



CJRT · RCTR

Winter 2004, Volume 40 (5)



RT Week October 2004

*The journal for respiratory
health professionals in Canada*

*La revue des professionnels de la
santé respiratoire au Canada*

PUBLICATIONS MAIL AGREEMENT NO. 40012961
REGISTRATION NO. 09846
RETURN UNDELIVERABLE CANADIAN ADDRESSES TO
CSRT
102 - 1785 Alta Vista Drive
Ottawa ON K1G 3Y6
cjrt@csrt.com

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Canadian Journal of Respiratory Therapy
Revue canadienne de la thérapie respiratoire

Official Journal of the CSRT
Revue officielle de la SCTR

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The *Canadian Journal of Respiratory Therapy (CJRT)* (ISSN 1205-9838) is produced for RRT: The Canadian Journal of Respiratory Therapy, Inc., by the Graphic Communications Department, Canadian Pharmacists Association and printed in Canada by Gilmore Printing. Publications mail registration no. 40012961. *CJRT* is published 5 times a year (in February, May, July, October and December); one of these issues is a supplement published for the Annual Educational Forum of the Canadian Society of Respiratory Therapists (CSRT).

La *Revue canadienne de la thérapie respiratoire (RCTR)* (ISSN 1205-9838) est produite pour le compte de RRT : The Canadian Journal of Respiratory Therapy, Inc., par Communications graphiques de l'Association des pharmaciens du Canada et imprimée au Canada par Harmony Printing. Courrier de publications no 09846. La *RCTR* paraît cinq fois l'an (en février, mai, juillet, octobre et décembre); un de ces numéros constitue un supplément publié pour le compte du Forum éducatif annuel de la Société canadienne des thérapeutes respiratoires (SCTR).



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The *CJRT* acknowledges the financial support of the Government of Canada, through the Publications Assistance Program (PAP), toward our mailing costs.

Cover Photo

RT Week at the College of the North Atlantic
 Third Year Respiratory Therapy students, of the College of the North Atlantic (CNA), answered many questions for the hospital visitors at their display booth during RT week. (From left to right Danielle Fitzgerald, Steve Chard and Rhonda Hurdle). They were on hand to answer questions and to present their poster displays on SARS and Difficult Intubations!

From Wade Wheeler

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Welcome!



Colya Kaminiarz

By the time this issue of the journal hits your mailboxes the CSRT will have held a special general meeting and completed a vote about complying with the Mutual Recognition Agreement (MRA) for our members, allowing them free movement to work throughout Canada. Read more about this important milestone for the CSRT and the implication of the results of the vote.

In this issue we are featuring articles from your peers on COPD Management and Mechanical Ventilation. You'll also find reports about successful RT week events across the country, as well as updates on CoARTE, the new National Competency Profile (NCP) and the CSRT House of Delegates.

Planning is well on the way for the 2005 Educational Forum in Edmonton. It looks like its going to be a great educational opportunity for RTs in all areas of practice, from anesthesia to critical care, and with new streams to deal with topics of special interest to educational and management issues. I encourage you to start planning on attending this educational and networking opportunity!

Over the next few months we will be creating a new committee to oversee the *CJRT* and are looking for volunteers! Are you interested in learning more about the CSRT, the journal and your profession? This is a great way to become involved. Drop me a note and I'll give you more information!

Enjoy the journal — and please give us feedback on what you would like to see in future issues of the journal!

Colya Kaminiarz
Director of Membership Services, CSRT
csrt@colya.com

Respiratory Therapy in the Middle East — Live From Beirut

Dennis Hunter RRT

Beirut Lebanon is not a city most Canadian Respiratory Therapists (RTs) would associate with Respiratory Therapy (RT), but in June 2002, there I was in Beirut, standing in the ICU at Makassed General Hospital. I was observing patients being ventilated on such familiar modes as Pressure Control Ventilation (PCV) and CPAP with Pressure Support (PSV). After almost 30 years as a Respiratory Therapist, I remember thinking at that moment just how far our profession has come.

My visit to Beirut came about through the International Partnership Office at Fanshawe College, London, Ontario. Over the past few years, Fanshawe has developed a unique partnership with Makassed General Hospital. As Beirut had no funded emergency ambulance service, Fanshawe was asked to assist in the development of this system. Administered by the Association of Canadian Community Colleges (ACCC) and funded by the Canadian International Development Agency (CIDA), Fanshawe College and La Cité Collégiale from Ottawa, have been assisting the development of a training program for Emergency Medical Technicians (EMT) at Makassed. The Paramedic Program Coordinators from both colleges have visited Lebanon a number of times to assist Makassed in the development of curriculum and a train-the-trainer program.

It was from this successful partnership, Dr. Hani Lababidi, Chief of Medical Staff at Makassed General then inquired about the Respiratory Therapy program at Fanshawe College. Dr. Lababidi, American Board Certified in Internal Medicine,



Old Beirut, Lebanon looking south.

Pulmonary and Critical Care, had worked closely with Respiratory Therapists while training in the United States. His return to Beirut in 1999 was instrumental in furthering the role of the RTs at Makassed General. Dr. Lababidi had the opportunity to visit one of Fanshawe's clinical affiliates in the spring of 2002 while attending a nearby conference. He was able to observe first hand Fanshawe students at work in the clinical environment. After his visit, discussions were held and plans were finalized for my first visit to Beirut. My role on this June 2002 visit to Beirut was to observe and advise on the possibility of having a formal Respiratory Therapy Program at Makassed General. At this time the current staff of 5 Respiratory Therapists at Makassed General were graduates of the hospital's Bachelor of Nursing program and formal training for RT was done on the job.

Makassed General Hospital was established in 1930 to provide quality health care in Beirut. The 80 year old hospital is a bustling, full service 200 bed teaching hospital located in a heavily populated area of the city. Surrounding the hospital are narrow busy streets crowded with open air vendors selling everything from fresh fruits and vegetables to house wares. Inside Makassed, one finds all the services we see in Canadian hospitals such as MRI and a CT scanner. In the 6 bed adult ICU (plus 2 post cardiac beds), patients are ventilated on the Viayss Vela (the European equivalent of the Avea) and the PB760. In the 15 bed paediatric/neonatal ICU patients are ventilated on the Babylog, Infant Star and a new European infant ventilator, the SLE 2000. RTs are also involved with nitric oxide therapy in the unit. For pulmonary function testing, patients encounter the spirometer system.

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RT Week Winnipeg

Sandra Biesheuvel BSc RRT CAE

National Respiratory Therapy Week was celebrated at Seven Oaks General Hospital in Winnipeg, MB with a display at the Garden City Shopping Centre. Sandra Biesheuvel BSc RRT CAE and Raquel Fernandes RRT CAE were on hand to provide information to the public about the work of a Respiratory Therapist. The focus was on the role of the RT as an educator, so the display featured information on the Community Asthma Care Centre, and the new Pulmonary Rehabilitation Program at Seven Oaks General Hospital and the Wellness Institute.

Raquel and Sandra were busy throughout the day answering questions about asthma and COPD, as well as smoking cessation. The video "What You Should Know about COPD" featuring the late Peter Gzowski of CBC radio and television played throughout the day, and drew a lot of people to the display. The large number of people who stated that they either have a chronic lung disease or know someone else who does, was an indication of the importance of the role of the Respiratory Therapist in providing patient education. Many had never heard of a Respiratory Therapist or knew about the many responsibilities and areas of work of RTs. In addition to receiving pamphlets on asthma, COPD and smoking, visitors could also enter a draw for t-shirts, books, and gift certificates. The day at the mall was a success!



RRTs Sandra Biesheuvel (left) and Raquel Fernandes provided Winnipeg mall visitors with information and insights to many aspects of the RT profession.

CARTA Conference Breaks Attendance Record

Bryan Buell, RRT, BGS, CARTA Registrar-Executive Director

The CARTA Educational Forum and Trade show, held October 28 to 30, 2004 enjoyed a record turnout. Judy Duffett-Martin RRT, Jeff Ung RRT, Owen Giesbrecht RRT and Denise Reid RRT were the conference organizers of the most successful conference to date. There were 245 registered RT delegates and 44 exhibitor/sponsor delegates for a total of 289 conference delegates shattering the previous mark of 242.

The first "Nelson Kennedy Lecture" was launched in recognition of life-time achievements by retired member Nelson Kennedy. Nelson was the former Dean of Health Sciences and Business at the Northern Alberta Institute of Technology in Edmonton. His distinguished career will be recognized with on going keynote addresses by hallmark speakers during CSRT or CARTA Education Conferences. The inaugural lecture consisted of a panel discussion on Airway Pressure Release Ventilation.

The next Nelson Kennedy lecture will be convened in the Edmonton Shaw Conference Center on June 4 at the CSRT "Compassion in Action" Education Forum by Stephen Lewis former Canadian ambassador to the United Nations and special envoy to Africa.

RT Week Credit Valley

Ana MacPherson, RRT

Respiratory Therapy Week was a great opportunity to showcase some of the specialty respiratory therapists roles at Credit Valley Hospital in Ontario. The Operating Room RT, Special Care Nursery RT, Pulmonary Function RT and Asthma Educator RT were the four specialty roles highlighted for the staff. An open house was organized during RT Week 2004. A continuous power point presentation played along with display boards focusing on the RT profession. Through the presentations, the attendees were able to follow each of the Respiratory Therapists through their day.

Here is a look inside a typical day in the life of each of the specialized RT positions.

As the Operating Respiratory Therapist, the day begins by completing the daily maintenance check on all the anaesthetic gas machines. Throughout the day, the RT assists the anaesthesiologists with airway management and difficult intubation as well as the set up and insertion of arterial, central venous, and pulmonary artery lines. An RT at Credit Valley Hospital, is certified in intubation and insertion of arterial lines. Other responsibilities include airway management and initiation of ventilation for the post operative patient, in servicing staff, the evaluation and demonstration of new equipment, coordinating visiting Paramedics in the operating room, and assisting the Chief of Anaesthesia in the operational budget.

Working in a Level II Advance Nursery, the Special Care Nursery RT has many duties. As a member of the High Risk Team, this includes attending all caesarians sections as well as other deliveries with potential complications to either the newborn or mother. The RT assists the paediatrician/neonatologist in airway management, which may include intubation and initiation of ventilation or nasal CPAP. Other skills include endotracheal intubation, arterial blood gas punctures, capillary blood gas collection, drawing blood from umbilical arterial lines, and surfactant administration. The RT also provides both clinical and technical in services to the multidisciplinary staff, evaluates all new equipment, and develops policy and procedures.

Work in the Pulmonary Diagnostic area includes performing a variety of tests, including Pulmonary Function Testing, Provocholine Challenges, Exercise Stress test and Metabolic studies both static and dynamic. This role also involves our Hospital Home Care Services, such as Nasal CPAP and Home O₂ education and set ups.



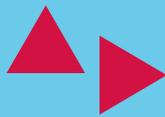
Angeline Robitaille-Filion, OR RT, at Credit Valley Hospital, performs her daily preparation and calibration of the anaesthetic machine.

The Certified Asthma Educator RT is responsible for co-coordinating and providing the education/research in relation to asthma in the hospital and community.

RT Week Newfoundland



In Newfoundland, Staff Respiratory Therapists, (from St. Clare's Mercy Hospital Site of the Health Care Corporation of St. John's, NL) and the CNA Clinical Instructor (Wade Wheeler) also took time out to get a group photo with the RT students! (left to right Peter Fikis, Tina Hurley, Jesse Cox, Danielle Fitzgerald, Rhonda Hurdle, Steve Chard, Wade Wheeler)



Awards Deadlines

The Robert Merry Memorial Award application deadline is January 31, 2005.

Application for the CSRT Education Award for Advanced Respiratory Practice is February 1, 2005.

The AstraZeneca Award for Excellence in Asthma Education application deadline is March 31, 2005.

Details can be found on the website under *Canadian Respiratory Foundation*.

Congratulations Dallas

On October 29 the College and Association of Respiratory Therapists of Alberta recognized the outstanding service award presented to Dallas Schroeder, RRT from the University of Alberta Hospitals in Edmonton. Dallas was nominated by 5 registered members of the College and Association and the Council unanimously approved her receiving the award on August 27. CARTA President Jerry Spence RRT did the honour presenting Dallas with her award at the Education Conference and Tradeshow following the inaugural Nelson Kennedy lecture.

The CARTA outstanding service award is presented to deserving registered members who make a significant contribution to patient care and professional advocacy. Recipients receive a framed certificate of honour and a teal coloured cashmere/silk pashmina shawl or a limited edition black CARTA team jacket. This year's award was very unique in that more than one group of colleagues desired to have Dallas nominated for the award. This is a significant tribute to her ongoing patient commitment to excellence. Congratulations to Dallas Schroeder, RRT, 2004 CARTA Outstanding Service Award winner!

CSRT Membership Renewals — Due March 31, 2005

A reminder that CSRT Members are due in just a few short months. Members have the option of using the CSRT Debit Plan to pay their CSRT fees, as well as their professional association membership and related fees. You can arrange to have monthly installments for your membership deducted directly from your bank account.

For CRTO and CARTA members who wish to take advantage of CSRT Membership, renewals must be received no later than February 15, 2005.

For more information please contact the CSRT office (1-800-267-3422) or visit the *Membership* page on our website to download the Membership Renewal Form.

CIHI New Stats

Between 1993 and 2002 there has been an 34.8 per cent increase in the number of RRTs in Canada. This is just one of the stats available in the new report issued by the Canadian Institute for Health Information. The report "Health Personnel Trends in Canada 1993–2002" is downloadable from their web site www.cihi.ca. This report covers statistics for a wide range of health care workers from chiropractors to social workers.

We'd like your opinion!

Please check our Opinion box at the bottom of the CSRT home page on our website. We are soliciting comments, ideas and opinions regarding topical issues. Insightful comments will be published in the Journal. Please join the discussion on issues that are relevant to RTs and the CSRT.

International Abstracts

Because of the volume of Abstracts produced each month, the CSRT website has added a new section to accommodate international abstracts. Check under About — *CJRT* and go to the bottom of the page. Abstracts are added as they become available.

Message from the President

A Vision for the Future of the CSRT

"Resolve to be a master of change rather than a victim of change."

—Brian Tracy



Brent Kitchen

I believe the CSRT must change from what it was to what it needs to become. Currently, it is both a regulator (in the non-regulated provinces), and our national professional association. That has been the role of the CSRT for more than forty years. With time the profession has become self-regulated in some provinces, and that number continues to grow. Respiratory therapy will eventually be self-regulated in all provinces. Provincial regulatory bodies have the exclusive, legislated authority to license RTs working in their province. The CSRT does not have the legislated authority to license RTs anywhere in Canada. We provide a regulatory role in the non-regulated provinces because those employers accept our credential as certification to practice in their jurisdictions. Provincial regulatory bodies are and will continue to take over the regulatory role that the CSRT once provided to all RTs. This is a natural progression and a positive step for our profession as long as respiratory therapists participate in the process and the needs of RTs are met. But regulatory bodies will never work solely to advance the profession, to provide services and benefits to RTs, to raise public awareness and will not consider the interests of RTs as their first priority. The CSRT can do exactly that. This must become the primary focus of the CSRT.

The need for the CSRT as a regulator may be disappearing, but the need for the CSRT as a powerful professional association is now more important than ever. If we accept this, and start making the necessary changes to become a more powerful professional association, there is an opportunity to position the CSRT and our profession for a much more successful future.

Acting as both the regulator in the non-regulated provinces and the national professional association for all of Canada is difficult. Regulation deals with very serious issues. The processes involved are expensive. In business terms the risk versus return in doing this is extremely high for the CSRT. The return on investment has been low. The services and benefits you receive

from the CSRT depends on which province you work in. Right now, the CSRT spends half of its resources on regulation/credentialing issues. Approximately one half of our members live in the non-regulated provinces and require the CSRT credential to work. The other half live in the regulated provinces and are already regulated/licensed by their provincial regulatory body. If we accept that all provinces will become self-regulated, the CSRT faces a challenge. Historically, when provinces become self-regulated and CSRT membership becomes voluntary instead of mandatory, membership drops. This is one reason why less than 30% of the RTs in Canada are CSRT members. Secondly, in the past we have restricted membership to only those who come through our CSRT specific training and testing process. At the November special meeting of the CSRT the membership approved a bylaw change to allow RTs who qualify under the Mutual Recognition Agreement to become full CSRT members. I believe this is a very positive step for the CSRT. There is now an opportunity for the CSRT to represent all RTs and to truly represent the entire profession in Canada. We now have a new opportunity to recruit and include more RTs in our society. To capitalize on this opportunity we must demonstrate and market the tangible benefits of membership.

Some of the essential activities the CSRT performs and must continue to perform are difficult for the average member to see as a direct benefit. For example, advocating for common national processes and standards with regulators, advocating with governments, collaborating with our international partners and participating with other health disciplines in areas of mutual interest are rather intangible. I would argue that supporting these types of endeavors by your national professional association is exactly what makes you a professional. The CSRT must change its focus and its practices to place more focus on being a stronger association rather than a regulator. Otherwise membership will decline and so will the organization. If there is no CSRT to

Message from the President continued from page 9

provide benefits to RTs, to advocate for common national processes among regulators, to push to advance the profession and the other activities that a strong association does, who will do it? These issues are not, and will never be, the top priorities of the regulators.

Let us realize that there is a limited future in the regulatory role of the CSRT. It does not matter whether it is 5, 10 or 20 years before all provinces are regulated. The future of the CSRT is as strong professional association and in showing the value of membership through services and benefits. Focussing on this now will ensure a prosperous future. It will not only guarantee the viability of the organization, but will also allow the profession to advance and grow. This is my vision for

the future of the CSRT. The CSRT, its employees and its volunteers are working diligently to be the organization we all need to ensure a successful future, but it cannot and will not happen without your ongoing support.



Brent Kitchen, RRT
CSRT President

Message du président

Une vision pour l'avenir de la SCTR

« Ayez à cœur de maîtriser le changement et non de le subir. » — *Brian Tracy*

J'ai la conviction que la SCTR doit passer de ce qu'elle a été à ce qu'elle doit devenir. Présentement, elle est d'une part un organisme de réglementation (dans les provinces non réglementées) et, d'autre part, notre association professionnelle nationale. La SCTR combine ces deux fonctions depuis plus de quarante ans. Au fil du temps, certaines provinces ont adopté une politique d'autoréglementation. Le nombre de provinces où la profession est autoréglementée continue d'augmenter, et la thérapie respiratoire sera tôt ou tard autoréglementée partout au pays. Les organismes de réglementation provinciaux ont la compétence légale exclusive pour accrédi-ter les TR exerçant dans leur territoire, tandis que la SCTR n'a pas la compétence nécessaire pour permettre à des TR d'exercer n'importe où au Canada. Nous jouons un rôle de réglementation dans les provinces non réglementées parce que ces employeurs acceptent notre agrément pour octroyer un permis d'exercer sur leurs territoires. Mais le rôle de réglementation que jouait autrefois la SCTR pour tous les TR est graduellement pris en charge par des organismes de réglementation provinciaux. C'est une progression naturelle et une avancée positive pour notre profession, en autant que les thérapeutes respiratoires participent au processus et que les besoins des TR sont comblés. Toutefois, les organismes de réglementation ne travailleront jamais uniquement à faire progresser la profession, à fournir des services et des avantages aux TR et à mieux sensibiliser la population à notre travail; ils ne considéreront jamais les intérêts des TR comme leur principale priorité. Par contre, c'est exactement ce que la SCTR peut faire et cela doit devenir notre principal objectif.

Le rôle d'organisme de réglementation de la SCTR décline peut-être, mais le besoin d'une solide association professionnelle est aujourd'hui plus important que jamais. Si nous en convenons et que nous entreprenons les changements nécessaires pour devenir un organisme professionnel plus dynamique, nous avons l'option de créer un avenir beaucoup plus fructueux pour la SCTR et pour notre profession.

Agir à la fois comme organisme de réglementation dans les provinces non réglementées et comme association professionnelle à l'échelle nationale s'avère difficile. La réglementation porte sur des enjeux très sérieux. Les processus impliqués sont coûteux. En termes d'affaires, le rapport risque-avantage est extrêmement élevé pour la SCTR, avec un faible rendement sur les sommes investies. Les services et les avantages que vous recevez de la SCTR varient selon la province où vous travaillez. Présentement, la SCTR consacre la moitié de ses ressources aux questions de réglementation/accréditation. Environ la moitié de nos membres vivent dans les provinces non réglementées et ont besoin de l'accréditation de la SCTR pour travailler. L'autre moitié de nos membres vivent dans les provinces réglementées et sont déjà réglementés/agrérés par leur organisme provincial. Si nous prenons pour acquis que toutes les provinces seront un jour autoréglementées, la SCTR se retrouve devant un défi. On a constaté que, lorsque les provinces deviennent autoréglementées et que l'adhésion à la SCTR devient volontaire plutôt qu'obligatoire, le nombre de membres décroît. C'est une des raisons qui font que moins de 30 % des TR au Canada sont membres de la SCTR. De plus, nous avons par le passé réservé le statut de membre aux personnes qui complétaient la formation spécifique de la SCTR et qui réussissaient notre examen. À l'assemblée générale spéciale de la société tenue en novembre, les membres ont approuvé un changement de règlement pour permettre aux TR qui se qualifient aux termes de l'Entente de

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Successful Meeting on National Competency Profile

Educators from the schools of respiratory therapy across Canada met in Banff, Alberta, in early October 2004, to review the new Respiratory Therapy National Competency Profile and to learn more about competency based education. Approximately 30 RT educators and representatives from each of the regulatory bodies in Canada, the CSRT and CoARTE attended. With only one exception, all schools were represented at this historic event.

Educators reviewed the National Competency Profile which will serve as a template for what schools are required to teach respiratory therapy students and how students are to be evaluated. After receiving feedback from the educators group, the National Alliance of Respiratory Therapy Regulators met, revised the NCP document and approved it.

Paula Burns and Louis Phillip Belle-Isle, both educators with experience in competency-based education, facilitated the meeting and provided instruction on applying competency-based education principles in the education of respiratory therapists. Sessions were held in both French and English. The next steps required to create exams based on the NCP were also discussed. Attendees took this opportunity to learn more about the different processes in place for teaching and evaluation in Canada — such as the differences between the process used in Quebec and other provinces. Educators from outside of Quebec learned more about Quebec's process of using a common school exit exam. Quebec educators heard an overview of the licensing/credentialling exam system used elsewhere from Paul Williams, Chair of the CBRC Exam Committee.

Becoming better informed of the processes used by others and having the chance to network with educators dispelled a lot of myths among the delegates. It was a tremendous opportunity for all those involved to broaden their understanding of the various educational processes used in Canada.

The CSRT will be holding an Educators Congress in conjunction with the CSRT Education Forum in Edmonton, June 2, 2005. Once again educators will get together to learn, share their best-practices and to maintain a high level of commonality in respiratory therapist education institutions across Canada.

Special MRA Announcement

On November 20, 2004 the CSRT held a special meeting of its members for the purpose of voting on a proposed bylaw change. The meeting was held in the Ottawa area at the Four Points Sheraton Hotel in Gatineau, Quebec, in conjunction with the CSRT annual Board of Directors meeting.

The requirements of quorum for this meeting were met, with greater than two members present in person and more than 10% of the membership represented in person or by proxy. The results of the vote were 329 members voting for making the proposed bylaw change and 14 members voting against. The proposed bylaw change will be forwarded to Industry Canada for final approval.

The proposed bylaw change was required in order to allow the CSRT to give the CSRT registry certificate and registered membership to individuals that meet the requirements of the Mutual Recognition Agreement. The CSRT, along with the regulatory bodies of respiratory therapy signed this agreement in November of 2001. The successful passing of the proposed bylaw change will allow the CSRT to apply the terms

of the MRA along side its partners in the regulation of respiratory therapy in Canada.

The effect of this bylaw change will be unimpeded interprovincial mobility throughout Canada for RRT's that meet the conditions of the MRA.

More importantly this means that the CSRT is another step forward in its mandate of providing leadership through services and advocacy to all RRT's in Canada regardless of which jurisdiction they entered the profession through.

Thank you to all of the members that called the head office with questions, sent emails, participated in the online discussion, sent in their proxies and attended the meeting in person. Without the support and participation of the membership the CSRT Board of Directors cannot make effective decisions that support the wishes of the members.



Douglas Maynard RRT, MBA
Executive Director

CARTA Launches Nelson Kennedy Lecture

CARTA has launched the inaugural Nelson Kennedy Lecture in recognition of Nelson Kennedy's distinguished lifetime achievement as a Registered Respiratory Therapist from Alberta. Nelson recently retired to Salt-Spring Island BC from Edmonton. While at NAIT he was the Dean of the Health Sciences and Business Department.

The first lecture consisted of a four member panel discussion on Airway Pressure Release Ventilation by Dr. John Downs from the University of Southern Florida in Gainesville Florida who created the mode of ventilation.

Also on the panel were Mrs. Roberta Hales RRT, RN from the Children's Hospital of Philadelphia, Robert Kacmarek RRT, PhD from Harvard University in Boston and Dr. Neil McIntyre from Duke University in Durham North Carolina. The first lecture was sold out. The second lecture is scheduled for June 5 2005, in Edmonton at the Shaw Conference Center at the Education Forum of the Canadian Society of Respiratory Therapists. The speaker will be Stephen Lewis, Veteran Diplomat and UN Special Envoy for HIV/AIDS in Africa.

CSRT House of Delegates

Rick Culver, RRT

Chair, House of Delegates

The CSRT House of Delegates was created in June 2004 as a result of the restructuring of the CSRT Board of Directors.

The House of Delegates is designed to be a communication link between the Provincial or Territorial Associations and the CSRT. It is through this link that the Provincial Associations and their members may communicate unique and/or common concerns and issues that they feel the CSRT should be aware of.

The CSRT also uses this link to correspond with the general membership. We have already utilized this important communication link, informing/reminding members of the CSRT Special Meeting regarding the MRA. We expect that there will be regular information sharing to and from the CSRT members utilizing the new House of Delegates.

The House is also responsible to participate in the governance of the Society as well as making recommendations regarding

- Goals and Objectives of the CSRT
- Services offered by the CSRT

Membership in the House of Delegates

Each Provincial or Territorial Association is able to designate one representative to the House of Delegates. We encourage all of the Associations to become involved in this important communication and networking link.

At this time the following Associations have identified their representative to the CSRT House of Delegates:

- British Columbia Society of Respiratory Therapists (BCSRT),
- Saskatchewan Association of Respiratory Therapists (SART),

- Manitoba Association of Registered Respiratory Therapists, Inc. (MARRT)
- Respiratory Therapy Society of Ontario (RTSO)
- Respiratory Therapy Society of Nova Scotia (RTSNS)
- New Brunswick Association of Respiratory Therapists, Inc. (NBART),
- Newfoundland and Labrador Association of Respiratory Therapists (NLART)

The House of Delegates links to the CSRT Board of Directors, through the Director of National Provincial Relations, who is an ex-officio member of the House.

The House of Delegates has recommended a nominal membership fee be paid to the CSRT to assist in covering the costs of operating the regular business of the House.

Current Work Plan for the CSRT House of Delegates

The first year in the House will be a busy one. In addition to our liaison work with the CSRT as previously mentioned, representatives within the House have identified a number of Policies that need to be developed, as well as the recruitment of Delegates from the Provincial and Territorial Associations yet to participate in the House. To facilitate this work, we are planning to teleconference on a regular basis, in addition to utilizing the wonderful world of electronic communication!

On a Personal Note

The House of Delegates is comprised of a great group of fun, focused professionals. We may come together with slightly different issues and perspectives, but we are creating a productive group that is motivated to make a positive contribution to the CSRT.

COPD Dramatic Increase Among Women

From the Lung Association

Chronic obstructive pulmonary disease (COPD) is taking over the lives of Canadian women at an alarming rate. In 1999 COPD accounted for almost four per cent of deaths among women in Canada, making it the fifth leading cause of death for women.¹

Overall, mortality rates for COPD have increased. From 1988 to 1999 the mortality rate for women with COPD increased by 53 per cent, and has continued to increase.² What is significant is that during this time, the COPD rate among men decreased by seven per cent, and has continued to fall.³ What was formerly an “old man’s disease” now belongs to middle-aged moms. What many Canadians don’t realize is that smoking accounts for 80 to 90 per cent of all COPD.⁴ Current statistics show that hospitalizations for COPD care among women are expected to increase so that by the year 2015, approximately twice as many women will be hospitalized for COPD case as men, and death rates are expected to follow the same pattern.⁵

“Smoking cessation is the single most effective intervention to reduce the risk of developing COPD and to slow disease progression,” said Dr. Paul Hernandez, Associate Professor of Medicine, Dalhousie University; Chair, CTS COPD Guidelines Dissemination and Implementation Committee; and medical advisory board member at The Lung Association. “As physicians, we need to continue to stress the long term effects smoking has, and educate our patients about COPD and the impact it has on quality of life.”

COPD is Under Diagnosed, Particularly in Women

The primary concern is that COPD is under diagnosed. In a recent study, 20 per cent of physicians considered other diagnoses more likely than COPD when presented with a breathless, former smoker, whose documented airflow

limitation was unresponsive to bronchodilators and oral corticosteroids.⁶

Furthermore, gender bias plays a role in under diagnoses as physician response revealed that two thirds of physicians considered COPD to be the likeliest diagnoses when reviewing a male patient presenting with COPD symptoms. When physicians were evaluating a female patient with identical symptoms, however, fewer than half of the physicians considered COPD to be the likeliest of diagnoses.⁷ All patients with suspected COPD must have a spirometry test to confirm diagnosis and this gender gap is not likely to be remedied until physicians begin to use spirometric testing to screen for this disease.⁸

The Role of the Physician Who Treats COPD

To optimize early diagnosis, prevention and management of COPD in Canada, the Canadian Thoracic Society (CTS) introduced new treatment guidelines in June 2003. According to the guidelines, the goals of managing COPD are to prevent disease progression, reduce and alleviate breathlessness and other respiratory symptoms, improve exercise tolerance, prevent and treat flare-ups, and reduce mortality.

The guidelines recommend a stepwise approach to management, based on severity of symptoms and disability. Furthermore, family physicians have a primary role in the management of COPD as it relates to identifying and diagnosing the disease at an early stage, and educating disease prevention.

“The guidelines have been created in response to this devastating disease — so that family physicians are equipped to optimize early diagnoses, prevention and management of COPD as tobacco-induced lung damage is primarily irreversible,” said Dr. Denis O’Donnell, Chair, Canadian Thoracic Society COPD

Guideline Development Committee. “It is imperative that physicians review and implement the guidelines into their clinical practice so that they are able to better diagnose patients with COPD, better help manage and treat those who already suffer from the disease, and help prevent others from ever getting it.”

Additional Resources

Other resources are available, such as The Lung Association’s BreathWorks™ Program, an initiative designed to help patients, and their families and caregivers, cope with the emotional hurdles and physical challenges of living with COPD. For more information, visit www.copdguidelines.ca.

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7. Chapman KR *et al.* Chronic obstructive pulmonary disease: are women more susceptible than men? *Clinics in Chest Medicine* — 2004 6 (Vol. 25, Issue 02725231):335
8. Chapman KR *et al.* Chronic obstructive pulmonary disease: are women more susceptible than men? *Clinics in Chest Medicine* — 2004 6 (Vol. 25, Issue 02725231):339

Dr. Paul Hernandez, Associate Professor of Medicine, Dalhousie University; Chair, CTS COPD Guidelines Dissemination and Implementation Committee, and medical advisory board member at The Lung Association.

Dr. Denis O’Donnell, Professor and Head of the Respiratory division at Queens University; Chair, Canadian Thoracic Society COPD Guideline Development Committee.

Looking for Old Photos

The CSRT is pleased to announce that we are in the process of publishing a book on the history of the CSRT. The painstaking task of researching and writing a Reflective History of the Canadian Society of Respiratory Therapists has been undertaken by Mike Andrews. We are now looking for photographs to complement this work — old equipment, RTs at work in their younger days etc. Please have a look through your albums and shoeboxes. If you have something you think we might be able to use, please contact us. We will return all images that we receive. Here are the Chapter titles — that might give some idea of how your photos might fit in.

The Evolving role of the Respiratory Therapist
The Early Years
Physician Support
The Foundation Years 1964–1967
Gaining Momentum 1967–1970
The Examination Process

Our deadline is February 28, 2005. Please remember to identify who and what the photo represents. Please include a return address.

Send to:
Rita Hansen
CSRT
102-1785 Alta Vista Drive,
Ottawa ON K1G 3Y6

CoARTE News

Michelle Kowlessar, CoARTE Accreditation and Education Manager

Volunteer Recognition

Volunteers are crucial to the CSRT's Accreditation program. The time and expertise donated by respiratory therapists, physicians, school administrators and the public has greatly contributed to CoARTE's ongoing success. Without them, the program could not exist. CoARTE members spend many hours reviewing reports, developing policies, participating in teleconferences and meetings in the interest of promoting national standards. Document reviewers and program review team members take on the responsibility for assessing the extent to which schools meet the national standards. The work is intense but deeply gratifying.

CoARTE would like to acknowledge the contributions of its members, document reviewers and team members who served on program review teams during the calendar year 2004. It is their commitment to excellence that assures the quality of the Accreditation programs and activities. Sincere appreciation is extended to the following individuals for their generous contribution of time and expertise.

CoARTE members

Debbie Cain, Clinical Education
Helen Clark, Employer
Myrna Gunter, Public Member
Tom Dorval, Didactic Education
Dr. Don Reid, Physician
Fred MacDonald, Senior Educational

Administration

Josée Prud'Homme, National Alliance Representative
Doug Maynard, Executive Director for the CSRT

Document Reviewers and Program Reviewers

Respiratory Therapists

Michael Bachynsky
Debbie Cain
Ray Hubble
Susan Dunington
Thelma Cashen
Tom Dorval
Mark Murray

France Germain
Maryse Audet
Adrienne Leach
Joel MacPherson

Physicians

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Dr. Nigel Duguid
Dr. Paul Hernandez
Dr. Sharon Peters

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Jo-Ann Aubut
June MacDonald
Marlene Raasok

Regulator Representative

Dennis Hunter, CRTO
Martine Gosselin, OPIQ
Dale Mackey, CRTO
Dawn Brunelle, CRTO

Program Recognition

CoARTE members would also like to extend appreciation to the programs who have worked hard this year to prepare for their accreditation site visit. Programs such as UCC and Vanier College welcomed Program Reviewers during the site visits and demonstrated deep gratitude for the team member's hard work throughout the process.

Accreditation Secretariat

Michelle Kowlessar will be taking her maternity leave on January 28, 2004. The CSRT is currently searching for a replacement for a one-year term to fill the position of Accreditation and Education Manager.

Holiday Wishes

CoARTE would like to wish everyone a joyful, healthy and safe holiday season.

Weedless Wednesday

January 19, 2005 is Weedless Wednesday. It is part of the National Non-Smoking Week (January 16–22, 2005). This Canada-wide endeavour involves agencies and individuals working at the federal, provincial/territorial, regional and local levels. Thousands of people — both volunteers and staff — participate in the campaign, including local health units, local and provincial/territorial councils on smoking and health, health charities such as the Canadian Cancer Society, the Heart and Stroke Foundation of Canada, the Canadian Lung Association, and also provincial, territorial and federal Ministries of Health.

National Non-Smoking Week has been observed for more than twenty years. From its inception in 1977 the goals have been to:

- educate Canadians about the dangers of smoking;
- prevent non-smokers from beginning to smoke and becoming addicted to tobacco;
- help smokers quit;
- promote the right of individuals to breathe air unpolluted by tobacco smoke;
- denormalize the tobacco industry, tobacco industry marketing practices, tobacco products, and tobacco use; and
- assist in the attainment of a smoke-free society in Canada.

The National Clearinghouse on Tobacco and Health website has information that includes smokers health lines, legislation, taxation, prevention and links to educational tools, conferences, trends and on-line journals www.ncth.ca/NCTH_new.nsf.

Did you Know?

- In 1977, when Canada had its first National Non-Smoking Week, over 40 per cent of Canadians smoked. Today, 25 years later, only 24 per cent of Canadians smoke, with BC leading the pack with only 20 per cent of the population lighting up.
- Many smokers believe that smoking relaxes them. In fact, smoking makes your heart beat faster, makes you breath quicker, and raises your blood pressure.
- You are never too old to quit — benefits begin right away. After one year of not smoking, your risk of having a heart attack is cut in half.
- Quitting smoking is one of the best things you can do for your children. Children of non-smokers have lower rates of asthma and chest infection.
- If current trends persist — 500 million people alive today, many of them still children, will eventually die of tobacco-related diseases.
- The effect of one cigarette stays in your home seven days and two thirds of the smoke from a burning cigarette goes into the air
- Exposure to second hand smoke is estimated to cause about 300 lung cancer deaths a year in Canada.

Looking for facts and figures on tobacco?
Try the World Bank Public Health Site:
www1.worldbank.org/tobacco/

Smoking Cessation Programs?
Try the Canadian Lung Association site
www.lung.ca/smoking/

CSRT Annual Educational Forum

Shaw Conference Centre,
Edmonton, Alberta, June 2–5, 2005

“Compassion in Action”



Education modules will include Critical Care, Anesthesia & Perfusion, Leadership, Neonatology & Pediatrics, Diagnostics and “Taking Care of Me”.

Thank You to Our Platinum Sponsors



College and Association
of Respiratory Therapists of Alberta
CARTA

Call for Poster and Papers — Forum 2005

The CSRT invites administrators, practitioners, researchers, educators, students, health policy and health services planners to submit abstracts for poster or paper presentation at “Forum 2005 *Compassion in Action*” in Edmonton.

Proposals may pertain to clinical practice areas, program development, research investigation,

evaluation of a process/program and respiratory healthcare delivery.

Deadline for submissions is February 18, 2005.

For complete instructions, guidelines and application details visit the CSRT website.

Forum Highlights

Thursday, June 2, 2005 Educator's Congress

- Clinical Simulations: What They Are and How We Use Them
- Competency Based Evaluation Strategies
- Assessing Competency: Knowledge vs. Skills vs. Competency
- The Future of the Educators Congress — group discussion on the formation of a special interest group within the CSRT

Wine and Cheese Reception

Friday, June 3, 2005

- Exhibitors' Breakfast
- FREE Fun Night and Olympics at Red's, West Edmonton Mall

Saturday, June 4, 2005

- CSRT Annual General Meeting
- President's Banquet and Awards with Keynote Speaker — Stephen Lewis

Confirmed speakers include:

- Richard Branson: Nutritional Support and the Pulmonary Patient/Mechanical Ventilation: Past Present and Future
- Dr. Peter Brindley: Critical Care
- Helen Clark: Regional Management of Respiratory Services
- Dr. Leslie Dort: The Role of Oral Appliances in the Treatment of Sleep Disordered Breathing
- Dan Granoski: Role of the RT in ECMO
- Dr. Dean Hess: Selection of an Aerosol Delivery Device/Approaches to Discontinuation of Mechanical Ventilation
- Cheryl Misak: Intubation and the ICU Patient
- Pat Mussieux: Driving Behavior Change
- Dr. Michael Narvey: Neonatal Ventilator Strategies
- Dr. Peter Norton: The Second Victim
- Dr. Peter Papadakos: ARDS Treatment in Evolution/Update on Sedation/Management of Massive Lung Trauma
- Dr. Kumar Ramlall: Community Based Pediatric Asthma Programs
- Dr. John Remmors: Sleep Apnea and Cardiovascular Disease
- Dr. Stuart Robertshaw: The Healing Power of Humour
- Dr. Craig Scanlan: Fostering Leadership Development
- Dr. Rob Seal: Anesthesia/Perfusion
- Dr. Dan Stollery: Pulmonary Hypertension
- Dr. Bernard Thebaud: Bronchopulmonary Dysplasia
- Dr. Juzer Tyebkhan: NIDCAP

Panel: Respiratory Research Opportunities and Barriers; Dean Hess, Richard Branson; Craig Scanlan

■ Full Registration — Members 2005–2006	
*Pre-registration	325.00 <input type="checkbox"/>
After April 22, 2005	395.00 <input type="checkbox"/>
■ Full Registration — Non-members	
*Pre-registration	470.00 <input type="checkbox"/>
After April 22, 2005	540.00 <input type="checkbox"/>
■ Full Registration — CSRT Student Members	
Student Members*	50.00 <input type="checkbox"/>
■ Full Registration — Non-CSRT Student Members	
*Pre-registration	75.00 <input type="checkbox"/>
After April 22, 2005	100.00 <input type="checkbox"/>
■ Daily Registration <input type="checkbox"/> Fri. <input type="checkbox"/> Sat. <input type="checkbox"/> Sun.	
Members	150.00 <input type="checkbox"/>
Non-members	185.00 <input type="checkbox"/>
Student Members**	50.00 <input type="checkbox"/>
■ Options	
President's Banquet	50.00 <input type="checkbox"/>
Additional Exhibitor Representative	150.00 <input type="checkbox"/>

* Pre-registration deadline April 22, 2005

**Must be currently enrolled in a CSRT approved program to qualify for the student rate

Registration includes Exhibitors Breakfast, Sunday Continental Breakfast, two lunches and breaks, Fun Night, Wine and Cheese Reception, all lectures and workshops, entry to Exhibit Hall. GST is included in the total #119220010 RT

Refunds: Refunds are subject to a \$50.00 administration fee.

NAME _____

CSRT FILE # _____

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POSITION (TITLE) _____

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CITY _____ PROVINCE _____ POSTAL CODE _____

HOME TEL. _____ WORK TEL. _____

E-MAIL _____

METHOD OF PAYMENT

TOTAL PAYMENT \$ _____

VISA M/C

CARD NUMBER _____ EXPIRY DATE _____

SIGNATURE _____

PRINT NAME _____



Message du président

suite de la page 10

reconnaissance mutuelle de devenir membres à part entière de la SCTR. Je crois qu'il s'agit là d'un grand pas en avant pour la société. Cet ajout offre à la SCTR l'occasion de représenter tous les TR et de devenir un véritable porte-parole de toute la profession au Canada. C'est une nouvelle occasion de recruter et d'intégrer encore plus de TR dans notre organisme. Pour profiter de cette occasion, nous devons démontrer et vendre les avantages concrets de l'adhésion à la SCTR.

Il est vrai que certaines des activités essentielles dont la SCTR s'acquitte et doit continuer de s'acquitter sont difficiles à percevoir comme des avantages directs par les membres en général. Par exemple, le fait d'intervenir auprès des organismes de réglementation en vue d'une uniformisation nationale des processus et des normes, celui de défendre nos intérêts devant les gouvernements, de collaborer avec nos partenaires internationaux et de faire cause commune avec d'autres professionnels de la santé dans des domaines d'intérêts mutuels sont des activités plutôt intangibles. J'alléguerais pourtant que c'est précisément en appuyant ce type d'activités de votre association professionnelle nationale que vous agissez en véritables professionnels. La SCTR doit déplacer ses centres d'intérêts et ses pratiques pour se positionner comme association proactive plutôt que comme simple organisme de réglementation. Sinon, nous perdrons des membres et l'organisation déclinera. Si la SCTR n'est pas là pour offrir des avantages aux TR, plaider en faveur de processus communs nationaux auprès des organismes de réglementation, exercer des pressions pour faire avancer la profession et accomplir toutes les autres activités qu'une association forte se doit d'accomplir, qui le fera? Ces enjeux ne sont pas et ne seront jamais prioritaires pour les organismes de réglementation.

Nous devons réaliser que le rôle d'organisme de réglementation de la SCTR a atteint ses limites. Il importe peu que cela prenne 5, 10 ou 20 ans avant que toutes les provinces soient autoréglementées. L'avenir de la SCTR réside plutôt dans une association professionnelle forte et dans une démonstration des services et des avantages réels offerts à ses membres. Il faut mettre l'accent là-dessus dès maintenant pour nous assurer un avenir prospère. En plus de garantir la viabilité de l'organisation, cette orientation contribuera aux progrès de notre profession. Voilà ma vision pour l'avenir de la SCTR. Notre société, ses employés et ses bénévoles travaillent avec diligence à structurer l'organisation dont nous avons tous et toutes besoin pour nous assurer un avenir fructueux, mais cet avenir exige en outre votre appui soutenu.

Brent Kitchen, RRT
Président de la SCTR

CALENDAR OF EVENTS

January 15–19, 2005

34th Society of Critical Care Medicine Congress

Phoenix, Arizona
http://www.sccm.org/education/annual_congress/index.asp

January 16–23, 2005

23rd Annual Symposium Clinical Update in Anesthesiology and Advances in Techniques of Cardiopulmonary Bypass

Fajardo, Puerto Rico
helen.phillips@msnyuhealth.org

January 21–25, 2005

35th Critical Care Congress

New Orleans, Louisiana
<http://www.sccm.org/education/index.asp>

January 28–30, 2005

43rd Clinical Conference in Pediatric Anesthesiology

Hollywood, California
hzarco@chla.usc.edu

January 30–February 2, 2005

Canadian Cardiovascular Society Winter Symposium

Whistler, British Columbia
<http://www.ccs.ca>

February 5–8, 2005

III World Congress on Immunopathology & Respiratory Allergy

Pattaya, Thailand
<http://www.isir.ru>

February 5–12, 2005

30th Annual Vail Symposium in Intensive Care

Vail Colorado, USA
www.cmeprofessionalseminars.org

February 24–27, 2005

Pediatric Anesthesiology 2005

Miami Beach, Florida
www.pedsanesthesiology.org

March 11–15, 2005

79th Clinical and Scientific Congress of the International Anesthesia Research Society

Honolulu, Hawaii
www.iars.org

March 17–19, 2005

NAMDRC 28th Annual Meeting and Educational Conference

San Diego, California
<http://www.namdrc.org/annual/annmeet.html>

March 18–20, 2005

European Respiratory Society Lung Science Conference

Taormina, Italy
<http://www.ersnet.org/ers/>

March 18–22, 2005

American Academy of Allergy, Asthma and Immunology 60st Annual Meeting

San Antonio, Texas
<http://www.aaaai.org/>

March 20–23, 2005

7th Annual European Conference Society for Research on Nicotine and Tobacco

Prague, Czech Republic
<http://www.srnt.org/>

April 9–10, 2005

Toronto Anesthesia Symposium

Toronto, Canada
Julie.Nigro@uhn.on.ca

April 27–29, 2005

5th International Symposium on Antimicrobial Agents and Resistance

Seoul, Korea
<http://www.isaar.org/>

May 4–7, 2005

37th Annual Meeting of the Society for Obstetric Anesthesia and Perinatology

Palm Desert California
www.soap.org

May 14–18, 2005

Society of Cardiovascular Anesthesiologists Annual Meeting

Baltimore, Maryland
sca@societyhq.com



Abstracts

The Influence of Active and Passive Smoking on Habitual Snoring

Karl A. Franklin, Thórarinn Gíslason, Ernst Omenaas, Rain Jögi, Erik Juel Jensen, Eva Lindberg, Maria Gunnbjörnsdóttir, Lennarth Nyström, Birger N. Laerum, Eythor Björnsson, Kjell Torén and Christer Janson

Department of Respiratory Medicine, University Hospital, Ume; Department of Respiratory Medicine and Allergology, Uppsala University, Uppsala; and Department of Occupational and Environmental Medicine and Allergology, Sahlgrenska University Hospital, Göteborg, Sweden; Department of Pulmonary Medicine, Landspítali University Hospital, Reykjavik, Iceland; Department of Thoracic Medicine and Center for Clinical Research, Haukeland University Hospital, Bergen, Norway; Lung Clinic, Foundation Tartu University Clinics, Tartu, Estonia; Department of Respiratory Diseases, University Hospital, Aarhus, Denmark

Correspondence and requests for reprints should be addressed to Karl A. Franklin, M.D., Ph.D., Department of Respiratory Medicine, University Hospital, SE-901 85 Umeå, Sweden. E-mail: karl.franklin@lung.umu.se

The impact of active smoking, passive smoking, and obesity on habitual snoring in the population is mainly unknown. We aimed to study the relationship of habitual snoring with active and passive tobacco smoking in a population-based sample. A total of 15,555 of 21,802 (71%) randomly selected men and women aged 25–54 years from Iceland, Estonia, Denmark, Norway, and Sweden answered a postal questionnaire. Habitual snoring, defined as loud and disturbing snoring at least 3 nights a week, was more prevalent among current smokers (24.0%, $p < 0.0001$) and ex-smokers (20.3%, $p < 0.0001$) than in never-smokers (13.7%). Snoring was also more prevalent in never-smokers exposed to passive smoking at home on a daily basis than in never-smokers without this exposure (19.8% vs. 13.3%, $p < 0.0001$). The frequency of habitual snoring increased with the amount of tobacco smoked. Active smoking and passive smoking were related to snoring, independent of obesity, sex, center, and age. Ever smoking accounted for 17.1% of the attributable risk of habitual snoring, obesity (body mass index 30 kg/m²) for 4.3%, and passive smoking for 2.2%. Smoking, both current and ex-smoking, is a major contributor to habitual snoring in the general population. Passive smoking is a previously unrecognized risk factor for snoring among adults.

Key Words: epidemiology • obesity • smoking • snoring • tobacco

American Journal of Respiratory and Critical Care Medicine Vol 170. pp. 799-803, (2004)

© 2004 American Thoracic Society
doi: 10.1164/rccm.200404-4740C

Respiratory Capacity Course in Patients With Infantile Spinal Muscular Atrophy*

Christine Ioo, MD; Danièle Leclair-Richard, MD; Slah Mrad, MD; Annie Barois, MD and Brigitte Estournet-Mathiaud, MD

* From the Department of Pediatric Neurology, Hôpital Raymond Poincaré, Garches, France.

Correspondence to: Christine Ioo, MD, Department of Pediatric Neurology, Hôpital Raymond Poincaré, 104, Boulevard Raymond Poincaré, 92380 Garches, France 78-83; e-mail: christine.ioos@rpc.ap-hop-paris.fr

Study objectives: To describe the clinical and respiratory course in infantile spinal muscular atrophy (SMA) type I, type II, and type III, and to evaluate the respiratory needs for these patients, using noninvasive or tracheostomy ventilation.

Design: Retrospective cohort study.

Methods: We report 33 patients with SMA true type I (onset before age 3 months), 35 patients with SMA intermediate type I (onset between 3 months and 6 months), 100 patients with SMA type II (onset between 6 months and 18 months), 12 patients with SMA type III (onset after age 18 months). We report the clinical symptoms, respiratory course, and respiratory management: respiratory physiotherapy, periodic hyperinsufflation, nasal nocturnal ventilation (NNV), and tracheostomy. Also, we measured the FVC over several years during childhood and adolescence.

Results: In patients with SMA true type I, 82% of patients died, one third of whom underwent tracheostomy. In patients with SMA intermediate type I, 43% needed NNV, 57% underwent tracheostomy, and 26% died. In patients with SMA type II, 38% needed NNV, 15% underwent tracheostomy, and 4% died. In patients with SMA type III, respiratory impairment was moderate and began during the second decade of life. Conclusion: This data shows the progressively worsening course of restrictive respiratory insufficiency in patients with SMA, and the importance of early respiratory management to limit pulmonary complications and improve the quality of life for these patients.

Key Words: children • FVC • nasal nocturnal ventilation • periodic hyperinsufflation • respiratory insufficiency • spinal muscular atrophy • tracheostomy

(*Chest*. 2004;126:831-837.)

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Non-invasive Mechanical Ventilation (NIMV) for Exacerbation of COPD

Jennifer Drummond, RRT

The Research

Over the last 15 years non-invasive mechanical ventilation has evolved from a research curiosity to an established clinical practice. *Plant, et al*¹ recruited and randomized 236 patients suffering from an exacerbation of COPD into two groups of 118. Each group shared similar characteristics at enrollment. One group received standard therapy alone and the other group received non-invasive ventilation in addition to standard therapy. The results of the study demonstrated decreases in both intubation and mortality in the non-invasive group. Twenty seven percent of the standard group required intubation compared with fifteen percent of the non-invasive ventilation group. There was twenty percent mortality in the standard group compared to ten percent in the non-invasive group. Another similar study by *Brochard, et. al*² with 85 patients in total demonstrated the same impressive results.

Creating a Program

Dr. Irvin Mayers, M.D., FRCPC, Director of the Division of Pulmonary Medicine at the University of Alberta Hospital in Edmonton, Alberta, was motivated by the potential to decrease the mortality of COPD exacerbation by up to 50%. He was granted funding from government department of Alberta Health and Wellness' Health Innovation Fund to establish a program to deliver consistent state-of-the-art ventilatory support for COPD patients experiencing acute exacerbation. It was anticipated that by creating this comprehensive service there would be a decrease in mortality, reduction in ICU bed utilization and decrease in total hospital length of stay.

A Respiratory Therapist was the logical choice of Coordinator for the project. Although my background was primarily adult intensive care, I had



Heather Gillard, a senior Respiratory Therapist on the pulmonary ward.

supervisory experience and had acted as site Coordinator on a previous research project. I welcomed the challenge of creating and developing the NIMV Project, and felt fortunate to be the successful applicant for the NIMV Coordinator position.

Getting started with the Non-invasive Mechanical Ventilation (NIMV) Project

We established a steering committee for the project, with an independent evaluator, R.T.'s, R.N.'s, physicians, and managers from Pulmonary and Emergency. We developed inclusion and exclusion criteria based on those used in the *Plant* and *Brochard* studies. Patients presenting

with exacerbation of COPD had to be conscious, cooperative and dyspneic. Decompensation from other co-morbidity's requiring specific treatment served as exclusion criteria (e.g. peritonitis, septic shock, acute MI, pulmonary embolism, hemoptysis). Unlike the studies conducted by Plant and Brochard, we chose not to deny NIMV therapy to patients with DNR directives.

The first ten patients were run as a pilot project to help us further refine and develop our criteria and protocols. During that time, the project obtained 6 Respiration Vision® Ventilators and a wide variety of both nasal and full-face masks. Physicians, respiratory therapists and nursing staff in ER and Pulmonary were intensively inserviced on the practice and the theory of non-invasive ventilation, as well as on the equipment. Patients were awake, cooperative and were coached about removing the mask if they should feel nauseated. Once stable, the patients were given priority access to the NIMV sub-unit created for this project on the Pulmonary Medicine ward. Our hospital policy governing non-invasive ventilation was amended to allow full-face mask non-invasive ventilation on the ward for the exacerbation of COPD patient population only. All other patients requiring full-face mask ventilation for acute respiratory exacerbation or other reason continue to require transfer to the ICU where there is an increased nurse/patient ratio.

NIMV Project in Action

Well into our third year, the NIMV Project is running smoothly. Protocols have been developed and implemented to cover initiation of treatment, ongoing management and weaning. Staff education remains an ongoing priority.

When a patient presents to the ER, the respiratory therapists and the ER and Pulmonary physicians work together to identify and enroll potential candidates as quickly as possible. Once the patient is identified, the option of non-invasive ventilation is discussed with the patient. Many suffer from anxiety associated with their shortness of breath and can become claustrophobic with a mask on their face. This can be partially alleviated by fully discussing the treatment with the patient, showing the

patient the mask and then gently holding the unattached mask on the patient's face and coaching them to breath slowly through the mask. If the patient is able to tolerate the mask over their face, we try connecting the mask to the Vision Ventilator while still holding the mask over the patient's face. Only after the patient has demonstrated treatment tolerance is headgear used to secure the mask.

Our protocol calls for initiation of ventilation at low pressures — IPAP 8 cm H₂O and EPAP 4 cm H₂O. IPAP is quickly increased as tolerated by the patient. The aim is to decrease respiratory rate, increase tidal volume and decrease dyspnea (as measured subjectively on the modified Borg scale). EPAP will be increased if the patient suffers from refractory hypoxemia, or demonstrates difficulty in triggering inspiration in the presence of autoPEEP. The Vision Ventilator is very sensitive thus we have infrequently found it necessary to match intrinsic PEEP to permit successful inspiratory triggering.

Initially the majority of our patients require a full-face mask as their dyspnea makes the coordination necessary for successful use of a nasal mask difficult. One clinical indicator of successful treatment is when the patient falls asleep quickly. This occurs often, as successful application of non-invasive ventilation provides them with relief of dyspnea and anxiety. Changes in ventilator settings are made in response to ABG results, clinical observation and patient comfort/feedback. We frequently see dramatic improvement in ABG's and decreased dyspnea.

The patient is encouraged to remain on NIMV as much as possible during the first twenty-four hours in order to provide much needed unloading of the respiratory muscles. NIMV is temporarily discontinued for eating, drinking, inhaled bronchodilator therapy and mobility needs (e.g. trips to the bathroom). Periods of time off of the NIMV are extended as tolerated until the patient has been stable for twenty-four hours, at which time they are considered to be successfully weaned.

Modified Borg Scale	
Scale	Severity
0	No Breathlessness* At All
0.5	Very Very Slight (Just Noticeable)
1	Very Slight
2	Slight Breathlessness
3	Moderate
4	Some What Severe
5	Severe Breathlessness
6	
7	Very Severe Breathlessness
8	
9	Very Very Severe (Almost Maximum)
10	Maximum

Arterial blood gases are done prior to initiating the NIMV treatment and at one hour, six hours and then twenty-four hours after finalizing ventilator parameters. All starts and stops in NIMV are performed and documented by a Respiratory Therapist. The total number of hours of treatment depends on the patient's response and the acuity of the exacerbation. Most patients receive between 10–40 hours of treatment over 2 to 7 days. Some patients have demonstrated a much higher energy level with treatment and have been discharged home on BiPAP with good results. Data collection occurs throughout the course of the therapy and is ongoing, including Quality of Life follow-up surveys.

Developing a PAV (Proportional Assist Ventilation) Protocol

In May 2002, we started using PAV as the primary mode of ventilation for the NIMV Project patients. The PAV protocol followed the Respironics recommendations for custom titration of PAV. In our experience, PAV has been well tolerated by most patients. We initiate treatment at low flows and pressures, starting with Custom % Set of 30%, Volume Assist (VA) of 5 cm H₂O/L and Flow Assist (FA) of 2 cm H₂O/L/sec. We rapidly increase the Custom % Set to 60–80%, then increase the VA and FA as tolerated by the patient to meet the objectives of decreasing RR, increasing Vt, and decreasing WOB.

Data Analysis

To date, we have screened 237 patients and enrolled 150 patients into the NIMV Project (exclusive of the pilot project). Approximately 20% of our patients were judged as being saved from intubation and ICU admission. We have experienced a project mortality rate of approximately 10%; comparable to the results achieved in the Plante and Brochard studies. However, it is interesting to note that only one third of our mortality occurred in patients with a Do Not Resuscitate order. Our experience demonstrates that even those patients deemed end stage COPD with a Do Not Resuscitate Directive can be successfully managed through an exacerbation using non-invasive ventilation.

Canadian Practice

Fourteen studies of patients with moderate to severe COPD comparing standard care (O₂, bronchodilators, antibiotics and steroids) with standard care plus NIMV, were included in the Cochrane review³ updated in September 2003. NIMV resulted in decreased mortality (Relative Risk 0.52; 95%CI 0.35, 0.76), decreased need for intubation (RR 0.41; 95%CI 0.33, 0.53), reduction in treatment failure (RR 0.48; 95%CI 0.37, 0.63), rapid improvement within the first hour in pH (Weight Mean Difference 0.03; 95%CI 0.02, 0.04), PaCO₂ (WMD -0.40 kPa; 95%CI -0.78, -0.03) and respiratory rate (WMD -3.08 bpm; 95%CI -4.26, -1.89). In addition, complications associated with treatment (RR 0.38; 95%CI 0.24, 0.60) and length of hospital stay (WMD -3.24 days; 95%CI -4.42, -2.06) was also reduced in the NIMV group. The review concluded that NIMV shows benefit as a first line intervention adjunct therapy for management of acute exacerbation of COPD, and should be considered early in the course of respiratory failure.

In March 2004, we conducted a survey on the use of non-invasive ventilation for exacerbation of COPD. We surveyed 33 teaching and community hospitals in the majority of urban centers. We found marked differences in practice across Canada. 82% of Canadian hospitals routinely use NIV in ER, however only 58% routinely use NIV for treatment of COPD exacerbation. Patients are

admitted only to an ICU or an ICU step-down unit in 70% of Canadian hospitals. It is clear that despite evidence-based guidelines, application of this life saving treatment is inconsistent across the country.

Other findings

Early in the project we were using our own re-usable circuits with a heated inspiratory line and Fischer Paykel® humidifiers for all patients. We noted incidents where the ventilator became insensitive to patient efforts, or alarmed 'ventilator inoperative.' Our technical support service Respiratory therapists worked in conjunction with engineers from Respironics to investigate the problems. After extensive bench testing we determined that the high flows generated by the Vision's leak compensation mechanism caused huge increases in resistance to gas flow, due to circuit components. The main line filter, the O₂ analyzer and the heating wire were the primary culprits. We now use the lowest resistance mainline filter, ensure that the O₂ T is positioned for laminar flow, and use a low resistance inspiratory limb with no heated wire. These changes seem to have solved the problems.

The Future

Non-invasive mechanical ventilation technology has improved immensely in the last ten years. The use of non-invasive ventilation therapy in a carefully selected patient population will continue to increase in popularity as significant and often impressive clinical results are demonstrated. NIMV is recognized in the Canadian Guidelines for the Management of Acute Exacerbations of Chronic Bronchitis⁴ as being GOLD standard for treatment of moderate to severe exacerbation of COPD.

Conclusions

Non-invasive ventilation is a safe, effective adjunct therapy for COPD.

- We have experienced a project mortality rate of approximately 10%; comparable to the results achieved in the Plante and Brochard studies.

- Approximately 20% of our patients were judged as being saved from intubation and ICU admission.
- DNR patients can be successfully managed through an exacerbation.
- Best technical results are achieved by minimizing ventilator circuit resistance.

I would be very happy to share experiences and information with other respiratory therapy professionals. Please feel free to contact me by email at jdrummon@cha.ab.ca.

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Jennifer Drummond, RRT, is currently engaged in data collection and analysis. She hopes to provide concrete evidence of the effectiveness of therapeutic NIV for exacerbation of COPD, as well as a summary of the financial implications. While heavily involved in education at the University of Alberta Hospital, Jennifer also speaks at various conferences including the CSRT Educational Forum, the BCSRT and the SCRT.

The COPD Case Manager

An Emerging Opportunity for Respiratory Therapists

Scott MacKeigan, BHSc, RRT₁ and Paul Hernandez, MDCM, FRCPC₂

Abbreviations

AECOPD — Acute exacerbation of chronic obstructive pulmonary disease

CLA — Canadian Lung Association

COPD — Chronic obstructive pulmonary disease

RT — Respiratory therapists

Introduction

Chronic obstructive pulmonary disease (COPD) is a chronic respiratory condition characterized by progressive airflow limitation and symptoms of dyspnea, cough, sputum production, wheeze, and exercise intolerance.^{1,2} With disease progression, systemic manifestations and recurrent acute exacerbations of COPD (AECOPD) further contribute to a decline in quality of life. As one of the leading causes of morbidity and mortality in our aging population, the impact and cost of COPD on the health care system is enormous and growing. Optimal management is directed towards primary and secondary prevention (e.g. slowing disease progression) primarily through smoking cessation, minimizing patient symptoms, reducing frequency and severity of AECOPD in an effort to slow the decline in quality of life.^{1,2} A comprehensive, management strategy consisting of pharmacotherapy and non-pharmacologic interventions has been advocated in recent clinical practice guidelines, where therapy is escalated based upon disease severity progression.^{1,2} At the foundation of optimal COPD management is education of patients, their families, health care professionals and the general public.^{1,2}

Management of acute and sub-acute episodes of illness relies largely on physicians choosing the correct intervention, with cure as the expected outcome. However, effective chronic disease management ultimately depends on patients' actions on a day-to-day basis. Additionally, the

treatment of chronic conditions, such as COPD, is often complicated by coexistence of multiple medical conditions and psychosocial (e.g. poverty, social isolation) barriers to care. Current health care systems, which are focused on treatment of episodic acute illness, ignore the patient's role in management, rely on sporadic follow-up and tend to ignore available community resources, are maladapted to meet the needs of patients with COPD who suffer a continuum of recurring, chronic problems.³ A number of innovative health care models have been proposed to better manage chronic conditions that are not amenable to cure. This paper will briefly examine two such models in COPD, case management and disease management, which both emphasize the essential role of patient education and collaboration between patient and health care system through the guidance of a COPD case manager. The emerging opportunity for Respiratory Therapists (RT) to use their unique knowledge and skill sets as COPD case managers within these systems is explored.

COPD Patient Education

Patient-focused care recognizes the value of patient expertise that reflects the perspective of one living with a chronic illness. Patient education aims to further improve disease-specific knowledge, lifestyle behaviours and technical skills essential to better cope with living with a chronic illness.⁴ Collaborative self-management patient education goes beyond traditional patient education by empowering patients to identify

and solve problems that gives them the confidence to incorporate those skills into their daily life and assume responsibility for their chronic disease management.⁵⁻⁷ Ongoing collaboration with and feedback from a case manager enhances patient self-efficacy by reinforcing positive choices and helping to correct problem behaviours. A number of key functions are expected of patients with chronic disease when involved in a collaborative self-management program (Table 1).⁸

Table 1. Expectations of COPD patients in a collaborative self-management program

Learning about their illness
Adhering to healthy lifestyle choices
Adhering to an individualized treatment regimen
Taking responsibility for ongoing chronic disease management
Assessing symptoms in order to initiate action plans and contact their case manager when there is an acute deterioration in their health

Two examples of patient education resources commonly employed in Canada include Living Well with COPD (Boehringer Ingelheim Canada, Burlington, Ontario) and Breathworks,TM the Canadian Lung Association's national patient education program. Essential elements of a disease-specific, COPD collaborative self-management patient education program are identified in Table 2.¹ Unfortunately, nation-wide implementation of COPD collaborative self-management patient education programs is currently lacking in Canada and hindered by the absence of a nationally-certified COPD educator program. This gap in COPD care may in part help explain the results of a recent survey of 401 Canadians with COPD, entitled Confronting COPD International Survey, in which only 42% reported being very well informed about their respiratory condition.⁹

Table 2. Elements of COPD collaborative self-management patient education program

Patient-focused information about COPD pathophysiology and symptoms
Identification of COPD risk factors
Modification of COPD risk factors (e.g. smoking cessation program)
Knowledge of drug therapy options
Acquisition of good inhaler technique
Proper use of respiratory equipment (e.g. oxygen delivery systems)
Regular involvement in a safe and effective exercise regime
Good nutritional practices
Recognition of warning signs of acute exacerbation
Appropriate use of an action plan during an acute exacerbation
Relaxation techniques and coping skills
Awareness of local community COPD resources
Discussing end of life decisions with care givers (e.g. communicating advance directives)

The results of trials evaluating the impact of COPD patient education have been inconclusive for a variety of reasons (e.g. poor study design, small sample size, non-standardized education intervention). However, a few recent studies comparing the addition of patient education to usual COPD care have been able to demonstrate an improvement in patient satisfaction with the health care system, an improvement in health status, and a decrease in AECOPD frequency, unscheduled physician visits, work absenteeism.^{6,10,11} Education alone (e.g. without exercise training) does not change lung function or exercise performance.¹²

COPD Case Management

Case management has been proposed as a system of managing complex patients with a focus on meeting the needs of individuals, not populations. Case management can be defined as a collaborative process between patient and case manager, who assesses, plans, coordinates, monitors, and evaluates services to meet an individual's health needs through optimal use of available resources.¹³ It promotes continuity of care and improved communication and collaboration between patient and health care system. Case managers play a key role in this model of health care delivery. Case management systems have been shown to be effective in addressing chronic conditions (e.g. diabetes mellitus, congestive heart failure) and unhealthy lifestyle behaviors (e.g. smoking, physical inactivity).¹⁴

Case management succeeds by employing unique means that are more cost effective and convenient to patients. As an alternative to traditional systems that rely on physicians and sporadic emergency department or clinic visits, case management depends chiefly on collaboration between patient and case manager, and replaces many physician visits with telephone contact, mail and home visits. Success using this model requires informed patient actions (Table 1). Accordingly, self-management education affords patients the knowledge, skills and self-efficacy necessary to collaborate more effectively with their COPD case manager in the care of their chronic illness.

AECOPD contributes to a decline in lung function and health status in COPD patients and is the main cause of unscheduled clinic and emergency department visits, hospitalization, death, and direct and indirect COPD care costs to the Canadian health care system.^{1,2} Treatment of COPD with a case management model increases the likelihood that patients will receive optimal care aimed to reduce AECOPD frequency, be taught to recognize respiratory symptoms that indicate an AECOPD and collaboratively self-manage AECOPD in a more effective manner. As a result, case management has the potential to improve outcomes in patient health status, health resource utilization and health care costs.

Bourbeau and his colleagues in the province of Quebec conducted a multicentre, randomized, controlled trial in 191 patients with COPD comparing usual care to a disease-specific self-management program and ongoing attention and communication with a COPD case manager.¹⁵ Hospital admissions for AECOPD were dramatically reduced (-40%), as were emergency department (-41%) and unscheduled physician visits (-59%) in the intervention group. There was also a significant improvement in health status. Other investigators have also demonstrated that COPD case management may result in a reduction in health resource utilization and improvement in health status.^{11,16}

COPD Disease Management

Disease management programs provide new opportunities and roles for case managers to provide population-based healthcare to the chronically ill. Chronic illnesses are most often targeted for disease management programs (e.g. cancer, diabetes, mental health disorders, stroke, congestive heart failure) because they are costly to the healthcare system, result in significant impact on patient lives, have a disease course that is amenable to therapy, and a potential for high rate of non-adherence, which is responsive to patient education.¹⁵

The focus assumed by a case manager in a disease management program is population based and proactive, rather than patient-focused and reactive. As a result, some of the functions of the case manager differ, particularly when the disease management program is new. These new roles include performing a baseline assessment of the care patients with COPD receive, economic analyses, assessing health resource utilization by COPD patients, developing and/or implementing evidence-based treatment guidelines and clinical pathways, and data management for outcomes assessment.¹⁵ Education of patients remains a central role, as it is to all case managers, but disease management case managers may also be called upon to educate other health care professionals and the general public. The case manager may also be involved in identifying

individuals at-risk for, but not yet diagnosed with, COPD through targeted screening programs. Following referral of COPD patients, case managers provide consultation and ongoing follow-up in a similar fashion to case management system. Finally, case manager must evaluate the disease management program itself by assessing patient and program outcomes against preset goals.

At times, the case manager in a disease management program faces conflicting obligations: to manage the use scarce health care resources in a cost effective manner, while ensuring that their patients remain satisfied and receive the highest quality COPD care available. This aspect can add another element of interest and challenge to the role.

Emerging Opportunities for Respiratory Therapists as COPD Case Managers

There are emerging opportunities for RT to utilize their unique knowledge and skill sets in an expanded role as case managers for patients with chronic respiratory conditions, such as COPD.¹⁷ As acceptance of the importance of new approaches to chronic disease care increases among patients, health care professionals, administrators and payers in this country, the need for adequate numbers and equal distribution of appropriately trained COPD educators and case managers will grow. RT have valuable characteristics specific to COPD that other health care professionals would need to develop to provide care to this patient population (Table 3).

Success as a COPD case manager requires that the RT be able to re-conceptualize the healthcare system, understand the needs of the chronically ill, and be innovative in identifying solutions to their problems.¹³ COPD care employing case managers can be effective in improving patient satisfaction and health status, while decreasing health resource utilization and costs. These positive outcomes provide strong justification and motivation to health care system administrators to support the emerging role of COPD case managers within new approaches to COPD management.

Table 3. Valuable characteristics of Respiratory Therapists as COPD case managers

Knowledge of COPD pathophysiology and treatment
Knowledge of management of common respiratory co-morbidities (e.g. sleep apnea)
Knowledge and technical skills related to use of respiratory equipment (e.g. inhaler devices, oxygen delivery systems, mechanical ventilators)
Technical skills to perform and knowledge to interpret pulmonary function tests
Good communication skills
Training and work experience as adult educators
Training and work experience in hospital, outpatient and home environments
Training and work experience in multidisciplinary setting
Training and work experience in respiratory research methods
Training and work experience as health care manager
Training and work experience managing COPD patients at the end of life

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Live from Beirut *Continued from page 5*

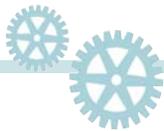
In March 2003, Fanshawe College was proud to host a contingent from Makassed General Hospital consisting of Mr. Mohammed Firikh, Hospital Director, Mr. Mohammad Ali-Hamandi, Hospital Vice-Administrator, Madame Sawsan Ezzeddine, Director of Higher Institute of Nursing and Mr. Abed Aslan, Chief Respiratory Therapist.

While visiting Fanshawe, discussions were held regarding the existing joint EMT program and were expanded to include the possibility of a Respiratory Therapy program at Makassed. While the daily agenda was full, our guests were able to enjoy our Canadian winter and experience for the first time a Junior A hockey game. Needless to say, I had a little explaining to do about the game of hockey when the occasional donnybrook broke out on the ice.

Mr. Abed Aslan, Chief Respiratory Therapist remained behind for a couple of weeks after the rest of the guests returned to Lebanon to get the feel of the program at Fanshawe and to observe what Respiratory Therapy in Canada was all about. During this time Mr. Aslan attended many of our classroom lectures, participated in labs with our students and was also able to spend time with the Clinical Coordinators at different affiliated sites.

In June 2004 I again returned to Beirut to assist on curriculum development for the proposed new program with a projected start date of October 2004. At the time of this writing, the hospital is still awaiting government approval to start the program.

The projection for the Respiratory Therapy program at Makassed General Hospital looks very promising indeed. They are very interested in maintaining strong ties with Fanshawe and on a larger scale with the CSRT. In the future the idea of a site visit for the CoARTE accreditation team may take on a whole new meaning.



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New Books from the Lung Association

The Lung Association's new children's educational asthma book "Call Me Brave Boy" is targeted to children aged 2–6. This picture book is designed for a parent or caregiver to read to a child who has asthma. It is illustrated by Michael Martchenko, Canada's foremost children's book illustrator, and written by Jenny Shinder, a parent of a child with asthma. "Asthma Active", an activity book targeted to children 7–12 years of age, is full of educational games that teach about asthma in a fun way.

Development and printing of these books was funded by the Government of Ontario. These materials are free in Ontario. Other provinces can order them by calling the Asthma Action Helpline at 1-800-668-7682.

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