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Grady Uckert
Bronchopulmonary Dysplasia
PMV® 2001 (Purple Color™) and PMA® 2000 Oxygen Adapter

Millions of Voices, ONE VALVE™
I am always inspired by both patients and clinicians when planning, writing, and editing every issue of the Talk Muir Newsletter. And, it is always fun to organize the content of the newsletters by a given theme. While putting this issue together, the title and theme quickly formulated as each featured article was developed. These stories are about some of the caregivers, clinicians and educators who are going above and beyond the norm to advance the care of tracheostomized and mechanically ventilated patients. From a single family’s journey, to the collaboration of clinicians across the continents, we hope you are inspired by those who are going the extra mile!

Julie Kobak, MA, CCC-SLP
Editor, Vice President of Clinical Education

Going the Extra Mile – One Family’s Journey

On the cover of the Fall 2011 issue of Talk Muir, we featured a beautiful and happy baby, named Grady, who was receiving care at one of our featured Passy Muir Centers of Excellence, Nationwide Hospital in Columbus, Ohio. I met Grady and interviewed his mom for that article when he was 16 months old. Grady had been born prematurely with Grade III and IV intraventricular hemorrhages and had a severe case of bronchopulmonary dysplasia (BPD). Since birth, he had been hospitalized and ventilator dependent in a hospital in South Dakota. After his first birthday, his parents transferred him to Nationwide Hospital because of its exceptional developmental and BPD ventilator weaning programs.

Grady was assessed early in his admission to Nationwide for a Passy-Muir® Valve, and despite the fact that Grady’s peak airway pressures ranged from 55 to 60 cm H₂O, the team was able to quickly advance him to the use of the PMV® 007 inline with his ventilator during all waking hours. The valve became an integral part of Grady’s intensive rehabilitation as the team worked on ventilator weaning and developmental speech, swallowing, and physical mobility.

I lost touch with Grady and his family, but often wondered how he was doing, especially when I would watch the video I took of him during my visit to Nationwide. Little did I know that I would soon discover Grady’s status and just how far one family would go to find the best treatment for their child. My discovery began when I was talking to Rebecca Wills, the Director of the Pulmonary Program, from Madonna Rehabilitation Hospital in Lincoln, Nebraska, another one of the Passy Muir Centers of Excellence.

Rebecca and I were talking about updating the web page devoted to their facility on Passy Muir’s website when she mentioned adding pictures of some of their pediatric success stories. She was particularly excited about a 4 year old boy named Grady. I quickly did the math considered the fact that Grady is not a common name, and said, “Grady? Do you mean Grady from South Dakota?” When she said “yes,” I just couldn’t believe it. How did Grady end up in Lincoln, Nebraska? I just had to know more! So I asked Rebecca to tell the family that I would love to interview them again and publish an update of his journey in the next edition of our newsletter.
Grady and his family.

“One of the most important principles of success is developing the habit of going the extra mile.”

Napoleon Hill

I had a lovely phone call with Grady’s mom and dad, Rich and Jess, one evening after they had both of their children tucked into bed. I was happy to hear that Grady now had a 20 month old sister named McKenna. Rich told me that Grady spent the first 31 months of his life in the hospital, 18 of those at Nationwide. Grady was 2½ years old when he finally went to his home in South Dakota. Because he still had his tracheostomy and was on a ventilator, he received home health nursing and therapy. It was one of his home health nurses who told them about another one of her patients, a child with a traumatic brain injury, who had received excellent care and rehabilitation at Madonna Rehabilitation.

Grady and his sister McKenna

Travels with Grady

Grady and his family.

Going the extra mile:
Grady and his family’s travels have covered over 5,433 miles.
Grady’s parents had not heard of Madonna but knew that he could still benefit from intensive high quality therapy. So, after contacting the hospital and discussing Grady’s status and possible future goals, the team at Madonna decided to admit Grady for a five week inpatient program. He worked very hard while he was there. To help him wean from the ventilator, Rebecca put the PMV® 2001 with the PMA® 2000 oxygen adapter on his trach during sprints away from the ventilator. According to Jess, the therapists fell in love with Grady’s “addictive smile.” The speech-language pathologists used the NTrainer System® to teach Grady to suck from a sippy cup and he started to eat 3-4 oz of Gogurt and other pureed food. Occupational therapists worked on fine motor skills and used special vision therapy technology. The physical therapists worked on walking by placing Grady in a special harness that supported him over the treadmill. The team taught Rich and Jess all of the therapy interventions so that they could continue them at home when Grady was discharged a few days before Thanksgiving 2013.
Grady’s next goal is decannulation. Jess has reported that using the Passy-Muir Valve throughout the day and night has helped Grady control his secretions to the point that they hardly have the need to suction. His night nurses report that Grady has slower and deeper breaths and increased oxygen saturations with the valve on. These are all positive signs for his parents and they are hopeful that the trach can be removed soon. Who knows what the next goal and next mile will be? Knowing Grady and his family, I would say the sky is the limit!
Clinical Expert Interview: The Global Tracheostomy Collaborative

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

A group of clinicians have travelled the world to bring together healthcare workers and caregivers from multiple continents in an impressive effort to elevate the care of persons with tracheostomy. We recently interviewed the leader of this effort.

How did the Global Tracheostomy Collaborative get started?

The first thing to understand is that I am not a trach expert – I am a QI expert. Work that a number of clinicians have done, including one project that I led on the American Academy of Otolaryngology QI committee, showed that, as we all know, trach patients are at high risk for serious or catastrophic adverse events and that, tragically, many of these events can be prevented. Meanwhile, over the last decade or so, a small number of forward-thinking hospitals have shown that through better systems, it is possible to reduce adverse events by 90% or more.

In the world of quality improvement, when there is a better way to do things, but it isn’t spreading rapidly, one potential solution is the Quality Improvement Collaborative. In a QIC, hospitals join together, learn from the experts, share knowledge, develop a community, but most importantly commit to change.

I invited a group of about 25 tracheostomy and QI experts from around the world to meet in Glasgow Scotland in July 2012. Together, we agreed that there was an opportunity to improve things, and we started the process that evolved into the Global Tracheostomy Collaborative (GTC). Our leadership team has members from Australia, Singapore, Sweden, the UK and the US, and from ICU medicine, Otolaryngology, Nursing, Pediatrics, Pulmonary, Speech-Language Pathology and a family member. You’ll notice I listed those alphabetically! No one discipline ‘owns’ tracheostomy care. One of my favorite sayings is “a tracheostomy is a piece of plastic that lives at the intersection of 10 disciplines.” Unless we all work together as peers we won’t succeed.
A tracheostomy is a piece of plastic that lives at the intersection of about 10 disciplines.

We spent the two years between 2012 and 2014 building the collaborative: incorporating, identifying the steps that lead to improved outcomes, creating a program for our member hospitals, organizing our kick-off meetings, and creating the database, among other things. In 2014 we went 'live.'

What happens at a kick-off meeting?

Hospitals that join a QI collaborative come together initially for an in-person meeting, hear from the experts, share experiences, start to create a sense of a community of improvement, and again, most importantly, make the commitment to change.

We hosted kick-off meetings in Boston in April 2014, London in July 2014, and Melbourne in October 2014. Over 500 individuals from over 120 hospitals attended in person, and over 1000 more attended via the web, representing every continent except Africa. One of the most moving moments was when Professor Stephen Hawking spoke about his experiences with a tracheostomy at the London kick-off meeting.

How many hospitals have joined?

To date, we have recruited 30 hospitals to join the GTC, and roughly another 70 are considering or in the process of joining. Our member hospitals include very prominent academic hospitals, small private hospitals, big private hospitals and represent the US, UK, Ireland, Sweden, Singapore and Australia. It’s an absolutely fantastic community of professionals dedicated to improving care for their patients.
The Global Tracheostomy Collaborative (continued)

What are the key drivers of improvement?
Looking at hospitals that have made huge improvements in care, three things stand out. Firstly, they have a multidisciplinary tracheostomy team (MDT), which meets and rounds all together at least once a week. You cannot achieve real coordinated care unless you round as a team regularly. Secondly, care is standardized for similar patients. Thirdly, these hospitals meticulously educate their staff so that if an emergency happens, the staff member at the bedside is always prepared to respond.

In addition to these three practices, the GTC recommends that member hospitals also do two additional things: engage patients and families, ideally on the hospital tracheostomy leadership team, and enter outcomes in the GTC database to track improvement.

Thus we have a total of five recommended ‘key drivers’: Multidisciplinary teams, standardization, education, family involvement and outcome tracking.

Do hospitals have to do all these things?
Of course not. Every hospital is different, and a hospital may be in a position to implement one of the key drivers right away but not another one. In fact, we urge hospitals to analyze their individual situation and craft a change plan that is right for them.

What do member hospitals need to do to join?
You must name a minimum of two ‘champions’, preferably more, to drive the process in your institution. You must also obtain leadership support at your hospital. Because we are an independent non-profit, we charge an annual fee of $5000. While not absolutely mandatory, we strongly encourage champions to attend a kick-off meeting, to join us in our every 6-8 week educational webinars, and to enter all new trach patients in our world-wide, HIPPA-compliant database.

Are hospitals finding this challenging, or encountering barriers?
In any big institution, change is hard for some. There will be individuals who get excited and jump on board, and others who may resist change. One of the great things about our community is that there are many other hospitals who can share their experiences and help you strategize if you hit resistance.

New Live Webinar
Global Tracheostomy Collaborative
Join us as we continue our discussion with Dr. Roberson about the collaborative and why and how you should get involved!

Coming Soon!
For more information, or to register, visit www.passy-muir.com

What is the database about?
The database enables you to enter data on individual patients and track your improvement. In time, as we accumulate a lot of data, you’ll be able to compare yourself to other hospitals. Of course, this will be anonymous as nobody will ever be able to identify your hospital, and you won’t be able to identify anyone else. But we’ll be able to give you a sense of how you are doing compared to similar hospitals. Of course, we’ll be comparing pediatric to pediatric, adult to adult, acute to acute and long-term to long-term, in terms of settings. We’ll also be building a risk-stratification model to take into account your individual patient population.

The database is designed to be practical to use. The minimum dataset, which basically tracks comorbidities and complications, takes only about 15 minutes per patient to enter. The expanded database, which will go live later this year, will give hospitals a lot of flexibility to track specific areas of interest. For example, if you’re really interested in tracking how the use of speaking valves affects outcomes, the expanded database will allow you to collect that data.
Of course, the database is fully HIPPA compliant and meets privacy standards not just in the US but worldwide. I should also stress that the data use agreement spells out that the data entered remains the property of the hospital that enters it. Member hospitals are always free to download their own data, analyze it in any way they wish, and, if they desire, publish their findings.

How successful has the GTC been so far?
We don’t yet have quantitative data – that will take a year or more to build up. However, our member hospitals tell us that as they implement our ‘key drivers,’ they are seeing a big improvement in the organization and quality of care. It’s incredibly rewarding to hear how hard people are working and how much improvement they are seeing.

How can someone interested join?
Visit our website, www.globaltrach.org, to join as an individual healthcare provider, a patient/family member and to learn about how to join as a hospital. Feel free to email us at admin@globaltrach.org if anything isn’t clear or you have difficulty navigating.

When can they join?
You or your hospital can join anytime. We anticipate our next US kick-off in the spring of 2016, and the next UK/European kick-off in the summer of 2106. However, you don’t need to wait for a kick-off to join and be a part of things!

What can our readers do today to get involved?
If you’re serious about making a difference, I’d recommend you invest about three hours and watch the first two sessions of the Australian kick-off. Find them on our website under News & Insights > Events. Even if your hospital can’t join the GTC immediately, this should help you to think about how you and your team can begin to implement the key drivers. If you have questions, please contact us!

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PassyMuir®
TRACHTOOLS™
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AVAILABLE FOR FREE DOWNLOAD
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Attention Clinicians:
We are currently expanding our Clinical Consultant Program and are seeking respiratory therapists and speech language pathologists with expertise in the use of the Passy-Muir® Valve.

- RRT or SLP with flexible schedule
- ability to travel
- minimum of 5 years experience
- teaching experience and good communication skills necessary
- experience with Passy-Muir Valve application

If you are interested in this opportunity, please contact Julie Kobak at 1-800-634-5397
Using Simulation to Enhance Tracheostomy Training for Students & Clinicians

Teams in Queensland Health and The University of Queensland, Australia have been researching the efficacy of using simulation to assist workforce training in tracheostomy management and also to help develop clinical skills as part of university student training. The key points from two recent studies are highlighted below.

**Study 1:** Can human mannequin-based simulation provide a feasible and clinically acceptable method for training tracheostomy management skills for speech pathologists?

*Ward, E.C. Baker, S.C, Wall, L.R. Duggan, B.L.J., Hancock, K.L., Bassett, L.V, & Hyde, T.J*

Published in 2014 in the American Journal of Speech Language Pathology. 23, 421-436.

Clinicians face challenges seeking appropriate and sufficient workplace training for tracheostomy management. This if often further compounded by low and infrequent exposure of clinicians to this population in some services. Simulation is a potential training solution, enabling clinicians to develop tracheostomy management skills in a consistent, easy access, time-efficient and risk-free learning environment.

This study examined tracheostomy skills acquisition following training in a simulated learning environment and explored changes in clinicians’ confidence and perceptions. Forty-two clinicians with no or low levels of tracheostomy skill attended one of six, one-day Tracheostomy and Speech Pathology Simulation (TASP) simulation courses. The training day involved practicing core clinical skills, referred to as part-task training. Clinicians used Tracheostomy TOM® models to practice skills such as inflating and deflating cuffs, checking cuff pressures, and placing speaking valves. This was then followed by participation in a series of immersive clinical scenarios using human patient simulators. Debriefing took place after each clinical scenario.

For further information about this research please contact liz.ward@uq.edu.au

and for more information about upcoming TASP training workshops please contact Sonia.Baker@health.qld.gov.au
The paper outlines the program for the day including the tasks and an example patient scenario. Manual skills and performance of core tasks during the scenarios were assessed by independent observers and the participants completed questionnaires about perceived outcomes, benefits and perceptions.

All of the skills practiced during part-task training were successfully completed during scenarios by 98% of clinicians. Four months later, clinicians reported they maintained their improved confidence and skills, and all clinicians reported positive attitudes towards learning in a simulated environment. Such evidence supports the use of simulation as a clinical training medium and validates its role in tracheostomy competency-training pathways.

**Study 2: Developing Clinical Skills in Paediatric Dysphagia Management using Human Patient Simulation (HPS).**

Ward, EC, Hill, AE, Nund R., Rumbach A., Walker-Smith, K., Wright, S., Kelly, K., Dodrill, P.

Published online in 2015 in the International Journal of Speech Language Pathology.

Clinical education is a core component of undergraduate speech pathology student training. However, finding sufficient clinical placements and providing a range of clinical experiences for students has many challenges. For this reason, university training programs have been actively examining the benefits of using simulated learning environments. For the most part, this has been achieved using “standardized” or “simulated” patients, which involves using people to portray clients with various speech/language/swallowing difficulties. However for some aspects of clinical training, such as practice areas that involve young children, performance of invasive techniques like suctioning and endoscopy, or work with clients in critical care contexts like tracheostomy management, the use of standardized patients is not always as feasible. In these situations, clinical skill development may be better achieved through the use of Human Patient Simulation (HPS), which involves the use of a range of different equipment, including part-task trainers and various types of low/high fidelity mannequins, to practice clinical skills.

In this paper, the team examined the benefits of adding HPS into the university curriculum in the area of pediatric dysphagia. Twenty-nine students who were enrolled in a mandatory dysphagia course completed two, 2-hour HPS scenarios: (a) performing a clinical feeding assessment with a medically complex infant; and (b) conducting a clinical swallow examination with a child with a tracheostomy. The paper outlines the four hours of training which involved part-task training using various types of HPS equipment (Image 3) followed by immersive scenarios (Image 4). In this way, students were taught technical and non-technical skills such as communication and professional roles in pediatric dysphagia management for these two cases.

The study found there was a significant additive value in the knowledge, skills, and confidence of students obtained through HPS, above that achieved through lectures alone. Anxiety about working clinically reduced following HPS and students found the simulation to be very useful in their preparation for clinical practice. This trial provides evidence to support the benefits of incorporating HPS as part of a university program training and clinical preparation for pediatric dysphagia management.
The use of simulations in the field of speech-language pathology is growing in the United States. Simulations promote repeated practice for a variety of clinical scenarios in a controlled environment, which has been shown to improve overall learning (Ahalt & Fecho, 2015). In March, Katie Ondo MA, CCC-SLP and Stacy Williams, PhD presented a seminar, Developing Clinical Skills through Simulation, at the Ohio Speech Language and Hearing Association Conference. The presentation incorporated four models of simulation: a high fidelity mannequin, a computer-based simulation program (SimuCase™), a standardized patient, and a part-task physical trainer. Conference participants engaged in these simulation experiences to promote the power of active learning practices. The presentation covered a patient’s continuum of care emphasizing the recovery process from a stroke and used various simulation models and teaching tools for each recovery phase.

Conference participants began their simulation learning journey by completing a communication evaluation on a high fidelity mannequin who presented as a patient named Paul with a tracheostomy on mechanical ventilation. Through initial assessment, participants determined that Paul was capable of eye blinking in response to yes/no questions. In the second simulation scenario, Paul was taken off of ventilator support and participants completed a Passy Muir® Valve trial. When proper valve placement was performed, Paul responded with coughing and voicing. If the seminar participants failed to follow proper valve placement, (for example, if the valve was placed on the mannequin with the cuff inflated), then catastrophic physiological changes resulted, requiring immediate medical assistance. Further evaluation during the valve trial revealed that Paul had a significant aphasia as he was unable to produce recognizable speech.

Following the patient’s continuum of care model, conference participants were then asked to complete a case history with the patient’s caregiver through the use of a standardized patient or trained actress. They also used a computer-based simulation program, called SimuCase™, to practice their assessment skills of Paul’s speech-language and hearing abilities following his stay in an out-patient clinic. Conference participants were given complimentary access to SimuCase™ following the presentation to highlight the importance of simulation training and the power of repeated, deliberate patient practice on improved quality of care.

View the Passy-Muir Valve simulation video at: www.passy-muir.com/simulation
Incorporating simulations into higher education clinical training programs is essential for improving the quality of care in healthcare organizations nationwide. Access to these types of simulation training experiences is becoming more widely available. Check out the Simulation Innovation Recourse Center to find a simulation training center near you.

This presentation would not have been possible without the collaborative efforts of the Mt. Sinai Skills and Simulation Center, Case Western Reserve University, SpeechPathology.com and Passy-Muir, Inc. If you are interested in learning more about this simulation training program or using simulations within your healthcare facility or higher education classroom, contact Katie Ondo at katie.ondo@alliedhealthmedia for more information.

References & Additional Resources:

- SimuCase: http://www.speechpathology.com/simucase/

It’s never crowded along the extra mile.

Upcoming Events

American Thoracic Society 2015 Conference
May 15 - 20, 2015
Denver, Colorado

American Association of Critical-Care Nurses AACN Conference
May 18 - 21, 2015
San Diego, California

American Speech-Language Hearing Association Health Care & Business Institute 2015
July 10 - 12, 2015
Phoenix, Arizona

Society of Otorhinolaryngology & Head-Neck Nurses 39th Annual Conference
September 25 - 29, 2015
Dallas, Texas

American Academy of Otolaryngology Head & Neck Surgery Conference
September 27 - 30, 2015
Dallas, Texas

Massachusetts Society for Respiratory Care Annual Conference
September 30 - October 1, 2015
Foxborough, Massachusetts

American Association for Respiratory Care AARC 61st International Congress
November 7 - 10, 2015
Tampa, Florida

American Speech-Language-Hearing Association ASHA 2015 Convention
November 12 - 14, 2015
Denver, Colorado
Allie Atkinson, MA, CCC-SLP, BCS-S
Allie graduated with a Master’s degree in Communication Disorders from Texas State University in 2003. She is recognized as a Board Certified Specialist in Swallowing and Swallowing Disorders, and her clinical work has focused on providing dysphagia and speech therapy services for medically complex patients that require long-term acute care. Allie has developed multiple programs for dysphagia and communication disorders, and is responsible for establishing an interdisciplinary service model for tracheostomy and mechanically ventilated patients which resulted in the designation of her facility as a Passy Muir Center of Excellence. She has presented the keys to successful implementation of her program and is now a member of the national Passy Muir Clinical Consultant team.

Jennifer Beall, MS, CCC-SLP
Jennifer is a graduate of the University of South Alabama with a Masters of Science in Speech and Hearing Sciences. Since she received her Certificate of Clinical Competency in 1995, her primary focus has been the study and treatment of dysphagia and she has practiced in nursing homes, long-term acute care hospitals, and acute hospitals. Jennifer has treated patients with tracheostomy and ventilators since 1998. She is the owner of Dysphagia Decision Solutions, LLC and has been providing FEES services since 2005.

Gary Earl, RRT
Gary graduated from Boston’s Northeastern University Respiratory Care Program. He is a Registered Respiratory Therapist with over 44 years of experience as a clinician in adult acute care hospitals. Throughout his career, Gary has also been a clinical instructor, supervisor and manager. Since 1994 he has been a clinical associate at Florida SouthWestern State College in Fort Myers. He also currently holds a per diem staff position at Bayfront Health-Punta Gorda. He rejoins Passy Muir as a clinical consultant after a four year break to share his expertise on the use of the Passy-Muir® Valve in the adult critical care setting.

Richard Hahn, MBA, RRT
Richard brings his over 30 years of healthcare experience to Passy Muir as a Clinical Consultant. He has been in leadership and clinical educational positions at various institutions, from Duke University Medical Center, to critical access hospitals, and spent most of his career as Director of Cardiopulmonary at North Florida Regional Center. Most recently he was the Respiratory Care Manager at University of Colorado Health Poudre Valley Hospital. At all of his institutions he served as the champion and clinical expert in utilizing the Passy-Muir® Speaking Valve on mechanically ventilated patients. Being actively involved in the AARC and the Florida and Colorado Societies for Respiratory Care, he has spoken at national and state medical conferences.

Kristin King, PhD, CCC-SLP
Dr. King has been a speech-language pathologist in a variety of settings since 1998. She earned her PhD in Communication Sciences and Disorders from East Carolina University in 2008. Her expertise is in cognitive-communication and swallowing disorders with medically complex patients of all ages, particularly those with needs secondary to traumatic brain injury (TBI), tracheostomy/ventilator, and pre-term birth. She has trained SLPs in FEES and VFSS and developed a program for SLPs in the management of patients on ventilators and the use of Passy-Muir Valves at a level-one trauma hospital. She has published several peer-reviewed articles regarding evaluation and treatment of TBI, and she speaks to both domestic and international audiences regularly on the use of speaking valves, evaluation and treatment following TBI, and swallowing disorders. She currently conducts research in all of these areas, while maintaining clinical practice through consultative services.
NEW 2015 Seminars

The Team Approach to Evaluation and Management of the Tracheostomized and Mechanically Ventilated Patient

Join Passy Muir Clinical Specialists and Consultants as well as clinicians from the Passy Muir Centers of Excellence for a full day of education and hands-on learning designed for the entire tracheostomy team!

Seminars Schedule:

June 6th  New York City, NY
July 18th  Chicago, IL
August 24th  Oakland, CA
September 24th  Los Angeles, CA
October 3rd  Pittsburgh, PA
October 24th  Tampa, FL

For details and to register visit: www.passy-muir.com/seminars

These seminars are designed for:

• Respiratory Therapists
• Speech-Language Pathologists
• Physical Therapists
• Occupational Therapists
• Nurses
• Physicians
2015 David A. Muir RCP Student Award

Passy-Muir, Inc. invites RCP students to compete for the 2015 David A. Muir RCP Student Award for a Case Study Presentation related to the use of the Passy-Muir® Valve in the assessment and treatment of the tracheostomized patient and to encourage team collaboration with a Speech-Language Pathologist. The award memorializes David A. Muir, inventor of the Passy-Muir Valve.

The recipient will be announced and recognized at the 2015 AARC National Conference in Tampa, Florida November 7 – 10th, 2015.

Award:

★ **Travel assistance** to the 2015 AARC Convention in Tampa, Florida to receive the David A. Muir Award

★ **$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

★ **$200 donation** to the American Respiratory Care Foundation in honor of the award recipient and David A. Muir.

For eligibility and application requirements visit:

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