



# CJRT • RCTR

Winter 2008, Volume 44 (5)  
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## The Winners — RT Week 2008

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- Professional Liability Insurance
- AGM Followup
- Pediatric Asthma


### New Board Members

### On Air/À l'affiche

- RT Week Activities
- Professional Development Fund
- Asthma Certification

The journal for respiratory health  
professionals in Canada

La revue des professionnels de la santé  
respiratoire au Canada

 <p><b>Canadian Journal of Respiratory Therapy</b>  <b>Revue canadienne de la thérapie respiratoire</b></p>
<p><b>Official Journal of the CSRT</b>  <b>Revue officielle de la SCTR</b></p>
<p>CSRT Board Representative / Représentant du Conseil d'administration de la SCTR  <b>Christina Beaudin, RRT</b></p> <p>Managing Editor / Directrice de la rédaction  <b>Rita Hansen</b></p> <p>Chair Editorial Committee  <b>Amy Reid, RRT</b></p> <p>President CSRT / Présidente, SCTR  <b>Ray Hubble, M.Ed., RRT</b></p>
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**Cover Photo — RTs Meghan McDonald & Tiffany Brown of Providence Healthcare, Vancouver, show off their booth.**



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## Message from the President

December is a busy month for all of us. At the CSRT, it has meant a special meeting to hold an Annual General Meeting to conduct the business of the CSRT under rules established and monitored under the Canada Business Corporations Act.



I am pleased to say that we did indeed meet the quorum and were able to conduct our business. Part of this business was an election for the position of President-Elect. Using an on-line and mail-in balloting system, Christiane Ménard, our Executive Director, was able to use independent scrutineers to oversee the tallying of results. I am pleased to announce that Mr. Dan McPhee has been chosen by the membership to represent them in the future as President of the CSRT.

I have worked with Dan on the Board of Directors for the last few years and

have a high level of confidence in his abilities. Congratulations Dan and thank you on behalf of all of the membership for agreeing to lead us into the future.

There is a real buzz in health care these days around the issue of 'Interdisciplinary Collaboration'. That is the RT working with the RN and OT to inform the PT of an issue that the GP brought forward at rounds when talking with the pharmacist. (Scary thing is that all of you understood the last sentence!)

Our team at head office would rival any interdisciplinary team. They each have a unique skill set, work together collaboratively and problem-solve in a proactive way by using the varied skill sets to solve parts of a problem. While in Ottawa, I was pleased to be able to recognize their efforts by pre-

*Continued on page 19*

## Mots du président

Pour la plupart d'entre nous, le mois de décembre est fort occupé. À la SCTR, il a vu une réunion spéciale aux fins d'Assemblée générale annuelle pour expédier les affaires de la SCTR conformément aux règlements établis et surveillés en vertu de la Loi canadienne sur les sociétés par actions. Je suis heureux de confirmer que nous avons réussi à atteindre le quorum et à expédier les affaires de la Société.

Parmi ces affaires figurait une élection pour le poste de président désigné. À l'aide d'un système de bulletin de vote en ligne et par correspondance, Christiane Ménard, notre directrice générale, a fait appel à des scrutateurs autonomes pour surveiller le dépouillement des votes. Il me fait plaisir d'annoncer que M. Dan McPhee a été choisi par les membres pour les représenter à l'avenir à titre de président de la SCTR.

Ayant travaillé avec Dan au Conseil d'administration au cours des quelques dernières années, j'ai un

niveau élevé de confiance en ces capacités. Félicitations Dan et, au nom de l'ensemble des membres, merci d'avoir accepté de nous diriger vers l'avenir.

La notion de « collaboration multidisciplinaire » fait fureur dans le domaine des soins de santé de nos jours : en termes concrets, c'est le TR qui travaille avec l'IA et l'ergothérapeute pour informer le physiothérapeute d'une question que l'omnipraticien a mentionné lors de sa visite en parlant au pharmacien. (Ce qui est affolant, c'est que vous avez tous compris cette phrase!)

Notre équipe au bureau chef saurait rivaliser n'importe quelle équipe multidisciplinaire. Chacun d'entre eux a un ensemble de compétences unique et travaille en collaboration avec les autres. Ils mettent leurs compétences variées à profit pour résoudre les diverses composantes d'un problème de façon proactive. Lors de mon passage à Ottawa, j'ai eu le plaisir de

*Suite à la page 20*

## Respiratory Therapy Week Activities Across Canada Oct 27–31, 2008

### Brandon Regional Health Centre

The Respiratory Therapy Department at Brandon Regional Health Centre, in Manitoba, celebrated their profession during RT Week by offerings department tours; a “Test Your Respiratory Knowledge” quiz; equipment displays; spirometry tests; cake, coffee, and door prizes.

A photo board was prepared with a picture of each of the eight staff therapists, as well as the clerk and manager of the department. Each RRT demonstrated a specific piece of equipment in our everyday work.

Tours of the department included the sleep lab, ventilator service room, and pulmonary function lab. Flow volume loop tests were performed on 27 willing hospital staff throughout the day. Curious George was kept alive by a neonatal ventilator, complete with the chest rise and fall. Another stuffed toy was in need of oxygen via prongs and oxygen concentrator.

One area that caused much laughter was the Heliox Therapy station — to be Mickey Mouse for a few sentences is always fun.

Instrumentation Labs, as well as the RRT staff, generously donated door prizes for five lucky hospital staff. The department felt that the response was great and very well attended.



Credit Valley tied their RT Week activities to a Halloween theme and Celina Rogers displayed the wonders of the RT world in a Wonder Woman costume.



Fanshawe College Respiratory Therapy Student Federation set up a display to highlight the many aspects of respiratory therapy.

### Fanshawe College

On Monday, October 27, the Respiratory Therapy Student Federation organized an RT Week kick-off. Instead of having an information booth set-up, we decided to add to the idea and set up simultaneous demonstrations involving equipment, intubations, arterial lines, vital signs, suctioning, and more, which was displayed at Fanshawe College. We had a tremendous turn-out of volunteers from both first and second year students, as well as an audience of many interested students and members of the general public. During the week we also hosted a conference at the college for students and faculty which was sponsored by Trudell Medical, with guest speakers: Lucky Heeley from eVent Medical and John Davies from Duke University. The conference also yielded an outstanding audience.

### Credit Valley, Toronto

The RTs at Credit Valley Hospital in Mississauga Ontario set up two booths for RT Week. The first was at Erin Mills Town Centre where three RRTs (Cynthia Welton, Celina Rogers and Marifel Catalig) and two Student RTs (Lesley Rogers and Erika Sanders-Conestoga College) volunteered throughout the day. They used this opportunity to talk to members of the community about respiratory therapy and educate about asthma and COPD.

The second booth was set up at the hospital during a nursing skills day. The theme for the year was Halloween, so two of the RTs (Cynthia Welton and Celina Rogers) took turns wearing a Wonder Woman costume, since of course, RTs are wonderful! This was a terrific way to speak to the nurses who asked lots of questions about oxygen therapy, airway equipment, and inhaled medications. Sherry Lentle RRT joined in and demonstrated intubation on a mannequin for some student nurses. These days were very fulfilling for the Credit Valley RTs who were able to provide outreach for members of the public and educate nurses from various areas within the hospital.

## Five Hill Health Regional

Even though there are only three RRT's for Moose Jaw, SK and the surrounding area of approximately 45,000 people, a number of activities were undertaken for RT Week – which included:

Monday, Oct 27th — set up a display in the front lobby of Moose Jaw Union Hospital.

Tuesday, Oct 28th — RRTs met with Moose Jaw's Mayor, Dale McBain to sign a proclamation for National Respiratory Therapist Week.

Wednesday, Oct 29th — RRTs spoke at the Five Hills Health Region Professional days on Oxygen Therapy. RRTs also attended a lecture on COPD management by Dr. Patel (Respirologist)

Thursday, Oct 30th — RRT gave a lecture on Oxygen Therapy to RN students and set up a display at the local Zellers to meet the public. One hundred and seventeen spot check oximetry tests were conducted.

Friday, Oct 31st — RRT presented a lecture to the RN students on Breath Sounds.

Saturday Nov 1st — a big day with a display at the Town 'n Country Mall all day, where one hundred and sixty five oximetry tests were done.

In total, RRTs did 12 hours at the display booths, with set up at the hospital lobby, while sometimes unattended, information was still available. A lot of time was put into this week between Deb Gray and Deign Salido, who had a lot of fun informing the public of Moose Jaw found about what a respiratory therapist is all about!

Thanks to: Deign Salido, RRT, Deb Gray, RRT, and April Goode, SRT

## Providence Health Care in Vancouver had an ambitious program for RT Week

A booth was set up Monday thru Friday of Respiratory Therapy week, just outside the cafeteria of St. Paul's Hospital, and thus attracted 40-50 people each hour. Respiratory therapists and students staffed the display. Each therapist was responsible for one area and handed out "Fact Sheets" about Respiratory Therapy at Providence Health Care. The fact sheets encouraged people to stop by and "find out what an RT does".

The booth consisted of the following displays and activities:

### 1. Airway Management

- An intubation head was set up and participants were instructed on how to perform an intubation
- Participants who were able to intubate successfully received a prize



RRT Deign Salido performs an oximetry tests in a Moose Jaw mall.

### 2. Oxygen Therapy

- A display board outlining the history of Oxygen Therapy as well as the various oxygen therapy devices in use in our facilities was set up
- The display board also contained an oxygen therapy trivia game. Participants were asked to select a question and received a prize for responding correctly. Questions included: What are the flow capabilities of a simple mask?
- The CSRT Respiratory Word Search was attached to the oxygen therapy display board and participants could enter the word search for a prize
- A number of oxygen therapy devices were also displayed and nursing staff was encouraged to practice various oxygen therapy set ups for a prize

### 3. Respiratory Therapy Equipment and Fun Facts

- Another display board detailing some of the equipment and procedures that RTs use (nasal airways, oral airways, suctioning) was also set up
- This board described these therapies and offered a lesson on ABG interpretation
- It also contained a number of true and false fun facts that participants could challenge themselves with

### 4. Pulse-Oximetry

- Participants were given an opportunity to test their oxygen saturations and the therapy and technology of this test was illustrated

### 5. Tracheostomy Management and Care

- A trach head was set up with deep suctioning equipment
- Nurses were encouraged to practice their deep suctioning skills



First year Respiratory Therapy students celebrate National Respiratory Therapists' Week at the Northern Alberta Institute of Technology. Students set up a booth in a high-traffic area at the Institute to showcase the profession. One of the features was an intubated Airway Management Trainer being ventilated.

The booth also had one conventional ventilator and one High Frequency Oscillator. The ventilators were set up to ventilate test lungs and participants had the opportunity to learn about how "life support" is administered.

A spirometer was set up to allow participants to test their lung function. The Respiratory Therapists manning this

component of our booth described what lung testing is used for and went over test results with participants

There was also a display board was set up that captured the work of RTs from their work in critical care to diagnostics. A variety of brochures and resources were set up that demonstrated the wide range of disorders that RTs help man-

### RT Week Winners

- It was a tight race with great entries coming from Brandon Regional Health, Credit Valley, Concordia Hospital, Fanshawe College, Five Hills Health Region, NAIT and Providence Health Care.
- Congratulations to Providence Health Care in Vancouver, who went all out with their informational displays and other activities. They will receive one complimentary registration for the CSRT Educational Conference in Gatineau May 28–31.
- Second place goes to Five Hills Regional from Moose Jaw — a small but mighty team who will receive CSRT golf shirts.
- Third prize goes to Credit Valley Hospital where RTs set up in two locations and wowed the community with their knowledge and very colourful costumes. They will receive leather jotters and engraved pens.

*Thank you all for participating in promoting the respiratory therapy profession.*

age — from COPD and asthma to cystic fibrosis and smoking cessation.

A component of the display was dedicated to promoting the Respiratory Therapy Program offered at Thompson Rivers University. Posters and brochures were made available to prospective students and an educator from TRU was available to answer questions

Promotion of RT Week included events that recognized and supported our profession and the Respiratory Therapists employed within our organization.

1. Opening of RT Week 2008 — Proclaimed by the Director of Acute Services for PHC
2. Feature article in the D'Vine Providence Newsletter, spotlighting Respiratory Therapists at Providence Health Care
3. Organizationalwide email announcement from Communications
4. Creation & Distribution of PHC Respiratory Services Fact Sheet
5. Leaflets and posters strategically placed throughout the buildings promoting and advertising RT Week events
6. Coffee and muffins available for the Respiratory Therapists each morning in the RT Resource Room — sponsored in part by the Acute Services Program
7. Evening refreshments for the Respiratory Therapists working night shift — sponsored by ICU Team
8. Gift Basket and prize draw for Respiratory Therapists — sponsored by the PHC Spirologists
9. Participation in a career & job recruitment fair
10. Prizes and gifts donated from local businesses and restaurants
11. Lunch & Learn Educational Activities, topics presented and sponsored by:
  - a. NAVA — Maquet
  - b. Esophageal Monitoring — Summit Technologies
  - c. PAV+ — Covidien
  - d. Champix & Respiratory Drugs — Pfizer

## Asthma Society of Canada Launches Certification Program

According to Health Canada, “Hypoallergenic” is neither a legal nor a scientific term. It simply means that the manufacturer has selected ingredients with the objective of producing a finished product with minimum potential for causing allergy. It is widely accepted that the term was created by a cosmetic marketing campaign in the 1950s.

Because of this lack of an official definition, consumers in Canada are barraged with a wide range of products, including everything from cosmetics to electronics, claiming to be “hypoallergenic” without any requirements to provide supportive scientific data. Increasingly, home goods and personal care product manufacturers are taking the liberty to make unregulated and unsubstantiated claims about their products being “allergen-free” and “non-allergenic” and in the worst cases, even medical benefit claims about products targeted at the asthma and allergy market.

To help eliminate much of the confusion in the marketplace when it comes

to allergen reduction and environmental control products, the Asthma Society of Canada has partnered with the international research and testing organization Allergy Standards Limited to operate the asthma & allergy friendly™ Certification Program.

More information is available at [www.asthmaandallergyfriendly.ca](http://www.asthmaandallergyfriendly.ca) or call 1-866-787-4050 for a full list of products as well as a list and links to retailers carrying Certified asthma & allergy friendly™ products.

The goal of the Certification Program is to create, publish and continually update manufacturing standards and then subsequently test products against these standards to help identify items that are more suitable for those with asthma and related sensitivities. Only products that have undergone extensive scientific testing in independent, accredited laborato-



ries and found to meet or exceed these standards are allowed to display the Certification Mark on their packaging and advertising materials.

To date, asthma & allergy friendly™ Standards are available for bedding, pillows, toys, vacuum cleaners, flooring, paint, air cleaners and washing machines.

In addition to rigorous testing, manufacturers also agree to include custom care instructions (where applicable) to educate the consumer how to maintain items in a reduced allergen state. They also agree to an ongoing review of marketing and promotional materials by the Asthma Society of Canada to make certain that clear and concise information is provided to the consumer.

Finally, the Certification Program continues to randomly test samples obtained from various retailers to ensure certified products continue to meet the Certification Standards.

## La Société canadienne de l'asthme lance un Programme de certification

Selon Santé Canada, « hypoallergénique » n'est ni un terme légal, ni scientifique. Il signifie simplement que le fabricant a choisi des ingrédients dans le but de créer un produit fini dont le potentiel de provoquer des allergies est minime. Il est largement reconnu que ce terme a été créé dans le cadre d'une campagne de marketing de produits de beauté dans les années 1950.

En raison de l'absence d'une définition officielle, les consommateurs au Canada sont confrontés à une grande gamme de produits, à partir des produits de beauté jusqu'à l'électronique, qui s'affichent « hypoallergéniques » sans être tenus de fournir des preuves scientifiques à l'appui. De plus en plus, les fabricants de produits ménagers et de soins personnels prennent la liberté de faire des déclarations non réglementées, ni étayées par des pièces justificatives, à l'effet que leurs produits sont « sans allergènes » et « non allergènes ». Dans les pires cas, ils attribuent même des bienfaits médicaux à des produits qui ciblent une clientèle asthmatique et

allergique.

Dans le but d'éliminer la confusion liée aux produits qui réduisent les allergènes et qui assurent la qualité de l'environnement, la Société canadienne de l'asthme s'est associée à l'organisme international de recherche et d'essais Allergy Standards Limited pour gérer le Programme de certification asthma & allergy friendly™.

L'objectif du Programme de certification est de créer des normes de fabrication, de les publier et les actualiser continuellement, puis, d'évaluer les produits en fonction de ces normes pour identifier ceux qui sont davantage convenables aux personnes souffrant d'asthme et de sensibilités connexes. Seuls les produits qui ont été soumis à des essais scientifiques rigoureux dans des laboratoires agréés indépendants, et qui respectent ou surpassent ces normes, sont autorisés à afficher la Marque de certification sur leur emballage et leur matériel publicitaire.

Jusqu'ici, des normes asthma & allergy friendly™ ont été élaborées pour les :

Pour un complément d'information, consultez le [www.asthmaandallergyfriendly.ca](http://www.asthmaandallergyfriendly.ca). Pour accéder à une liste complète de produits ainsi qu'à une liste et des liens vers les détaillants qui vendent des produits certifiés asthma & allergy friendly™, composez le 1-866-787-4050.

articles de literie, oreillers, jouets, aspirateurs, couvre-planchers, peintures, épurateurs d'air et machines à laver le linge.

Outre les essais rigoureux, les fabricants acceptent d'inclure des directives d'entretien (le cas échéant) pour informer le consommateur à savoir comment préserver l'état réduit en allergènes des articles. Ils acceptent également que la Société canadienne de l'asthme révisé continuellement leur matériel publicitaire et de marketing pour s'assurer que le consommateur reçoive des renseignements clairs et concis.

Enfin, le Programme de certification poursuit ses essais aléatoires sur des échantillons obtenus des détaillants pour veiller à ce que les produits certifiés continuent de respecter les normes de certification.

## Message from the Executive Director

Christiane Ménard

Since joining the CSRT in early September, I have had a chance to evaluate administrative and operational resources available. The most pressing issue that required immediate attention was the attrition debt of \$59,000.00 from the 2007 conference.

Because of my strong relationship with various hotel chains over the past 25 years, I was very fortunate to be able to negotiate the cancellation of the debt. This will be noted in the 2008 statement of income presented at the next AGM in May 2009.

One element that requires immediate attention is the development of a new interactive bilingual CSRT website. The current website has served its purpose and it was felt that in order to provide the most up-to-date on-line services to our members, we needed to construct a different web foundation. The new website will be launched by the end of January 2009.

I work with a team of professionals within the national office. We are a small group of employees, but by working together and by drawing on the strengths of each other, we know we can implement a number of strategies in 2009.

Sylvia Stiehl, the CSRT Membership Officer, has been instrumental in identifying areas that need improvement in the information packages sent to students, new graduates and CSRT members. We will work together in the new year to enhance the database system and to add features that will increase the efficiency of our membership process.

Rita Hansen, the CSRT Communications Manager, leads the activities relative to the planning for the conference. Over the past month, we have updated our sponsorship and exhibitor strategies for the conference and I am very happy with the response obtained from vendors so far. We will be consulting them in the new year to see what services will be helpful to them on site. Rita is also the managing editor of the Journal and we look forward to making some changes to improve the communication to our members.

Pam Hicks, who manages the activities of the Council on Accreditation of Respiratory Therapy Education, has been very effective in the organization of on-line workshops. These workshops are delivered via the internet and are made available to CSRT members at a very reasonable cost.

Another key staff member is Monique El Azzi. Monique joined the CSRT only a few months ago. She is a new graduate and brings with her good knowledge in marketing. She provides the insight we need from new graduates to develop innovative strategies for RT week and other social marketing initiatives.

Ellen Sylvester is also a new addition and joins us two days a week to keep our accounting records and to manage the corporate bank account.

What has been most impressive is the dedication and commitment of volunteers who serve on the Board of Directors, who work on committees and on special projects. There is such a passion for their profession, and these volunteers are truly an inspiration to staff at the national office.

The CSRT staff has a shared vision — to have as many achievements as possible for the benefit of the RT community across Canada. I look forward to working with staff and volunteers over the next year and to implement the strategies outlined in the 2009 organizational plan of the CSRT national office. We welcome your comments and want to hear about your concerns, so please contact any one of us at the national office.

## Mot de la directrice générale

Christiane Ménard

Depuis mon arrivée à la SCTR au début septembre, j'ai eu l'occasion d'évaluer les ressources administratives et opérationnelles disponibles. La question la plus urgente, qui exigeait une attention immédiate, était la dette de 59 000,00 \$ occasionnée par l'insuffisance des réservations lors du congrès de 2007. Grâce à ma solide relation avec diverses chaînes d'hôtels depuis les 25 dernières années, j'ai réussi à négocier l'annulation de la dette. Ce fait sera noté dans l'état des revenus de 2008 qui sera présenté à la prochaine AGA en mai 2009.

Un autre sujet exige une attention immédiate : le développement d'un nouveau site Web interactif et bilingue pour la SCTR. Bien que le site Web actuel ait été utile, nous étions d'avis qu'afin d'offrir à nos membres les services en ligne les plus récents, nous devons construire une nouvelle fondation pour notre site. Le nouveau site Web sera lancé d'ici la fin janvier 2009.

Je me sens très privilégiée de travailler avec une équipe de professionnelles au bureau national. Nous ne sommes qu'un petit groupe d'employées mais en travaillant ensemble et en puisant



parmi nos forces respectives, nous sommes convaincues de pouvoir mettre en œuvre plusieurs stratégies en 2009.

Sylvia Stiehl, agente de la gestion des adhésions à la SCTR, a joué un rôle instrumental dans l'identification des améliorations à apporter aux trousseaux d'information qui sont acheminées aux étudiants, nouveaux diplômés et membres de la SCTR. Dans le nouvel an, nous travaillerons ensemble en vue d'améliorer le système de base de données et d'ajouter de nouvelles fonctionnalités qui rehausseront l'efficacité de notre processus d'adhésion.

Rita Hansen, gestionnaire des communications à la SCTR, dirige les activités liées à la planification du congrès. Au cours du dernier mois, nous avons actualisé nos stratégies en matière de commandite et d'exposants et je suis très heureuse de la réponse des commerçants jusqu'ici. Nous prévoyons les consulter au début 2009 pour savoir quels services leur seraient utiles sur les lieux. Rita est également la rédactrice en chef de la Revue et nous anticipons quelques changements visant à améliorer la communication avec nos membres.

Pam Hicks, qui gère les activités du Conseil pour l'agrément de la formation en thérapie respiratoire, a fait preuve d'une grande efficacité dans l'organisation d'ateliers en ligne. Ceux-ci sont offerts via Internet et mis à la disponibilité des membres de la SCTR à un coût très abordable.

Une autre personne clé est Monique El Azzi. Nouvellement diplômée, Monique s'est jointe au personnel de la SCTR il y a

quelques mois seulement. Outre ses solides connaissances en marketing, elle apporte la perspective des nouveaux diplômés qui s'avère nécessaire pour développer des stratégies novatrices liées à la Semaine de la TR ainsi que d'autres initiatives de marketing social.

Ellen Sylvester est une autre nouvelle addition qui est avec nous deux jours semaine pour tenir nos livres comptables et gérer le compte bancaire de la Société.

Ce qui s'est avéré le plus impressionnant est le dévouement et l'engagement des bénévoles qui siègent au Conseil d'administration et qui travaillent au sein de comités et sur des projets spéciaux. Passionnés par leur profession, ces bénévoles sont une source d'inspiration pour le personnel au bureau national.

Le personnel de la SCTR a une vision commune : de parvenir au plus grand nombre de réalisations possibles au profit de la communauté de TR d'un bout à l'autre du Canada. Je me réjouis à la perspective de travailler avec le personnel et les bénévoles au cours de la prochaine année et de mettre en œuvre les stratégies précisées dans le plan d'organisation 2009 pour le bureau national de la SCTR. Nous accueillons vos commentaires et nous voulons connaître vos préoccupations donc n'hésitez pas à communiquer avec l'un ou l'autre de nous au bureau national.

## Students have a voice on the CSRT Board of Directors

It has been an honour for me to represent students on the CSRT Board of Directors.

I am surprised at the pleasure I have volunteering for our professional association – first because I have a better understanding of the profession and the health care environment we will be working in, and second, because of the contacts I have made with students, RTs, educators, managers, and other groups.

Since joining the board in May, I have been very busy establishing lines of communication with students in each and every program across Canada. I now have an e-mail list of students interested in receiving up-to-date communication from the CSRT. I will be setting up a database that will allow us to add new students.

The next step is to establish electronic means of communication, on the CSRT web site and on other web-based platforms such as Facebook. The CSRT is currently rebuilding its web site and we intend to include sections of specific relevance to students within the framework of the new web site.

I know that students are interested in becoming involved.



Chantale Blanchard,  
2nd year student,  
New Brunswick  
Community College,  
CSRT Director,  
Student Relations

Almost 250 students took the time to participate in an on-line survey during the month of November 2008. This has provided me with a lot of information on what your expectations are and what students need from their professional association. Also this information will be extremely helpful to guide the CSRT in developing initiatives specifically for the student population.

The CSRT knows that the student members are crucial for the future of the profession. Once we finish our education and graduate, all of us will be shaping the environment for respiratory therapists in the future. It is crucial for us to be aware of what the challenges will be and most importantly, what we need to continue building the profession within a more and more complex health care system.

Getting involved with the CSRT will give us the collective voice we need to make things happen for the profession, for the patients and for the health care system.

## New Director Human Resources

I am a registered respiratory therapist with an avid interest in Healthcare Administration, Consulting, and Human Resource Management. I am a results-oriented self-starter with a strong focus on achieving desired outcomes. I have a proven track record for handling rapidly changing priorities due to well established stress management skills and a demonstrated ability to work collaboratively with diverse staff and external partners.

I was born in Manitoba, raised in Ontario and lived in Nova Scotia for seven years. I feel a strong connection to the east coast as my Mom's family is from Newfoundland, but I currently reside in Ontario to be close to my parents and sister. I feel it is important to have a National Body that represents the interests of Respiratory Therapists across Canada and I will strive to make my contribution as positive and worthwhile as possible.

I attended Dalhousie University and received a Bachelor's of Science Degree and then continued on in the first Respiratory Therapy class to graduate from the Dalhousie University's Respiratory Therapy program. In 2006 I accepted the job of Clinical Coordinator for Respiratory Therapy at St. Joseph's Healthcare in Hamilton.



Angela Coxe, RRT, BSc, CAE.  
Clinical Coordinator Respiratory Therapy,  
St. Joseph's Healthcare, Hamilton, ON

Throughout my time working as an RT I have continuously increased my knowledge and skills as a Respiratory Therapist. I have completed the Certified Asthma Educator's course as well as the COPD Educator's course from Thompson River's University in BC and I am currently enrolled part time at McMaster University completing my Master's in Business Administration – Healthcare Management with a minor in Human Resource Management.

I hope to bring a strong understanding of basic human resource and legal principles to the position and with a strong focus on leadership and communication.

## Les étudiants ont une voix au conseil l'administration de la SCTR

Chantale Blanchard, étudiante de 2<sup>e</sup> année, Collège communautaire du Nouveau-Brunswick,  
Directrice des relations-étudiants de la SCTR

C'est un honneur pour moi de représenter les étudiants au Conseil d'administration (CA) de la SCTR.

Je suis agréablement surprise du plaisir que je retire de mon implication bénévole au sein de notre association professionnelle – d'abord parce que j'ai une meilleure compréhension de la profession et du milieu des soins de santé au sein duquel nous travaillerons et, deuxièmement, en raison des contacts que j'ai faits auprès d'étudiants, de TR, d'éducateurs, de gestionnaires, et d'autres groupes.

Depuis que je me suis jointe au CA en mai, j'ai consacré beaucoup de temps à établir des liens de communication avec des étudiants dans chaque programme au Canada. J'ai créé une liste d'adresses de courriels d'étudiants qui souhaitent recevoir les dernières communications de la SCTR. Je prévois créer une base de données qui nous permettra d'ajouter de nouveaux étudiants.

La prochaine étape consiste à établir un moyen de communication électronique, dans le site Web de la SCTR et d'autres plateformes Web tel que Facebook. La SCTR a entrepris une reconstruction de son site Web et nous prévoyons inclure des sections d'intérêt particulier aux étudiants au cadriciel du nouveau site Web.

Je suis convaincue que les étudiants veulent s'impliquer. Près de 250 étudiants ont pris le temps de participer à un sondage en ligne en novembre 2008. Cet exercice m'a fourni une mine d'informations au sujet de vos attentes et de ce que les étudiants recherchent auprès de leur association professionnelle. De plus, ces informations seront extrêmement utiles pour orienter la SCTR lorsqu'elle développe des initiatives spécifiques à l'intention de la population étudiante.

La SCTR sait que les membres étudiants sont critiques pour l'avenir de la profession. Après avoir terminé notre formation et obtenu notre diplôme, c'est nous qui préparerons le milieu de pratique des thérapeutes respiratoires à l'avenir. Il s'avère critique que nous soyons conscients des défis auxquels nous serons confrontés et, plus important encore, de ce qu'il nous faut pour continuer à bâtir la profession au sein d'un système de soins de santé de plus en plus complexe.

Notre implication au sein de la SCTR nous assurera la voix collective nécessaire pour accomplir de grandes choses pour la profession, les patients et le système de soins de santé.

## New Director of Education and Clinical Standards



Mike Lemphers, RRT, MA, Instructor,  
Respiratory Therapy, Thompson Rivers  
University, Kamloops, BC

For over 20 years, I have been actively involved with the education and assessment of students in clinical, academic and simulated contexts. In the mid 1980's, as a Thompson Rivers University (TRU) respiratory therapy student fresh out of high school, I deeply appreciated the dedication and knowledge of my instructors. Upon graduation, I knew that I wanted to teach. Less than two years later, I was hired as a Clinical Site Coordinator (CSC) with the TRU program. As a CSC, I was responsible for developing and evaluating the clinical and academic skills of students within a hospital setting. I assisted with the creation of a clinical skills assessment tool during this time. The CSC position allowed me to effectively enhance my bedside and classroom teaching abilities. I worked in this position from 1988 until 2005. During that time, I also instructed in TRU classroom, laboratory and online settings. I made the jump from clinical instruction to full-time university educator in 2005. In

order to keep my clinical views current, I began working earlier this year as a general duty respiratory therapist on a casual basis, in addition to my role as an academic instructor.

I completed a Master of Arts in Distributed Learning through Royal Roads University in 2006. This experience enhanced my perspective concerning instructional design, educational delivery and evaluation methodologies. I coupled this knowledge along with my previous clinical and educational experience in order to design, deliver and evaluate a critical care respiratory therapy program in Changsha, China for the past two years.

Canada is viewed as a world leader in respiratory therapy practice and education. The Canadian Society of Respiratory Therapists (CSRT) has taken a major role in helping Canadian respiratory therapists achieve this level of success. Having been a registered member of my national and provincial respiratory therapy societies since 1987, I recognize that the CSRT functions effectively because of the tireless work of the staff and volunteer respiratory therapists who donate their time to further the profession. I am eager to join with this team in order to represent the CSRT members in the best interests of the society.

## New Director of Membership Services

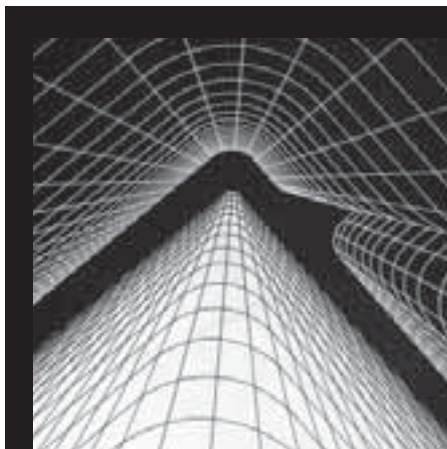


Christina Beaudin, RRT, North Lanark  
Community Health Centre, Lanark, Ontario

My name is Christina Beaudin and I am currently working in the Ottawa Valley. Since graduating from Algonquin College in Ottawa, I have been able to work at a tertiary care hospital as well the primary care level. Alongside this, I am also finishing up my Bachelor of Health Science and hope to write the CRE exam in 2009. I am thrilled that I have joined the RT profession at a time when there are so many opportunities for us!

Over the past three years, I have become familiar with the CSRT office. First, by volunteering with the Advocacy Committee, and more currently as Chair of the Organizing Committee for the 2009 CSRT Annual Educational Conference and Trade Show. By being able to volunteer, even on a small scale, I realize what an impact the respiratory therapy community can have.

I am extremely excited to start my role as Director of Membership Services. As director I hope to entice new members and continue to build strong connections with ongoing members. I look forward to working with the Board of Directors and the CSRT office in continuing to make the CSRT a success!



### CSRT CORPORATE MEMBERS 2008-2009

CAREstream Medical

RC Educational

GE Healthcare

SeQual Technologies

Philips Healthcare

Sunrise Medical

McArthur Medical

VitalAire

## Call for Abstracts for Poster and Paper Presentations

The 2009 CSRT annual National Respiratory Therapy Conference and Trade Show will be held in Gatineau, Quebec, May 28-31, 2009. The Conference provides opportunity for respiratory therapists to network with colleagues, engage in professional development, share experiences, promote discussion and enhance the practice of respiratory therapy in Canada. To that end, the Planning Committee invites the submission of abstracts for poster and paper presentations in French or English.

Interested parties wishing to showcase their latest abstracts or poster presentations should submit their abstract by March 13, 2009. All submissions will be reviewed by a panel using a blind peer review mechanism

Abstracts may pertain to any area of respiratory therapy including clinical practice, evaluation and respiratory healthcare delivery. Abstracts of no more than 250 words must be submitted according to guidelines.

Detailed information can be found on the CSRT website under About/Annual Meetings. Abstracts may be submitted in English or French.

Lead author of the winning Poster or Paper will receive free registration to the 2010 Conference in St. John's, Newfoundland.

### CSRT Conference Funding

Need some financial assistance to attend the CSRT annual Educational Conference and Trade Show? As a respiratory therapist you may qualify for up to \$1,500.00 towards professional development activities through the Ontario Allied Health Professional Development Fund (AHPDF).

The fund aims to provide professional development opportunities to allied health professionals. The objectives of the AHPDF are to:

- Enable more health care professionals to access professional development;
- Expand current skills and leadership capacity to improve healthcare service quality;
- Facilitate the retention of valued allied health professionals in Ontario;
- Assist allied health professionals to adapt to changing expectations and health care needs; and
- Maintain and build Ontario's capacity as a competitive employer

A professional development activity may include workshops, courses, undergraduate, or graduate education if demonstrated to be relevant to practice resulting in increased knowledge, clinical and /or leadership skills. For a professional development activity to be clinically relevant to practice, the activity should directly result in acquired knowledge and skills that enhance patient care and/or the quality of health services.

Visit [www.ahpdf.ca/](http://www.ahpdf.ca/) for details.

## Fascinating Facts

- COPD is the fourth leading cause of death among Canadians, behind heart disease, cancer and cerebrovascular disease.

*2008 COPD Update: Canadian respiratory Guidelines*

- By 2031, almost 90,000 Canadians will have died from the acute short-term effects of air pollution. The number of deaths, due to long-term exposure, will be over 700,000 — the population of Quebec City.

[www.cma.ca](http://www.cma.ca)

- Women make up almost half of Canada's physicians under 40 years of age.

[www.cihr-irsc.gc.ca](http://www.cihr-irsc.gc.ca)

- Patients in their 80s and 90s can successfully undergo major cardiac surgery, allowing them to enjoy years of enhanced quality of life. Drs. Kevin Lachapelle and Rakesh Chaturvedi told the Canadian Cardiovascular Congress 2008, co-hosted by the Heart and Stroke Foundation and the Canadian Cardiovascular Society. "This is an especially important finding because baby boomers will live longer and better than anyone expected," says cardiac surgeon Dr. Lachapelle. He was reporting on 185 consecutive patients aged 80 and up who underwent surgery at the McGill University Health Centre to replace or repair defective heart valves. More than five years after the surgery, 60

per cent are alive The McGill study is even more significant because all patients received open chest surgery. New, less traumatic, procedures such as operating via the femoral artery are becoming available and may lead to even better results in the elderly.

*Toronto, Oct. 28 /CNW Telbec/ CNW Group Ltd.*

- Motor vehicle collisions are the second most common cause of injury resulting in deaths that occur in Canadian hospitals — unintentional falls are the first. [www.cihi.ca](http://www.cihi.ca)

- The average paramedic response time in Canada is eight to twelve minutes. [www.redcross.ca](http://www.redcross.ca)



## National Respiratory Therapy Conference and Trade Show 2009

May 20 to 31 • Hilton and Casino du Lac Leamy • Ottawa/Gatineau QC

### KEYNOTE SPEAKER

Dr Michael McEvoy

### **“Trauma, Resuscitation and Oxygenation: Do We Really Know What’s Best?”**

Dr Michael McEvoy, Clinical Associate Professor — Critical Care Medicine, Albany Medical College; Patient Care Coordinator (PCC) — Adult, Pediatric, and Neonatal Cardiac Surgical ICUs, Albany Medical Center; EMS Director, Board of Directors — New York State Association of Fire Chiefs, Castleton, New York; County EMS Coordinator/Deputy Director of Emergency Services, Saratoga County Office of Emergency Services Saratoga County, New York.



Gatineau, Quebec will be the site for the 2009 National Respiratory Therapy Conference and Trade Show. Just across the river from Ottawa, this venue gives delegates access to the beauty of the Gatineau Hills as well as all the downtown activities of the Nation’s Capital.

## We are going to the next level!

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As the national voice for respiratory therapists in Canada, the CSRT strives for excellence in providing the services that RTs expect from their national association.

The CSRT is committed to offering practical education and tangible sessions at the conference — which is the only national RT conference of its kind in Canada. There will be sessions addressing common issues in the field of respiratory therapy — from pandemic planning to the latest guidelines on COPD.

The Exhibit Hall will have 76 exhibit booths and will feature the latest advancements in respiratory equipment and services.

Two breakfast and two lunches and coffee breaks are included in the registration cost. Registration will begin in the spring of 2009.

Plan to join us for a thought-provoking, informative series of lectures and workshops.



**Additional activities**

- We will also have our annual Airway Olympics Challenge.
- The wine and cheese reception on Thursday May 28th.
- We will cruise the Ottawa River on Friday night, May 29th
- President’s Banquet and Awards on Saturday night.

**FRENCH STREAMS**

- DNR Status/End of Life Care, *Dr. Redouane Bouali*
- COPD Guidelines and Management, *Dr. Jean Bourbeau*
- Neonatal Pediatrics, *Dr. Brigitte Lemgre*

REGULAR PROGRAMME UPDATES WILL BE POSTED ON OUR WEBSITE

**TOPICS INCLUDE:**

- Critical Care  
*Dr. Kayvan Amjadi*
- DNR Status/End of Life Care  
*Dr. Redouane Bouali*
- COPD Guidelines and Management  
*Dr. Jean Bourbeau*
- Cardiac Arrest – What Matters in the End  
*Dr. Peter Brindley*
- Patient Safety  
*Dr. Gerarda Cronin*
- Cognitive Therapy for Asthma  
*Dr. Greg Dubord*
- Asthma Guidelines and Management  
*Dr. Alan Kaplan*
- Anesthesia 2030  
*Dr. Jack Kitts*
- Rehab Management  
*Carole LeBlanc*
- Advancements in Noninvasive Patient Management  
*Dr. MacNet*
- Heroes – The Past, Present and Future of Respiratory Care  
*Dana Oakes*
- The Wonder of Lung Recruitment  
*Dr. Peter Papadakos*
- Is Your Department Ready for a Disaster – Can It Go the Distance Beyond Yo-Yo 72?  
*David Swift*
- Conscious Sedation Outside the OR  
*Dr. Homer Yang*
- From Code Blue to Sentinel Event Prevention: Post-Op Patient Safety Strategies, *Dr. Michael O’Reilly*

Other presentations will address, in detail, current and relevant topics of respiratory practice such as aerosolized Flolan for pulmonary hypertension, the science of aerosolization, infection control, a hard look at issues with modes of ventilation and their negative consequences, and much more. Further to the lecture’s, we added two new concepts:

1. Ventilation workshops that will use case scenarios and project real time waveforms to practically address various modes.
2. A session called “Ask the Experts” that will allow a panel to address the audience on practical everyday issues that have been submitted in advance.

You will return to your departments with new knowledge that can improve patient care.

**CONFERENCE SPONSORS**

PREMIER

**MAQUET-DYNAMED**

PLATINUM



# Professional Liability and Legal Defence Insurance Lower premiums, improved coverage for 2009!

The CSRT is pleased that substantial enhancements to the insurance coverage for its members. We have recently been informed that not only will annual premiums decrease in 2009 but additional coverage has been obtained for legal defence which applies to CSRT members who work regulated provinces.

***CSRT has also been able to negotiate PLI coverage for students during their clinical and students who have graduated and are waiting for their exam.***

The improvements in the policy and the comparison with the current policy are outlined below. The CSRT has the negotiating power to obtain the best possible professional liability insurance for its members.

Coverage	April 2009 to March 2010	April 2008 to March 2009
\$2,000,000 limit – professional liability premium	\$ 60.00	\$ 67.00
\$5,000,000 limit – professional liability premium	\$ 95.00	\$ 110.00
Deductible – any one claim	\$ 0	\$ 0
Extended reporting period premium 12 months – automatic	Included	Included
Extended reporting period premium Unlimited subject to syndicate being insurer at time of claim	\$150.00	\$200.00
Legal defence expenses (disciplinary hearing / tribunals)	\$25,000 per claim \$50,000 aggregate No maximum per hour	\$25,000 per claim \$50,000 aggregate Maximum of \$125 per hour
Criminal defence reimbursement	\$100,000 per claim \$100,000 aggregate	\$100,000 per claim \$100,000 aggregate
Counselling coverage for sexually abused patients	Maximum of \$10,000	Maximum of \$10,000
Defence costs	In addition to limits of insurance	Included in limits of insurance
Good Samaritan clause	Included	Not included
Coverage for students	Students who are under direct supervision, examiners, and all supervisory staff of the “named insured” during the certificate of registration exam.  Students who successfully complete the final exam and begin to render “professional services” up to the registration period of the next year.	

## Demande de communications : présentations par affiches et par exposés

La Conférence 2009 de la SCTR aura lieu à Gatineau, en Québec. Les parties intéressées sont invitées à soumettre au Comité de planification leurs dernières présentations par affiches et par exposés, aux fins de considération.

Les communications peuvent traiter de n'importe quel domaine de la thérapie respiratoire, y compris la pratique clinique, l'évaluation et la prestation de soins de santé respiratoires. Les communications d'un maximum de 250 mots doivent être soumises conformément aux directives.

Toutes les soumissions seront étudiées par un groupe

d'experts à l'aide d'un système de révision par les pairs à l'insu. La date limite pour les soumissions est le 13 mars 2009. Vous trouverez des renseignements détaillés sur le site Web de la SCTR sous la rubrique About/Annual Meetings. Les communications sont acceptées en français et en anglais.

L'auteur principal de l'affiche ou de l'exposé gagnant recevra une inscription gratuite à la Conférence 2010 de la SCTR.

# L'assurance responsabilité professionnelle et de défense juridique primes réduites, couverture améliorée pour 2009!

La SCTR est heureuse des importantes améliorations apportées à la couverture d'assurance responsabilité professionnelle (ARP) pour ses membres. Nous avons récemment été informés qu'en plus d'une réduction des primes annuelles en 2009, une couverture additionnelle pour la défense juridique a été obtenue à l'intention des membres de la

SCTR qui travaillent au sein des provinces réglementées.

Le tableau ci-dessous présente les améliorations à la police et une comparaison avec la police actuelle. La SCTR a le pouvoir de négociation voulu pour obtenir la meilleure assurance responsabilité professionnelle qui soit pour ses membres.

***La SCTR a également réussi à négocier une couverture ARP à l'intention des étudiants pendant leurs stages cliniques et des étudiants qui ont reçu leur diplôme et qui attendent l'examen.***

Couverture	Avril 2009 à mars 2010	Avril 2008 à mars 2009
Limite de 2 000 000 \$ - prime de responsabilité professionnelle	60,00 \$	67,00 \$
Limite de 5 000 000 \$ - prime de responsabilité professionnelle	95,00 \$	110,00 \$
Franchise – par réclamation	0 \$	0 \$
Prime de garantie subséquente 12 mois – automatique	Incluse	Incluse
Prime de garantie subséquente Sans limite sous réserve que le syndicat était l'assureur au moment de la réclamation	150,00	200,00
Frais de défense juridique (audience / tribunal disciplinaire)	25 000 \$ par réclamation Total de 50 000 \$ Aucun taux horaire maximum	25 000 \$ par réclamation Total de 50 000 \$ Maximum de 125 \$ / heure
Remboursement des frais de défense au criminel	100 000 \$ par réclamation Total de 100 000 \$	100 000 \$ par réclamation Total de 100 000 \$
Couverture counseling pour les patients victimes d'agression sexuelle	Maximum de 10 000 \$	Maximum de 10 000 \$
Frais de défense	En plus des limites de l'assurance	Inclus dans les limites de l'assurance
Clause de bon samaritain	Incluse	Non incluse
Couverture pour les étudiants	Étudiants sous supervision directe, examinateurs et tout le personnel de supervision de « l'assuré désigné » lors de l'examen du certificat d'agrément.  Étudiants qui réussissent l'examen final et qui commencent à prodiguer des « services professionnels » en attendant la période d'agrément l'année suivante.	

## Draw Winners

**Congratulations to Catherine Minick of Alberta. She is the winner of an iPod from the CSRT. Her name was randomly drawn for joining the CSRT before the April 1st, 2008 deadline.**

**Lloyd Leknes of Manitoba will receive free CSRT membership for 2009/2010 for completing the CSRT membership survey.**

**The *Canadian Journal of Respiratory Therapy* accepts submissions for science articles, information pieces and opinions on an on-going basis. First-time authors are also encouraged to submit. Forward material to [cjrt@csrt.com](mailto:cjrt@csrt.com)**





*Congratulations to Dan McPhee  
who will take on the roles and  
responsibilities of CSRT President-Elect!*

## CoARTE Update

Following the November meeting of the CoARTE Council, Tom Dorval who served as both Chair and Vice-Chair during his term on Council completed his time on CoARTE. Susan Dunnington has volunteered to replace him as the didactic educator representative. CSRT would like to thank Tom Dorval for his time and dedication to CoARTE.

This fall, CoARTE was invited to do three accreditation visits from programs across Canada. In mid-October a program review team consisting of Debbie Cain, Mark Murray, David Sheets, and Jo-Ann Aubut visited Conestoga College Institute of Technology. Later in October a program review team consisting of George Archer, Adrienne Leach, Jeffrey Hunter, and Michael Bachynsky was invited to review the QEII/Dalhousie School of Health Sciences program. At the time of publishing accreditation decisions for these programs had not been deter-

mined. Please watch the CSRT website for updated accreditation status of these programs.

At the beginning of December, CoARTE was invited to Collège Communautaire du Nouveau Brunswick—Dieppe where Marie Paré, Suzanne Malo, Patricia McClurg, Dr. Marc Engfield and Debbie Cain reviewed their program. An accreditation decision should be posted on the CSRT website in the New Year.

CoARTE would like to thank all the program reviewers for volunteering their time to participate in the accreditation process. Additionally we would like to thank the programs for inviting CoARTE to accredit their program and for their hospitality.

If you have any questions about the accreditation process please contact Pam Hicks, Accreditation and Education Manager at [phicks@csrt.com](mailto:phicks@csrt.com), or (800) 267-3422 ext 226.

## Mise à jour relative au CoAFTR

Suite à la réunion de novembre du Conseil du CoAFTR, Tom Dorval, qui a agi à titre de président et de vice-président pendant son mandat, a conclu ses fonctions au sein du CoAFTR. Susan Dunnington a accepté de le remplacer à titre de représentante de l'enseignement didactique. La SCTR remercie Tom Dorval pour son temps et son dévouement envers le CoAFTR.

Cet automne, le CoAFTR a été invité à effectuer trois visites aux fins d'agrément dans des programmes d'un bout à l'autre du Canada. À la mi-octobre, une équipe de révision de programme composée de Debbie Cain, Mark Murray, David Sheets et Jo-Ann Aubut a visité le Conestoga College Institute of Technology. Plus tard le même mois, l'équipe de révision de programme composée de George Archer, Adrienne Leach, Jeffrey Hunter et Michael Bachynsky a effectué une révision du programme de la QEII/Dalhousie School of Health Sciences. Au moment d'aller sous presse, les décisions d'agrément pour ces programmes n'avaient pas été finalisées. Prière de consulter le site Web de la

SCTR pour une mise à jour relative au statut d'agrément de ces programmes.

Au début décembre, le CoAFTR était invité au Collège communautaire du Nouveau Brunswick — Dieppe où Marie Paré, Suzanne Malo, Patricia McClurg, le Dr Marc Engfield et Debbie Cain ont procédé à une révision de programme. Une décision relative à l'agrément sera affichée dans le site Web de la SCTR dans le Nouvel An.

Le CoAFTR souhaite remercier tous les réviseurs de programme qui donnent de leur temps pour participer au processus d'agrément. Nous remercions également les programmes d'une part, d'avoir invité le CoAFTR à les agréer et, d'autre part, de leur accueil.

Pour toute question au sujet du processus d'agrément, prière de joindre Pam Hicks, directrice du Programme d'agrément et de formation, [phicks@csrt.com](mailto:phicks@csrt.com), ou au (800) 267-3422, poste 226.

## Professional Development Workshops

The fall CSRT hosted two professional development workshops. On October 1st, 2008 Christer Sinderby presented on NAVA ventilation mode to our members. A total of six sites registered for the workshop.

On November 19, 2008 David Swift presented on Emergency Preparedness. A total of eight sites registered and participated in the workshop.

CSRT would like to thank Ikaria who generously sponsored these educational workshops.

For more information on current and upcoming professional development workshops please contact Pam Hicks at phicks@csrt.com, or (800) 267-3422 ext 226.



## Ateliers de perfectionnement professionnel

La SCTR a présenté deux ateliers de perfectionnement professionnel cet automne. Le 1<sup>er</sup> octobre 2008, Christer Sinderby a donné un atelier sur la ventilation en mode NAVA à nos membres. Au total, six sites s'y étaient inscrits.

Le 19 novembre 2008, David Swift a présenté un atelier sur la Préparation aux situations d'urgence. Au total, huit sites se sont inscrits et ont participé à cet atelier.

La SCTR souhaite remercier Ikaria d'avoir généreusement accepté de commanditer ces ateliers éducatifs.

Pour obtenir des renseignements sur les ateliers de perfectionnement professionnel actuels et futurs, veuillez communiquer avec Pam Hicks, phicks@csrt.com, ou au (800) 267-3422, poste 226.

*President's Message continued from page 4*

senting each of them with a token of thanks for all of their hard work. Sometimes a thank you is just not enough. I hope I was able to convey the sincere gratitude that we all have for their dedication to our profession.

In December I had an opportunity to represent the CSRT at the American Association of Respiratory Care 54th International Respiratory Congress in Anaheim, California. I was amazed at the size and complexity of the educational forum and the number of delegates present for this meeting.

I was able to address the International Council for Respiratory Care consisting of international delegates to inform them of issues occurring in Canada in the realm of Respiratory Therapy. I spoke about our National Alliance of Respiratory Therapy Regulatory Bodies working collaboratively despite each jurisdiction having very specific regulatory issues. I was able to report on the work that the Canadian Anesthesiologists' Society (CAS) is doing to review the role of the Anesthesia Assistant.

Dr. Pierre Fiset, the current President of the CAS reported the following in his September 2008 President's report to his members: (with permission)

*"The second and equally important topic on which I will concentrate is the development of the role and curriculum of anesthesia assistants in Canada. The Board has taken important steps in that direction by adopting, three years ago, a position paper on the*

*subject (see CAS Guidelines document), and by recently striking a committee on which representatives of the Executive, ACUDA, Canadian Society of Respiratory Therapists, and representatives from Nursing associations will sit together to define a uniform curriculum among the six schools outside of Quebec providing advanced post-diploma training for anesthesia assistants, as well as the CoARTE (Council on Accreditation for Respiratory Therapy Education) accredited schools in Quebec. Further steps will be taken subsequently for accreditation and credentialing of that new field of expertise." Canadian Journal of Anesthesia. Volume 23, Number 3. September 2008.*

My sincere thanks to Rob Leathley, Past-President, CSRT and Jeff Kobe, former chair, Anesthesia Special Interest Group for moving this issue forward. The reins will now be passed along to Mike Wills, RRT, AA, the current chair of the CSRT's Anesthesia Special Interest Group to work collaboratively with Dr. Fiset and his association to promote this issue towards a working model.

My last word is to wish all of you the very best of the season. Thank you to all of the volunteers and staff that make the CSRT work. Thanks also to the many family members who support what we all do.

Talk to you when the snow starts to melt.

Ray Hubble RRT, M.Ed.  
CSRT President

## ERRATUM

The CSRT Position Statement on Anesthesia Assistant published in the fall 2008 journal, failed to include appropriate references. When developing the CSRT position statement, the authors drew on the expertise of the position statement from the College of Respiratory Therapists of Ontario (CRTO) as well as the position description in the position statement disseminated by the Canadian Anesthesiologists' Society (CAS). The document should have included these references prior to publication and the CSRT sincerely apologizes to the CRTO and the CAS for this oversight. Appropriate referencing has been included and the updated version is now available on the CSRT web site.

Mots du président suite de la page 4

reconnaître leurs efforts en leur remettant un cadeau de remerciement pour leur travail d'arrache-pied. Ça ne suffit pas toujours de simplement dire merci. J'espère que j'ai réussi à transmettre la sincère reconnaissance de l'ensemble des membres pour leur dévouement envers notre profession.

En décembre j'ai eu l'occasion de représenter la SCTR lors du 54e Congrès international sur les soins respiratoires de l'American Association of Respiratory Care à Anaheim, en Californie. L'ampleur et la complexité de ce forum éducatif m'ont étonné, de même que le nombre de délégués qui y participaient.

J'ai adressé le Conseil international pour les soins respiratoires (ICRC), un groupe de délégués internationaux, les informant des sujets d'actualité en thérapie respiratoire au Canada. J'ai parlé du travail collaboratif que notre Alliance nationale des organismes de réglementation de la thérapie respiratoire réussit à effectuer en dépit du fait que chaque région a ses enjeux réglementaires bien spécifiques. J'ai également donné un compte rendu du travail de la Société canadienne des anesthésiologistes (SCA) par rapport au rôle de l'assistant en anesthésie.

Le Dr Pierre Fiset, l'actuel président de la SCA, a publié le texte qui suit dans son rapport aux membres en septembre 2008 : (permission accordée)

*« Le deuxième sujet, tout aussi important, sur lequel je veux me pencher est le développement du rôle et du curriculum des assistants en anesthésie au Canada. Le Conseil a pris des mesures importantes en ce sens en adoptant un exposé de principe à ce sujet il y a trois ans (vous référer au document des Lignes directrices de la SCA) et, récemment, en créant un comité formé de représentants du Comité de direction, de l'ACUDA, de la Société canadienne des thérapeutes respiratoires et d'associations infirmières qui travailleront ensemble en vue d'établir un curriculum uniforme au sein des six écoles hors Québec qui offrent une formation supérieure spécialisée aux assistants en anesthésie, et des écoles au Québec qui sont agréées par le CoAFTR (Conseil pour l'agrément de la formation en thérapie respiratoire). Les étapes subséquentes, soient l'agrément et la délivrance de titres liés à ce nouveau domaine d'expertise, seront abordées en temps et lieu. »  
Journal canadien d'anesthésie. Volume 23, numéro 3. Septembre 2008. [Traduction libre]*

Je remercie sincèrement Rob Leathley, président sortant de la SCTR, et Jeff Kobe, ancien président du Groupe d'intérêt spécial des assistants en anesthésie, d'avoir fait avancer ce dossier. Mike Wills, TRA, AA, l'actuel président de ce Groupe d'intérêt de la SCTR, dirigera désormais ce travail en collaboration avec le Dr Fiset et son association, veillant à promouvoir la question dans le but de créer un modèle fonctionnel.

Le mot de la fin sert à vous souhaiter de très joyeuses Fêtes. Merci à tous les bénévoles et membres du personnel qui assurent le fonctionnement de la SCTR. Et merci à tous les membres de nos familles qui nous appuient dans notre travail.

Au plaisir de vous écrire un prochain mot à la fonte des neiges.

Ray Hubble, TRA, M.Ed

Président de la SCTR



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## Calendar of Events

January 26 – 28, 2009  
45 Annual Meeting Society of  
Thoracic Surgeons  
San Francisco CA  
<http://www.sts.org>

January 31 – February 2, 2009  
38th Annual Critical Care  
Congress  
Nashville TN  
<http://www.sccm.org>

February 5 – 7, 2009  
Fifth Forum on Respiratory Tract  
Infection  
Barcelona, Spain  
<http://www.aim-internationalgroup.com/2009/respinf/>

February 6 – 7, 2009  
COPD Conference  
Vancouver, BC  
<http://www.copd2009.com/>

February 8 – 10, 2009  
2009 Nursing Leadership  
Conference  
Toronto, ON  
[http://www.cna-nurses.ca/CNA/default\\_e.aspx](http://www.cna-nurses.ca/CNA/default_e.aspx)

February 15 -18, 2009  
Ninth Annual Symposium –  
Current Concepts in Pulmonary  
and Critical Care  
Maui, Hawaii  
[http://www.ala-hawaii.org/test\\_new.asp](http://www.ala-hawaii.org/test_new.asp)

March 13 – 16, 2009  
5th World Congress World  
Institute of Pain – WIP  
New York NY  
[www.kenes.com/wip](http://www.kenes.com/wip)

March 13 – 17, 2009  
American Academy of Allergy,  
Asthma & Immunology, 65th  
Annual Meeting  
Washington, DC  
<http://www.aaaai.org/>

March 8 – 12, 2009  
14th World Conference on  
Tobacco or Health  
Mumbai, India  
<http://www.14wctoh.org/>

March 19 -12, 2009  
SAP/AAP/CCAS Pediatric  
Anaesthesiology  
Jacksonville, FL  
<http://www.pedsanesthesia.org/meetings/index.iphtml>

March 27- 28, 2009  
12th International Conference on  
Home Mechanical Ventilation  
Barcelona, Spain  
<http://www.jivd-france.com/>

April 23 - 24, 2009  
6th Annual Critical Care  
Symposium  
England  
[www.critcaresymposium.co.uk](http://www.critcaresymposium.co.uk)

April 26 - 28, 2009  
Fourth Conference of the  
Canadian Sleep Society  
Toronto, ON  
<http://www.css-meeting.ca/>

May 6 - 9, 2009  
24th Annual Scientific Meeting  
of American Society of  
Hypertension  
San Francisco CA  
<http://www.ash-us.org/#>

May 10 -1 3, 2009  
Canadian Network for  
Innovation in Education  
International Conference 2009  
Ottawa ON  
[www.learningconference.ca](http://www.learningconference.ca)

May 15-20, 2009  
American Thoracic Society 2009  
International Conference  
San Diego, CA  
<http://www.thoracic.org/index.cfm>

Asthabasca Ad

# Management of Asthma in a Pediatric Emergency Department

## Asthma Pathway improves speed to first corticosteroid and clinical management by RRT

Touzin K, Queyrens A, Bussi eres JF, Langu erand G, Bailey B, Laberge N

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**Introduction:** Few studies have focused on evaluating the impact of using an asthma clinical pathway in an emergency department on delays in patient management, lengths of stay, time delays before administering initial drug treatment doses and hospital-related costs.

**Methods:** This descriptive and retrospective study aimed to assess the impact of using an asthma clinical pathway in a pediatric emergency department on a cohort made up of all the patients who were treated in the emergency department (ED) between 12-11-2006 and 03-02-2007.

**Results:** Of the 123 charts reviewed out of a total of 681 asthma cases treated in the ED during the study period, 41 (33.3%) children were treated using the asthma pathway.

The clinical pathway reduced the delay in respiratory therapy management and the average delay in administering the initial dose of  $\beta$ -2 agonists in a non-significant way, whereas the average delay in administering the initial dose of corticosteroids was reduced significantly.

**Conclusion:** This retrospective study assessed the use and impact of an asthma clinical pathway in a pediatric emergency department on the delay in managing children by respiratory therapists and the delay in administering the initial dose of corticosteroids. Upgrading the asthma clinical pathway based on the latest asthma consensus guidelines may lead to improved benefits when treating patients with the pathway.

**Key Words:** asthma, pediatrics, emergency, management

### INTRODUCTION

More than 3 million Canadians have to deal with serious respiratory ailments such as asthma, chronic obstructive pulmonary disease (COPD), lung cancer, influenza, pneumonia, bronchiolitis, tuberculosis, cystic fibrosis and respiratory distress syndrome (RDS).<sup>1</sup> These diseases affect all ages (children, adolescents, adults and seniors). They are also the third cause of hospital admission and death in Canada after heart disease and cancer. Furthermore, studies have shown the prevalence of asthma to be between 3%<sup>2</sup> and 7%<sup>3</sup> in the adult population and approximately 2,249,703 people suffer from asthma in Canada, including about 555,592 in Quebec, according to the latest Health Canada statistics published in 2005.<sup>5</sup> Moreover, respiratory diseases account for about 11% of all the health problems that lead to hospital admissions. In children 0-14 years old, asthma accounts for 10-12% of hospital admissions due to respiratory disease.<sup>1</sup>

The efficacy of treatment and care given to patients admitted to an emergency department (ED) helps to reduce the rate of hospital admissions for asthma patients. In addition, the use of ED-specific asthma clinical pathway may help to reduce delays in patient management by physicians and respiratory therapists, shorten lengths of stay and time delays before the initial drug treatment is administered as well as decrease patient admission costs.

At our hospital, an asthma clinical pathway has been in effect since May 2003. This pathway was developed by members of an

asthma committee composed of physicians, nurses and respiratory therapists. The ED clinical pathway are based for the most part on the Canadian Asthma Consensus Report published in 1999 and later revised in 2003 by the Canadian Medical Association. The aim of developing the pathway was to systematize practices, hasten the intervention of respiratory therapists, promote optimal ED stays and favor the prompt administration of oral corticosteroids.

The objective of this article is to describe the use and impact of an asthma clinical pathway in the ED of a tertiary care pediatric hospital.

### METHODS

This is a descriptive and retrospective study that focused on all patients admitted to the ED between 12-11-2006 and 03-02-2007. The study included all the patients between the age of 18 month and 18 year who were identified as being asthmatic or had already received at least one  $\beta$ -2 agonist treatment with an initial diagnosis of asthma as established by the emergency pediatrician who treated the child.

The main objective was to determine the impact of using the ED asthma clinical pathway on delays in managing patients and their median ED length of stay compared with patients treated without using the pathway. The secondary objective was to compare the level of compliance of patients treated using the pathway with those treated without the pathway in terms of doses and frequencies of  $\beta$ -2 agonist administration. We also ascer-

tained whether the doses and frequencies of the drugs administered to the treated patients using the pathway actually matched those recommended by the clinical pathway. We evaluated each drug separately during our compliance assessment and deemed a patient's treatment to be nonconforming if we found at least one dose administered in a way that did not conform to the pathway over the course of the whole treatment.

Patient selection was carried out using Stat-Dev® (v. 2.3.1, 2007), which included all information on patients who had visited the ED based on their clinical diagnosis. From these data, patients who had been diagnosed as asthmatic between 12-11-2006 and 03-02-2007 were identified using asthma as a keyword to search the software program for the primary diagnosis. A cross-tabulation was then performed between this patients' list and the respiratory therapists' record (a list of patients managed by the respiratory therapist) in order to identify patients who had received the aerosol therapy. A random patient sampling was obtained using the Microsoft Access database program. To achieve this, each patient was randomly given a different number and the selection of the required number of files was done by sorting, in ascending order, the numbers that had been randomly attributed to the patients.

In order to meet the primary and secondary objectives of the study, we compiled the following variables: age, weight, level of seriousness of the asthma episode (Level I, II, III, IV and V – table 1), arrival time, nurse's triage time, time before the patient was managed by the physician and then by the respiratory therapist as well as when the initial dose of  $\beta$ -2 agonist

and the initial dose of corticosteroids were administered using the patients' medical records. All the data were collected by a respiratory therapist and research assistant. The patients treated without the use of the pathway were all assigned a seriousness rating of I to V for their asthma episode, based on the classification criteria listed and used in the ED asthma clinical pathway (table 1). The variables compiled allowed us to calculate average delays in patient management by physicians and respiratory therapists as well as average delays in administering the initial  $\beta$ -2 agonist and corticosteroid dose. The delays in patient management were calculated from the time of the triage rather than from when the patient arrived in the ED. Table 2 presents the asthma clinical pathway used in the ED.

Descriptive statistical analyses (i.e., average, standard deviation, median, interval) were carried out on the collected data using Microsoft Excel. The Student's t test was used to compare patient averages and the chi-square or Fisher's exact test to compare proportions. All the statistics were calculated using SPSS 15.0 (SPSS Inc., Chicago, IL, 2006). A value of  $p \leq 0,05$  was considered significant. Access to patient records was authorized by the hospital administration within the framework of a retrospective study using objective criteria.

**RESULTS**

Using computerized patient records between 12-11-2006 and 03-02-2007, we identified 681 asthma visits to ED and 94.3% of these patients received aerosol therapy. For the purposes of the study, we randomly selected 123 computerized patient records and observed that 41 (33.3%) of the patients were treated using

Table 1. Evaluation of Asthma episode Intensity Based on the ED Asthma Clinical pathway

Asthma episode intensity	Moribund P / I	Severe P / II	Moderate to severe P / III	Mild to moderate P / IV	Mild P / V
Respiratory rate	Respiratory impairment	50% > average for age	Between 30-50% > average for age	30% more than the average for age	Normal for age
Retraction	Intercostal, sternal, subcostal and subclavicular or lack of retraction	Important Subcostal, intercostal and clavicular	Subcostal and intercostal	Mild intercostal or absent	Very mild or absent
Dyspnea	Severe Speaking with difficulty	Severe	Important, make short sentence	Mild, make complete sentences	None
Color	Cyanosis, grayish	Cyanosis	Pale	Normal	Normal
State of consciousness	Altered, confusion, lethargy	Normal or tired	Normal	Normal	Normal
Nasal flaring	Important	Present	Absent	Absent	Absent
Auscultation	Decrease of vesicular murmur, not very perceptible	Sibilant rhonchus (sometimes absent)	Wheezing and sibilant rhonchus (inspiratory and expiratory)	Mild wheezing, sibilant rhonchus during end expiration	Some sibilant rhonchus or expiratory time lengthened
Pulse oxymetry	< 90%	Saturation at 90% and less in ambient air	Saturation at 91-94% in ambient air	Saturation > 95% in ambient air	Greater than 95% in ambient air
Oxygen need	Important	> 40% to maintain oxygen saturation > 95%	31-40% to maintain oxygen saturation > 95%	22-30% for oxygen saturation > 95%	No oxygen need
Forced expired volume in one second (FEV1)	Not applicable	< 40% of the predicted value	40-60% of the predicted value	60-80% of the predicted value	80% and more of the predicted value

Table 2. The ED Asthma Clinical pathway

Asthma episode intensity	Severe P / II	Moderate to severe P / III	Mild to moderate P / IV	Mild P / V
Air entry	Clear the airway	Clear the airway	Clear the airway	Clear the airway
Oxygen therapy	Maintain oxygen saturation > 95%	Maintain oxygen saturation > 95%	Maintain oxygen saturation > 95%	None
Salbutamol 1 inhalation = 100mg	First evaluation by respiratory therapist Medical evaluation	First evaluation by respiratory therapist Medical evaluation	First evaluation by respiratory therapist Medical evaluation	First evaluation by respiratory therapist Medical evaluation
Next dose reduced by 100mg if adverse reaction occurred	100µg/3kg maximum 1000µg/treatment  Q20 min x 3  Second evaluation (physician notified)  Q20 min x 3  Third evaluation (physician notified)  Decision making (hospitalization clinical pathway or individual prescription)	100µg/3kg maximum 1000µg/treatment  Q20 min x 3  Second evaluation (physician notified)  Q20 min x 2  Third evaluation (physician notified)  Decision making (hospitalization clinical pathway)	100µg/3kg maximum 1000µg/treatment  Q30 min x 2  Second evaluation (physician notified)  1 treatment  Third evaluation (physician notified)  1 treatment to considered	100µg/3kg maximum 1000µg/treatment  As needed  Second evaluation (physician notified)  1 treatment to considered Third evaluation (physician notified)  1 treatment to considered
Alternative for patient with an important dyspnea and an important oxygen need: solution of 5mg/mL (0.5%) 0.02-0.03mL/kg/ treatment, minimum 0.3mL, maximum 1.0mL dilute in physiologic saline : total of 3mL				
Administration of inhaled glucocorticoids (IGC)	No	No	No	Yes, for education or fitting
Administration of systemic glucocorticoids (SGC) In the 15 min following patient admission	Yes Dexamethasone: 0.2mg/kg maximum 15mg  Prednisone 2 mg/kg or less maximum 50mg	Yes PO If < 5 years old  PO If > 5 years old	Yes PO  PO If > 5 years old	Could be administered in order to control the episode

Table 3. Description of the Study Population for Each of the Two Patient Groups That Were Evaluated

	With pathway	Without pathway	p-value
N	41	41	
Age (years)	6.4 ± 3.7	5.8 ± 4.2	0.446
Mean weight (kg)	25.8 ± 17.7	25.59 ± 17.88	0.969
Level of seriousness of the asthma episode			
2	4 (9.8%)	5 (12.2%)	1.000
3	14 (34.2%)	12 (29.3%)	0.813
4	16 (39.0%)	17 (41.5%)	1.000
5	7 (17.1%)	7 (17.1%)	1.000

the asthma clinical pathway in the ED and 82 (66.7%) of them without the pathway. Out of the 82 non-pathway patient records, we randomly selected 41 in order to obtain 2 groups that were quantitatively identical. The description of the population of each of the 2 groups under study is described in Table 3.

We observed that use of the ED asthma clinical pathway did not influence the average delay in patient management by physicians (68.73 ± 58.27 min with pathway vs. 66.27 ± 56.14 min without, p=0.846), the mean ED length of stay or the average dose of β-2 agonists or dexamethasone administered to the patients,

Graph 1. Profile of the Delays in Patient Management and Clinical Pathway Treatment Compliance for Pediatric ED Asthma Patients

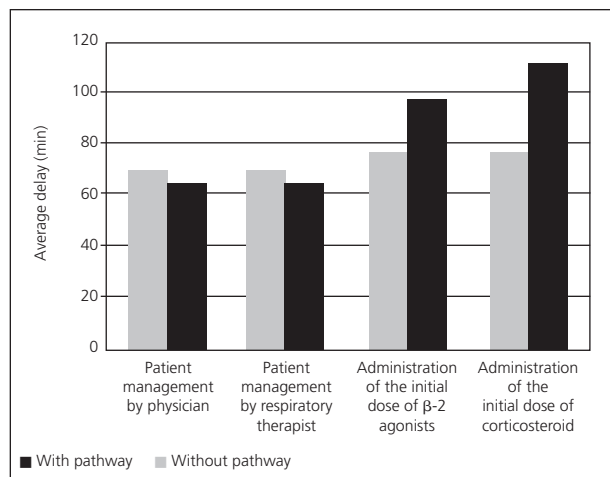


Table 4. Profile of ED Length of Stay and ED Treatment Compliance for Pediatric Asthma Patients in Relation to the Frame of Reference of the Pathway

	With pathway Mean ± standard deviation [Interval]	Without pathway Mean ± standard deviation [Interval]	p-value
Mean ED length of stay (h)	4.97 ± 2.55 [1.87-15.77]	5.78 ± 5.01h [0.8-24.68]	0.358
Average dose/ 3kg of beta-2 agonists (mcg)	83.76 ± 20.21 [13.99-125-87]	78,98 ± 23,62 [3,48-111,11]	0,058
Mean beta-2 agonists treatment number administered/ patient	3,98 ± 2,09 [1-12]	3,66 ± 3,29 [1-16]	0,661
Average dose/kg of dexamethasone	0,29 ± 0,08 [0,19-0,56] (n=33)	0,30 ± 0,06 [0,18-0,48] (n=33)	0,874

since we did not find any significant difference between the two groups studied. On the other hand, its use reduced in a non-significant way the delay in patient management by respiratory therapists (73.46 ± 54.93 min with pathway vs. 95.68 ± 58.17 min without, p=0.079) and the average delay in the administration of the initial dose of beta-2 agonists (75.54 ± 55.48 min with pathway vs. 97.27 ± 58.44 min without, p=0.088). The average delay in administering the initial dose of corticosteroid was significantly reduced when using the pathway (74.94 ± 51.47 min with pathway vs. 108.08 ± 81.06 min without, p=0.038). The corticosteroids that we found to be used most frequently in the ED for the treatment of asthma were dexamethasone (78.0% with the pathway vs. 82.9% without), prednisone (19.5% with the pathway vs. 19.5% without), fluticasone (7.3% with the pathway vs. 36.6% without) and budesonide (9.8% solely in the non-pathway patient group).

Table 5. Administered Dose and Dose Frequency Compliance Rate in Relation to the Frame of Reference of the pathway

	With pathway N (%)	Without pathway N (%)	p-value
Dose of beta-2 agonists	31/41 (75.6%)	22/41 (53.7%)	0.064
Frequency of administration of the beta-2 agonists	41/41 (100%)	29/41 (70.7%)	<0.001
Dose of corticosteroids	12/37 (32.4%) (n=37)	12/39 (30.8%) (n=39)	0.804
Frequency of administration of corticosteroids	37/37 (100%) (n=37)	38/39 (97.4%) (n=39)	1.000

We noted a significantly higher (p<0,001) compliance level in patients treated using the clinical pathway for 1 of the 4 parameters assessed, specifically the frequency of administration of the beta-2 agonists. We also noted that compliance for the dose of administration of the beta-2 agonists was higher in a non-significant way in the non-pathway patient group. On the other hand, we observed no significant difference in dose and frequency compliance for corticosteroid administration whether the pathway was used or not. Furthermore, we noted a weak compliance for corticosteroid doses in the two groups assessed. The dose of dexamethasone that was used most often was 0.3 mg/kg for 69.7% of the patients treated using the pathway and 81.8% for the patients who were not. Graph 1 and tables 4 and 5 present the main results of the study profiling the delays in patient management and compliance with the pathway treatment used for pediatric ED asthma patients.

**DISCUSSION**

There are few studies on the impact of an ED asthma clinical pathway on delays in patient management.<sup>6-9</sup> Opinions diverge in the studies published on the subject as to the impact of the use of an ED asthma pathway on length of treatment, delay in patient management and patient treatment costs. In fact, some studies such as the one published by Kwan-Gett et al. conclude that using an asthma pathway does not reduce patient length of stay or associated treatment costs after having evaluated the impact of a clinical pathway in a pediatric hospital.<sup>10</sup> Furthermore, we found some studies that reported both clinical and economic advantages when treating patients after using an ED asthma clinical pathway.<sup>11-14</sup> These studies recognized that using a pathway, preferably with a pre-written tool, may help to increase the practitioners' compliance with guidelines and reduce the variance.<sup>15-17</sup>

Our study revealed non-significant differences between the group treated using the pathway and the one that was not, except for the average delay in administering the initial corticosteroid dose using a systemic route that was significantly lower in the pathway group. Indeed, we noted that ED asthma clinical pathway use may explain a time gain of up to 20 minutes.

The low rates of corticosteroid dose compliance in the pathway



patient sample confirm that recommended doses and frequencies need to be updated for use with the asthma pathway. As a matter of fact, the latest consensus favors using dexamethasone at 0.6 mg/kg<sup>18-19</sup> rather than 0.2 mg/kg as is now recommended in the ED asthma clinical pathway. The disparity between doses recommended in the ED asthma pathway and the latest asthma consensus guidelines shows that a revised pathway based on pediatric guidelines and recommendations set forth in the revised 2005 version of the Canadian Asthma Consensus Report may help to improve the benefits related to using the ED asthma clinical pathway.

This study is part of a process intended to evaluate practices and collaboration among physicians, pharmacists and respiratory therapists. This type of evaluation is instrumental in developing interdisciplinarity by basing practices on conclusive data and a true portrait of the situation.

The study has certain limitations. Its retrospective character and limited sample size may explain the non-significant differences observed between the two groups. However, it is not clear whether the observed differences were clinically significant for

patients and ED functioning. Furthermore, the study did not take into account professional resources that were available in the ED for the period under study. Several factors may be instrumental in ED patient management, notably the load and nature of the other cases as well as the availability of medical staff, nurses and respiratory therapists. Finally, clinical pathway use is influenced by physicians on duty and their level of comfort with the pathway and its use. Using the pathway leads to faster patient management by respiratory therapists and some physicians prefer to monitor patients themselves.

### CONCLUSION

This retrospective study evaluated the use and impact of an asthma clinical pathway in a pediatric tertiary care ED. It showed that using the ED pathway led to a decrease in the delay in patient management by respiratory therapists and a reduced ED length of stay in a non-significant way as well as a decrease in the delay of administering the initial dose of corticosteroids in a significant way. The study revealed that updating the clinical pathway would help to improve its impact on the treatment of ED asthma patients.

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# Évaluation de la prise en charge des patients asthmatiques à l'urgence pédiatrique

L'utilisation d'un protocole de traitement de l'asthme à l'urgence réduit le délai de prise en charge des enfants par l'inhalothérapeute et le délai d'administration de la 1ère dose de corticostéroïdes.

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**Introduction :** Peu d'études portent sur l'évaluation de l'impact relié à l'utilisation d'un protocole d'asthme à l'urgence sur le délai de prise en charge des patients, la durée de séjour, le délai avant l'administration de la première dose de traitements médicamenteux et les coûts reliés à l'hospitalisation.

**Méthode :** Étude descriptive et rétrospective visant à évaluer l'impact de l'utilisation d'un protocole d'asthme à l'urgence pédiatrique sur une cohorte regroupant tous les patients ayant été traité à l'urgence entre la période du 12-11-2006 au 03-02-2007.

**Résultats :** Des 123 dossiers révisés parmi les 681 cas d'asthme traités à l'urgence durant la période de l'étude, on observe que 41 (33,3%) enfants asthmatiques ont été traités avec l'utilisation du protocole d'asthme. On constate aussi que l'utilisation du protocole d'asthme diminue le délai

de prise en charge par l'inhalothérapeute et le délai moyen d'administration de la 1ère dose d'agonistes bêta-2 de façon non significative alors que le délai moyen d'administration de la 1ère dose de corticostéroïde est diminué de façon significative.

**Conclusion :** Cette étude rétrospective évalue l'utilisation et l'impact d'un protocole de traitement de l'asthme à l'urgence d'un centre mère-enfant universitaire sur le délai de prise en charge des enfants par l'inhalothérapeute et le délai d'administration de la 1ère dose de corticostéroïdes. Une remise à niveau du protocole d'asthme se basant sur les derniers consensus d'asthme pourrait permettre d'améliorer les bienfaits de celui-ci sur le traitement des patients.

**Mots-clés :** asthme, pédiatrie, urgence, prise en charge

## INTRODUCTION

Plus de 3 millions de Canadiens doivent faire face à de graves maladies respiratoires — asthme, maladie pulmonaire obstructive chronique (MPOC), cancer du poumon, grippe, pneumonie, bronchiolite, tuberculose, fibrose kystique, et syndrome de détresse respiratoire (SDR)<sup>1</sup>. Ces maladies touchent toutes les classes d'âges; enfants, adolescents, adultes et aînés. Celles-ci représentent aussi la 3<sup>e</sup> cause d'hospitalisation et de décès au Canada après les maladies cardiovasculaires et le cancer. De plus, des études révèlent que la prévalence de l'asthme se situe entre 3% (2) et 7%(3) dans la population adulte et dépasse 10% chez les enfants<sup>2-4</sup>. On estime à environ 2 249 703 le nombre de personnes asthmatiques au Canada ainsi qu'à près de 555 592 à l'échelle du Québec selon les dernières statistiques de Santé Canada publiés en 2005<sup>5</sup>. De plus, parmi tous les problèmes de santé entraînant l'hospitalisation des patients, le rôle attribué aux maladies respiratoires s'élève à environ 11%. Chez les enfants âgés entre 0 et 14 ans, l'asthme représente la cause d'hospitalisation dans 10% à 12% des cas de maladies respiratoires<sup>1</sup>.

L'efficacité des traitements et des soins prodigués aux patients admis à l'urgence permet de réduire les taux d'hospitalisation pour les patients souffrant d'asthme. Par ailleurs, l'utilisation de protocoles d'asthme spécifiques à l'urgence pourrait permettre de diminuer considérablement le délai de prise en charge par les médecins et les inhalothérapeutes, le délai avant l'administration du premier traitement médicamenteux, la durée de séjour ainsi

que les coûts reliés à l'hospitalisation des patients.

Au Centre hospitalier X, un protocole de traitement de l'asthme est en vigueur au service d'urgence depuis mai 2003 et a été révisé en octobre 2003. Ce protocole a été mis sur pied par les membres du comité sur l'asthme regroupant des médecins, des infirmiers et infirmières ainsi que des inhalothérapeutes. Les lignes directrices du protocole d'asthme à l'urgence sont principalement basées sur le Canadian asthma consensus report publié en 1999 et révisé en 2003 par l'Association médicale Canadienne. La mise en place du protocole avait pour objet de systématiser la pratique, d'accélérer l'intervention de l'inhalothérapeute, de favoriser un séjour optimal à l'urgence ainsi que de favoriser l'administration rapide de corticostéroïdes oraux.

L'objectif de cet article est de décrire l'utilisation et l'impact d'un protocole de traitement de l'asthme à l'urgence d'un centre mère-enfant universitaire.

## MÉTHODE

L'étude a été réalisée au X. Il s'agit d'une étude descriptive et rétrospective portant sur tous les patients admis au service de l'urgence du centre hospitalier entre la période du 12-11-2006 au 03-02-2007. L'étude a inclus tous les patients âgés de plus de 18 mois, connus comme étant asthmatiques ou ayant déjà reçu au moins un traitement d'agonistes bêta-2 avec un diagnostic de départ d'asthme tel qu'établi par le pédiatre urgentiste ayant vu l'enfant.

L'objectif principal était de déterminer l'impact de l'utilisation du protocole d'asthme à l'urgence sur les délais de prise en charge du patient et sur la durée moyenne de son séjour à l'urgence et ce, comparativement aux patients traités sans l'utilisation du protocole. L'objectif secondaire était d'évaluer le niveau de conformité, par rapport au protocole, des doses et des fréquences d'administration d'agonistes bêta-2 et de corticostéroïdes chez les patients traités sans l'utilisation du protocole. Nous avons aussi vérifié si les doses et les fréquences de médicaments administrés aux patients traités sous protocole concordent réellement avec celles recommandées par le protocole. Au cours de cette évaluation de la conformité, chaque médicament a été évalué séparément et nous avons considéré le traitement d'un patient comme non conforme si l'on retrouvait au moins une dose administrée de façon non conforme au protocole au cours de toute la durée du traitement.

La sélection des patients a été effectuée à l'aide du logiciel Stat-Dev® (version 2.3.1, 2007) regroupant toutes les informations portant sur les patients ayant visité l'urgence du centre hospitalier en fonction de leur diagnostic clinique. À partir de ces données, les patients ayant été diagnostiqués comme asthmatiques entre le 12-11-2006 et le 03-02-2007 ont été identifiés en recherchant la mention asthme comme diagnostic primaire dans le logiciel. Un croisement a ensuite été fait entre cette liste de patients et le registre des inhalothérapeutes (liste des patients pris en charge par un inhalothérapeute) afin d'identifier ceux ayant reçu de l'aérosolthérapie. L'échantillonnage des patients a ensuite été effectué par un processus de randomisation aléatoire et en utilisant le logiciel de base de données Access (Microsoft Access). Pour ce faire, un chiffre différent a été attribué à chaque

patient au hasard et la sélection du nombre requis de dossiers a été effectuée en triant les chiffres attribués aléatoirement aux patients par ordre croissant.

Afin de répondre aux objectifs primaires et secondaires de l'étude, nous avons colligé l'âge, le poids, le niveau de gravité de la crise d'asthme (niveau I, II, III, IV et V), l'heure d'arrivée, l'heure de triage par l'infirmière, l'heure de prise en charge par le médecin puis par l'inhalothérapeute ainsi que l'heure d'administration de la 1ère dose d'agoniste bêta-2 et de la 1ère dose de corticostéroïde à partir du dossier médical des patients. Toutes les données ont été recueillies par l'inhalothérapeute et l'assistante de recherche. Un niveau de gravité de la crise d'asthme, variant entre I et V, a été attribué à chacun des patients traités sans l'utilisation du protocole en se basant sur les critères de classement inscrits et utilisés dans le protocole d'asthme à l'urgence. Les critères nécessaires au classement de la gravité de la crise d'asthme des patients sont présentés au tableau 1. Les variables colligées ont permis de calculer les délais moyens de prise en charge du patient par le médecin et par l'inhalothérapeute, ainsi que les délais moyens d'administration de la 1ère dose d'agoniste bêta-2 et de corticostéroïdes. Les délais de prise en charge ont été calculés à partir de l'heure de visite au triage et non de l'heure d'arrivée du patient à l'urgence. Le tableau 2 présente le protocole de traitement de l'asthme à l'urgence au centre hospitalier.

Des analyses statistiques descriptives (i.e. moyenne, écart-type, médiane, intervalle) ont été réalisées sur les données collectées (Microsoft Excel). Le test T de Student a été utilisé pour comparer les moyennes des patients et le Chi-carré ou le test exact de Fisher pour comparer les proportions. Tous les tests

Tableau 1. Évaluation de l'intensité de la crise d'asthme selon le protocole au centre hospitalier

Évaluation de l'intensité de la crise d'asthme à l'urgence					
Niveau de gravité	Moribond P/ I	Sévère P/ II	Modérée à Sévère P/ III	Légère à modérée P/ IV	Légère P/ V
Fréquence respiratoire *	Altération de l'ABC	50% > moyenne pour l'âge	Entre 30 - 50% > moyenne pour l'âge	30% au dessus de la moyenne pour l'âge	Normale pour l'âge
Tirage	Intercostal, sus-sternal, sous-costal et sus-claviculaire ou absence de tirage	Important sous-costal, intercostal et sus-claviculaire	Sous-costal et intercostal	Intercostal léger ou absent	Absent ou très léger
Dyspnée	Sévère Parle difficilement	Sévère	Importante, fait des phrases courtes	Légère, fait des phrases complètes	Aucune
Coloration	Cyanosé, grisâtre	Cyanose	Teint pâle	Normal	Normal
État de conscience	Altéré, confusion, léthargie	Normal ou fatigué	normal	Normal	Normal
Battement des ailes du nez	Important	Présent (cornage)	absent	Absent	Absent
Auscultation	Murmure vésiculaire très diminué, peu perceptible	Mauvaise entrée d'air et peu de sibilances (parfois absentes)	Wheezing et sibilances (inspiratoires et expiratoires)	Wheezing léger, sibilances en fin d'expiration	Quelques sibilances, ou temps expiratoire allongé
Oxymétrie de pouls	< 90%	Saturation à 90% et moins à l'air ambiant	Saturation 91-94% à l'air ambiant	Saturation > 95% à l'air ambiant	Supérieure à 95% à l'air ambiant
Besoin en Oxygène	Important	>40% pour maintenir oxymétrie > 95%	31 à 40% pour maintenir oxymétrie > 95%	22 à 30% pour oxymétrie > 95% ou air ambiant	Aucun besoin en oxygène

Tableau 2. Protocole de traitement de l'asthme à l'urgence au centre hospitalier

Niveau de gravité	Sévère (II)	Modérée à sévère (III)	Légère à modérée (IV)	Légère (V)
Entrée d'air	Dégagement des voies respiratoires	Dégagement des voies respiratoires	Dégagement des voies respiratoires	Dégagement des voies respiratoires
Oxygénothérapie	Maintien d'une saturation > 95%	Maintien d'une saturation > 95%	Maintien d'une saturation > 95%	Aucune
Salbutamol 1 inhalation = 100mcg	Évaluation initiale Par l'inhalothérapeute Évaluation médicale	Évaluation initiale Par l'inhalothérapeute Évaluation médicale	Évaluation initiale Par l'inhalothérapeute Évaluation médicale	Évaluation initiale Par l'inhalothérapeute Évaluation médicale
Réduire de 100 mcg le prochain traitement si effets secondaires importants	100mcg/3Kg maximum 1000mcg/traitement  Q20 minutes X 3  2e évaluation Inh. (médecin avisé)  Q20 minutes X 3  3e évaluation Inh. (médecin avisé)  Prise de décision (protocole unités hospitalisation ou ordonnance individ.)	100mcg/3Kg maximum 1000mcg/traitement  Q20 minutes X 3  2e évaluation Inh. (médecin avisé)  Q20 minutes X 2  3e évaluation Inh. (médecin avisé)  Prise de décision (protocole unités d'hospitalisation)	100mcg/3Kg maximum 1000mcg/traitement  Q30 minutes X 2  2e évaluation Inh. (médecin avisé)  1 traitement  3e évaluation Inh. (médecin avisé)  1 traitement à considérer	100mcg/3Kg maximum 1000mcg/traitement  PRN  2e évaluation Inh. (médecin avisé)  1 traitement à considérer  3e évaluation Inh. (médecin avisé)  1 traitement à considérer
Nb : Alternative pour patient avec dyspnée importante et besoins élevés en oxygène: solution de 5mg/mL (0,5%) 0,02-0,03 mL/Kg par traitement , minimum 0,3mL, maximum 1,0 mL dilué dans salin physiologique : total de 3 mL				
Administration de glucocorticoïdes inhalés (GCI)	Non	Non	Non	Oui, pour enseignement ou ajustement****
Administration de glucocorticoïdes systémiques (GCS) dans les 15 minutes suivant l'arrivée du patient	Oui Décadron en suspension : 0,2mg/Kg maximum 15 mg  Prednisone 2mg/Kg ou moins Max 50 mg	Oui  Voie orale si < 5 ans  Voie orale Si > 5 ans	Oui  Voie orale  Voie orale Si > 5 ans	peuvent être débutés pour circonscire l'épisode
Disposition	Hospitalization  Request upon arrival	Discharge and education Hospitalization considered if: initial oxymetry of 90% or < 90% Do not respond to 3 treatments	Discharge and education	Discharge and education

Tableau 3. Description de la population à l'étude pour chacun des deux groupes de patients évalués

	Avec protocole	Sans protocole	Valeur de p
N	41	41	
Âge (ans)	6,4 ± 3,7	5,8 ± 4,2	0,446
Poids moyen (kg)	25,8 ± 17,7	25,59 ± 17,88	0,969
Niveau de sévérité clinique			
2	4 (9,8%)	5 (12,2%)	1,000
3	14 (34,2%)	12 (29,3%)	0,813
4	16 (39,0%)	17 (41,5%)	1,000
5	7 (17,1%)	7 (17,1%)	1,000

statistiques ont été réalisés à l'aide du logiciel SPSS 15.0 (SPSS Inc., Chicago, IL, 2006). Une valeur de  $p \leq 0,05$  a été considérée comme significative. L'accès aux dossiers patients a été autorisé par la Direction des services professionnels dans le cadre des études rétrospectives par critères objectifs.

## RÉSULTATS

À partir des dossiers patients informatisés entre le 12-11-2006 et le 03-02-2007, on recense 681 visites de patients asthmatiques à l'urgence du centre hospitalier, dont 94,3% ont reçu de l'aérosolthérapie. Pour les besoins de l'étude, cent vingt-trois

Figure 1. Profil des délais de prise en charge et de conformité du traitement au protocole utilisé pour les patients asthmatiques d'urgence pédiatrique

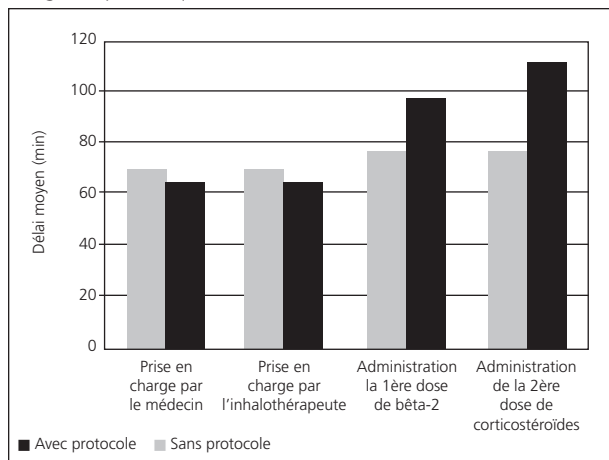


Tableau 4. Profil de la durée du séjour à l'urgence et de la conformité des traitements utilisés à l'urgence chez les patients asthmatiques en pédiatrie par rapport au référentiel du protocole

	Avec protocole Moyenne ± écart-type [Intervalle]	Sans protocole Moyenne ± écart-type [Intervalle]	Valeur de p
Durée moyenne du séjour à l'urgence (h)	4,97 ± 2,55 [1,87-15,77]	5,78 ± 5,01h [0,8-24,68]	0,358
Dose moyenne/3kg de bêta-2 (mcg)	83,76 ± 20,21 [13,99-125-87]	78,98 ± 23,62 [3,48-111,11]	0,058
Nombre moyen de traitements de bêta-2 administrés par patient	3,98 ± 2,09 [1-12]	3,66 ± 3,29 [1-16]	0,661
Dose moyenne/kg de dexaméthasone	0,29 ± 0,08 [0,19-0,56] (n=33)	0,30 ± 0,06 [0,18-0,48] (n=33)	0,874

dossiers patients informatisés ont été sélectionnés de façon aléatoire. Parmi ceux-ci, on observe que 41 (33,3%) patients ont été traités avec l'utilisation du protocole d'asthme à l'urgence et que 82 (66,7%) d'entre eux n'ont pas eu recours au protocole. À partir des 82 dossiers de patients non protocole, on a sélectionné 41 dossiers de façon aléatoire afin d'obtenir deux groupes quantitativement identiques. La description de la population pour chacun des deux groupes à l'étude est décrite dans le tableau 3.

On observe que l'utilisation du protocole d'asthme à l'urgence n'influence pas le délai moyen de prise en charge par le médecin, la durée moyenne de séjour à l'urgence ainsi que les doses moyennes d'agonistes bêta-2 ou de dexaméthasone administrées aux patients, puisque l'on ne retrouve pas de différence significative entre les deux groupes étudiés. Par contre, elle diminue de façon non significative le délai de prise en charge par l'inhalothérapeute et le délai moyen d'administration de la 1ère dose d'agonistes bêta-2. Le délai moyen d'administration de la 1ère dose de corticostéroïde est, quant à lui, diminué de

Tableau 6. Niveau de conformité des doses administrées et de la fréquence des doses par rapport au référentiel du protocole

	Sous protocole N (%)	Non protocole N (%)	Valeur de p
Doses de bêta-2	31/41 (75,6%)	22/41 (53,7%)	0,064
Fréquence d'administration d'agoniste bêta-2	41/41 (100%)	29/41 (70,7%)	<0,001
Doses de corticostéroïdes	12/37 (32,4%) (n=37)	12/39 (30,8%) (n=39)	0,804
Fréquence d'administration de corticostéroïdes	37/37 (100%) (n=37)	38/39 (97,4%) (n=39)	1,000

façon significative par l'utilisation du protocole. Parmi les corticostéroïdes les plus utilisés dans le traitement de l'asthme à l'urgence, on retrouve la dexaméthasone (78,0% d'utilisation sous protocole c. 82,9% non protocole), la prednisonne (19,5% d'utilisation sous protocole et 19,5% non protocole), la fluticasone (7,3% d'utilisation sous protocole c. 36,6% non protocole) et le budésonide (9,8% d'utilisation uniquement dans le groupe de patients non protocole).

En ce qui concerne le niveau de conformité, on constate qu'il est significativement plus élevé ( $p < 0,001$ ) chez les patients traités via le protocole pour un des quatre paramètres évalués soit pour la fréquence d'administration des agonistes bêta-2. On constate aussi que la conformité des doses d'administration des agonistes bêta-2 est plus élevée de façon non significative dans le groupe de patients sous protocole. Par contre, on n'observe aucune différence significative en ce qui a trait à la conformité des doses et des fréquences d'administration des corticostéroïdes pour les patients traités ou non sous protocole. De plus, on constate une faible conformité pour les doses de corticostéroïdes dans les deux groupes évalués. La dose de dexaméthasone la plus utilisée est de 0,3 mg/kg pour 69,7% des patients traités sous protocole et pour 81,8% des patients non protocole. Les tableaux 4, 5 et 6 présentent les principaux résultats de l'étude regroupant un profil des délais de prise en charge et de conformité du traitement au protocole utilisés pour les patients asthmatiques d'urgence pédiatrique.

### DISCUSSION

Il existe peu d'études sur l'impact d'un protocole de traitement de l'asthme à l'urgence sur les délais de prise en charge des patients<sup>6-9</sup>. Parmi les quelques études publiées sur le sujet, les opinions divergent en ce qui a trait à l'impact de l'utilisation d'un protocole d'asthme à l'urgence sur la durée de traitement, le délai de prise en charge et les coûts associés au traitement des patients. En effet, certaines études telles que celle publiée par Kwan-Gett et coll., concluent que l'utilisation du protocole d'asthme ne diminue pas la durée de séjour du patient ainsi que les coûts reliés au traitement de ceux-ci après avoir évalué l'impact d'un protocole clinique dans un hôpital pédiatrique<sup>10</sup>. Par ailleurs, on retrouve des études qui rapportent des avantages autant cliniques qu'économiques en ce qui a trait au traitement du patient suite à l'utilisation d'un protocole de traitement de

l'asthme à l'urgence<sup>11-14</sup>. Ces études reconnaissent que le recours à un protocole avec préférentiellement un outil pré-rédigé peut contribuer à accroître la conformité de la pratique à des lignes directrices et réduire les écarts entre les praticiens<sup>15-17</sup>.

Notre étude a mis en évidence des différences non significatives entre le groupe traité sous protocole ou non, hormis pour le délai moyen d'administration de la 1ère dose de corticostéroïdes par voie systémique qui était significativement moins élevé dans le groupe sous protocole. Toutefois, on observe que l'utilisation du protocole pourrait jouer un rôle dans la réduction du délai moyen de prise en charge du patient par l'inhalothérapeute (73,5 c. 95,7 minutes,  $p=0,079$ ) et le délai d'administration de la 1ère dose d'agonistes bêta-2 (75,5 c. 97,3 minutes,  $p=0,088$ ). En tenant compte des résultats obtenus dans notre étude en ce qui concerne le délai de prise en charge par l'inhalothérapeute, on constate que le recours au protocole d'asthme à l'urgence peut expliquer un gain de temps jusqu'à 20 minutes.

Les faibles taux de conformité des doses de corticostéroïdes dans l'échantillon de patients sous protocole nous confirme que le protocole nécessite une mise à jour en ce qui a trait aux doses recommandées ainsi qu'aux fréquences utilisées à l'intérieur du protocole d'asthme. En effet, les derniers consensus préconisent une utilisation de la dexaméthasone à 0,6 mg/kg<sup>18-19</sup> plutôt qu'à 0,2 mg/kg, tel que recommandé par le protocole d'asthme actuellement employé à l'urgence au sein du centre hospitalier. Cette disparité entre les doses recommandées par le protocole d'asthme à l'urgence et les derniers consensus démontre qu'une révision du protocole, basée sur les lignes directrices et les recommandations pédiatriques énoncées dans la version révisée en 2005 du Canadian asthma consensus report, pourrait permettre d'améliorer les bienfaits reliés à l'utilisation du protocole d'asthme à l'urgence.

Cette étude s'inscrit dans une démarche d'évaluation de la pratique et d'une collaboration médecins-pharmaciens-inhalothérapeutes. Ce type d'évaluation contribue à développer l'interdisciplinarité en fondant les pratiques sur des données probantes et un portrait réel de la situation.

Cette étude comporte des limites. Son caractère rétrospectif et la taille de l'échantillon limitée peuvent expliquer les différences non significatives observées entre les deux groupes. Par contre, il n'est pas clair que les différences observées soient cliniquement importantes pour le patient et le fonctionnement de l'urgence. Par ailleurs, l'étude ne tient pas compte des ressources professionnelles disponibles à l'urgence pour la période étudiée. Plusieurs facteurs peuvent contribuer à la prise en charge d'un patient à l'urgence, notamment la charge et la nature des autres cas, la disponibilité du personnel médical, des infirmières et des inhalothérapeutes. Enfin, le recours au protocole est influencé par le médecin de garde et son degré de confort avec le protocole et le recours à ce dernier. Le recours au protocole permet une prise en charge plus rapide par l'inhalothérapeute et certains médecins préfèrent assurer eux-mêmes le suivi du patient.

## CONCLUSION

Cette étude rétrospective évalue l'utilisation et l'impact d'un protocole de traitement de l'asthme à l'urgence d'un centre mère-enfant universitaire. Elle démontre que l'utilisation du protocole à l'urgence occasionne une diminution du délai de

prise en charge par l'inhalothérapeute et de la durée de séjour des patients de façon non significative ainsi qu'une diminution du délai d'administration de la 1ère dose de corticostéroïdes de façon significative. Cette étude met aussi en lumière qu'une mise à jour du protocole permettrait d'améliorer l'impact de celui-ci sur le traitement des patients asthmatiques à l'urgence.

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# Respiratory Therapy and Smoking Cessation: Are We Doing Our Part?

Amy Reid, RRT

*Close your eyes, breathe deeply ... relax.  
Be prepared for this article to evoke some grand emotions.*

I recently attended a five-day conference hosted by TEACH (Training Enhancement in Applied Cessation Counselling and Health). First I attended a three-day Core Course focusing on the global issues of smoking and counseling, with an emphasis on counselling, interventions (behavioural, psychological and pharmacological), harm reduction strategies, motivational interviewing, and resources. I then opted to attend a two-day Specialized Course relating to interventions for patients with mental health/addictive disorders. All disorders/addictions were addressed. Physicians were readily available to answer all manner of questions relating to everything from barriers to treatment, implementations, strategies, medication uses, to case study examples. I felt the five days were worth my time. In particular, though, one moment stayed with me.

I was sitting in a discussion panel with a physician (on day five), issues were being discussed, questions were being answered... and as part of an answer I heard the physician say, "I implore you to publish that...NOW...jump out of this discussion and publish that information...PLEASE". Now, this in itself had nothing to do with me...not directly. But, it spoke to me. All of a sudden a barrage of thoughts and questions flooded my mind and it was at that point that I knew what my job was. I decided that it was my obligation to spread the word in a way that could reach a global population...I was going to write a letter to the journal.

As a respiratory therapist, I left with the following thoughts.

1. Respiratory therapists were under-represented in this course, a course which I believe would help us to treat/inform a large percentage of our patient base.
2. Respiratory therapist training regarding smoking is minimal, I would even argue poor. We have very little training in cessation methods, strategies and counselling. Why is this the case?
3. We know the morbidity and mortality of smokers. As health care professionals, we have a moral/ethical/legal obligation to provide information and help to these persons.
4. Our professional counterparts are affected by smoking and cessation in ways that we perhaps never even considered. For example, patients on a mental health ward who are given certain times to smoke often over-smoke, and then go into detox before their next 'smoke break'. This is a potential cause of 'Code White' situations.
5. Smoking in itself is directly related to so many conditions/diseases of the body, far beyond what we may modestly

know. Of course we are aware of the respiratory system, and the cardiovascular system...but what of the neurological pathways, the endocrine system?

6. Why had I never heard of this program before?

I left the course deeply concerned of the possible disservice we are providing our patients. We encounter patients who smoke on a daily basis: emergency room visits, ward patients, pre-op patients, asthma clinics, COPD clinics, home care settings, sleep labs, etc. We are a profession that sees patients in a myriad of settings. We have great access to educational programs and a great knowledge base to start from. This raises a potent question. Are we doing our part? Is simply asking about smoking history enough? Is it enough to give a quick spiel about the benefits of smoking cessation? We have the potential to help these patients and to offer them suggestions and treatments that perhaps they had never previously considered. We have the opportunity to take a course that would expand our knowledge, and help to improve the lives of others. Again I ask...are we doing our part?

In the course it was repetitively stated that tobacco addiction is now defined and recognized as a chronic, relapsing psychiatric condition. (Yes, you read that correctly). This statement is huge. Even broken down this statement is meaningful. This statement has the ability to shift focus and change perspectives.

In group conversations I was always silent...thinking...listening...but never speaking. In a way I felt out of place and as a minority. But, what an irony. We all know that one person can make a difference, and that we're all equally important in all aspects of life. So, why shouldn't I be that person? And so now here I am...the minority in my group...writing an article, raising awareness and evoking discussion.

I am absolutely certain that if anyone took this course that they would be stimulated, educated, and motivated. I don't believe that there is any other way to leave this course.

It is my hope that we would all take this course, raise our awareness, and help the global population of smokers to quit completely, cut the costs for hospitals, and cut down visits to emergency rooms, save the world...yes I know...over-dramatic. But, it is my hope that we can all receive an increased awareness about tobacco addiction and cessation, and in turn that we could use that awareness to inform and possibly help our patients, no matter what setting we find ourselves in.

# Abstracts

## The Safety of Long-Acting $\beta$ -Agonists among Patients with Asthma Using Inhaled Corticosteroids

### Systematic Review and Metaanalysis

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**Rationale:** Inhaled long-acting  $\beta$ -agonists (LABAs), when used as monotherapy in asthma, may increase asthma-related hospitalizations, life threatening events requiring intubation/mechanical ventilation, and asthma-related deaths, but concomitant use of inhaled corticosteroids (ICS) may modify this effect.

**Objectives:** To determine the safety of long-acting  $\beta$ -agonists among patients with asthma using corticosteroids.

**Methods:** We conducted a systematic review and metaanalysis of parallel-group, blinded, randomized, controlled trials with at least 12 weeks of treatment addressing the impact of LABA on asthma-related and total morbidity and mortality in patients concomitantly using ICS. We searched MEDLINE, EMBASE, ACPJC, and Cochrane (Central) databases, and contacted authors and sponsors.

**Measurements and Main Results:** We used a random effects model to pool results from different studies as odds ratios (ORs) (95% confidence interval [CI]) (OR < 1.0 favors LABA). The search yielded 62 relevant studies included in this analysis. Among over 29,000 participants (15,710 taking LABA, with over 8,000 patient-years observed in the LABA groups), there were three asthma-related deaths and two asthma-related, nonfatal intubations (all in LABA groups; one event per study). Differences in asthma-related hospitalizations (OR, 0.74; 95% CI, 0.53–1.03) and asthma-related serious adverse events (mostly hospitalizations; OR, 0.75; 95% CI, 0.54–1.03) failed to reach statistical significance. The OR for total mortality was 1.26 (95% CI, 0.58–2.74), reflecting 14 deaths in LABA groups and eight deaths in control groups, respectively.

**Conclusions:** In patients with asthma using ICS, LABA did not increase the risk of asthma-related hospitalizations. There were very few asthma-related deaths and intubations, and events were too infrequent to establish LABA's relative effect on these outcomes.

**Key Words:** long-acting  $\beta$ -agonists • randomized trials • toxicity • adverse events • systematic review

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## Inhaled Anticholinergics and Risk of Major Adverse Cardiovascular Events in Patients With Chronic Obstructive Pulmonary Disease

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### A Systematic Review and Meta-analysis

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*JAMA*. 2008;300(12):1439-1450.

**Context:** Inhaled anticholinergics (ipratropium bromide or tiotropium bromide) are widely used in patients with chronic obstructive pulmonary disease (COPD) but their effect on the risk of cardiovascular outcomes is unknown.

**Objective:** To ascertain the cardiovascular risks of inhaled anticholinergics, including cardiovascular death, myocardial infarction (MI), and stroke.

**Data Sources:** Systematic searches were conducted on March 19, 2008, of relevant articles in MEDLINE, the Cochrane Database of systematic reviews, regulatory authority Web sites in the United States and the United Kingdom, and manufacturers' trial registries with no date restrictions.

**Study Selection:** Randomized controlled trials of any inhaled anticholinergic for treatment of COPD that had at least 30 days of treatment and reported on cardiovascular events.

**Data Extraction:** The primary outcome was a composite of cardiovascular death, MI, or stroke. The secondary outcome was all-cause mortality. Relative risks (RRs) were estimated using fixed-effects models and statistical heterogeneity was estimated with the I<sup>2</sup> statistic.

**Data Synthesis:** After a detailed screening of 103 articles, 17 trials enrolling 14 783 patients were analyzed. Follow-up duration ranged from 6 weeks to 5 years. Cardiovascular death, MI, or stroke occurred in 135 of 7472 patients (1.8%) receiving inhaled anticholinergics and 86 of 7311 patients (1.2%) receiving control therapy (RR, 1.58 [95% confidence interval {CI}, 1.21-2.06];  $p < .001$ , I<sup>2</sup> = 0%). Among individual components of the primary end point, inhaled anticholinergics significantly increased the risk of MI (RR, 1.53 [95% CI 1.05-2.23];  $p = .03$ , I<sup>2</sup> = 0%) and cardiovascular death (RR, 1.80 [95% CI, 1.17-2.77];  $p = .008$ , I<sup>2</sup> = 0%) without a statistically significant increase in the risk of stroke (RR, 1.46 [95% CI, 0.81-2.62];  $p = .20$ , I<sup>2</sup> = 0%). All-cause mortality was reported in 149 of the patients treated with inhaled anticholinergics (2.0%) and 115 of the control patients (1.6%) (RR, 1.26 [95% CI, 0.99-1.61];  $p = .06$ , I<sup>2</sup> = 2%). A sensitivity analysis restricted to 5 long-term trials (>6 months) confirmed the significantly increased risk of cardiovascular death, MI, or stroke (2.9% of patients treated with anticholinergics vs 1.8% of the control patients; RR, 1.73 [95% CI, 1.27-2.36];  $p < .001$ , I<sup>2</sup> = 0%).

**Conclusion:** Inhaled anticholinergics are associated with a significantly increased risk of cardiovascular death, MI, or stroke among patients with COPD.

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