

BECAUSE YOU NEED TO...

TALK MUIR

Passy-Muir® News, Events and Education

Passy-Muir, Inc. | Summer 2013



Interprofessional Interaction:
Respiratory therapists from
Gaylord Specialty Healthcare
visit Madonna Rehabilitation Hospital

Interprofessional Education & Practice Issue:

University of South Alabama
Gaylord Specialty Hospital
Centers of Excellence Team Up

Bayada Home Health Care
Featured Clinical Expert: Nicole Riley
New Webinars

Passy-Muir Inc.



IPE - Addressing the Evolving Healthcare Landscape

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

Everywhere I turn these days, I see and hear the word “interprofessional,” especially in the worlds of healthcare and medicine. It appears that the Patient Protection and Affordable Care Act (ACA) passed by Congress in 2010 is a driving force behind this new trend. The ACA allows more people to be insured while at the same time changing how healthcare is paid for with new reimbursement models and financial incentives. These payment changes are in turn spurring changes in how care is organized. ACA is demanding better coordination between different health care settings and providers. Interprofessional team-based care is a key feature of the new delivery models being created.



As we all try to adjust to the rapid changes in health-care reform, it will be critical that employers as well as academic institutions training professionals who work with tracheostomy and ventilator patients provide opportunities to engage in interprofessional education (IPE). Colleges and universities are embracing an IPE model, including the teaching of team-based care along with the standard curriculum to better prepare the emerging health care workforce.

In September 2012, the Health Resources and Services Administration (HRSA) of the US government announced the selection of the University of Minnesota Academic Health Center to lead a new coordinating center to provide national leadership in the field of IPE and collaborative practice among health professionals. According to HRSA Administrator Mary K. Wakefield, Ph.D., R.N., “Health care delivered by well-functioning coordinated teams leads to better patient and family outcomes, more efficient health care services, and higher levels of satisfaction among health care providers. This coordinating center will help us move forward to achieve that goal.”



For a long time, it has been recognized by clinicians who are involved in the care of tracheostomy and ventilator patients that interprofessional team work is critical. Most recently, there has been a significant amount of evidence published about the improved facility and patient outcomes from an interdisciplinary team approach. Speed and Harding

(2012), systematically reviewed the literature and found that implementation of multidisciplinary tracheostomy team resulted in increased use of Passy-Muir® Valve as well as early decannulation, decreased length of stay, improved patient outcomes, and significantly reduced costs associated with tracheostomy care.



**Health Care
Reform**

There has been a significant amount of evidence published recently about the improved facility and patient outcomes from an interdisciplinary team approach.

(Speed and Harding, 2012)



PMV® 2001
(Purple Color™)

Studies have shown that the implementation of an interprofessional tracheostomy team and application of the Passy-Muir® Valve can result in early decannulation, decreased length of stay, improved patient outcomes, and significantly reduced costs associated with tracheostomy care.

The new coordinating center will receive \$12 million from HRSA grants and national foundations over five years to promote expertise in IPE and collaborative practice with the goal to accelerate transformation of health care in the U.S. by creating a bridge between higher education and the rapidly transforming U.S. health care system.

In this issue of Talk Muir we highlight the many ways that IPE related to tracheostomy and the Passy-Muir Valve is being adopted in the continuum of education and clinical settings. From the university to the workplace, interprofessional education is critical to enhancing the quality and effectiveness of healthcare for tracheostomized and ventilator patients.

References:

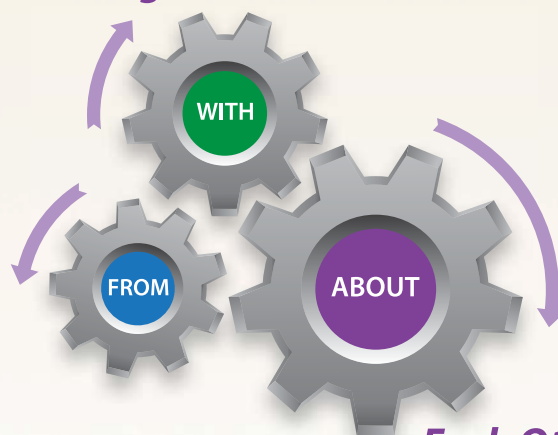
- <http://www.hrsa.gov/grants/apply/assistance/interprofessional/>
- <http://www.hrsa.gov/about/news/pressreleases/120914interprofessional.html>
- <http://www.health.umn.edu/healthtalk/2012/09/18/u-of-m-becomes-nations-sole-coordinating-center-for-interprofessional-education-and-collaborative-practice/>
- <http://macyfoundation.org/news/entry/frederick-chen>



“Interprofessional education

occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes. Once students understand how to work interprofessionally, they are ready to enter the workplace as a member of the collaborative practice team. This is a key step in moving health systems from fragmentation to a position of strength.”

Learning



Each Other

Source: World Health Organization (2010)



IPE within the University... Focus on the University of South Alabama

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



Historically, speech language pathologists, respiratory care practitioners, and nurses each receive education and training in their respective academic and clinical programs while rarely having the opportunity to interact with each other. However, evidence has shown that collaboration among these disciplines is essential for optimized patient care, particularly for management of tracheostomy patients who need Passy-Muir® Valves.

The faculty of the University of South Alabama recognized the need for their students to learn how to work together and gain hands-on experience with tracheostomy care and Passy-Muir Valve placement. Professors from the programs for speech-language pathology, respiratory care and nursing joined forces and obtained funding to develop an interprofessional tracheostomy curriculum.

Through a USA Health Sciences Interprofessional Education grant, students in the three programs participate in hands-on training in a simulation environment. The training curriculum has multiple objectives including:

- ★ increasing knowledge of the clinical indications and benefits of Passy-Muir Valves
- ★ understanding the roles of each discipline involved and how to work as a team
- ★ performing appropriate clinical skills for assessment and application

Prior to engaging in the simulation training, students receive coursework regarding the basic principles of tracheostomy care. They complete the Passy-Muir® on-line self-study course, *"Application of Passy-Muir® Swallowing and Speaking Valves,"* and have classroom lectures to learn about the types of tracheostomy tubes, the physiologic complications of tracheostomy, the clinical benefits of the Passy-Muir Valve, and the guidelines to assessment and placement.

Students then participate in hands-on training in a realistic acute care environment with a high-fidelity simulator as the patient and a staff member role-playing a patient family member. Small teams comprised of students from each discipline, work together in interactive scenarios to practice clinical skills such as suctioning, cuff inflation and deflation, airway assessment, application



University of South Alabama students engage in an interprofessional simulation training session for Passy-Muir® Valve assessment and Application. (L to R) Justin, Speech Language Pathology Student; iStan, High Fidelity Human Patient Simulator; Russ, Standardized Patient Actor portraying family member; Munyra, Cardiorespiratory Care Student.

of the Passy-Muir Valve and patient evaluation and monitoring. The students must work together to determine roles and responsibilities of each member as they carry out tasks, enhancing teamwork and collaboration.

The instructors of the program will soon be publishing data regarding the effectiveness of the experience in terms of student learning objectives and student impressions. Dr. Estis will be presenting this work at this year's American Speech and Hearing (ASHA) Convention in Chicago. She shared with us some of her initial impressions regarding the success of this new curriculum. First of all, students become immersed in the simulation, treating the patient and family member as they would in real-life contexts. This fosters the development of good patient care and patient/family education practices. Secondly, when students successfully place the Passy-Muir Valve, the whole team experiences the satisfaction and joy of knowing that their patient will have access to communication and a multitude of other clinical benefits leading to improved quality of life. And finally, the students develop an appreciation and respect for the other team members and an increased ability to communicate and support one another's roles.



Based on its success, the university now has plans to conduct this interprofessional simulation curriculum for the next academic year. We thank Julie Estis, Ph.D., CCC-SLP, from the University of South Alabama for her contributions to this article. Dr. Estis is an Associate Professor and Graduate Coordinator of Speech Language Pathology and can be contacted at:

jestis@southalabama.edu.

We also acknowledge the other faculty involved in this project: Alison Rudd, RN, MSN, Bill Pruitt, RRT, CPFT, AE-C, and Theresa Wright, RN, CCRC, DNP.



*Join Dr. Estis
at the 2013
ASHA Convention
to hear her present!*

Title:

*Interprofessional Education with
Human Patient Simulation:
Training Optimal Care for
Tracheostomy Patients with
Passy-Muir Valves*

Session Number: 1132

Topic Area:

Academic and Clinical Education:
General Academic Education

**Thursday, November 14, 2013
4:30 PM – 5:30 PM**



Interprofessional Education Collaborative
Connecting health professions for better care

Interprofessional Education Collaborative (IPEC)

In 2009, six national education associations of schools of the health professions formed a collaborative to promote and encourage efforts that would advance interprofessional learning experiences to help prepare future clinicians for team-based care of patients.

<https://ipeccollaborative.org>

In 2011, the IPEC generated core competencies that facilitate interprofessional collaboration in the classroom, clinic, and community. These include:

1. Values/Ethics for Interprofessional Practice

Work with individuals of other professions to maintain a climate of mutual respect and shared values.

2. Roles/Responsibilities

Use the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served.

3. Interprofessional Communication

Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease.

4. Teams and Teamwork

Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-centered care that is safe, timely, efficient, effective, and equitable.

The full report on IEP competencies can be found at
<http://www.aacn.nche.edu/education-resources/ipecreport.pdf>



IPE within the Facility...

Featured Passy-Muir Center of Excellence: Gaylord Hospital

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



The Gaylord Specialty Healthcare Team. Front row (L To R): Martha Menseli RD; Dr. Peter Rogol MD Pulmonologist; Tammy Maher RT; Maureen Sullivan RPh; Back row: Karen Miraldi, RT; Lorraine Cullen, RT Supervisor; Senada Duracek RN and RT; Cheryl Tansley, SLP; Sarah Ferraro PT; Sue Paxton RN; Jarret Assael RT; Karen Gamble, RN, Case Manager

Gaylord Specialty Healthcare in Wallingford, Connecticut, was founded in 1902 to provide long-term treatment for tuberculosis patients. Once TB was eradicated, Gaylord turned its expertise to other forms of rehabilitation beginning with chronic pulmonary disorders, then stroke, brain injury and spinal cord injury. Over the years, the hospital's programs have grown and Gaylord has established itself as a premier long-term acute care hospital.

When evaluating their pulmonary program in 2012, Peggy Bartram, Director of Respiratory Therapy, and Kristine Provost, the Rehabilitation Director, recognized the need to improve the weaning and decannulation outcomes for their tracheostomy and ventilator patients. They knew that they would have to incorporate the Passy-Muir® Tracheostomy and Ventilator Swallowing and Speaking Valve more comprehensively into their program in order to achieve that goal. Therefore, they reached out to the Passy-Muir Clinical Specialists to assist them with facility-

wide education to increase teamwork and collaboration as well as competencies with valve use, especially ventilator application.

In early 2013, the clinicians at Gaylord engaged in an intense interprofessional education (IPE) and training plan that started with the completion of live Passy-Muir webinars by all respiratory therapists (RT) and speech-language pathology (SLP) staff. The teams of RTs and SLPs then took this education to the bedside and completed ventilator application competency check-offs. In order to address any advanced questions and issues regarding their improved protocols and practices, Gaylord clinicians received an on-site visit by our Clinical Specialist to provide IPE and consultation on the patient units. It was also recommended that Gaylord clinicians visit one of the other Passy-Muir Centers of Excellence as an additional source of knowledge and guidance for Passy-Muir Valve use (see story page 8).



Gaylord Specialty Healthcare

Care beyond the ordinary.

Bartman and Provost have evaluated their quality improvement efforts and are happy to report many positive results. First of all, the clinicians truly understand the value of interprofessional collaboration and consistently use a team approach for assessment and application of the valve. The clinical staff has greater confidence and now feel empowered to provide such advanced care to their patients.

Gaylord tracks many patient outcomes and Bartram is already seeing positive trends in tracheostomy and ventilator outcomes. Comparing fiscal year 2012 to 2013 (to date), she reported the following:

- Ventilator Association Pneumonia Rates have decreased from 4.1 to 2.0
- Weaning rates have increased from 64% to 70%
- Decannulation rates have increased from 50% to 80%



Gaylord therapists Ryan Wanat, RRT and Kristine Provost, MS, CCC-SLP connect a PMV® 007 in the ventilator circuit of patient Glen.

The Passy-Muir clinical team is excited to feature Gaylord Specialty Healthcare as a Passy-Muir Center of Excellence. We commend this team's passion and determination to facilitate change, and we recognize Gaylord as an outstanding model of interprofessional collaboration for hospital-wide education and advancement in healthcare practices.

Time is Running Out! Apply Now!



David A. Muir
GRADUATE STUDENT

Award

SPONSORED BY PASSY-MUIR, INC.

2013 David A. Muir Graduate Student Award

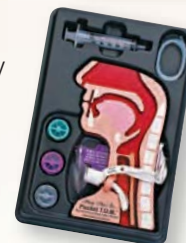
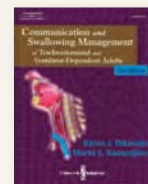
A Case Study Presentation related to the utilization of the Passy-Muir® Valve in the assessment and treatment of dysphagia and/or communication.

The recipient will be announced and recognized at the November 2013 American Speech-Language-Hearing Association (ASHA) Convention in Chicago IL.

AWARD

Award includes the following:

- ★ **Travel assistance** to the 2013 ASHA Convention in Chicago, IL to receive award
- ★ **\$200 donation** to the NSSLHA scholarship fund in honor of the award recipient
- ★ **\$1500.00**
- ★ **Text book:** *Communication and Swallowing Management of the Tracheostomized and Ventilator Dependent Adult*, Karen J. Dikeman and Marta S. Kazandjian
- ★ **Pocket T.O.M.™** Tracheostomy Anatomical Model used for bedside education



Details and application can be found at:
www.passy-muir.com/david_award



IPE between Hospitals... Centers of Excellence Team Up!

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

As the team of Gaylord Specialty Healthcare developed a plan to improve their weaning and decannulation outcomes and advance their program through IPE (see story page 6), it was suggested by the Clinical Specialists at Passy-Muir, Inc. that clinicians from Gaylord visit Madonna Rehabilitation Hospital in Lincoln, Nebraska. Madonna Rehabilitation Hospital was the first facility recognized by Passy-Muir, Inc. as a Center of Excellence (see Fall 2010 issue of Talk Muir), for their team's exceptional approach to the care of tracheostomy and ventilator patients and use of the Passy-Muir® Valve. To have professionals from two long term care and rehabilitation facilities with the same goals meet and exchange ideas is the ultimate model for interprofessional education and practice.

Peggy Bartram, Director of Respiratory Care at Gaylord, approached her administration with this idea and received support, through an educational grant, for her department to send four respiratory therapists (RT) to Madonna for two days of observation and learning. Rebecca Wills, Pulmonary Program Manager at Madonna, was excited about the visit and arranged a tour of the facility, visits with the speech pathology department, and observation and participation in patient care on the units and in the therapy gym.

Lorraine Cullen, Respiratory Supervisor from Gaylord and one of the therapists that made the trip, reported that everyone at Madonna was open to sharing information with them and they admired the "wonderful collaboration of the team at Madonna". She commented that her staff repeatedly said, "I can't believe how much we learned while we were at Madonna." They came back to Gaylord with excitement and eagerness to incorporate change at their own hospital. They immediately went to their speech-language pathologists (SLPs) and told them what they observed in speech therapy at Madonna. Cheryl Tansley, an SLP from Gaylord, has already called Cheryl Wagoner, an SLP at Madonna, and will be incorporating some of what was learned about respiratory and speech collaboration at Gaylord.



Respiratory therapists from Gaylord Hospital visit Madonna Rehabilitation Hospital. (L to R) Richard MacGillivray, CRT, Gaylord; Rebecca Wills, MA, BA, LRCP, CRT-NPS, Pulmonary Program Manager, Madonna; Keisha Johnson-Drysdale, RRT, Gaylord; Lorraine Cullen, BS, RRT, Respiratory Supervisor, Gaylord; and Tammy Maher, CRT, Gaylord.

The Gaylord RTs also approached their medical director with what they learned regarding in-line Passy-Muir® Valve use. Gaylord's current policy states that patients must be observed by an RT or SLP during in-line valve use. Cullen stated, "We wanted to change that and utilize the approach Madonna takes." The medical director was willing to listen to us and allowed us to trial this approach on a newly admitted patient. Because this approach worked, Cullen anticipates changing their policy to allow the valve to remain in-line as long as tolerated.

*To have professionals from two long term
care and rehabilitation facilities with the
same goals meet and exchange ideas
is the ultimate model for
interprofessional education and practice.*



 **Gaylord Specialty Healthcare**
Care beyond the ordinary.



The Gaylord team engages in a physical therapy session at Madonna Rehabilitation Hospital to learn more about the interdisciplinary approach to tracheostomy care and the role of the Passy-Muir Valve for early ambulation. (L to R) Richard MacGillivray, CRT; Melissa Starr, PT, DPT, CCS; patient Pat; Lorraine Cullen, BS, RRT; Keisha Johnson-Drysdale, RRT; and Tammy Maher, CRT.

The Gaylord therapists were also impressed by the autonomy of the RT staff at Madonna. Gaylord is working on incorporating weaning protocols and respiratory outcome measurement tools based on information Madonna shared with them. They have met as a group to recap their visit and make a prioritization list of all the information they learned and would like to incorporate into their practice. They have plans to expand their patient education offerings based on what they observed at Madonna. They are also working with their development department regarding some of the hospital initiatives from Madonna that would also benefit Gaylord. Ms. Cullen said, "We have learned so much and truly feel it has invigorated our practice here at Gaylord."

Gaylord therapists were not the only ones who benefited from this mutual collaboration and interprofessional education. Rebecca Wills stated that she and her staff learned a lot too, specifically Gaylord's practices regarding the use of VapoTherm high flow therapy with the Passy-Muir Valve. According to Wills, the use of VapoTherm is already a part of Madonna's ventilator weaning protocol, but she is now advocating for an exclusive use of this system instead of using trach collars for the benefit of infection prevention. Wills has scheduled an inservice on VapoTherm in July and is in discussion with the Infection Prevention Director about doing a case study. Wills commented, "I can't wait to collaborate with Gaylord on an ongoing basis. They have a talented, enthusiastic team and it was exciting to see them in action!"



Simulation Labs Promote Confidence and Competence in Nurses and Family Members

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

Clinical simulation has gained tremendous momentum over the past decade in medical teaching programs and has been found to be a powerful and cost effective method of reinforcing clinical knowledge, improving team communication and teaching decision making skills. The Passy-Muir Clinical Specialists have been using simulation mannequins for many years to educate and train professionals from multiple disciplines on the proper assessment and application principles of the Passy-Muir® Valve. We are excited to learn about BAYADA, a home health care company that has incorporated the Passy-Muir Valve into a simulation training program for their extensive healthcare professional team.

For almost 40 years, BAYADA Home Health Care has provided nursing, rehabilitation, therapy, and assistance to children and adults in the comfort of their homes. BAYADA has more than 18,000 home health care professionals including nurses, therapists, aides, and medical social workers that work with patients across 25 states.



As a training exercise, a nurse practices suctioning technique on a pediatric simulation mannequin that is connected to a home care ventilator at the Bayada Home Health Care Simulation Lab.

BAYADA has always recognized the importance of including education regarding the Passy-Muir Valve in their employee training. They observed the many devastating consequences of tracheostomized patients losing the ability to communicate, including increased risks for patient safety in the home, a significant decrease in patient independence and quality of life, and an increased burden on patient-caregiver relationships.

According to Heather Kuzara, RN, Director of the BAYADA North Carolina Simulation Lab, the benefits and instructions for using a Passy-Muir Valve were traditionally done using verbal lectures, videos and simple handling of the valve. In order to avoid the potential serious complications of improper valve use, BAYADA knew they needed to prepare their nurses more and developed simulation labs as part of the company's education and training programs. These labs are equipped with lifelike simulator mannequins and computer software to offer the clinical team as well family members realistic client scenarios during hands on training.

Through specially designed simulation activities, BAYADA provides training on assessment and application of the Passy-Muir® Valve. The simulator mannequins act as patients in the lab and present with symptoms which prompt an assessment and intervention by the clinician. Examples of symptoms that are simulated include cyanosis, coughing, realistic lung and heart sounds, airway occlusion, and respiratory distress. Nurses and family members practice skills needed for evaluation and application of the Passy-Muir Valve including listening to breath sounds, deflating the cuff, suctioning, placing the valve in the circuit and adjusting the ventilator appropriately. Other specialized tracheostomy skills such as tracheostomy changes and administration of breathing treatments are taught as well.

Kuzara is happy to report that the simulation is a great success for Passy-Muir Valve education. She said that everything she tells the trainees about the valve actually "clicks" when they get to practice with the mannequins, especially how to connect the valve in the circuit and adjust the ventilator. She knows that this training will increase patient safety and decrease complications in the home.



Cheryl Foote, RN (*left*) and Heather Kuzara, RN perform an assessment and placement of the Passy-Muir Valve on a simulation mannequin at the Bayada Home Health Care Simulation Lab.

From acute care to homecare, programs which incorporate simulation based training and interprofessional education could save the healthcare industry billions of dollars per year by improving the quality of patient care, reducing the number of complications, adverse events, and hospital readmissions. We hope that additional healthcare companies consider BAYADA as an exceptional model for training and education.

We would like to thank Heather Kuzara, RN, Director, North Carolina Simulation Lab (NCS) for her contributions to this article. For more information you can contact her at hkuzara@bayada.com or visit www.bayada.com.



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Upcoming Events

**Maryland DC Society for Respiratory Care
Conference by the Sea**
September 11 - 13, 2013
Ocean City, Maryland

**American Academy of Otolaryngology-Head
and Neck Surgery Annual Meeting**
September 29 - October 2, 2013
Vancouver, British Columbia

**Society of Otorhinolaryngology
and Head-Neck Nurses
37th Annual Congress & Nursing Symposium**
September 27 - October 1, 2013
Vancouver, British Columbia

**Intermountain Area Speech and Hearing
Convention (IMASH)**
October 3 - 5, 2013
Denver, Colorado

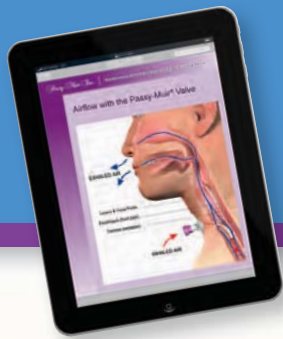
**Northern Speech Services
2013 Swallowing Conference**
October 11 - 13, 2013
Charleston, South Carolina

**Iowa Speech Language Hearing Association
2013 ISHA Convention**
October 10 - 11, 2013
Des Moines, Iowa

**American College of Chest Physicians
2013 CHEST Conference**
October 26 - 31, 2013
Chicago, Illinois

**American Speech-Language and Hearing Association
2013 Convention**
November 14 - 16, 2013
Chicago, Illinois

**American Association for Respiratory Care
2013 Annual Congress**
November 16 - 19, 2013
Anaheim, California



Featured Clinical Expert: Nicole Riley, MS, CCC-SLP

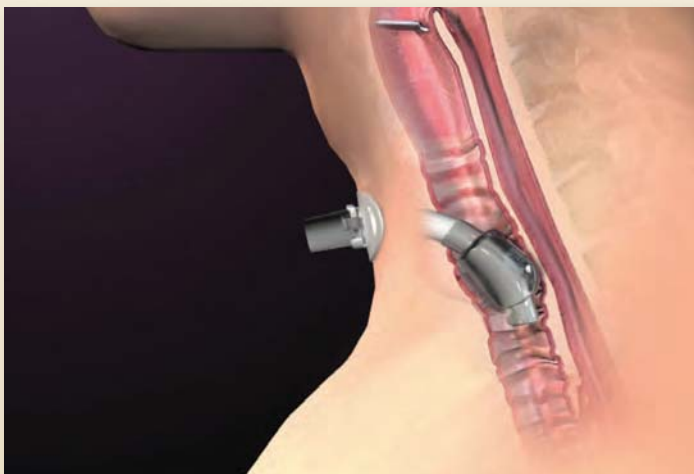


In April, Nicole Riley, MS CCC-SLP joined Passy-Muir, Inc. as the Director of Clinical Education. She was previously the Director of Speech- Language Pathology at Barlow Respiratory Hospital and Research Center in Los Angeles, CA. Barlow is a long-term acute care facility that specializes in ventilator weaning and medically complex patients. We interviewed Nicole in this issue of *Talk Muir* because she was instrumental in the interprofessional education at Barlow which led to the development and implementation of new Passy-Muir protocols. Nicole provides first-hand advice on how she created her team, overcame barriers, and made Barlow a Passy-Muir Center of Excellence.

Tell us about Barlow and why you made the Passy-Muir® Valve a standard of practice.

At Barlow Respiratory Hospital I worked daily with tracheostomy and ventilator-dependent patients. These patients had cuffed tracheostomy tubes, so limited airflow was bypassing the vocal folds, rendering these patients aphonic.

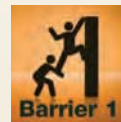
Many of these patients' needs were being ignored since they were unable to communicate effectively. Research shows that patients with communication problems are at an increased risk of experiencing preventable adverse events¹.



Cuffed tracheostomy tube with inflated cuff

These patients were also at high risk of aspiration due to their medical conditions and effects of physiologic changes in swallow due to cuffed tracheostomy tubes. Elpern and colleagues² found that 50% of medically stable vent-dependent patients aspirated and that 77% of these aspirations were "silent," which means that no signs of aspiration were present. Therefore, at my facility, swallow assessment and decision-making was crucial for patient safety and preventing ventilator-associated pneumonia. I created a hospital performance improvement initiative to develop a protocol to evaluate all tracheostomy and vent-dependent patients for the Passy-Muir Valve.

What were some of the barriers to developing a Passy-Muir Valve protocol and how did you overcome those barriers?



Some of the respiratory therapists (RT) and physicians were skeptical at first and were especially resistant to Passy-Muir® Valve use in-line with mechanical ventilation. They did not want to deflate cuffs of the tracheostomy tube as they believed that the cuff prevented aspiration. The first step to overcoming this barrier was education. I contacted Passy-Muir, Inc for research articles related to the effects of the cuff on swallow as well as the benefits of cuff deflation and placement of the Passy-Muir Valve. The Clinical Specialist told me where I could find these abstracts on their website (www.passy-muir.com/research). I reviewed the literature and shared the significant evidence with my respiratory and medical colleagues regarding the reasons aspiration risk increases with inflated cuffs, and how swallowing improves with cuff deflation and the restoration of a more normal physiology with the Passy-Muir Valve. I pointed to the most current literature that also shows cuff deflation shortens weaning time and reduces respiratory infections³.





The interdisciplinary tracheostomy team at Barlow Respiratory Hospital. (Left to Right) Bong Unito, PT; Steve Pritchett, RT, Assistant Director; Nicole Riley MS, CCC-SLP, former SLP Coordinator; Hao Chen, RT, Clinical Director; Scott Sasse, Pulmonary MD; Amy Yip, OT.



Other RTs and physicians wanted to wait until patients were weaned from the ventilator to start using the valve. They were not aware of the additional pulmonary benefits that the valve provided. I needed a few key members of my team at Barlow to understand that the Passy-Muir® Valve has advantages in addition to speech and swallowing, including reducing secretions, restoring physiologic PEEP, improving decannulation time, and improving weaning outcomes with resultant cost savings. I first approached the Clinical Director of Respiratory Therapy, Hao Chen, as it was critical to have him understand the benefits of the valve from a pulmonary perspective. He was very receptive to the information. Once I had his support, the two of us approached the pulmonologists and administrators to effect further change.



The next significant barrier to overcome was the physician's perception that the patients were "too sick" or that the patients would have increased work of breathing with the valve in place. Hao and I educated the physician on the process of placing the valve, and we reassured him that we would be in the room monitoring the patient closely. We convinced the physician that we should trial the valve with a mechanically ventilated patient who was an ideal candidate. The patient was awake, alert, attempting to communicate, and on low levels of ventilator support. The placement was a success and the physician saw first-hand the dramatic improvements that the Passy-Muir Valve made for this patient. As we went on to use the valve with more complicated patients, the physicians gained confidence in our approach. Additionally, the patients' positive reports that the valve improved their breathing, was pivotal in continued use of the valve in-line with mechanical ventilation.

Every tracheostomy and ventilator patient at Barlow is now assessed within 72 hours of admission for the opportunity to use the Passy-Muir Valve.



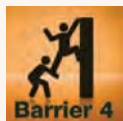
PMV® 007
(Aqua Color™)



Barlow Respiratory
HOSPITAL
Helping You Breathe Easier



Barlow Respiratory Hospital & Research Center *(continued)*



In order to implement Passy-Muir® Valve use throughout the hospital, I had to overcome the barrier of inconsistency with ventilator changes. Passy-Muir, Inc, played a vital role in the education of the staff at Barlow in regards to the most appropriate ventilator adjustments to make with our patients and our particular brand of ventilator. Passy-Muir Clinical Specialists provided webinars and live education and training to demonstrate valve placement and ventilator changes using the PB840 ventilator. They helped us with placing valves on real patients at the bedside and provided troubleshooting and transitioning advice. A protocol for the Passy-Muir Valve in-line with mechanical ventilation was then developed to maintain consistency in assessment and application practices among respiratory therapists and the rest of the team. This protocol can be viewed at <http://passy-muir.com/policiesandprocedures>. As part of this protocol, all respiratory therapists are required to demonstrate valve use proficiency through a yearly competency.

What are some of Barlow's successful outcomes as a result of the protocol?

After implementation of the Passy-Muir Valve protocol, improved hospital outcomes include a reduction in time to decannulation and a reduction in restraint use as a result of patients being less anxious and able to communicate their needs.

There were many individual success stories as well. One patient was a 52-year old female with pulmonary fibrosis who had been ventilator dependent for two months and never attempted a Passy-Muir Valve prior to coming to Barlow. At first we attempted to wean her by changing the mode of ventilation from AC to SIMV 10 PS 20. The patient was unable to tolerate this type of change or any reduction in pressure support and her respiratory rate would climb into the 40's. Although weaning was not progressing, according to our protocol, the lead RT and I determined she was an appropriate candidate for the Passy-Muir Valve. On the first trial, she could only tolerate the valve for a couple of minutes. However, by the third day, she was tolerating the valve for over an hour.

Only when she was using the valve were we able to make strides in weaning and lower her pressure support. Her respiratory rate was more stable and synchronized with valve placement. The patient also verbalized that her breathing was more comfortable with the valve on. Soon, the RTs were able to take her off the ventilator for trials of the valve and high flow oxygen via nasal cannula. She was decannulated within ten days.

Lisa was another success story. She was a 44-year old female who was diagnosed with HELLP Syndrome, a very rare combination of life-threatening symptoms that occur in pregnant women who experience the breakdown of red blood cells, elevated liver enzymes and a low platelet count. After her C-section she suffered a massive brain hemorrhage and went into a coma. At the acute care she was weaned from the ventilator and then transferred to Barlow, still with a tracheostomy. Per our protocol, within 72 hours of admission, we started Passy-Muir Valve trials. Initially, she was very low-functioning, only making eye contact with no attempt at speech. After a week of the valve and aggressive therapy, she started to verbalize.



Lisa, a patient from Barlow Respiratory Hospital, with her daughter. Lisa was successfully decannulated following use of her Passy-Muir® Valve.



Lisa does not recall her time at Barlow. However, her husband, Scott, who was by her side throughout her recovery, remembers the Passy-Muir Valve well. *"I'm incredibly grateful for the valve, even more grateful after reading your article and learning all the physiological benefits of it that were invisible to me at the time. The experience of hearing Lisa's voice for the first time in over a month is one that I'll never forget and restoring her ability to speak was a huge help to her recovery."* Lisa started walking, eating regular foods and was decannulated before discharge from Barlow.

To learn more, look for our new webinar

***"Overcoming Barriers for Speaking Valve Use:
Success Through Teamwork"***



Contact Nicole Riley at nriley@passy-muir.com for assistance with Passy-Muir Valve Protocol or Tracheostomy Team development at your facility.

To learn more about Barlow Respiratory Hospital and the other Centers of Excellence, visit:

www.passy-muir.com/coe

References:

1. Bartlett, G., et al. (2008). Impact of patient communication problems on the risk of preventable adverse events in acute care settings. *CMAJ*, 178(12):1555-62.
2. Elpern, E., et al. (1994). Pulmonary Aspiration in Mechanically Ventilated Patients with Tracheostomies. *Chest*, 105:583-586.
3. Gonzalo, H., et al. (2013). The effects of increasing effective airway diameter on weaning from mechanical ventilation in tracheostomized patients: a randomized controlled trial. *Intensive Care Medicine*, June;39(6):1063-70.

August Webinars

End-of-Life Care and Patient Communication in Critical Care Settings

Monday, August 19th, 2013, 3:00 p.m. EST

Presenters:

Mary Beth Happ, PhD, RN, FAAN,
Distinguished Professor of Critical Care Research
Director, Center of Excellence in Critical and
Complex Care, The Ohio State University
College of Nursing

Mary Spremulli, MA, CCC-SLP,
Passy-Muir Clinical Consultant,
Founder of Voice Aerobics, LLC.

Communication and Swallowing Management for ALS Patients with Tracheostomy

Wednesday, August 28th, 2013, 3:00 p.m. EST

Presenter:

Nicole Riley, MS CCC-SLP,
Director of Clinical Education at Passy-Muir, Inc.

A Tribute to Jack

Jack Rushton

September 26, 1938 – December 25, 2012



Jack Rushton and his wife Jo Anne

The Passy-Muir® family received sad news six months ago that a beloved friend and patient, Jack Rushton, passed away unexpectedly at the age of 74. Jack was married for 48 years and was blessed with six children and twenty grandchildren. Jack was a religion teacher for high school and college students and an active leader in his church.

When Jack was 50 years old, he severed his spinal cord while body surfing at Laguna Beach, leaving him ventilator-dependent and paralyzed from the neck down. Working from his wheelchair and with the help of a computer dictation program, Jack authored two books and wrote hundreds of inspirational essays about life that he called Observations. Jack's insights were humorous and uplifting. In his book, *It's Good to Be Alive*, Jack described the first time he was introduced to the Passy-Muir® Valve shortly after his accident 24 years ago.

I could now speak on the exhale. "Jack is back," I said with great hope. Little did I comprehend at the time that the way was being paved for me to lead a functional and productive life while living on a ventilator.

Jack's life post-accident was more than just functional and productive. He continued to be an inspiration to thousands through his positive and determined life and through his efforts as a writer, speaker and teacher. Jack's entire life focused on his family, providing for them, teaching them and passing on his values to them.

Jack also generously shared his story with Passy-Muir, Inc. Pictures and videos of Jack have been featured in Passy-Muir publications and on our website. We were grateful when Jack provided his perspective as a patient and Passy-Muir Valve user in an educational webinar called *"There's More to Life than Breathing."*

Although we will miss Jack very much, we are honored to have had the opportunity to know him and be touched by his courageous and beautiful spirit.



The Rushton Family, Christmas 2012