

BECAUSE YOU NEED TO...

# TALK MUIR

Passy-Muir® News, Events and Education

Passy-Muir, Inc. | Summer 2012

## Research Issue

Research and EBP

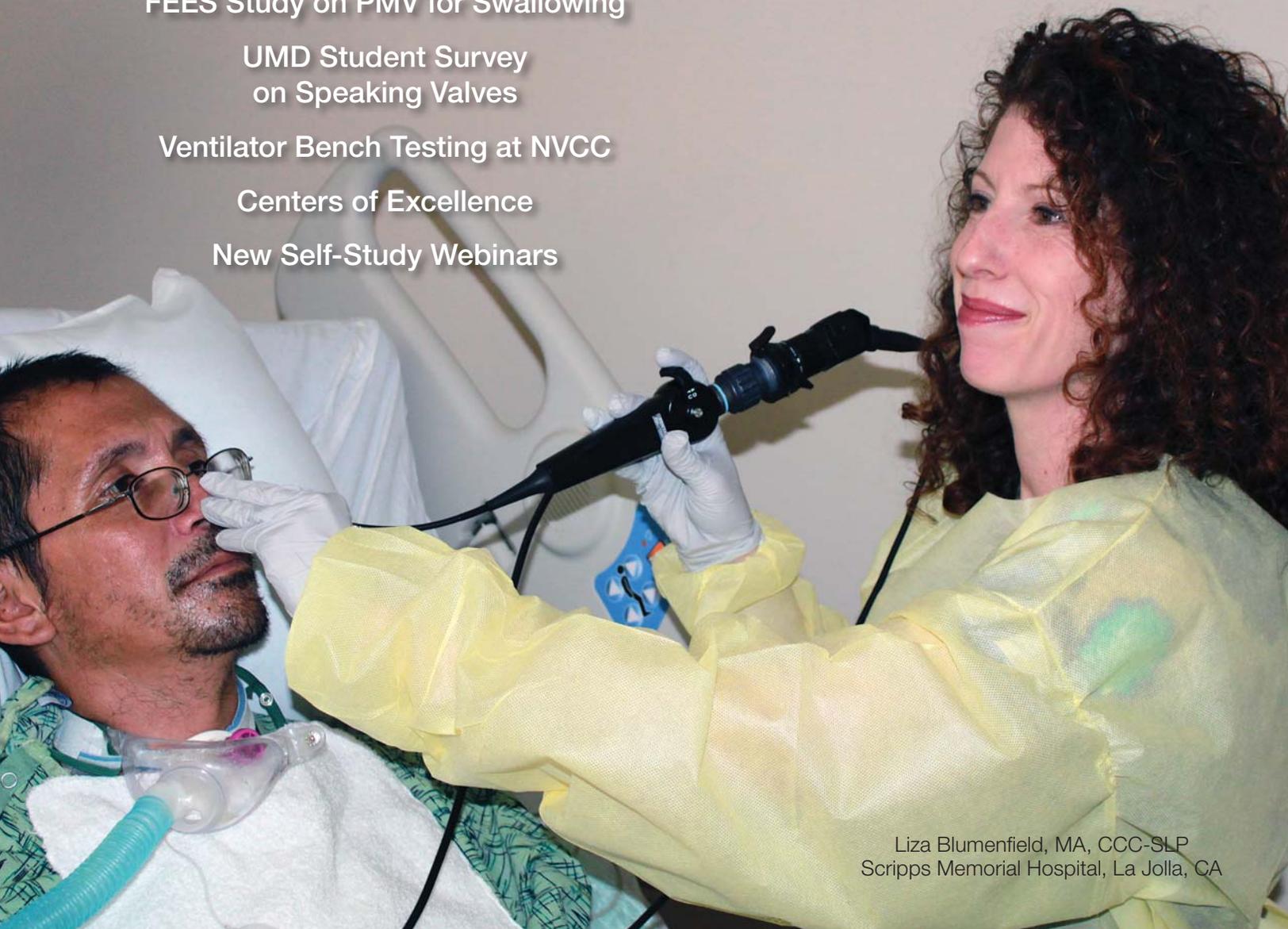
FEES Study on PMV for Swallowing

UMD Student Survey  
on Speaking Valves

Ventilator Bench Testing at NVCC

Centers of Excellence

New Self-Study Webinars



Liza Blumenfield, MA, CCC-SLP  
Scripps Memorial Hospital, La Jolla, CA

*Passy-Muir Inc.*



## Research and the EBP Model

By Julie Kobak, MA, CCC-SLP, Vice President of Clinical Education, Passy-Muir, Inc.



**When attending** various conferences where there are numerous presentations on current research (often with varying methodology and sometimes with conflicting results), I often feel a sense of frustration on how to make sense of it all and form good clinical conclusions. And then I look at the attendees in the seats next to me, and know that I am not alone. I can almost see the thought bubbles above their heads with the question “But how do I translate research into practice?”

Much of the medical world has adopted **EBP** or evidence-based practice model to guide clinical decision-making. The most common definition of evidence-based practice is taken from Dr. David Sackett, a pioneer in evidence-based practice:

*“the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient.*

*It means integrating individual clinical expertise with the best available external clinical evidence from systematic research.” (Sackett D, 1996)*

When treating tracheostomized and ventilator patients, I think we would be remiss if we did not apply EBP to guide our clinical decisions. Since David Muir invented the Passy-Muir Valve, a large body of literature has been accumulated regarding the effects and clinical benefits of the valve. Reprints of many of these publications as well as a comprehensive bibliography on tracheostomy have been provided by Passy-Muir, Inc. in an effort to help clinicians utilize this research in the EBP process.

In our continued efforts to make the best research evidence available to clinicians, the Clinical Team at Passy-Muir, Inc. has devoted this issue of *Talk Muir* Newsletter to research. We have also updated our website and organized the [webpage devoted to Passy-Muir literature](#) according to the most common clinical questions and topics in current practice. This fall we have plans to provide a new forum for continuing education courses that will incorporate the principles of EBP in the review and discussion of specific case studies submitted by clinicians from the field. We hope you find this newsletter helpful as you employ EBP in your clinical setting!

**EBP is the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care.**

- Clinical expertise refers to the clinician’s cumulated experience, education and clinical skills.
- The patient brings to the encounter his or her own personal and unique concerns, expectations, and values.
- The best evidence is usually found in clinically relevant research that has been conducted using sound methodology.

To watch an interesting video of Dr. Sackett discussing EBP visit:

[www.youtube.com/watch?v=Nbd--s2dFY0](http://www.youtube.com/watch?v=Nbd--s2dFY0)



*Sackett, D. 1996. Evidence-based Medicine: What it is and what it isn't. British Medical Journal 312:71-72.*



## The Effect of the Passy-Muir® Valve on Disordered Swallowing

By Julie Kobak, MA, CCC-SLP, Vice President of Clinical Education, Passy-Muir, Inc.

At the 2012 Dysphagia Research Society Conference held in Toronto, Canada, Liza Blumenfeld, MA, CCC-SLP from Scripps Memorial Hospital in La Jolla, California presented a scientific paper on the effect of the Passy-Muir® Valve use on disordered swallowing. I had the opportunity to meet Ms. Blumenfeld and ask her about what prompted her interest in studying the Passy-Muir Valve. She told me that she has been working with tracheostomized and ventilator-dependent patients for the last 16 years. She explained that during her tenure at Vencor/Kindred in San Diego, California, a long term acute care facility, she routinely kept departmental statistics on dysphagia and weaning outcomes. After formal implementation of a Passy-Muir Valve protocol, she and her administration noticed significant improvements in mean decannulation time and percentage of patients discharged on an oral diet. She felt strongly that the implementation of the Passy-Muir Valve as a standard of care played a significant role in these improved outcomes.

In 2006, while working at Scripps Memorial Hospital, Ms. Blumenfeld continued to observe significant and dramatic improvements in both swallowing and secretion management during fiberoptic endoscopic evaluations of swallowing (FEES) when the Passy-Muir Valve was utilized. In collaboration with her colleagues at Scripps Memorial Hospital and Dr. Peter Belafsky of UC Davis Medical Center, Sacramento, CA, she decided to formally study and document these changes.

She prospectively evaluated 21 tracheostomized patients with dysphagia. Patients were randomized into a speaking valve experimental group or tracheostomy tube only control group. All patients underwent four days of identical swallowing therapy. The experimental group wore the Passy-Muir Valve for 45 minutes a day and during therapy. All of the patients were evaluated with FEES on day 1 and day 4 with the experimental group having a Passy-Muir Valve during testing. She evaluated swallowing severity using the Penetration Aspiration Scale (PAS) and secretion level changes using an ordinal secretion rating scale created for this study.



Liza Blumenfeld, MA, CCC-SLP performs a fiberoptic endoscopic procedure at Scripps Memorial Hospital in La Jolla, CA.

The results of her study showed no differences in PAS or secretion ratings between days 1 and 4 for the control group ( $p>0.05$ ). However, the PAS for the Passy-Muir Valve group improved from 3.67 to 1.75 ( $p<0.001$ ) and the secretion rating improved from 2.91 to 1.55 ( $p<0.001$ ). Ms. Blumenfeld and colleagues concluded that the Passy-Muir Valve had a positive impact on swallowing function and secretion management. This study adds to the growing body of evidence for the use of the valve as a rehabilitation tool.



Liza Blumenfeld, MA, CCC-SLP

Ms. Blumenfeld has submitted an abstract for the ASHA 2012 convention to share this data in a case study format. She explained that she has further interest in studying the positive effects of the Passy-Muir Valve and would like to specifically examine swallowing frequency of tracheostomized patients on the ventilator with and without the valve.

To view video samples of one of the FEES exam in this study visit [www.passy-muir.com/newsletter\\_supplement](http://www.passy-muir.com/newsletter_supplement).



## SLPs Examine Need for Early Intervention for Dysphagia

By Julie Kobak, MA, CCC-SLP, Vice President of Clinical Education, Passy-Muir, Inc.

### Madonna Rehabilitation Hospital

was the first facility to be featured in the new Passy-Muir Centers of Excellence Program. The multidisciplinary team model at Madonna Rehabilitation Hospital incorporates use of the Passy-Muir Valve to facilitate weaning, decannulation, and advancement in oral feedings. Within 48 hours of admission, every tracheostomy and ventilator patient is evaluated by the team for placement of the Passy-Muir Valve.

Madonna Rehabilitation Hospital is also known for their commitment to research. We spoke to Carrie Windhorst, MS, CCC-SLP and Cheryl Wagoner, MS, CCC-SLP, two of the speech language pathologists at Madonna Rehabilitation Hospital, in a conference call recently to hear about some of the research in which they are currently engaged. They told us about a research poster they presented at the Nebraska Speech and Hearing Convention regarding the incidence of dysphagia in the tracheostomized and ventilator dependent population. They conducted a chart review to find out how many of the patients admitted to their facility from acute care had dysphagia, how many received alternate means of nutrition, and the percentage of these patients that received speech-language pathology services.

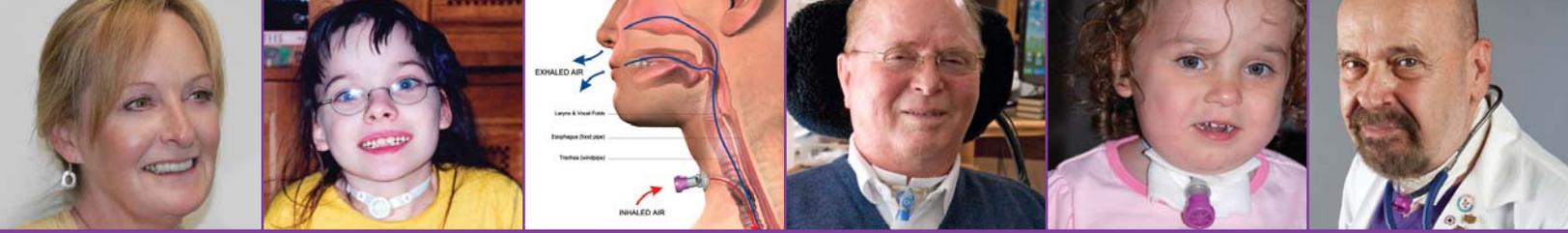


Ms. Windhorst told us that it is fairly well known that early intervention for physical and occupational therapy is important, however, there is little research regarding early intervention of the speech-language pathologist for the critical care patient. Their data revealed that although the majority of the tracheostomized and ventilator patients transferred to Madonna Rehabilitation Hospital were dysphagic and had a primary means of nutrition via a nasogastric or PEG tube, most of these patients did not receive speech-language services prior to admission to their facility. We asked them what they felt may be the possible reasons for these results. They speculated that the level of training of the speech-language pathologist and comfort level with these medically fragile patients may contribute to these findings. In addition, the clinical specialists at Passy-Muir, Inc. suspect that there is a general lack of awareness and understanding by the entire intensive care medical team of the role of the SLP with these patients. In addition, there may not be enough coordination of care for the tracheostomy once it is placed.

Studies like this are important to the Passy-Muir clinical education team because they shed light on the current trends in healthcare and reemphasize the importance of education. This past May, in an effort to promote earlier referrals and increase the knowledge level of speech-language pathologists working with this patient population, Passy-Muir invited speech-language pathologist, Dr. Lori Burkhead-Morgan from the University of Georgia, to present a webinar entitled *Early Intervention for the Ventilated ICU Patient: Use it or Lose It!* Principals and techniques were provided to address dysphagia in the critical care setting. (For more details see page 9). Additionally we will be teaming up with the therapists at Madonna Rehabilitation Hospital to offer a half-day seminar in September to the acute care hospitals in their referral area on the team management of the tracheostomized and ventilator patient.



Speech-language pathologists, Cheryl Wagoner, MS, CCC-SLP (left) and Carrie Windhorst, MS, CCC-SLP perform a Fiberoptic Endoscopic Evaluation of Swallowing (FEES) with a patient at Madonna Rehabilitation Hospital.



Cheryl Wagoner  
MS, CCC-SLP



Carrie Windhorst  
MS, CCC-SLP

*Ms. Windhorst and Ms. Wagoner submitted this study for consideration for a presentation at the 2012 ASHA Convention in Atlanta, Georgia. We wish them continued success with their research.*



## A Call for Research

*Do you have a research idea about the Passy-Muir Valve that you would like to explore?*

Passy-Muir, Inc. would like to assist you. Please contact Julie Kobak, Vice President of Clinical Education to share your research idea and discuss the ways in which we can support you. **949-833-8255.**

## Passy-Muir Inc. CENTERS OF EXCELLENCE

The Passy-Muir Centers of Excellence Program is a:



**RESOURCE** for clinicians to learn about the various approaches to tracheostomy care across the continuum of settings



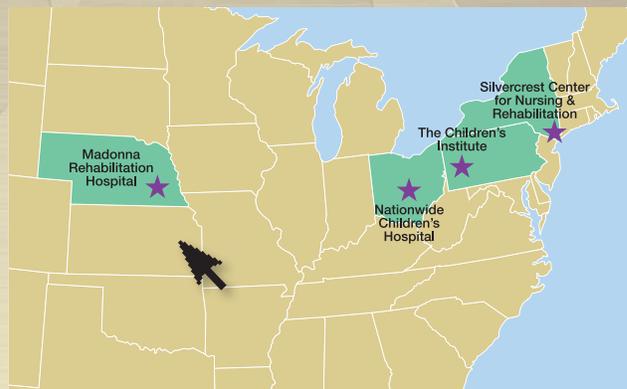
**COLLECTION** of the most current information and practices related to the Passy-Muir Valve



**REFERRAL SITE** for patients and family members seeking this type of specialized care

The Passy-Muir Centers of Excellence Program is featured on the Passy-Muir website:

[www.passy-muir.com/coe](http://www.passy-muir.com/coe)



Explore some of the Centers of Excellence by clicking on the stars.

***Does your facility have an excellent program?  
Join the Passy-Muir Centers of Excellence today***



## Early Ambulation + Passy-Muir Valve = Positive Outcomes

By Linda Dean, RRT, Clinical Specialist, Passy-Muir, Inc.

**Kindred Hospital Wyoming Valley** in Wilkes-Barre, Pennsylvania, realized the cost of care for the tracheostomy patient was the second most expensive diagnosis treated in the country. The correlation between prolonged mechanical ventilation and increased length of stay is well documented. The most recent literature found earlier ambulation in the intensive care areas decreased length of stay (LOS) by as much as 30% (*Needham, et al. 2010*). This data motivated the rehabilitation team at Kindred Hospital Wyoming Valley to institute an early ambulation program in conjunction with a Passy-Muir Valve assessment for tracheostomized patients upon admission. One year after implementation of this program, this team improved the ventilator weaning rate at their facility by 13%. In addition to weaning faster, the team observed the following patient benefits with in-line ventilator application of the valve:

- Ability to build intra-thoracic and intra-abdominal pressures associated with posture control
- Improved swallow and speaking
- Improved balance and upper extremity force
- Improved cough strength

The team presented this information in a poster presentation that was well received at the National Association for Long Term Hospitals (NALTH) meeting in October of 2011, the Kindred Symposium in December of 2011, and the Acute Long Term Hospital Association (ALTHA) meeting in May of 2012. Their poster is currently being considered for the AARC Congress in November, 2012.



For a printed handout of this poster, visit:  
[www.passy-muir.com/newsletter\\_supplement](http://www.passy-muir.com/newsletter_supplement)



Members of the team at Kindred Hospital-Wyoming Valley: (Front row) Anthony Bruno, PT; Megan Simpson, SLP; Mary Dabbieri, RT; Debbie Gurnari, RT, Manager of Respiratory; Donna Morris-Evans, RT. (Back row) Gary Oswald, PTA; Cheryl Martin, SLP, Director of Rehabilitation.

### The 2012 ASHA Convention

theme will be

**“Evidence of Excellence: Opportunities and Outcomes”**

and will focus on the partnership between clinical practice and research – the unique continuum in which evidence informs practice, which, in turn, builds the evidence base. Members seeking to further their professional knowledge base will find that learning opportunities abound at the ASHA Convention; the result is better outcomes for clients, students, researchers, and patients.

Many of the clinicians featured in this issue of Talk Muir have submitted call for papers to this year’s convention. We wish them luck and hope they are accepted!

**Don’t forget to visit Passy-Muir, Inc. at this year’s convention**

**Booth #918**





## SLP Graduate Student Conducts Survey to Evaluate Clinical Practice Patterns

By Julie Kobak, MA, CCC-SLP, Vice President of Clinical Education, Passy-Muir, Inc.

**In 2011**, Anne D. Sasdelli, a graduate student of speech-language pathology at the University of Maryland, College Park completed her master's thesis entitled *Patterns of Speaking Valve Use During Feeding and Barriers to Patient Compliance*. She worked on this project with assistance from advisors Dr. Barbara Sonies, Dr. Nan Bernstein Ratner, Dr. Rochelle Newman, Dr. Roger Tourangeau, and Mrs. Donna Tippet. Her study sought to identify factors in clinician recommendations for speaking valve use in swallowing, as well as perceived barriers to patient compliance with these recommendations.

Ms. Sasdelli surveyed and analyzed the data of a 19 question survey collected electronically from 83 speech-language pathologists (SLPs). The majority of the SLPs that completed the survey practiced in a hospital setting and had an average of 11 years clinical experience.

*Highlighted here are results related to specific questions on the survey that are most interesting and relevant to the theme of this newsletter:*

- **95%** of participants reported using a one-way speaking valve with patients who have a tracheostomy
- **93%** of participants reported using a one-way speaking valve during swallowing assessment
- **61%** used independent reading of relevant literature as a method of continuing education in the area of swallowing
- **85%** reported reading between 1 and 20 journal articles per year.

*In regards to clinician's opinions of the published literature:*

- **77%** of participants responded that wearing a speaking valve during feeding may decrease aspiration risk
- **53%** responded that swallowing evaluation should be completed both with and without the valve



Anne D. Sasdelli, SLP graduate of University of Maryland

Three elements of clinician education were further examined for their relationship to clinician recommendations with the tracheostomized population: opinions of the literature, years of clinical experience in swallowing, and number of journal articles read annually. Of these three, only clinician opinions of the literature were found to be significantly related to clinician recommendations for valve use, in that clinicians who believed that the valve was helpful recommended valve use more often.

Considering that opinions of the literature were significant, while the number of journal articles read was not, these results suggest that the type of articles being read is more relevant than the number of articles. Because it was unclear from this study which aspects of journal articles make them more or less influential in the practice patterns of the clinicians who are reading them, Ms. Sasdelli suggested that establishing a shared foundation of literature knowledge among clinicians may streamline collaboration in the care of patients with tracheostomy and might make it possible for department managers to get the most relevant articles into the hands of clinicians who work with this population.

Ms. Sasdelli's thesis clearly attests to the importance of research in evidence-based practice. The clinicians at Passy-Muir, Inc. commend her for her thoughtful investigation and encourage other students to pursue in-depth studies in the specialty of tracheostomy. Ms. Sasdelli graduated in December 21, 2011 and is now in her clinical fellowship with Flagship Rehabilitation working with residents in independent living, assisted living, and skilled nursing levels of care. We wish her the best in her new career.

To read the complete manuscript of Anne Sasdelli's master's thesis, visit:

[www.passy-muir.com/newsletter\\_supplement](http://www.passy-muir.com/newsletter_supplement)



## NVCC Instructors Propel Understanding of Ventilator Application of the Valve



PMV® 007  
(Aqua Color™)

By Linda Dean, RRT, Clinical Specialist, Passy-Muir, Inc.

**Historically speaking**, goals, indications, guidelines and benefits of deflating the cuff on the tracheostomy tube during mechanical ventilation to allow the patient to use a Passy-Muir® valve are not well understood, and are not practiced with any standardization in the critical care environment. It is well known that home care ventilators can be easily adjusted to accommodate the speaking valve; however, there is a lack of written manufacturer protocols for ventilator application.

Understanding the compatibility of commonly used ventilators with the speaking valve is important for clinicians working with the ventilator patient population, therefore, the respiratory therapy program instructors at Northern Virginia Community College (NVCC) recently conducted bench testing in their clinical laboratory with several brands of ventilators in order to determine which ventilators were the most compatible for inline Passy-Muir Valve use. Using a simulation mannequin, they tested critical care, sub-acute care, and home care ventilators to determine which brands, modes and alarm packages demonstrated the optimum compatibility and safety for use with the Passy-Muir Valve. They tested six ventilators to study the:

- Performance of the ventilator when a Passy-Muir® Valve is placed in the circuit
- Modes of ventilation most compatible with in-line valve use
- Models of ventilators that have the ability to time limit and/or flow terminate pressure support (PS) breaths during valve use
- Alternative alarms to optimize patient safety in the absence of direct exhaled tidal volume monitoring

The ventilators tested all functioned acceptably with the Passy-Muir Valve in line with the circuit with certain restrictions on the mode selected and alarm settings. The NVCC instructors plan on publishing this study very soon and an abstract on their research is being considered for the AARC Congress 2012.



Instructor at the Northern Virginia Community College (NVCC) uses a simulation mannequin to test the performance of the Passy-Muir Valve in-line with a ventilator.



Donna Freeman, Kathy Grilliot (Program Director) and Terri Clark from NVCC



## Four **NEW** Self-Study Webinars



If you missed the live event webinars in May presented by an exceptional group of guest speakers, the webinars will be available as self-study courses starting in July 2012.

*"Thank you for the webinar. It was very helpful. I appreciate your time and effort and incorporating the knowledge of different speakers. I have told all my SLP friends about how helpful your webinars are and how easy they are to access."*

*SLP from Texas*

*"It was a fantastic presentation and I am anxious to incorporate some of the approaches/techniques into my sessions!"*

*SLP from Pennsylvania*

### Our New Self-Study Webinars!



#### **Early Intervention for the Ventilated ICU Patient: Use it or Lose it!**

Presented by Lori Burkhead-Morgan, PhD, CCC-SLP  
University of Georgia, GA



#### **Developing a Passy-Muir Valve Protocol in the NICU**

Melanie Stevens, MS, CCC-SLP, Jennifer Finch, MA, CCC-SLP,  
Erin Wishloff, BS, RRT-NPS, Leslie Justice, RN, MS, CPN  
Nationwide Children's Hospital, Columbus, OH



#### **Passy-Muir® Valve: Keeping It On and Therapeutic Steps to Follow**

Presented by Katy Peck, MA, CCC-SLP, CBIS  
Children's Hospital of Los Angeles



#### **Baby Trachs: Passy-Muir Valve in the NICU to Optimize Swallowing and Feeding**

Catherine S. Shaker, MS, CCC-SLP, BRS-S  
Cari L. Mutnick, MA, CCC-SLP  
Florida Hospital for Children, Orlando, FL



Visit our website: [www.passy-muir.com/ceu](http://www.passy-muir.com/ceu) for course descriptions and additional information.

# Passy-Muir Inc.

Tracheostomy & Ventilator  
Swallowing and Speaking Valves

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David Muir  
Inventor

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## TALK MUIR

Talk-Muir is published by Passy-Muir, Inc. for tracheostomy and ventilator-dependent patients, their caregivers and medical professionals in an effort to provide:

- ⊕ Interesting news and stories
- ⊕ Resources and clinical tips
- ⊕ Information about new educational opportunities
- ⊕ Upcoming events and more

Story contributions and comments are welcome.

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# Passy-Muir CENTERS OF EXCELLENCE



We know that facilities throughout the world provide excellent care to tracheostomized and ventilator patients and have made the Passy-Muir® Valve a standard of care.

In order to showcase these success stories, we developed the Passy-Muir Centers of Excellence Program.

**See page 5 for details.**

*Passy-Muir Inc.*