

BECAUSE YOU NEED TO...

# TALK MUIR

Passy-Muir® News, Events and Education

Passy-Muir, Inc. | Fall 2012

## In this Issue:

Why a Team?

Featured Tracheostomy Team - Palmetto Health Richland  
Centers of Excellence

Managing Stoma Leaks

Passy-Muir Partners

Cooperation for Student Education



Palmetto Health Richland Tracheostomy Team  
Columbia, South Carolina

# TEAM

I S S U E

*Passy-Muir Inc.*



## Why a Team?

# Multidisciplinary Tracheostomy Teams Improve Overall Outcomes

By Gail Sudderth, RRT, Clinical Specialist, Passy-Muir, Inc.

**Tracheostomy** has been performed for thousands of years and most recently reported to be one of the most frequently performed procedures in the ICU today. The tracheostomized patient population is ranked among the top three diagnostic related groups for cost and length of stay (LOS) by HCUP 2007.

Although the procedure is very commonplace, many questions still need to be answered in regard to the appropriate care of the tracheostomized patient, including:

- When and how should the tracheostomy be performed?
- How should it be maintained?
- When should it be removed, including criteria for decannulation?

Not only does this patient population result in institutional cost and time, but for the patients and their families, the tracheostomy often represents another layer of procedures and medical cost to what may be a long list of comorbidities.

Complications of tracheostomy may include the inability to communicate, difficulty swallowing, and increased risk for aspiration and pulmonary infections. The appropriate timing of the tracheostomy has been studied and reported in the literature<sup>1</sup>. Whether it is performed early or late, or by surgical or percutaneous methods, are factors of little consequence if the physiologic complications of tracheostomy are not monitored and minimized when possible.

### Are clinicians educated regarding tracheostomy?

Despite the fact that there is an increase in the number of patients receiving tracheostomy, there is very little included on this topic in the curricula in medical schools, or programs in nursing, respiratory therapy, speech-language pathology, or other allied health professions. If clinicians desire more information on this topic, they must make an effort to study on their own, or be fortunate enough to be mentored by an experienced practitioner.

The wide variation in knowledge, skills and confidence levels among caregivers in a single clinical setting can compromise patient safety and outcomes and result in clinical decisions dictated by physician or clinician preference, habit or bias, rather than evidence-based practice.<sup>2</sup>

### Do tracheostomy teams improve outcomes?

Several recent studies have shown that when tracheostomy planning and care is directed by an airway management team there is a significant reduction in overall length of stay and decreased decannulation time.<sup>3-6</sup>

- Tobin and colleagues reported that length of stay (LOS) following ICU discharge was reduced by an average of 11 days following implementation of the team<sup>3</sup>
- A team at McGill University Health Center reported the average decannulation time decreased by 6.49 days with a decrease in overall LOS by 37.8 days<sup>4</sup>

Among the reasons cited for these improved outcomes are:

- Better communication and coordination of the care team, including more timely decision making
- Early intervention by a speech-language pathologist for assessment and management of swallowing, cognitive, and speech impairments
- Use of speaking valves, which help to restore more normal airway physiology

A collaborative team can help assure continuity of care based on best practice and should follow the patient from ICU to the general care floors and to decannulation or transfer to another level of care. The team members can also provide education to other practitioners, and offer assistance or clarification of policies and procedures as needed.





## Do we need more studies?

Garrubba and colleagues stated that high quality evidence from well-controlled studies is still needed to convincingly determine the effectiveness of a multi-disciplinary team for tracheostomy patients<sup>7</sup>. Because this patient population is so diverse by age, primary diagnosis, and medical history, it is difficult to design controlled studies. Such a complex patient group may be better served by a **process improvement design** following the examples of ventilator weaning protocols or VAP bundles. In fact, it is actually quite surprising that given the high rate of resources utilized by the patient with tracheostomy, that tracheostomy care and decannulation protocols have not yet been targeted for quality improvement processes<sup>8</sup>.

## Where do we start?

Simply recognizing the need for team collaboration, implementing protocols, and addressing safety issues and communication needs of tracheostomized patients are good places to start. Just as research has shown with other diagnostic groups, team management of patients can and does improve outcomes. An excellent example of a multidisciplinary tracheotomy team taking action is this newsletter's featured facility, **Palmetto Health Richland** (see page 4).

1. Moller M., et. al. (2005). Early tracheostomy versus late tracheostomy in the surgical intensive care unit. *Am J Surg*, 189: 293-296.
2. Spemulli, M. (2010). Safer Care for Patients with Tracheostomy. *Joint Commission Perspectives on Patient Safety*. Volume 10, Issue 4.
3. Tobin A., & Santamaria J. (2008). An intensivist-led tracheostomy review team is associated with shorter decannulation time and length of stay: a prospective cohort study. *Critical Care*, 12:R48.
4. LeBlanc J., et. al. (2009). Outcomes in tracheostomy patients with severe traumatic brain injury following implementation of a specialized multidisciplinary tracheostomy management team. *J Head Trauma Rehabil*, 25:362-5.
5. Simpson E., et. al. (2008). Benefits of a Tracheostomy Team: 4 Year Pre and Post Statistics. Presentation at the ASHA Convention, Chicago, IL.
6. Cameron T., et. al. (2009). Outcomes of patients with spinal cord injury before and after introduction of an interdisciplinary tracheostomy team. *Crit Care Resusc*, 11:14-19.
7. Garrubba M., et. al. (2009). Multidisciplinary care for tracheostomy patients: a systematic review. *Critical Care*, 13:R177.
8. Heffner JE. (2009). Toward leaner tracheostomy care: first observe, then improve. *Respir Care*, 54:1635-7.

## DID YOU KNOW?

The Agency for Healthcare Research and Quality (AHRQ) has created a teamwork system designed for health care professionals called



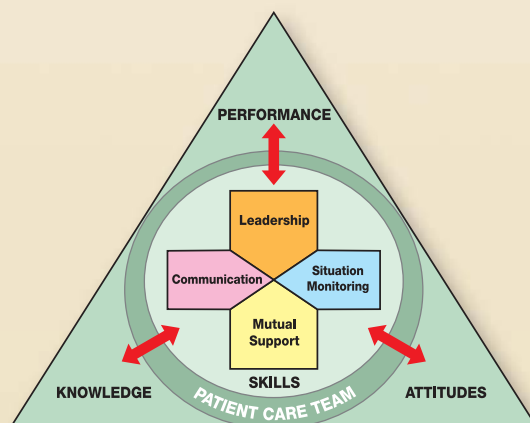
**TeamSTEPPS** is:

A powerful solution to improve **patient safety** within your organization.

An **evidence-based teamwork system** to improve communication and teamwork skills among health care professionals.

Learn more at:

<http://teamstepps.ahrq.gov>





## Featured Tracheostomy Team - Palmetto Health Richland

By Anne Lockwood, MPH, CPHQ, Performance Improvement Project Manager, & Alyssa Good, MSP, CCC-SLP, Palmetto Health Richland

**Palmetto Health**, the largest healthcare system and non-governmental employer in South Carolina, is composed of more than 10,000 team members, physicians and volunteers working together to fulfill Palmetto Health's vision: to be remembered by each patient as providing the care and compassion we want for our families and ourselves. Palmetto Health Richland, where the Tracheostomy Team was developed, is a Level I Trauma Center and Joint Commission Primary Stroke Center.

### The History:

The Tracheostomy Team first met in July 2009 due to concerns about a general lack of standardization of care for tracheostomy patients, especially in the units outside of intensive care. Although there were no quantitative data that indicated a problem, there were reports from various clinical staff that two areas related to tracheostomy care needed improvement: care of the tracheostomy site and critical equipment at the bedside.

### The Strategy:

The following interventions were implemented by the team to support best practice for tracheostomy care:

1. Revision of Policy and Protocols
2. Development of two outcome measures to track the team's progress:

#### **Care and Maintenance Bundle**

- Clean tracheostomy dressing
- Clean tracheostomy ties
- Clean stoma site
- Patent inner cannula

#### **Equipment at the Bedside (Trach Supply Box)**

- Catheter and gloves
- Ambu bag with mask
- Suction regulator, canister, tubing, yankauer
- Obturator
- Spare inner cannula
- Spare tracheostomy tube
- Trach ties and trach care kits
- 10cc syringe

### The Tracheostomy Team Members:

- Team Leader (Director of Respiratory Therapy)
- Respiratory Therapist
- Pulmonary Physicians
- Speech-Language Pathologists
- Nursing
- Nurse Educators
- Rapid Response Team
- Risk Managers
- Performance Improvement Staff
- Supply Chain Staff
- Information Technologist

3. Purchase and stocking (by respiratory therapy department) of **Trach Supply Boxes** for placement in patient's room upon admission to non-ICU units
4. Daily rounds by respiratory therapist on all tracheostomy patients with use of an audit tool and communication with nurse and unit management upon identification of any concerns
5. Daily rounds by rapid response team nurses on all tracheostomy patients
6. Education for nursing staff on care of tracheostomy, including learning module, coaching at the bedside, and Passy-Muir® Valve education linked to nursing education newsletter
7. Occurrence reporting for tracheostomy related near-misses and harm with addition of tracheostomy specific fields on the Occurrence Reporting Tool
8. Design of an electronic physician order set called the Adult Tracheostomy Maintenance Orders Power Plan
9. Inspection of suture sites for skin breakdown and to assure timely removal of sutures.



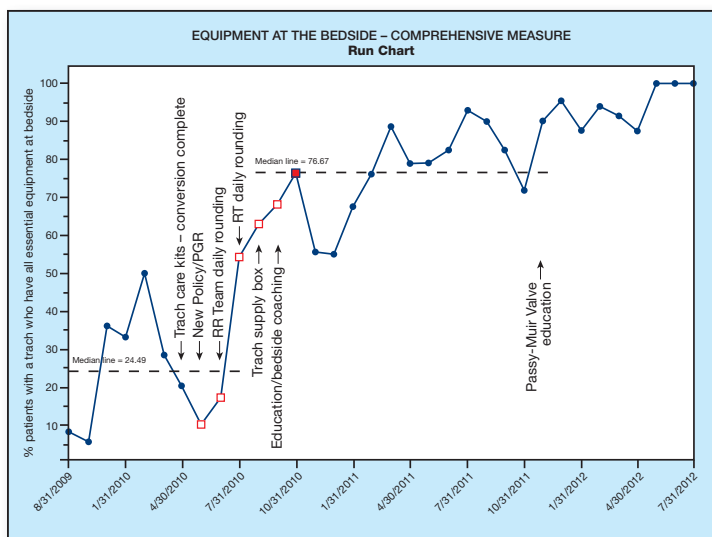


**Back Row (Left to Right)** Ashley Brown, RN, Risk Analyst; Mary Ingram, RN, Manager of Nursing Informatics System; Dr. Franklin McGuire, MD, FCCP; David Lowry, RN, BSN, ACM, Case Manager; Hilda Barnwell, RRT; David Dunlap, RRT, Critical Care Supervisor; Adrian Willis, RN, Supply Chain; Anne Lockwood, MPH, CPHQ, Performance Improvement Project Manager; Leah Inman, RRT, MBA, Director of Respiratory Care

**Front Row (Left to Right)** Alyssa Good, MSP, CCC-SLP, Senior Speech Pathologist; Dr. Linda Perkins, MD; Brenda Griffin, RCP; Annette Garcia, RN, BSN, Clinical Project Coordinator; Tamika Singleton, RN, MSN, MHA, Clinical Practice Specialist; Forrest Fortier, MST, BSN, RN, Director of Nursing Education and Clinical Development; Robin Belz, RRT, BS, Clinical Manager of Respiratory Care

## The Results:

The team began data collection of outcome measures in August 2009. The **Care and Maintenance** measure is an all or nothing measure since the team determined that to truly reduce the potential of patient harm, all components of the bundle needed to be in place. In August 2009, only 35% of all non-ICU tracheostomy patients received all aspects of the Care and Maintenance bundle. Within the next year, as interventions of the tracheostomy team were put into place, this outcome measure improved dramatically. The last ten months of data collection now show an average of 98% of patients receiving the full bundle.



Prior to the team's interventions, the data for the **Equipment at the Bedside** measure was very alarming, in that only 25% of patients had the essential tracheostomy equipment and supplies. As each intervention was implemented, this measure improved steadily with a current rate of 100% of patients receiving the necessary equipment at the bedside.

## Future Plans:

The Palmetto Health Richland team has fully developed outcome monitoring of harm through occurrence reporting which will enable the team to continually address additional opportunities for improvement.

The Trach Supply Box has proven to be so successful that it will be instituted in the surgical trauma unit as well as all intensive care units and the Palmetto Health Heart Hospital. In addition, there will be increased coordination with home health agencies to ensure patients have access to the proper tracheostomy supplies and care upon discharge.

Knowing how crucial tracheostomy education is for both staff and patients, more comprehensive education will be provided to patients during the hospital stay and at discharge. Additionally, all new nursing staff will receive hands-on instruction with simulations of tracheostomy care and education on the Trach Supply Box during orientation.

Passy-Muir, Inc. applauds the exceptional teamwork of this tremendous group of professionals at Palmetto Health Richland. To learn more about their tracheostomy team and program, contact Alyssa Good at

[Alyssa.good@palmettohealth.org](mailto:Alyssa.good@palmettohealth.org).





## Passy-Muir Centers of Excellence Program

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

**In our efforts** to provide continued educational opportunities for our clinicians, patients and families, we honor the facilities which over the years utilize the Passy-Muir® Valves as their standard of care for tracheostomized and ventilator dependent patients, and in so doing have decreased recovery time and enhanced the quality of life for their patients.

- ★ **Meet the teams** and read a description of their philosophy of care
- ★ Review and download their protocols, procedures, research and publications
- ★ Learn from videos of success stories and practices across the continuum of care

### Introducing some of the Centers of Excellence Teams...

#### Silver Lake Specialized Care Center Staten Island, New York



**Back Row (Left to Right)** Elliot Spiro, RRT; Patrick DeMarco, MA, OTR/L; Max Rallon, PT, DPT

**Front Row (Left to Right)** Camille Redden, MA, CCC-SLP; Alexandra Sokolovsky, RT, RN; Megan Fajardo, MA, CCC-SLP; Patricia Alberio, RN; Stacy Giunta

#### Madonna Rehabilitation Hospital Lincoln, Nebraska



**Back Row (Left to Right)** Rebecca Willis, BA, CRT, CRT-NPS; Jackie Kiritsy, RRT; student RT; Colleen Sankey, OTR/L; Cheryl Wagoner, MS, CCC-SLP; Jenna Woodford, PT, DPT, GCS

**Front Row (Left to Right)** Sherri Smith, RRT; Lisa Bitnik, RN; Laura Schlisser, RN; Michelle Tyser, RRT, PA-C; Carrie Windhorst, MS, CCC-SLP

#### Nationwide Children's Hospital Columbus, Ohio



**Back Row (Left to Right)** Leslie Justice, RN, MS, CPNP; Jennifer Finch, MA, CCC-SLP; Michelle Walsh, PhD

**Front Row (Left to Right)** Colleen Vincent, MS, CCC-SLP; Melanie Stevens, MS, CCC-SLP; Meredith Merz, MD

For more information  
or to be honored as a Center of Excellence,  
visit [www.passy-muir.com/coe](http://www.passy-muir.com/coe)

Or call Julie Kobak,  
Vice President of Clinical Education at  
**949-833-3751**



## Ask our Clinical Specialist

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



My patient has a large tracheostomy stoma that leaks a great deal of air and secretions around the tracheostomy tube when we trial the Passy-Muir® Valve. Can you recommend any solutions or products to prevent leakage?

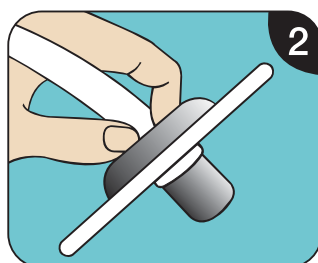
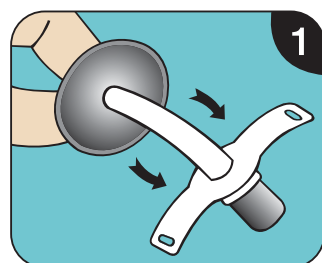
I would first recommend that you discuss the problem with the physician in order to determine the reason for the large stoma and if there is an action to be taken to promote healing. If you have a wound care program, you can consult with your wound care nurse as well.

Once you have addressed the medical issues, there are two new products that I recommend that help to minimize pressure at the tracheostomy site and may help to seal the stoma. The first product is called **Sil.Flex™ TC Pad**.

The TC Pad cushions the area between the flange and stoma site, reduces movement of the tube, and relieves pressure and irritation at the site. It is applied to the tube prior to insertion. This medical grade silicone gel pad helps seal the leak around the stoma, which can prevent air leak while the Passy-Muir® Valve is being utilized. There are two sizes of the Sil.Flex TC Pad that accommodate infants through adults.



Sil.Flex™ TC Pad



Placement of the Sil.Flex TC Pad on to the tracheostomy tube

The second product is **Sil.Flex™ Stoma Pad**. This pad also cushions the area between the flange and stoma site, reducing movement and pressure at the site. There is a slit in the design allowing it to be applied around the tracheostomy tube at anytime. Four sizes are available.



Sil.Flex™ Stoma Pad

Product information can be found at [www.respiralogics.com](http://www.respiralogics.com)

An additional solution for stoma leakage is a custom Bivona® tracheostomy tube made by Smiths Medical. The company has a department that customizes tracheostomy tubes allowing the clinician to conform the tube to the patient's anatomy and needs. They can design a tube with a built in cushion to seal odd-shaped stomas.



Examples of custom Bivona tracheostomy tubes

Approximately 10% of patients who require tracheotomy may require a custom tube. According to Jerry Cabrera, RRT, Product Manager at Smiths Medical, "Treating a patient with a difficult or unusual anatomy can be a challenge; getting the patient a proper fitting tracheostomy tube shouldn't be."

For assistance with a custom tracheostomy tube, contact Mr. Cabrera at [Jerry.Cabrera@smiths-medical.com](mailto:Jerry.Cabrera@smiths-medical.com).





## Passy-Muir Partners With...

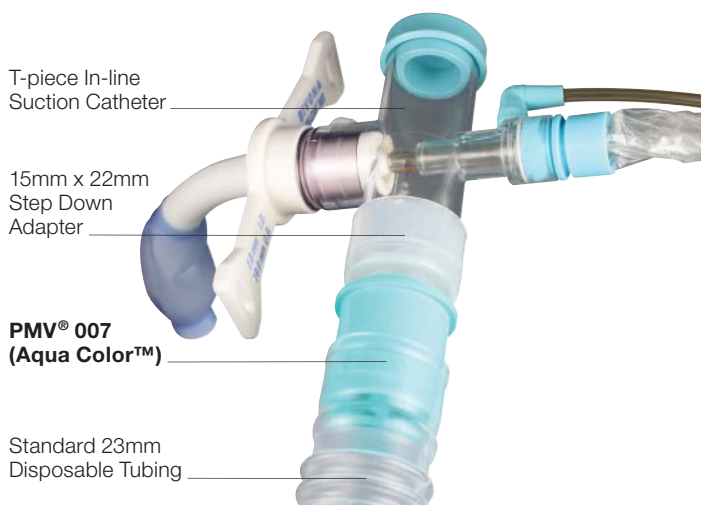
By Linda Dean, RRT, Clinical Specialist, Passy-Muir, Inc.  
Julie Kobak, MA, CCC-SLP, Vice President of Clinical Education, Passy-Muir, Inc.

### Long Term Acute Care Hospitals (LTACH)

The clinical team at Passy-Muir, Inc. routinely offers educational inservices and webinars to the growing number of LTAC facilities in the United States. LTACHs care for a large number of tracheostomized and ventilator dependent patients and are realizing the importance of early Passy-Muir Valve use to facilitate ventilator weaning.

Beginning in 2012, the **Select Specialty Hospital** instituted a corporate-wide policy and procedure for in-line Passy-Muir® Valve use for ventilator weaning. The company has required compliance with this policy and procedure through staff education via their internal learning portal. Linda Dean, RRT, Clinical Specialist for Passy-Muir, Inc. assisted Select Specialty in corporate-wide education by providing direct education for the Respiratory Therapy Regional Managers regarding the specifics of ventilator application.

We congratulate Select Specialty Hospitals for instituting this best practice for their ventilator patients and making the commitment to continued education. We will continue to work closely with this corporation as well as LTACHs throughout the country to offer clinical support and education.



Common ventilator connection for in-line application of the Passy-Muir® Valve in LTACH facilities

### Ventilator Manufacturers

The Passy-Muir® Valve is compatible for in-line use with nearly every brand and model of ventilator currently on the market. Representatives of ventilator manufacturers are often asked questions about the application of the valve with their particular ventilator models. Our respiratory clinical specialists have teamed up with many ventilator manufacturers to provide on-site training on ventilator application of the valve for sales and clinical staff. Additionally, Linda Dean, RRT has conducted bench testing with several ventilator engineers by using a simulation manikin and the Passy-Muir Valve in an effort to offer ventilator design ideas, such as alarm packages, that will enhance or improve compatibility with the valve. We thank the following companies for their ongoing collaboration:



*The Passy-Muir® Valve  
is compatible for in-line use  
with nearly every brand and model  
of ventilator currently on the market.*





## ASHA

The American Speech-Language-Hearing Association (ASHA) and Passy-Muir, Inc. announced the renewal of the corporate partnership that began in May of 2011. This corporate sponsorship provides Passy-Muir with a closer connection to ASHA members and will help illuminate the communication and swallowing issues related to the tracheostomy and ventilator-dependent population.

Here are some of the exciting ways Passy-Muir, Inc. is involved in the **2012 ASHA Convention in Atlanta, GA.**

### Exhibit Booth #918

Visit our booth this year to speak with our clinical specialists and receive information about our educational opportunities.



Passy-Muir clinical specialists, Julie Kobak, MA, CCC-SLP and Gail Sudderth, RRT demonstrating application of the PMV®007.



Clinical specialist, Linda Dean, RRT conducting a live inservice presentation.

## *NSSLHA Crash Course on Clinical Techniques and Professional Issues*

Friday, November 16th

9:30 a.m. – 10:15 a.m. & 10:30 a.m. – 12:00 p.m.

Students will learn practical tips and observe demonstrations of intervention techniques with the Passy-Muir® Valve.

## *NSSLHA Luncheon and Awards Ceremony*

Friday, November 16th, 12:00 - 1:15 p.m.

As an official sponsor of this luncheon, we will be announcing a new opportunity for graduate students to advance their education in the area of tracheostomy. The details of the David A. Muir Graduate Student Award, sponsored by Passy-Muir, Inc. will be provided.



## *Program Offerings*

The following presentations in the Convention Program are sponsored by Passy-Muir, Inc.:

- #1059** Breathing & Swallowing: Translating Research into Clinical Practice
- #1145** Managing Dysphagia in the Tracheostomized Head & Neck Cancer Patient
- #1481** Application of Passy-Muir Swallowing & Speaking Valve: A Team Approach
- #1484** Developing a Speaking Valve Protocol in the NICU
- #1532** Passy-Muir Valve: Keeping It On & Therapeutic Steps to Follow



## Cooperation for Student Education

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

### During the 2010-2011 school year,

Cindy Harrington, MS, CCC-SLP, a speech-language pathologist working at Baucom Elementary School in Apex, North Carolina wanted to provide education to the first grade about their classmate, Kennedy, a student with a tracheostomy and a Passy-Muir® Valve. Ms. Harrington used her creativity and collaborated with students, parents, and other teachers to teach the children about tracheostomy.

The students in Kennedy's class took turns taking home a backpack containing Toby Tracheasaurus™, the Tammy and Toby Tracheasaurus™ Coloring Book and a story Ms. Harrington wrote about different ways to breath. After a week, the children returned the backpack to school with a drawn or written reflection about what they learned. These reflections were compiled by Ms. Harrington into a special book called "Time with Toby" that was kept in the class book-nook and then given to Kennedy at the end of the school year. Ms. Harrington told us that this project received such great feedback from the first grade teachers and students that she adapted it to use with the second graders the next year.



Kennedy with her classmates reading a special book designed by her teacher about tracheostomy.



*"This project helped educate a class full of curious first graders about tracheostomy tubes and that led to a wonderful year for all!"*

Cindy Harrington, MS, CCC-SLP



Cindy Harrington, MS, CCC-SLP with her student, Kennedy holding the backpack with Toby Tracheasaurus.

**Visit our new THERAPY IDEAS webpage for more details about the Toby take-home backpack and to download free instructions for this and other great therapy ideas.**

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





## The Passy-Muir Team

By Mike Harrell, RRT, Director of Clinical Education-Respiratory, Passy-Muir, Inc.

The Passy-Muir® Tracheostomy & Ventilator Swallowing and Speaking Valves were invented by David Muir. He was twenty-three years old and a quadriplegic when he had a respiratory arrest that left him ventilator dependent and unable to speak. Although medically frail, David had courage, determination, genius, and a spirit that led him to design a one-way speaking valve for his own communication needs. David also had commitment and motivation to share his valve with other tracheostomized and ventilator dependent patients. His valves have given the gift of communication to millions of tracheostomized and ventilator dependent patients throughout the world.



Although David died in 1990 and his presence is missed in the company of Passy-Muir, Inc., his inspiration continues. The Passy-Muir employees remain committed to sharing David's vision and work closely as a team every day to make David's dream a reality.

The Passy-Muir team not only makes production and distribution of the Passy-Muir® Valve possible, but also provides quality clinical support and education, a hallmark of the company.



Members of the Passy-Muir team at the 2011 ASHA Convention  
(Left to Right) Andrea Manella; Joyce Andersson; Kristin Dolan, MS, CCC-SLP; Julie Kobak, MA, CCC-SLP; Katy Peck, MA, CCC-SLP; Gail Sudderth, RRT; Linda Dean, RRT; Ryan Williams.

## Passy-Muir Inc.

### Upcoming Events

**American College of Chest Physicians  
2012 Convention - Exhibit**  
October 20-25, 2012  
Atlanta, GA

**American Association for Respiratory Care  
2012 Congress - Exhibit**  
November 10-13, 2012  
New Orleans, LA

**Booth # 322**

**Kindred Healthcare Clinical Impact  
Symposium - Exhibit**  
November 12-15, 2012  
Louisville, KY

**American Speech-Language  
and Hearing Association  
2012 Convention - Exhibit**  
November 15-17, 2012  
Atlanta, GA

**Booth #918**

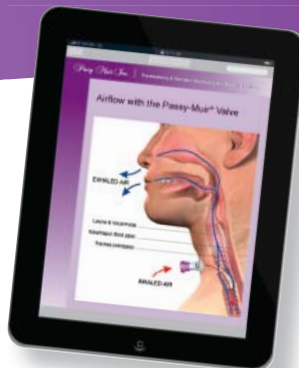
**Ohio Speech, Language & Hearing  
Association - Presentation**  
March 14-16, 2013  
Columbus, OH

**Pennsylvania Speech-Language  
Hearing Association - Presentation**  
April 3-6, 2013  
Harrisburg, PA

**Nevada Society for Respiratory Care  
Presentation**  
April 23-24, 2013  
Las Vegas, NE



*Passy-Muir Inc.*  
Tracheostomy & Ventilator  
Swallowing and Speaking Valves



**24 FREE** web-based self-study courses available on demand at  
**[www.passy-muir.com/ceu](http://www.passy-muir.com/ceu)**

To schedule a live group webinar, call us at **949.833.8255**

## **Specialized Webinars covering these topics:**

### **Getting Started**

- Aerodigestive and Respiratory Changes Post Tracheostomy: A Comprehensive Review
- Inter-disciplinary Tracheostomy Team: Where Do I Start?
- Application of Passy-Muir® Swallowing and Speaking Valves
- Tracheostomy: Procedures, Timing and Tubes
- Passy-Muir® Valve FAQ Challenge

### **Ventilator Application**

- Ventilator Basics for the Non-Respiratory Therapist
- Ventilator Application of the Passy-Muir® Valve
- Interdisciplinary Decision Making with Patients Requiring Tracheostomy and Mechanical Ventilation

### **Swallowing**

- Early Intervention for the Ventilated ICU Patient: Use It or Lose It!
- Swallowing Safely: How You Breathe Matters
- Swallow Function: Passy-Muir® Valve Use for Evaluation & Rehabilitation
- Swallowing Management of the Tracheostomized Adult Patient - Case Presentations

### **Pediatric**

- Baby Trachs: Passy-Muir Valve in the NICU to Optimize Swallowing and Feeding
- Developing a Passy-Muir Valve Protocol in the NICU
- Pediatric Tracheostomy and Use of the Passy-Muir® Valve
- Pediatric Ventilator Application of the Passy-Muir® Valve
- Swallowing Management of the Tracheostomized Pediatric Patient - Case Presentations

### **Special Populations**

- Passy-Muir® Valve Use with the Head and Neck Cancer Population
- The Role of the Passy-Muir® Valve in the Pulmonary Management of the Patient with a Spinal Cord Injury

### **Special Focus**

- Passy-Muir® Valve: Keeping It On and Therapeutic Steps to Follow
- Yes You Can! Cardiopulmonary Rehabilitation for the Tracheostomy and Ventilator Patient
- Percutaneous Tracheostomy Program and Patient Outcomes
- Passy-Muir® Valve in the Patient Care Plan: A Manager's Perspective
- There's More to Life than Breathing



Approved by California Board of Nursing



*Passy-Muir Inc.*

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