



Perspectives in Respiratory Nursing

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A Message from the President of RNS –

Ann Boyle, RN, PhD

It is quite an honor to me to be the President of RNS and to work with such a dedicated and delightful group of people. This year's conference was held in Richmond, Virginia October 7 – 8 where it was a real pleasure to network with many of those longtime members as well as some of our newer members. Welcome to all those new members. We look forward to your contributions to the organization.

The weather in Richmond was delightful and several of our members took advantage of the conference rate for the hotel over the week-end to attend the Folk Festival, which is a huge event that draws over 160,000 people to downtown Richmond. The Richmond area offers something for everyone as others enjoyed shopping and dining in some of the wonderful restaurants around town. The first night of the conference we had a Welcome Reception in the Presidential Suite at the Richmond Marriott Downtown. It offers a stunning view of the skyline and provided a great backdrop for an evening of socializing. I want to thank my husband, Rick Boyle, who took his responsibility as host for the evening quite seriously! Another hats off to the staff of the Marriott and our event planner, Bryan Parks, who did a fantastic job in planning, advising, and making sure the conference ran smoothly.

Thursday morning began with greetings from Donna Hoffman, who has worked tirelessly for the organization in her roles as President-elect and President of RNS. Our first speaker was Donna Bond, Secretary of RNS and a member of the Planning Committee. She did a fabulous job as she stepped up to fill in for Dr. Alexander Levitov, who was unable to be there. Donna gave us an update on new research in the area of respiratory care, covering a wide array of topics from genetics to new medications for treatment of respiratory diseases.

During breaks we had the opportunity to visit our exhibitors and learn about new respiratory products and medications that are available. Special thanks to all of them for their support. Our sponsors included Passy-Muir, Talecris, Hospira, AstraZeneca, Sage, and ElectroMed. Virginia Commonwealth University provided support for nursing student attendance at the conference. It was fantastic to have so many of them there. One even presented a poster!

Speakers on the first day also included Dr. Desmond Young, pulmonologist from Murrell's Inlet, SC who gave a very informative overview of the pathophysiology and treatment of alpha-1 anti-trypsin deficiency. This was followed in the afternoon by a marvelous talk from Len Geiger, alpha-1 patient and lung transplant recipient, who is a nationally recognized speaker and advocate for early recognition of alpha-1. We were all moved by Len's story



President Ann Boyle and husband, Rick

of how long it took for him to be diagnosed, and we also marveled at his triumph over his condition, which was truly inspiring.

At lunch time another nationally noted speaker, Kathleen Vollman, spoke about the Power of One. The students in the audience were particularly excited by her call to nurses to make a difference in patient care using the best evidence. She highlighted the responsibility of each of us to keep up with the latest evidence and not be stuck in the rut of doing it the way we always have. Janet Pinson, nurse practitioner at Virginia Commonwealth University Health System in Richmond, VA finished the day with a great overview of pulmonary artery hypertension. She was able to use her work with these patients on a daily basis to make the topic come alive.

The first day was tough to top on Friday, but it was excellent, as well. The morning started with Stuart Tousman, who is a health psychologist at Jefferson College of Health Sciences, who talked about management programs for adult asthma patients. Stuart's interactive approach, along with his experiences in working with asthma patients, made for not only an engaging and entertaining talk, but one that was full of tips for creating a management plan. The focus on asthma continued as Tracy Estes, faculty member at Virginia Commonwealth University School of Nursing and family nurse practitioner, talked about Sneezes and Wheezes, highlighting the "one-airway" theory and increasing our awareness of the effects of the upper airways on the lower ones. Tracy interacted with the audience using clickers, a great way to keep people involved with the topic.

INSIDE THIS ISSUE

- 1 Message from the President
- 2 Award Recipients, Board members
- 3 Meet your Board Members, Member News
- 4-14 2010 Conference Abstracts

Clinical Practice Award 2010



Dianne Locke with President elect Ann Boyle

Leadership Award 2010



Presented to President Donna Hoffman by Secretary Donna Bond

Special Recognition for Years of Support and Participation



Gary Earl, Passy-Muir representative with President Donna Hoffman at the awards ceremony

2011 Respiratory Nursing Society Board Members

- President:** Anne Boyle PhD, RN, CDE Richmond VA
- President-Elect:** Tracy Estes PhD, RN Richmond VA
- Secretary:** Donna Bond DNP, RN-BC, CCNS, AE-C Roanoke VA
- Treasurer:** Casey Norris RN, Maryville TN
- Board Members:** Gay Martin RN Providence RI; Margaret Clifton MS, RNC-BC Exeter RI; Heidi Putman-Casdorph PhD, RN, AE-C Morgantown WV; Susan Gray RNII, PNP Quincy MA

Congratulations to the first ever recipients of the RNS Scholarship and Research Grant. Joann Frey, MS, RN, ACNS-BS, CRRN, received the scholarship to help support her post-master's nurse practitioner study. Joann is a longtime member of the organization and past president. She is currently a pulmonary clinical nurse specialist at TriHealth/Good Samaritan Hospital in Cincinnati, Ohio.

Tracy Estes, PhD, RN, FNP-BC, received the RNS research grant. Tracy has served the organization as treasurer and is the current president-elect. She is a faculty member at Virginia Commonwealth University School of Nursing and a family nurse practitioner. Tracy is continuing her work on the Collaborative Self-Management Instrument, which assesses the relationship between care providers and asthma patients. We look forward to hearing more about Tracy's work, which is designed to improve care of patients with asthma.



Donna Hoffman, President and Tracy Estes, Research Award Recipient



Donna Hoffman and Joann Frey, Scholarship Recipient

**Save the Date
21st Annual
Respiratory Nursing Society
Educational Conference**

**Oct 7-8, 2011
Savannah Marriott Riverfront
100 General McIntosh Blvd
Savannah, GA 31401**

Topics planned are: COPD, Ethical dilemmas, Ethical decision making, Lung Cancer, Pulmonary Pharmacology Update, Spirometry, Ventilator Support

In the afternoon, Casey Norris talked about management of the patient with cystic fibrosis. Casey is a clinical nurse specialist at East Tennessee Children's Hospital in Knoxville, TN and an expert on care of patients with cystic fibrosis. The audience loved her down to earth approach and the stories that made her talk come alive. After Casey, another patient told his story. Donnie Green is a CF and lung transplant patient. Again, like Len Geiger, hearing a person who has lived the experience was extremely moving. I'm not sure there were many dry eyes during Donnie's talk as he spoke about growing up with CF. Donnie is a local policeman, among many other things. I'm afraid to attempt to list everything he does because I might leave out something! Both his and Len's FEV1 % predicted were in the teens when they got their lung transplants, interestingly both at the University of Virginia in Charlottesville, VA. The day concluded with Phyllis Brown Whitehead speaking about care of the patient with end stage lung disease. Phyllis is a clinical nurse specialist, who is certified in hospice care, at Carilion Clinic in Roanoke, VA.

At the annual business meeting held at lunch time on Friday, Leadership Awards were presented to Donna Hoffman and me. What an honor to be singled out by this group. A very special Founder's Award was given to Mary Findeisen for her years of dedication to our organization. Dianne Locke received the Clinical Practice Award. Another highlight was a special award presented by RNS to Passy-Muir. Their company has been a faithful supporter of RNS since its inception. We owe them a real debt of gratitude for keeping this up over the years.

The posters this year were outstanding and were on a variety of topics from use of simulation in educating about pulmonary problems to caring for patients on ventilators. The only drawback may have been not enough time to really see and absorb all the great information they contained. It's great that we will be publishing the abstracts in this and future editions of Perspectives so you will have the opportunity to see those if you weren't able to attend the conference.

Now it's on to Savannah. I'm already looking forward to it. Several people mentioned to me the camaraderie they noted among the members of the organization. One person decided to join just for that reason. I challenge each of us to find ways to grow this organization, which is dedicated to the care of all patients with pulmonary problems. Can we make 2011 a banner year?

Member News



Mary Findeisen, PhD, RN (seen here with Donna Hoffman President 2010 receiving the Founder's Award 2010) has accepted a new position as Director of the Graduate Nursing Program at Endicott College in Beverly MA. Mary has also co-authored an article titled: "Introducing nursing as a career choice to middle school students". This article has been accepted for publication by [Nursing Forum](#).

Request for Member News

Have you made a career change? Written an article or a book? Are you conducting research? Have you received a degree, award, or certification? Enrolled in a new program? Are you trying a new product? Any accomplishments you would like to share with us in Perspectives? We want to hear from you!!

Email your news to DCBond@Carilionclinic.org

Call for Articles

RNS Members: We are looking for articles for upcoming issues of Perspectives for respiratory nursing. Articles may be on clinical practice, research, or evidence-based practice. If you have an article or idea for an article please submit to DCBond@Carilionclinic.org. Articles should be 300-450 words and cited using APA or AMA format. Longer articles will be considered. If you have questions, please contact us.

Respiratory Nursing Society

Please visit our website at www.respiratorynursingsociety.org for the latest information on membership, publications, awards, conference information, and products.

Leadership Award 2010



Current President Donna Hoffman presents the Leadership award to Ann Boyle President-elect

Welcome to our New Members

Karen Mellott

Tanya Huff

Alison Montpetit

Job Posting

The Georgia Southern University has posted a Chair and Professor (#59326) at their School of Nursing. Applicants are currently being accepted with screening starting on March 1, 2011. The position start date is July 1, 2011. Please contact Dr. Barry Joyner, Search Chair at Georgia Southern University for more details. (joyner@georgiasouthern.edu)

THANK-YOU TO ALL PARTICIPANTS

A Randomized Clinical Behavioral Trial of a New Adult Asthma Self-Management Program.

Authors: Dr. Stuart Tousman, Dr. Donna Bond, Dee Stewart, MSN, RN Regina Rackow, RRT, Dr. Rebecca Greer, Dr. Sharon Hatfield, Karen Layman, MSN, Puja Garanjwala, BSN, RN

Aims: The purpose of this research study was to design and implement an adult asthma self-management program using a randomized control design. Twenty four participants were in the control group while twenty participants were in the intervention group.

Methods: Those in the intervention group participated in (7) two hour weekly meetings. The sessions were mediated by the participating researchers and guest speakers. The meetings consisted of interactive discussions on asthma, problem-solving techniques, social support, and a behavior modification procedure. The behavior modification procedure consisted of weekly homework assignments in which participants were asked to self-monitor and record asthma specific behaviors (including peak expiratory flow, avoidance/removal of asthma triggers, and controller medication adherence) and general lifestyle behaviors (including drinking water, practicing relaxation, washing hands and exercising).

Results: A series of two factor mixed design analysis of variance computations indicated statistically significant findings. When compared to participants in the control group, those individuals who participated in the intervention group had significant improvements in asthma self-efficacy, asthma quality of life, and patient activation. Participants in the intervention group also had increases in the frequency of the following self-reported behaviors: 1) reducing asthma triggers; 2), reading about asthma; 3) peak flow monitoring; 4) exercising, and, 5) hand washing. Follow-up data 2 months after the program indicated that the participants were still maintaining many of the psychological, cognitive and behavioral changes.

Conclusions: These results confirm that our adult asthma self-management program can lead to improvements in short term behavioral outcomes.



Stuart Tousman & Dee Stewart

Patient Ventilator Dyssynchrony: Types, Frequency and Patterns in Critically Ill Patients

Mellott, K.G., Grap, M.J., Munro, C.L., Sessler, C.N., Wetzel, P.A., Nilsestuen, J.O., Ketchum, J.M.

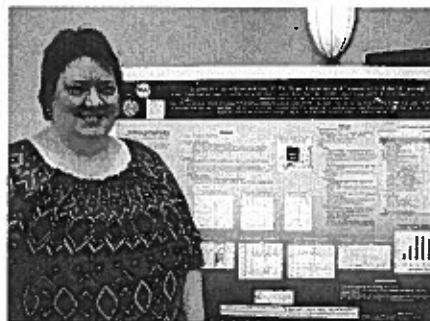
BACKGROUND: Patient ventilator dyssynchrony (PVD) occurs frequently, but little is known about PVD types, frequency and patterns occurring longer than 30 minutes. PVD results in hypoxemia, cardiovascular compromise, discomfort, anxiety, impaired sleep, and prolonged ventilation. Deeper levels of sedation are associated with PVD.

OBJECTIVES: To identify types, frequency and patterns of PVD over time and determine the effect of sedation level on PVD.

METHODS: 30 medical-surgical ICU adults were enrolled in this descriptive study; 27 used for analysis. A pneumotachometer collected pressure-and-flow-time waveform data for up to 90 minutes per subject. Sedation level was measured every 20 minutes. Blinded waveform analysis was conducted. Dyssynchrony Index (DI) and PVD Type Indices were used to describe PVD frequency. Lag analysis detected PVD associated patterns.

RESULTS: PVD occurred during all phases of ventilated breaths and included ventilation modes. Subjects on SIMV-Volume mode experienced higher DI levels than those not on SIMV-Volume ($F(2, 24) = 7.19, p < 0.0036$). Heretofore undocumented dyssynchrony, such as patient gasp PVD, active triggers and combined PVDs were found. The most common PVD type was Ineffective Trigger, then Premature Termination, Multiple Trigger, Flow and Delayed Termination, in descending order. The overall frequency of dyssynchronous breaths was 23%, however, 93% of the sample experienced one PVD incident. The overall median DI (IQR) was 4% (1% - 9%) with Ineffective Trigger Index having the highest mean index (9%). The high DI group (6 subjects) had a DI (IQR) of 61% (42% - 85%). 77% of subjects experienced multiple PVD types. Premature and Delayed Termination breaths were associated with Multiple Triggers and Ineffective Triggers consecutively.

CONCLUSIONS: Recognizing PVD is the first step in documenting a comprehensive evaluation of PVD, such that interventions can be initiated. PVD interpretation is complex, requiring clinicians to understand possible morphological features that may occur during evaluation.



Karen Mellott

Roll With It: A Nurse-Driven Quality Improvement Project for Mechanically Ventilated Patients

Authors: Christi Adams, RN, MSN, CCRN, CCNS, Erin McAuliff, RN, BS, Alison Montpetit, RN, PhD

Background: Pulmonary complications secondary to mechanical ventilation (MV) can affect patient outcomes and prolong MV days thus increasing intensive care unit (ICU) stay and healthcare costs. Continuous lateral rotation therapy (CLRT), delivered by specialty (kinetic) beds, aims to minimize pulmonary complications by aiding in mobilization of MV patients.

Purpose: The purpose of this quality improvement project was to test feasibility and patient outcomes of a nurse-driven, evidence-based protocol incorporating CLRT into the Institute for Healthcare Improvement (IHI) ventilator bundle.

Methods: The project was conducted in a Surgical Trauma ICU (STICU) of a Level I Trauma Center. Following a literature review, the STICU Practice Committee developed a CLRT protocol that identified MV patients at risk for pulmonary complications. The CLRT protocol established guidelines and goals for patient indications, contraindications, degree of bed rotation, pause between rotations and total rotation time. If a patient met inclusion criteria, nursing autonomously ordered a specialty kinetic bed (Hill-Rom SPO₂RT) and implemented the CLRT protocol. While mechanically ventilated, patients were monitored daily for total bed rotation time, PaO₂/FiO₂ ratio, CLRT tolerance and bronchoscopy culture results (if clinically indicated).

Results: All STICU staff were educated on the CLRT protocol prior to implementation. A total of 80 patients were enrolled in the CLRT protocol and a preliminary data analysis revealed that STICU patients utilized CLRT for an average of 8 days. Currently a more in-depth statistical analysis is being conducted to evaluate trends in PaO₂/FiO₂ ratios, bronchoscopy results, total rotation time and patient tolerance.

Conclusions: STICU patients are at high risk for pulmonary complications indicating a need for aggressive pulmonary hygiene/mobilization techniques. CLRT provides a non-invasive, nurse-driven intervention that can be implemented safely in MV patients. Prevention of pulmonary complications and implementation of quality improvement programs could have a positive impact on patient outcomes and reduce healthcare costs.



Christi Adams

Pulling out all the stops—Treatment of a H1N1 Patient

Deborah Robinson MA, RRT; Donna Bond DNP, RN-BC, CCNS, AE-C; Puneet Katyal MD

Introduction: H1N1 was declared a pandemic by the World Health Organization in June of 2009. As a subtype of the influenza A virus, it presented with the same initial symptoms as the seasonal flu. Incubation period ranges from 1-7 days with average recovery of uncomplicated H1N1 3-7 days after onset of symptoms. The H1N1 virus also appears to be contagious longer than ordinary seasonal flu per the CDC. Some of the most critical cases were in normally healthy young adults. The CDC estimates 17,000 deaths from influenza from October 2009 to February 2010 with 13,000 direct deaths from H1N1. "Our best guess is that, for both children and young adults under the age of 50-60, there were about five-at least five times as many flu deaths last year as during an average flu season. The majority of the American population who contracted H1N1 did not require advanced medical treatment or hospitalization for management of symptoms. Many schools and businesses were closed across the nation to prevent the spread of the virus.

History: The patient is a 29 year old female who had a history of childhood asthma. Her children had recently contracted and recovered from the H1N1 virus. Her onset of symptoms began 9 days prior to admission to the hospital and had been treating her increased shortness of breath with home nebulizer treatments.

Case Study: The patient was transferred to our facility from an outside hospital to the MSICU under the care of Pulmonary Critical Care team with a diagnosis of respiratory failure and septic shock. Test results upon arrival were: a positive rapid H1N1 test and a negative Influenza A and B test initial PO₂ 45 with metabolic acidosis and chest x-ray indicated an ARDS pattern of infiltrates with a right upper lobe consolidation on conventional ventilation on Fio₂ 100% and 12cm PEEP. Bi-vent mode was started upon transfer to the MSICU without any appreciable oxygenation improvement.

Oscillatory ventilation was initiated and titrated which increased the PO₂ to 159 on 100% Fio₂. InO (inhaled nitric oxide) was added to the treatment regimen via the oscillator and titrated per respiratory therapy protocols. CRRT (continuous renal replacement therapy) was initiated by nursing per nursing protocol for renal failure. Within 36 hours of admission cardiothoracic surgery initiated ECMO (extra corporeal membrane oxygenation).

Summary of Treatment:

Day 1	Bi-level ventilation, Oscillator ventilation, InO, Proning
Days 2-4	ECMO
Days 1-14	Oscillatory ventilation, InO
Days 14-83	Ventilation
Days 83-100	Aggressive respiratory and weaning
Day 100	Discharged to in-patient rehab

Conclusion: Escalation of respiratory modalities for this critical H1N1 patient was essential to her survival. Continued aggressive therapy was needed to promote recovery. Collaborative work through a team approach with physicians and nurses was an important factor to the favorable outcomes of this patient.



Debbie Robinson

Exhaled Breath Analysis: Focus on 8-Isoprostane in Chronic Obstructive Pulmonary Disease

Author: Alison Montpetit, RN, PhD

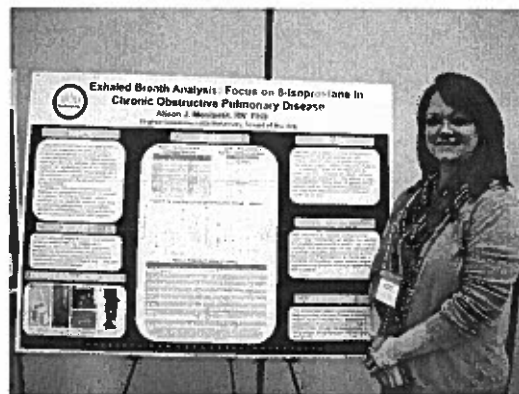
Background: There is increasing interest in the development of non-invasive measures to monitor pulmonary disease, specifically the use of exhaled breath condensate (EBC) analysis. Oxidative stress has been implicated in the pathology and exacerbation of pulmonary diseases such as chronic obstructive pulmonary disease (COPD). 8-isoprostane, one of the most studied biomarkers for oxidative stress in vivo, can be assayed in the breath (EBC).

Purpose: The purpose of this review was to evaluate the evidence for exhaled 8-isoprostane as a biomarker of COPD by: 1) identifying the most common methods used to collect and assess 8-isoprostane, 2) determining average levels of 8-isoprostane reported in the literature and 3) summarize findings specific to 8-isoprostane in the COPD population.

Methods: PubMed was used to search for the following terms: exhaled breath condensate, isoprostane, 8-isoprostane, 8-iso-PGF or 8-epi-PGF and COPD, emphysema or chronic bronchitis. Human studies available in the English language that assessed 8-isoprostane levels in EBC of subjects with COPD were included without date limitations.

Results: The final sample resulted in a total of 15 research articles for review and all used various EBC collection methods. There was a wide range of 8-isoprostane values in COPD (3.5-60 pg/ml); however COPD patients consistently exhibited higher 8-isoprostane when compared with healthy smokers suggesting oxidant stress in COPD patients cannot be explained by smoking alone. 8-isoprostane was increased with smoking and during exacerbation, decreased with antibiotics but not correlated with pulmonary function.

Conclusions: EBC presents methodological challenges which result in wide variation between studies. But, exhaled 8-isoprostane appears to be a sensitive, noninvasive biomarker that can be used to monitor oxidant stress and inflammation of the pulmonary system. It does not appear that 8-isoprostane is an appropriate marker for distinguishing disease severity; however, it may prove to be a marker for disease exacerbation and monitoring.



Alison Montpetit

A New Type of Diaphragm Pacing: A Model for Training Staff in Acute Rehabilitation and Home Care.

Authors: JT Crimlisk, M.S., R.N.; D. Gavin, R.R.T.; M. Walczak, S. Williams, M.D. Boston Medical Center, Boston, MA.

Background: The phrenic nerve pacer has been available for years but is costly and labor intensive. A diaphragm pacing device using implanted electrodes into the diaphragm muscle was approved by FDA in 2008 for certain types of paralysis to breathe¹. This laparoscopic implanted electrode system has an external generator box. Patients are admitted for this procedure and initial trials of pacing are started that day on the rehabilitation unit and continue at home until the patient is off the ventilator. It requires training of hospital and home care staff and families.

Objective: To design an educational video to train staff and families in use of the diaphragm pacer (NeuRx DPS, Synapse, Inc.).

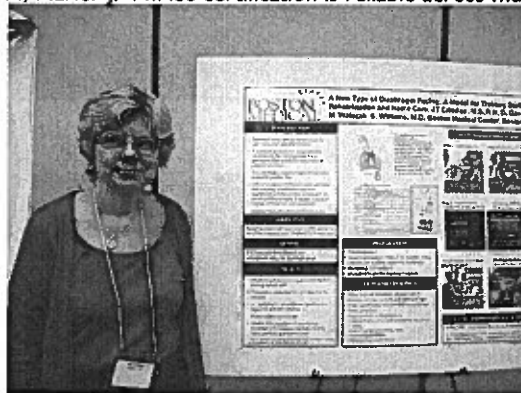
Design: The diaphragm pacer weaning procedure requires training multiple staff. There was no educational how-to video from the company. A videotaping of our patient was identified as a successful approach to training². Patient consent was obtained and a video of the procedure for weaning was completed with physician, respiratory, nursing, family and home care staff involved. The setting is a 12 bed acute rehabilitation unit.

Outcomes/Findings: The videotaping required objectives, content outline, directing and production skills with considerable editing. The video was taped during the patient's first wean attempt. The video identified: 1) instructions for initial steps/equipment needed prior to pacing, 2) demonstrations of connecting/disconnecting patient cables; 3) suctioning and ambuing during pacing; 4) monitoring parameters; and 5) dressing/electrode site care.

Implications for Practice: The DVD video model for training is supported in the literature. This educational DVD is included in our Competency Day as part of the Diaphragm Pacing Competency for nurses.

1. FDA Approves Diaphragm-Pacing Device. FDA News, June 18, 2008.

2. Lyden P, Raman R, Liu L, Warren M, Marier J. NIHSS certification is reliable across multiple venues. Stroke, 2009; 40(7): 2507-2511.



JT Crimlisk

Evidence for Procalcitonin as a Biomarker in Ventilator-Associated Pneumonia

Authors: Sarah Jones, BA, Alison Montpetit, RN, PhD, Cindy Munro, RN, ANP-C, PhD, FAAN

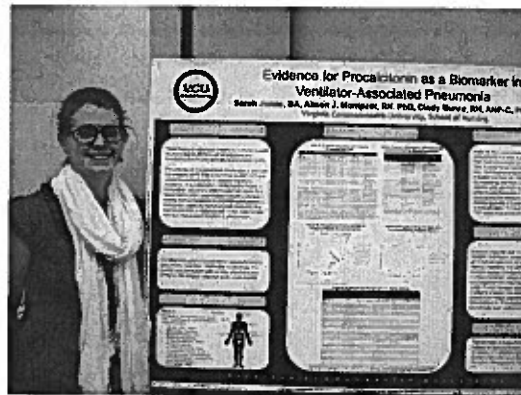
Background: There has been significant interest in biomarkers such as procalcitonin (PCT) to aid in diagnosis and monitoring of ventilator-associated pneumonia (VAP).

Purpose: The purpose of this systematic review was to evaluate the evidence of PCT as a biomarker in VAP. PCT is a prohormone of calcitonin (a calcium regulatory hormone) it is produced in the thyroid and many other tissues and differentiated cell types. It is found in low levels systemically in healthy adults and shows marked increases in response to inflammatory stimulation especially bacterial infection/sepsis and plays a modulator role in the immune/host reaction.

Methods: PubMed was used to search terms: procalcitonin and pneumonia, ventilator, healthcare, nosocomial. The search was conducted with no date restrictions and limited to the English language and human studies.

Results: A total of 14 studies evaluated PCT in VAP; 4 studies (N=322) evaluated PCT in serum and bronchoalveolar lavage fluid (BALF) while 10 studies (N=632) evaluated serum only. All 4 studies analyzing BALF found PCT levels in pulmonary fluids an ineffective tool in distinguishing VAP from non-VAP. Of the 14 total studies using serum PCT, 4 found PCT to be an effective diagnostic tool in VAP while 3 did not. One study found monitoring PCT levels reduced antibiotic therapy days and 2 studies found PCT positively predicted sepsis. Three of 4 studies found higher PCT levels were associated with higher mortality.

Conclusions: Evidence suggests that PCT in serum may be a good indicator of a severe, inflammatory response and generalized sepsis that could aid in guiding antibiotic therapy in patients with VAP. Further research recommendations include studies to establish the biological activity of PCT, standardize ranges associated with disease states and evaluate PCT in combination with other biomarkers to aid in detection and monitoring of VAP.



Sarah Jones

Post operative prevention of soft tissue damage at the tracheostomy stoma site of pediatric patients

Purpose: To promote optimal outcomes in stoma care of pediatric patients with tracheostomies

The National Pressure Ulcer Advisory Panel (NPUAP) defines a pressure ulcer as a localized area of tissue destruction that develops when soft tissue is compressed between a bony prominence and an external surface (Quigley & Curley, 1996)

On a pediatric patient, pressure can develop around the stoma of a new tracheostomy from medical devices. By identifying mechanical causes of pressure, measures can be taken to prevent skin breakdown.

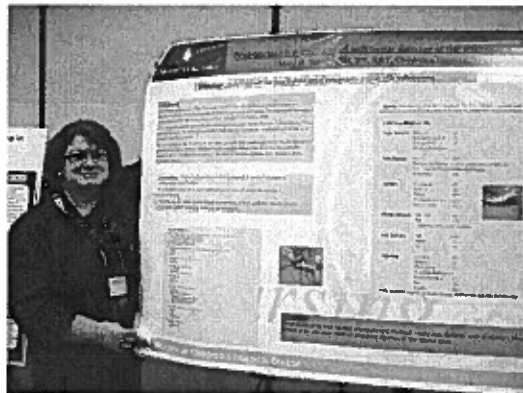
In our institution, the majority of pediatric patients had stay sutures applied on new tracheostomy tubes stitched to the skin in addition to stay sutures. During the first five days, the stoma became irritated from pressure and moisture.

Method: A QI study concerning stoma care was conducted by telephone to local hospitals in the Massachusetts area and electronically by SOHN to Pediatric and Head and Neck SIG.

Results: Of (19) Pediatric hospitals that responded to the questionnaire (16) used stay sutures, (11) dressing at the stoma site and (4) sutured the flange. Of the (13) adult hospitals (12) sutured the flange. Therefore, a change of policy was instituted only using stay sutures with a dressing under the flange. Dressing were changed daily the first five days prior to the trach change.

Outcome: Only using stay sutures and applying a dressing, no pressure occurred in the first ten pediatric patients. Since instituting this QI method the majority of stoma sites are without pressure injuries in the first five days.

Implications for Practice: This small change in practice has prevented irritation and skin compromise from pressure. Adult populations may be able to use the same procedure without jeopardizing the airway



Mary Horn

Enhancing Undergraduate Education through Simulation

Tanya A. Huff, RN, MSN, CCRN, CCNS, CNE and Jean Ellen Zavertrnik, RN, MN, ACNS-BC

Virginia Commonwealth University School of Nursing

Purpose: To enhance the clinical education of undergraduate nursing students by using high fidelity simulation experiences. The students will move from lower level skills to higher level skills with defined simulation objectives.

Background: There are about 80 undergraduate students per semester. Student learning had been dependent upon the patient that was assigned to them for their clinical experience day. With the availability of the Clinical Learning Center and high fidelity simulators, the learning now does not have to be dependent on the patient assignment. The learning can be directed by the simulated experience.

Implications: Undergraduate students are not always exposed to all of the clinical situations that are taught in the classroom. To enhance this learning, simulation is being utilized in each course to assure that the students are exposed to any respiratory situation that can occur on the clinical unit. This enhances the student comfort level with the situation, and allows the nursing instructor to educate the student in a safe environment.

Outcomes: Upon graduation, the undergraduate nursing students have stated that they feel prepared to manage all types of respiratory patient situations with the knowledge to make the correct clinical decisions.

Recommendations: Undergraduate nursing programs should implement simulation learning activities throughout the curriculum to enhance the clinical experience of the students. This should occur in each semester, and should complement the didactic learning in the classroom. Each student should be exposed to a variety of adverse patient events to learn how to manage the patient effectively.



Tanya A. Huff

Group Simulation in Asthma Education

Primary Presenter: Harriet Marie Chapin, MS, RN, CPNP, Clinical Assistant Professor,
Virginia Commonwealth University, School of Nursing, 1100 East Leigh St., P. O. Box 980567,
Richmond, Virginia 23298-0567; 804-828-3978; mchapin@vcu.edu

Purpose: This poster presentation will describe a method using group simulation for asthma education for nursing students.

Abstract

Designing group simulations for active learning requires focusing on teaching and learning goals. These goals include active participation of students in the learning process through applying knowledge of content area (in this case nursing care of children) and disease process (in this case asthma).

The scenario was designed for active learning and included nursing functions designed to elicit skills in assessment, critical thinking, interventions, communication, evaluation, teaching and values. The design included all students in the clinical section, a group of eight to ten, in various roles. Students rotated through the scenario as their role activated. The scenario evolved over a period of time and students were given the time changes as they occurred. The total time for the scenario including teaching, and debriefing was an hour.

Designing and implementing a group simulation allows for active learning of all students in a clinical group. There are many benefits of this strategy for teaching and learning. First this strategy incorporates teaching during the progression of the scenario. This allows for clarification and expansion of existing knowledge relative to the disease content and nursing process. As students verbalize their critical thinking faculty can correct misperceptions and modify the decision making process. The debriefing process provides the opportunity to ensure that all students in the clinical group benefit from the experience and will be able to use the lessons learned in future clinical interactions with patients. Having students rotate in and out of their roles also affords the opportunity to observe teamwork within the clinical group. Designing simulation for group learning requires thoughtful attention to teaching and learning goals; comprehensive preparation of roles, expectations and teaching prompts; coordination with technical and staging supports and orientation of faculty and students.



Harriet Marie Chapin

Asthma Education for Children

Primary Presenter: Harriet Marie Chapin, MS, RN, CPNP, Clinical Assistant Professor,
Virginia Commonwealth University, School of Nursing, 1100 East Leigh St., P. O. Box 980567,
Richmond, Virginia 23298-0567; 804-828-3978; mchapin@vcu.edu

Purpose: This poster presentation will describe a model for asthma education for children and teachers.

Abstract

Many asthma education programs focus on educating children with asthma and their parents about living with asthma. While this is an important step in asthma education, there are many other individuals who need to know how to respond when a child has an asthma attack. Children spend many of their waking hours engaged in school and play activities. The individuals in these settings need to know how to respond to the child with asthma. Current prevalence estimates, of asthma in children indicate that as many as one in ten children have asthma. Many of these children are not identified to the school or childcare setting. This lack of identification coupled with a lack of understanding of asthma places these children at risk. Providing basic asthma education for all children and those who work with them supports the safety and functioning of the children with asthma. Providing basic asthma education including: lung function, symptoms, triggers and urgent treatment will provide the foundation for recognition and intervention for these children. When this content is presented using interactive methods children will be able to remember the information. This can be accomplished by engaging nursing students to provide the asthma education. As the children connect with the nursing students they are more likely to remember the key messages. This poster presentation will describe a model for asthma education for children and teachers.



Harriet Marie Chapin & Students