Low' PSV (44%) followed by High Intensity PSV (27%) and PSV+TgV (17%). PCV (9%) and VCV (3%) are only used for few patients. Prof JP Janssens (Geneva, Switzerland) challenged the new built-in ventilator software systems by asking if they really make the ventilation better. Prof Janssens concludes that it has yet to be proved that more complicated algorithms (such as

AVAPS AE) increase performance in real life.

A Portuguese team looked at the compliance with home non-invasive mechanical ventilation (HNIMV) in patients with chronic respiratory failure (CRF): Telemonitoring versus usual care surveillance. Conclusion: the results of this study suggest that telemonitoring tools can improve HNIMV compliance in patients with CRF of different etiologies.

Patient reported prevalence of patient ventilator asynchronies (PVAs) during home mechanical ventilation (HMV) by M. Ramsay (London, United Kingdom). Conclusion: Patient reported awareness of PVAs on HMV is higher than PVA observed in acute respiratory failure. Work should focus on improving triggering asynchronies at the initiation of HMV, however there is a natural reduction in patient reported PVA over time. Whether this represents a true reduction in PVA levels or patient adaption to PVAs requires further investigation.



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There was a fun interactive 2-part Home Care session titled, "Respiratory Home Care Situations Quiz" in which the audience answered quiz questions via a remote transmitter. The Home Care Respiratory Clinician faces the daily challenge of resolving both clinical situations and requirements for insurance reimbursement. This interactive quiz session posed both clinical situations as well as practical questions regarding prescriptions, equipment selection, reimbursement qualifications, and equipment application. They covered the gamut from ventilators and oxygen administration to RAD devices and airway clearance.

"Pediatric Noninvasive Ventilation for Acute Respiratory Failure" gave us a glimpse into the future of pediatric ventilation and what types of ventilators will be used. According to the presenter, pediatric non-invasive ventilation is being used at an increasing rate in the acute care setting to avoid or limit the need for intubation and invasive mechanical ventilation. This presentation highlighted the rationale and available data supporting NIV. Speculation on the future of pediatric noninvasive ventilation was discussed. It may be possible that the acute care setting might be a prime target for the Vivo 60 for NIV applications.

What Have We Learned About NIV in the Past 20 Years? Laurent Brochard, MD discussed much of the NIV research done over the past 20 years. Although much of it was done in the acute care setting he emphasized that there are applications in homecare, particularly with COPD patients. His conclusion regarding NIV for COPD in the home setting was that, continuing NIV post hospital discharge for the COPD patient admitted with an acute exacerbation of respiratory failure might be the key to reducing readmission to the hospital.

Overview of ALS Management provided valuable information about ALS treatment. ALS affect 1.24-4 people per 100,00. The mean age of onset of symptoms is 56 years. Most patients start on NIV and many choose not to be trached, instead opting to use NIV 24/7. Monitoring of EtCO2 is a key in managing ALS patients being mechanically ventilated whether invasively or non-invasively.

Vivo 50 Accessories to Enhance the Homecare Provider 's Services.



Protective carrying case allows operation of the Vivo 50 while it is in the case protected from bumps and falls commonly eencountered in the home care setting. PN# 004938



Cigarette lighter connector for use in private vehicle transport. PN# 004899





8-hr click-on lithium-ion battery. PN# 004559



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