



CJRT-RCTR

Summer 2004, Volume 40 (3)



Sputum Cup Winners, Forum 2004

*The journal for respiratory
health professionals in Canada*

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

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 <p>Canadian Journal of Respiratory Therapy Revue canadienne de la thérapie respiratoire</p>
<p>Official Journal of the CSRT Revue officielle de la SCTR</p>
<p>CSRT Board Representative / Représentante du Conseil d'administration de la SCTR Colya Kaminiarz, RRT</p> <p>Managing Editor / Directrice de la rédaction Rita Hansen</p> <p>Consulting Editors / Rédacteurs-conseil Members of the Scientific Review Committee</p> <p>President, CSRT / Président, SCTR Brent Kitchen, RRT</p>
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The Michener Team Sputum cup winners:
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Photo by Craig Hillier.

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Welcome!

Welcome to the Summer Edition of the *Journal*. Recent changes in the CSRT/*CJRT* corporate structure, will result in the *Journal* falling back under the umbrella of the CSRT, instead of as a separate corporate entity. With this restructuring, the position of President of the *CJRT* has been retired. I would like to take this opportunity to thank Allan Shemanko for his tireless work as President of the *CJRT*. Allan has steadfastly kept the *Journal* on track, always looking for opportunities to improve and streamline production. Thank you Allan!



Douglas Maynard

Issues involving the *CJRT* will now fall under the mandate of Colya Kaminiarz, Director of Membership Services. Along with Colya, I would also like to welcome Sue Jones, President Elect of the CSRT; Wrae Hill, Director of Professional Advocacy; Ray Hubble, Director of Education and Clinical Standards, and Scott LeMessurier, Director of National and Provincial Relations.

In this issue you will find a wrap of Forum 2004 as well as information on Forum 2005. We have articles on the Students Special Interest Group, CICF funding and our Science paper on Treatment of Lobar Atelectasis.

RT Week is also around the corner! Check our RT catalogue for interesting items to help promote respiratory therapy in your area. We look forward to the continued support of our membership.

Douglas Maynard BSc, RRT, MBA
Executive Director CSRT

Honorary Life Membership — Terry G. Boone

Cheryl Homuth, RRT

Terry Boone was awarded a CSRT Life Membership at the CSRT Educational Forum, in Toronto, May 29, 2004, along with Robert Colyn and Ian Reid.

When Terry was obliged to leave work in June 2000 because of primary progressive Multiple Sclerosis, he was the Dean of Information Technology, Health and Business Studies at New Brunswick Community College in Saint John, New Brunswick — with the only formal education behind him being his respiratory technology diploma.

From the time he graduated from Victoria General School of Respiratory Therapy in Halifax as a respiratory therapist in 1972, with the most outstanding student award, until he left work in 2000, Terry made continuous, dedicated, unselfish and identifiable contributions to the profession of respiratory therapy.

He was a founding member of the CSRT Education Committee, before there was a CBRC, as well as the New Brunswick member of the CBRC Examination Committee.

In September 1989 Terry set up the first Respiratory Therapy program at NBCC. He participated in many accreditation surveys throughout Canada — medical laboratory, paramedicine and respiratory therapy. Terry was Chair of the CSRT Accreditation Working Group, which led the development of CoARTE, respiratory therapy's own accreditation process in Canada.

He was also a founding member and first secretary of the New Brunswick Association of Respiratory Therapists, and President of the New Brunswick Association of Respiratory Therapists and a member of the CSRT Board of Directors.

From 1993 to 2001 Terry was Chair of the CSRT Judicial Committee. During this time he documented the required process, provided recommendation for bylaws to enforce the requirements and trained others on the process.

Terry was always involved in his profession, strongly supporting its advancement. His personal attributes made all this possible. Throughout the years it has been his determination to steadfastly and solidly, yet so diplomatically “plant his foot” when it was the right thing to do, even when it was not popular to do so. Though there have been obstacles along the way, his perseverance has been both appreciated and respected. Terry is meticulous, a loyal friend, has a wonderful wit, and is a great storyteller — stories that will include many “Terryisms” sure to bring out a hearty laugh in all who are around.

Terry's inspiration and dedication to the profession has been recognized previously. Most recently in 1999 — NBART “RT of the Year award and in 2001 — CSRT Professional Achievement Award, now renamed the Robert Merry Memorial Award.

Respiratory therapists across this country owe so much to Terry for his support and commitment. It gives my colleagues and I great pleasure to have nominated Terry Boone, for Honourary Life Membership in the Canadian Society of Respiratory Therapists. I only wish Terry, a most caring individual, could had been well enough to be here to receive this award in person, to see and feel the impact he has had on so many of our lives.

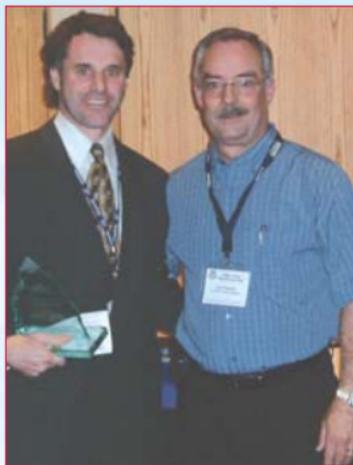


CSRT Honorary Life Memberships were awarded to Robert Colyn, left Ian Reid and Terry G. Boone *not present*.

Fun Night included a Second City comedy review.



Chair of Registration, Gail Lang, takes a well-deserved breather after a long day of stuffing delegate bags



Summit Award winner Robert Martell *left* and Jim Cosman, Summit Technologies President.



Past-President Jim Winnick shows his true colors.



CSRT Gold Medal winner Salvatore Salamone, *left* Michener Institute and Past-President Jim Winnick.



Bill Butler received the Robert Gerry Award, presented by CSRT President-Elect Sue Jones.



Thanks to Gail and her hard-working crew who made sure the Registration Desk ran like a well-oiled machine.

Left to right Ana MacPherson, RRT; Lisa Butcher, RRT (student); Sophia Cabral, RRT; Gail Lang, RRT.

ON AIR NUGGETS

Congratulations Ray Hubble!

Ray Hubble, RRT, MMed, the CSRT Director of Education and Curriculum Standards was recently awarded the Excellence in Teaching Award from the Saint John campus of the New Brunswick Community College.

An innovative teacher at the college, Mr. Hubble is widely known for his dedication to respiratory therapy and his determination to keep his students updated on the ever-changing world of technology. Mr. Hubble has been teaching respiratory therapy for 14 years.

Award Winners

Robert Merry Memorial Award for Professional Achievement

William Butler

CSRT Honorary Lifetime Memberships

Terrence Boone

Robert Colyn

Ian Reid

Summit Award In Respiratory Excellence

Robert Martell

Edmonton 2005

The CSRT Planning Committee for Forum 2005 "Compassion in Action" is already planning sessions to be held at the Shaw Conference Centre in Edmonton, Alberta — June 3 – 5, 2005.

Streams will include Sleep Studies, Neonatal/Pediatric Care, Critical Care, Anesthesia and Community Care. Suggestions and input are very welcome cjrt@csrt.com

Global Asthma

The Global Burden of Asthma Report details the prevalence, morbidity, and mortality of asthma in 20 regions around the world, reveals a number of alarming facts about the burden of this chronic respiratory disease in the world. The "Global Burden of Asthma" Report, Pocket Guide, Pediatric Guide and Patient Guide can be obtained at www.ginasthma.com.

Passport Winner

Nancy Chan of Mississauga was the winner of our Passport draw. She will receive free registration to the CSRT Forum — "Compassion in Action" in Edmonton 2005 along with three nights accommodation.

CSRT Forum Poster Winners

Congratulations to our Forum 2004 Poster winners. Each will receive complimentary registration to Forum 2005 — "Compassion in Action" in Edmonton, Alberta

Best tudent Poster — Patrick Nellis, BSc, RRT

"Review of Inhaled Nitric Oxide Therapy in Heart Transplantation" submitted as a student in the Anaesthesia Support Program of TMI.

Best Poster — Nancy Garvey, RRT

"Asthma Care Map for Primary Care Providers"

Best Poster — Susan Dunington

"Critical Thinking Competence in Respiratory Therapy"

Message from the President

"The significant problems we face cannot be solved at the same level of thinking we were at when we created them."

— Albert Einstein



Brent Kitchen

At the CSRT Educational Forum in Toronto in May, I was asked to make a presentation describing the future of the CSRT. I sat down to consider what I believe are the strengths and weaknesses of the CSRT and how well the organization is positioned for the future. A few key issues that I think are paramount to the future success of the CSRT, and to the profession, jumped out at me.

Forty years ago, when the CSRT was formed, the profession needed an organization to define what a respiratory therapist was. The CSRT RRT credential was created and eventually became based on the promotion of a common school curriculum, an accreditation process for schools, a national exam and a judiciary process. The CSRT evolved into a society that also provides other benefits to members including the journal for sharing information, educational forums, a professional development program, promotion of the profession, a national/international voice for RTs in Canada and much more. I believe that the success that we have achieved as a profession is largely based upon the CSRT's success in providing excellent programs and moving the profession forward.

The needs of respiratory therapy are changing. At one time the CSRT was the organization that defined what a RT was. Now legislation in various provinces has made the definition of respiratory therapy provincial law. This is an important step forward for the profession, but provincial law (self-regulation) now gives the colleges of respiratory therapy in each province the authority to define what a RT is in their province. Although it has been essential for the development of the profession, the credentialing role of the CSRT is diminishing. As more provinces become self-regulated the need for this role will lessen even further.

The new role for the CSRT is to provide services to meet the needs of our profession that are not provided by regulatory bodies. They include maintaining national processes, advancing respiratory therapy practice by providing best practice guidelines, promoting the profession to the public and to governments, recruiting into the profession, supporting respiratory therapy research, networking and collaborating with regulatory bodies. We need to guarantee that the voice of the profession is heard when all decisions affecting us as professionals and our practice are being made.

The reality is that as a society we currently dedicate more of our resources to credentialing than we do to providing other services to our members. To meet the needs of the profession we need resources. Our resources come from our members. We need more members! Fewer and fewer RTs need credentialing services because their regulator performs that function for them. Part of self-regulation means that CSRT membership is optional for the majority of RTs in this country. People need to experience the tangible value of membership to remain or become members of the CSRT. The CSRT needs to refocus on being an organization that primarily provides services and benefits to its members.

We need to decide if the CSRT will continue to represent only those fewer and fewer RTs that go through our specific processes for the non-regulated provinces or if we will become a society that truly represents the entire profession in Canada. This means allowing those RTs defined as RTs by regulatory bodies to become full members of our society. The Mutual Recognition Agreement was signed between regulators and the CSRT because we identified evidence (the National Competency Profile) that showed that all RTs practicing

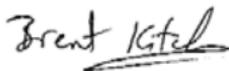
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in all provinces in Canada are more than 90% equivalent. We also expect that within the next few months every school in Canada will use the same accreditation process, each school will teach to the same profile and all jurisdictions will examine graduates based on the same profile. That should be enough for us to decide that we can include all RTs in our society and truly represent all RTs in Canada. We need to be inclusive rather than exclusive, while guaranteeing that our standards are high. This is the future of the CSRT.

In the coming months you will receive a mailout ballot asking for approval to change our bylaws to allow RTs licensed in the regulated provinces who meet the requirements of the Mutual Recognition Agreement to become full members of the CSRT. I believe this can be a turning point for our society and a point that we will

look back on one day and see as a key step to how we achieved new success. If we remain exclusive rather than inclusive, I believe that our society will stagnate and we will never reach our true potential, meaning we will not meet our true potential as respiratory therapists. Please consider the information you receive with your ballot carefully and consider the future, rather than the past, when you cast your vote.



Brent Kitchen, RRT
President, CSRT

The CSRT thanks its sponsors for their generous support of the CSRT Educational Forum 2004.

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New Funding Opportunities



CSRT and Canadian Intensive Care Foundation Join Hands to Support Respiratory Therapists

In addition to the Canadian Society of Respiratory Therapist, RTs can now turn to the Canadian Intensive Care Foundation (CICF) for professional support.

Leaders from the Canadian Society of Respiratory Therapists (CSRT) and the CICF have agreed to cross-promote education, events and membership in order to increase awareness and support for critical care professionals, such as respiratory therapists.

As a testament to their assistance, CICF leaders now offer a new source of education funding for respiratory therapists from intensive care units across Canada.

The CICF has expanded research and educational funding opportunities to include all disciplines within the intensive care environment. The Foundation offers grants-in-aid of research and education to qualified applicants who are practicing critical care personnel: critical care physicians, nurses, respiratory therapists and pharmacists.

For 2004, grant committee adjudicators for CICF expect to release about \$100,000 to support critical care research and teaching. Foundation Chair Cindy Hamielec, MD, FRCPC, said the CICF Board redesigned the grant program last year to provide broad coverage and benefit as many caregivers as possible.

"The CSRT is very excited about the CICF now offering education funding for respiratory therapists from intensive care units. It's a new partnership that really benefits our profession. For more information on how membership — or

involvement with a local CICF Chapter — can assist you with professional development go to the CICF website www.cicf.ca", said Brent Kitchen, CSRT President. ICU respiratory therapists can also contact CICF Executive Director Wayne Peterson at the Foundation.

CICF leads the way

The CICF continues to engage as members, RTs and other critical care professionals across the country to gain support to fund new research — and now education — for patient care of the critically ill and injured. The induction of more Chapters, and members, in Canadian centres mark the path.

"In the past year, we followed a course for success, prioritized tasks, introduced more fundraising activities, and prepared to take advantage of more opportunities down the road", Peterson said. "And as we grow, we never lose sight of our true purpose — to generate more funds for life-saving research and education." The Foundation released another \$135,000 in 2003 to initiate studies by researchers in intensive care and related fields.

Recognition and awareness for the Foundation remains a major goal. "To that end, we continue to expand our profile and representation across the country through Chapter development, a growing membership and connection with health care professionals," Peterson said. "We also continue to attract more corporate sponsors and donations, present more fundraising events, and improve overall administration of the Foundation."

CICF demographic

The CICF now has an affiliation with doctors and other intensive care staff at more than 000 Canadian hospitals — the result of an assertive campaign stimulated by the Foundation's Board

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of Directors in recent years. With generous support through the Coalition of Excellence by corporate partners — Ortho Biotech, Bayer Inc. and GE Medical Systems — CICF leaders confidently set an aggressive business plan in 2003 to advance the Foundation and raise more funds for research and education over several years.

Through CICF, respiratory therapists are connected with:

- About 600 CICF members (doctors and other health care staff, administrators, volunteers, patients and their families and business and community leaders)
- Three new CICF Chapters established in Canadian centres (Calgary, Halifax and Hamilton) with Montreal, Toronto, Vancouver and Winnipeg in the development stage.

Foundation revenues grew to \$560,000 by 2003. Grant and education allocations also increased from \$80,000 in 2001 to \$135,000 in 2003. The fledgling organization has invested over \$500,000 in grants since formation.

CICF growth today

By June 2004, CICF leaders expect to achieve business plan key objectives of:

- Three corporate partners and \$85,000 in corporate partnership revenue
- 500 members and more than \$12,000 in membership revenue
- Four new chapters across Canada (Calgary, Halifax, Hamilton and Montreal)
- Six sources of alternative funds (e.g., grants/endowments) at \$45,000
- \$100,000 in grant and education allocations.

CICF growth tomorrow

By June 2007, the business plan projects key objectives of:

- 10 corporate partners and about \$300,000 in corporate partnership revenue
- 1,700 members and about \$42,000 in membership revenue

- \$100,000 from personal and community donations
- 12 chapters across Canada (Calgary, Halifax, Hamilton, Montreal, Toronto, London, Winnipeg, Vancouver, Quebec City, Edmonton, Saskatoon/Regina, and Ottawa) as well as other non-teaching communities
- About \$600,000 (net) in fundraising activities from chapters
- 11 sources of alternative funds (e.g., grants/endowments) at \$95,000
- \$500,000 in grant and education allocations.

The CSRT wishes to acknowledge the on-going support of our Corporate Members. Sponsorship by our Corporate Members helps the CSRT maintain the current standards of excellence in the profession.
Thank you!

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We endeavor to include all our volunteers. If you have been inadvertently left off our list, we apologize. Please let us know!

Student Special Interest Group

Jason Nickerson, BHSc (RSPT) Student
Chairperson, CSRT Student Special Interest Group

Following a vote at this year's AGM held in Toronto, a Special Interest Group (SIG) has been set up, dedicated to student members of the CSRT. I will be assuming the role of chairperson for this Special Interest Group, and look forward to speaking with those of you interested in becoming involved in this new project.

Allow me to first of all introduce myself. I am entering my third year of Respiratory Therapy and am working towards my Bachelor of Health Sciences degree at Dalhousie University in Halifax, Nova Scotia. I have been involved in various community initiatives through different non-profit organizations supporting the work of Respiratory Therapists, and look forward to engaging students in some new and exciting levels of Respiratory Therapy.

As outlined in my proposal made at the AGM, the main goals of the Student SIG will be to first of all establish networks through which students, educators and general members can communicate different ideas that relate to respiratory therapy education, student life, etc. Different students and schools have become engaged in a variety of different projects that deserve to be shared, as they would no doubt benefit different communities and schools throughout the country. It is my hope that by setting up services such as the ListServer e-mail service and by providing regular access to the CJRT for students, that we can begin to start sharing some valuable information and resources of relevance to students.

It is my hope that we can start to see student representation on different committees throughout the country, and this is something that I will be promoting as part of my goals for this group. I want to keep the membership large but the actual structure of the SIG simple. The structure

of the group will require an additional person, the Co-Chairperson, to act alongside the Chairperson. Due to the fact that there are currently no established Terms of Reference for the group, I feel that an appropriate measure is to announce that we will be accepting applications for the position from student members of the CSRT. Contact information will be made available on the CSRT website and anyone interested is encouraged to check for information there.

I will be making contact with the different schools throughout the country and intend to provide you with information to share with students regarding what I hope to accomplish. The success of this group will rely heavily upon its promotion through both educators and the general membership. The ultimate goal is to provide students with further reasons to join the CSRT and in turn, hopefully secure more members upon graduation.

It is with sincere thanks that I submit this, the first report from the Student Special Interest Group, to you - the members of the Canadian Society of Respiratory Therapists — for your continued support of Respiratory Therapy Education and Respiratory Therapy Students in Canada. Your continued commitment to providing students with excellent opportunities for advancement in professional engagements is what makes our profession one that will continue to grow and advance for years to come.



THE CANADIAN SOCIETY OF RESPIRATORY THERAPISTS
LA SOCIÉTÉ CANADIENNE DES THÉRAPEUTES RESPIRATOIRES

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October 3 – 9, 2004

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LA SOCIÉTÉ CANADIENNE DES THÉRAPEUTES RESPIRATOIRES

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\$4.25/pkg Non-member



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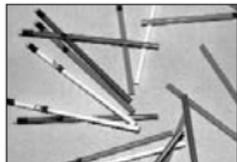
CSRT CARABENERS

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Colourful giveaway. "Neon" Pencils in bright yellow, green and orange.
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NEW



TABLE TENTS

Make a statement! Personalize with activities you have planned for your facility.
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CSRT TOTE

Heavy, reinforced canvass. Side pocket with CSRT logo, navy or red.
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\$15.00/each or
2 for \$25.00 Member
\$18.00/each or
2 for \$35.00 Non-Member

CoARTE Update

Michelle Kowlessar, Accreditation and Education Manager

CoARTE and the National Competency Profile

The Council on Accreditation for Respiratory Therapy Education (CoARTE), has based their accreditation standards on ISO principles and the cross referencing of the Respiratory Therapy Education program to the CSRT Occupational Profile.

In 2003, the Provincial Regulatory Bodies and the CSRT began the creation of a new profile entitled the "National Competency Profile" (NCP) which outlines the competencies for practicing and entry level therapists. The CSRT has been an equal partner in this process from the beginning and as such supports the implementation of this document. CoARTE, as a council of the CSRT also supports the proper implementation of this document.

When the CSRT and the Alliance members feel all stakeholders are prepared for the implementation of the NCP, CoARTE, as one of these stakeholders will also be prepared to use the NCP in its processes.

In order to assist the schools and CoARTE with the implementation of the NCP, the CSRT is preparing supporting documentation. This supporting documentation can be used voluntarily by the schools and CoARTE to help ensure the various curricula result in students that have achieved all of the competencies listed in the NCP.

This is an exciting time for the Respiratory Therapy profession. We are approaching a transitional period where respiratory therapy programs in Canadian when schools will implement all competencies in the new National Competency Profile. CoARTE is looking forward to a continuing collaborative partnership with the CSRT, the schools and the members of the National

Alliance in providing high quality educational programs, for entry-level Respiratory Therapist, in the interest of safe patient care.

CoARTE Membership

Tom Dorval, Instructor at the University of the Cariboo in Kamloops has now taken over Ray Hubble's position as the national representative for didactic education on CoARTE. On behalf of CoARTE and the CSRT, we welcome you and thank you for accepting the position.

Ray Hubble, Instructor at the New Brunswick Community College in Saint John, is now a Member of the CSRT's Board of Directors. He now holds the position of Director of Education and Clinical Standards and he will be a valuable resource to CoARTE on matters pertaining to the new National Competency Profile.

Upcoming Site Visits

Algonquin College, La Cité collégiale and Canadore College in Ontario are scheduled for site visits in January, February and April 2005, respectively.

Would you like to get involved with CoARTE?

CoARTE is always looking for volunteers to serve as program reviewers on teams for accreditation of respiratory therapy programs. Each team consists of respiratory therapists, a senior educational administrator and a physician. Training workshops are offered for individuals eligible to participate on program review teams.

If you would like more information on the next training workshop, please call Michelle Kowlessar, Accreditation and Education Manager at 1-800-267-3422 x26 or e-mail coarte@csrt.com

Healthcare Assistance Programs Need Improvement

A Report released by the WarrenShepell Research Group which examined the mental health of Canadian employees in the healthcare sector, indicates that hospital organizations need to improve the wellbeing of workers to alleviate employee stress and prevent future burnout.

The Report reviewed four years of data (2000 – 2003) and represents healthcare cases from across Canada.

Key findings of the Report suggest:

- A growing number of hospital workers are accessing Employee Assistance Programs (EAPs). EAP utilization increased over three years (3.96 % in 2000 to 5.36 % in 2002) and spiked in 2003 (6.59 %)
- Hospital workers face high stress around issues of respect and security, including workplace closure, employee termination and violence in the workplace
- The year of the SARS epidemic (2003) saw elevated symptoms of depression, anxiety, workplace stress and marital-relationship discord among hospital workers
- The largest single source of trauma for hospital workers in any one year was workplace trauma, accounting for over 92 % of trauma counselling in 2003.

Trauma counselling for the death of an employee has increased 4.5 times in the last three years (2.21 % in 2000 to 10 % in 2002).

The Canadian healthcare sector employs 824,600 people or approximately five per cent of the employed labour force.

The Canadian healthcare system has seen dramatic changes in the last 15 years, especially in the hospital environment. Government cut-backs and downsizing in the sector have led to a widespread shortage of hospital workers and longer waits for healthcare.

For a copy of the Report:
David Eisenstadt, Beth Merrick, Regina Levy
Laura Macdonald

The Communications Group Inc.
WarrenShepell
(416) 696-9900 or (800)-267-4476
(416) 961-0023 or (800)-461-9972

lmacdonald@warrenshepell.com

Smoking Quitlines

71% of all smokers want to quit. The 2001 Canadian Tobacco Use Monitoring Survey found that 54% of current smokers aged 15 and over intended to quit smoking in the next six months, and another 17% intended to quit in the next 30 days. This is a very high proportion of smokers who are contemplating quitting smoking.

Quitlines can help

In recent years there has been increasing interest in using telephone quitlines as part of an integrated and stepped approach to smoking cessation to help smokers successfully quit smoking. All Canadian provinces have operational quitlines and options are being explored for service in the territories

A quitline is a free, confidential telephone service for all smokers, whether or not they are interested in quitting and for their family and friends who would like to help. A trained counsellor answers the calls and offers information, advice and support in developing an individual quit plan. They also refer callers to community services and resources and provide callers and health care providers with promotional and educational materials.

Quitlines have the potential to provide an accessible, high reach, low cost service. They can be both the point of entry for people into the smoking cessation system and/or offer counselling services. A recent review found that long term (12–18 months) quit rates ranged from 11% to 22% and that Canadian quitlines currently reach between .1 and 5% of the population.

For more information:
<http://www.cctc.ca/>

CALENDAR OF EVENTS

August 20 – 22, 2004
13th Annual National Neurotrauma Conference
Ludhiana India
www.neurotrauma2004.com

September 4 – 8, 2004
14th European Respiratory Society Annual Congress
Glasgow, Scotland
info@ersnet.org

September 9 – 12, 2004
9th International Congress of Cardiothoracic and Vascular Anesthesia
Tokyo, Japan
www.jscaa.org/iccva2004/index.html

September 11, 2004
2004 Obstetric Anesthesia
Toronto, Ontario
www.mtsinai.on.ca/Seminars/Ce/Anesthesia/default.htm

September 15 – 18, 2004
7th Asia Pacific Conference on Tobacco or Health
Gyeongju, Republic of Korea
www.apact2004.org/

September 18 – 22, 2004
63rd National Scientific Congress of the Australian Society of Anaesthetists
Sydney, Australia
www.asa2004.com/

October 7, 2004
15th Annual Meeting of the European Society for Computing and Technology in Anesthesia and Intensive Care
Toulouse, France
ingo.marsolek@hcmb.org

October 10 – 13, 2004
17th Annual Congress of the European Society of Intensive Care Medicine
Berlin, Germany
www.esicm.org

October 18 – 19, 2004
The 16th Annual Edmonton Palliative Care Conference
Calgary, Alberta
www.palliative.org

October 22 – 23, 2004
RTSNs Fall Conference
Halifax, Nova Scotia
www.rtsns.com

October 23 – 29, 2004
Canadian Cardiovascular Congress 2004
Calgary, Alberta
www.ccs.ca/

October 23 – 30, 2004
CHEST 2004 – AACP's 70th Annual International Scientific Assembly and the Clinical World Congress on Diseases of the Chest
Seattle, Washington
registration@chestnet.org

October 23 – 27, 2004
Canadian Cardiovascular Congress
Calgary, Alberta
www.ccs.ca/

October 25 – 26, 2004
14th Annual Canadian Home Care Association Conference
Halifax Nova Scotia
www.cdnhomecare.on.ca/

November 15 – 17, 2004
Ontario Hospital Association HealthAchieve 2004
Toronto, Ontario
www.oha.com/oha/ohawm.nsf?OpenDatabase

December 4 – 7, 2004
50th International Respiratory Congress
American Association for Respiratory Care
New Orleans, Louisiana
info@aacrc.org



Abstracts

Can a Standardized Acupuncture Technique Palliate Disabling Breathlessness? A Single-Blind, Placebo-Controlled Crossover Study

George T. Lewith, MA, DM; Philip Prescott, BSc, PhD and Carol L. Davis, MBBS

* From the Complementary Medicine Research Unit (Dr. Lewith), Royal South Hants Hospital, Southampton, UK; Faculty of Mathematical Studies (Dr. Prescott), University of Southampton, Southampton, UK; and Countess Mountbatten House (Dr. Davis), Southampton, UK. Correspondence to: George T. Lewith, MA, DM, Complementary Medicine Research Unit, Mail Point OPH, Royal South Hants Hospital, Southampton, SO14 0YG UK; e-mail: GL3@soton.ac.uk

Study objectives: The management of disabling breathlessness is poor, and a standardized form of acupuncture has been reported as offering benefit. This study was designed to evaluate the efficacy of standardized acupuncture treatment.

Design: A single-blind, randomized, crossover study.

Setting: This study was carried out on a domiciliary basis in Southampton (UK).

Interventions: This study evaluated a standardized acupuncture technique vs an appropriately validated placebo/control (mock transcutaneous electrical nerve stimulation [TENS]) for disabling, nonmalignant breathlessness (largely COPD). The acupuncture was provided by an appropriately trained nurse acupuncturist. Each patient received six treatments in each phase of the study, with an intervening 2-week washout period. Measurements and results: The primary outcome was worst breathlessness (visual analog scale, 0 to 100 mm), with the sample size based on an 80% power to detect a 10-mm difference between treatment means.

Secondary outcomes included the St George's respiratory questionnaire score and treatment credibility.

Results: Thirty-six patients were entered into the study (33 with COPD), and 24 patients completed both treatment phases. The primary outcome improved significantly during the course of the study, but there were no significant treatment differences between acupuncture and the placebo/control of mock TENS for either primary or secondary outcomes. The placebo was shown to be a credible control. There was no evidence of a carryover effect from the first to second phase of the study.

Conclusion: This standardized acupuncture technique does not show specific efficacy in disabling nonmalignant breathlessness, but those entered into the study did experience clinically significant benefit from both treatments.

Key Words: acupuncture; disabling breathlessness; placebo/control; randomized controlled trial (*Chest*. 2004;125:1783-1790.)

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Protective Effects of Sphingosine 1-Phosphate in Murine Endotoxin-induced Inflammatory Lung Injury

Xinqi Peng, Paul M. Hassoun, Saad Sammani, Bryan J. McVerry, Melissa J. Burne, Hamid Rabb, David Pearse, Rubin M. Tuder and Joe G. N. Garcia

Department of Medicine, Divisions of Pulmonary and Critical Care Medicine and Nephrology; Department of Pathology; and the Center for Translational Respiratory Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland

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Our prior in vitro studies indicate that sphingosine 1-phosphate (S1P), a sphingolipid angiogenic factor, produces endothelial cell barrier enhancement through ligation of endothelial differentiation gene family receptors. We hypothesized that S1P may reduce the vascular leak associated with acute lung injury and found that S1P infusion produced a rapid and significant reduction in lung weight gain (more than 50%) in the isolated perfused murine lung. The effect of S1P was next assessed in a murine model of LPS-mediated microvascular permeability and inflammation with marked increases in parameters of lung injury at both 6 and 24 hours after intratracheal LPS. Each parameter assessed was significantly reduced by intravenous S1P (1 µM final) and in selected experiments by the S1P analogue FTY720 (0.1 mg/kg, intraperitoneally) delivered 1 hour after LPS. S1P produced an approximately 40-50% reduction in LPS-mediated extravasation of Evans blue dye albumin, bronchoalveolar lavage protein content, and lung tissue myeloperoxidase activity (reflecting phagocyte infiltration). Consistent with systemic barrier enhancement, S1P significantly decreased Evans blue dye albumin extravasation and myeloperoxidase content in renal tissues of LPS-treated mice. These studies indicate that S1P significantly decreases pulmonary/renal vascular leakage and inflammation in a murine model of LPS-mediated acute lung injury and may represent a novel therapeutic strategy for vascular barrier dysfunction.

Key Words: permeability; inflammation; sphingolipids; acute respiratory distress syndrome
American Journal of Respiratory and Critical Care Medicine Vol 169. pp. 1245-1251, (2004)
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Treatment of Lobar Atelectasis With Surfactant Lavage in the Neonate

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Mount Sinai Hospital, Toronto, Ontario

Case History

38 year-old G2P1 mother is referred to the High Risk Pregnancy Service at Mount Sinai Hospital. The prenatal diagnosis of hydrops fetalis is made in the presence of bilateral pleural effusions and mild ascites diagnosed at the 28-week ultrasound. Bilateral in utero chest drains are inserted into the fetus to relieve the effusions. Unforunately premature labour ensues. A single dose of Celestone is given and an emergency caesarean section is performed for fetal distress.

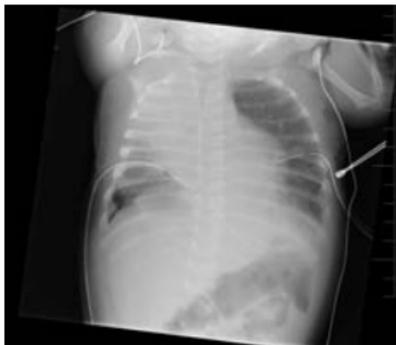
Baby M is born at 32 weeks gestation, a birth weight of 2230 grams and APGARs of 5 at one minute, 7 at five minutes and 8 at ten minutes. Baby M is apneic at birth and requires positive pressure ventilation and intubation at 5 minutes of life. The in utero chest drains are clamped and removed. A right pneumothorax is diagnosed and relieved by needle thoracostomy for 40 ml of air. Subsequently a chest tube was placed on the right side. The left chest drain was removed and replaced with a left chest tube, which drained serous fluid. The patient is additionally hypotensive and received three 10ml/kg boluses of normal saline and a dopamine infusion of 10 mcg/kg/min. The patient is stabilized on synchronized intermittent mandatory ventilation (SIMV), respiratory rate (RR) of 36 breaths per minute (bpm), peak inspiratory pressures (PIP) of 20 cmH₂O, a positive end expiratory pressure (PEEP) of 5 cmH₂O and a fraction of inspired oxygen (FiO₂) of 0.25 using the VIP Gold Bird Ventilator. (Bird Products Corporation 1100 Bird Center Drive, Palm Springs, CA.) The

patient subsequently required mechanical ventilation for 8 weeks due to persistent bilateral pleural effusions secondary to hydrops fetalis.

Clinical Presentation

At day 55 in the NICU (39 6/7 weeks corrected age) Baby M is extubated to nasal pharyngeal tube (NPT) continuous positive airway pressure (CPAP). NPT CPAP is utilized to maintain an adequate functional residual capacity (FRC) in the presence of bilateral pleural effusions. The patient tolerates extubation well and remains

Figure 1



A/P Chest roentgenogram taken after Baby M presented with increased work of breathing. There is a focal right upper and middle lobe atelectasis.

stable for the next 36 hours on NPT CPAP of 10 cmH₂O and FiO₂ of 0.45 only requiring transient increases in oxygen for handling. On day 58 the patient is noted to have tachypnea and increased work of breathing. The NPT was changed and large amounts of yellowish secretions were noted in the tube. The patient improved for 3 hours at which time increased work of breathing is again noted and a chest roentgenogram is ordered. The chest roentgenogram reveals a focal right upper and middle lobe atelectasis secondary to consolidation from an undiagnosed pneumonia. There is a right basal chest drain in situ and a small right basal pneumothorax is noted. (Figure 1.)

Baby M is re-intubated at this point and mechanically ventilated with the following parameters: Assist Control, RR-20 bpm PIP-20 cmH₂O, PEEP-8 cmH₂O MAP-11.6 cmH₂O and FiO₂-0.75. Baby M is positioned with the right chest elevated to facilitate drainage of the right upper lobe and frequent suctioning is undertaken to clear secretions. Arterial blood gas (ABG) after 2 hours pH-7.48, PaCO₂-69 mmHg, PaO₂-74 mmHg, HCO₃⁻-22.3 mEq. The PEEP is increased to 9 cm H₂O further increasing the mean airway pressure in an attempt to recruit the atelectatic regions and facilitate better oxygenation. This manifests in a decrease in the FiO₂ from 0.75 to 0.55 however the atelectasis persisted. The patient is stable for the remainder of the day with the PIP weaned to 18 cmH₂O. On day 4 the ETT blocked with secretions and is exchanged with the patient remaining on the same ventilation with an FiO₂ of 0.55. ETT aspirates revealed heavy growth of enterobacter cloacae, +/- pus cells, +/- epithelial cells. At chest roentgenogram at midday displays the persistent right upper lobe collapse. (Figure 2.)

Baby M remains stable in an FiO₂ of 0.55. By midafternoon with no improvement in oxygenation and no resolution of the atelectasis after 30 hours of intubation a decision is made to try a selective surfactant lavage of the right lung. The standard procedure in the neonatal intensive care unit (NICU) at Mount Sinai Hospital is to combine 2.5 mL/kg of Bovine Lipid Extract Surfactant (BLES, 27 mg/mL phospholipid)

in a 1:4 ratio with 0.9% sodium chloride (NaCl). The solution is then administered in 2.0 mL aliquots followed with suctioning of the endotracheal tube after each aliquot. Suction levels are set at 100 mmHg and only one pass is performed per instillation. Following the lavage a dose of 2.5 mL/kg of BLES is administered by direct instillation.

In this case a single lung is the target for the lavage and it is rationalized to use half of the normal lavage dose. The solution to lavage the right lung consists of 1.25 mL/kg of BLES (33.75 mg phospholipid) diluted in a 1:4 ratio with 0.9% NaCl. The patient's weight was 3440 grams so 4.5 mL of BLES was diluted with 18 mL of 0.9% NaCl for a total volume of 22.5 mL. Baby M is placed in the right lateral recumbent position for the lavage allowing gravity to assist in directing the lavage solution into the right mainstem bronchus. A #5fr. feeding tube is inserted down the ETT and extended 1.0 cm beyond the tip to facilitate right lung deposition of the lavage solution. The solution was then instilled in 2.0 mL aliquots and the patient is manually ventilated to distribute to the solution. Pressures for

Figure 2



A/P Chest roentgenogram taken after 24 hours of increased PEEP and positioning with right sided elevation. There is no resolution of the atelectasis.

manual ventilation were maintained at a PIP of 20 cmH₂O and a PEEP of 8–10 cmH₂O. Suctioning of the patient yields significant secretions, which are thick and primarily white in colour with slight blood tinge. Most of the secretions are attained after the first 8–10 cycles of instillation and suctioning. The procedure was well tolerated by the patient. Vital signs remained stable throughout. Baby M continues to be in the right lateral recumbent position on the ventilator with the following settings: AC RR-20, PC-18, PEEP-9, It-0.40 and FiO₂ 0.40. The FiO₂ decreases over the next four hours to 0.30. A follow-up chest roentgenogram (Figure 3) is done at 2038, 4.5 hours after the procedure. There is significantly improved aeration of the right upper lobe. The patient's ventilation is weaned significantly the following day with continued improvement in oxygenation. The patient is subsequently extubated 36 hours after the lavage to NPT CPAP of 10 cmH₂O and an FiO₂ of 0.30.

Discussion

Persistent regional atelectasis presents the neonatal clinician with limited management options. Bronchoscopy to improve atelectasis and consolidation is not an option due to the small ETT size. Other procedures aim at the indirect treatment of the atelectasis through positioning, recruitment of lung tissue through increased ventilatory pressures, recruitment manoeuvres or frequent suctioning to clear secretions. Positioning the patient with the atelectatic region superior to the rest of the lung field can facilitate drainage of the affected region via gravity. This however is often not sufficient when tenacious secretions are the cause of the atelectasis. Lung recruitment may be achieved by increasing PIP and/or PEEP levels over a period of time. One must be cautious however since ventilation may preferentially travel to the well inflated lung region away from the atelectatic regions. The clinician must be aware that a portion of the lung is consolidated and he/she is in essence ventilating a smaller lung. This can lead to over distension and stretch injury in the ventilated regions. A tidal volume of 4–6 mL/kg that only travels to half of the lung is actually ventilating those regions with

Figure 3



A/P Chest roentgenogram taken after 24 hours of increased PEEP and positioning with right sided elevation. There is no resolution of the atelectasis.

8–12 mL/kg.¹ The use of recruitment manoeuvres where by the lung is held inflated at an elevated PEEP level for a period of time without interspersed breaths has received little study in the neonatal population. Recruitment manoeuvres are not utilized in this case due to the lack of research and experience with them in our patient population. Frequent suctioning will clear the large airways of secretions however the distal airways cannot be reached and may be unaffected by suctioning. Persistent suctioning can also lead to airway trauma and derecruitment of lung regions.

Surfactant lavage is a relatively new procedure that has been employed in neonates primarily for meconium aspiration syndrome (MAS). There is limited clinical research utilizing surfactant lavage in human trials for MAS. In a small study *Lam et al* demonstrated surfactant lavage to be a safe and effective procedure for treatment of severe MAS when compared with historic

controls.² Wiswell *et al* enrolled 22 infants with MAS into a study utilizing Surfaxin® (Lucinactant) and concluded the procedure to be safe and potentially effective.³ Dilute surfactant solution has been shown through radioisotope labelling to increase the dispersion of surfactant compared with bolus surfactant administration.⁴ This may explain the ability of the lavage solution to penetrate atelectatic regions forming a phospholipid monolayer and decreasing surface tension. Surfactant will function as a detergent to increase the mobilization of secretions and improve oxygenation post procedure when compared with saline lavage.^{5,6} This was evident in the large amount of secretions suctioned from Baby M during the procedure relative to suctioning undertaken previously with either dry passes or normal saline instillation. The recruited alveoli may then be stabilized with appropriate ventilation. Bacterial pneumonia has been shown to impair the surfactant system by reducing the constituents of surfactant.^{7,8} The surfactant lavage procedure will deposit some residual surfactant in the affected area acting as replacement to losses from a bacterial species. Surfactant lavage for lobar atelectasis secondary to bacterial pneumonia provides an effective and definitive treatment in this case study. Evidence supporting such therapies is lacking, however in theory the lavage fluid should be able to;

1. Penetrate regions of atelectasis and decrease surface tension that in conjunction with appropriate ventilation strategies can stabilize alveolar regions
2. Detergent action of surfactant may facilitate secretion clearance
3. Residual surfactant can replace innate surfactant impaired by bacterial colonization.

Surfactant lavage is a safe procedure when performed by appropriate personnel with cardiorespiratory monitoring. Cases such as Baby M show potential benefits to the procedure outside of meconium aspiration. Further study is required to ascertain the efficacy of surfactant lavage for various neonatal pathologies.

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Swedish Mobile Air Purification System



Clean, slightly cooled air moves slowly downward and because of its somewhat higher density displaces the conventional ambient air with negligible turbulence and mixing. This creates a zone of clean air quality around the head of the individual who is normally seated or lying down.

Airsonett is the marketing distributor of a new Swedish mobile air purification system. This system, the Airsonett Airshower, delivers "clean room" quality air directly to the breathing zone of an individual.

A unique one-of-a-kind technology, the patented Airsonett Airshower is a self-contained mobile air purifier based on the principle of non-turbulent displacement air flow. At least 99.95 % of airborne particles greater than 0.3 micron are removed such as viruses, bacteria, mite pollution and pollen. Previously only available to industrial-type "clean room" facilities, this marks the first application of this proven technology to the home health/medical markets. Users of the unit include individual asthma, allergy or upper respiratory sufferers, individuals with sleep disorders, patients who need to be protected from airborne infection, treatment for Chronic Obstructive Pulmonary Disease (COPD) plus many other applications.

The Airsonett Airshower will be marketed to a sales distribution network throughout the U.S. and Canada as well as through medical outlets, allergists, immunologists, respiratory therapists, dentists, pulmonologists, hospitals, nursing homes and sleep centers.

www.airsonett.com.



Facial Protective Equipment Report

The Change Foundation and OHA have released a report to help protect hospital and healthcare staff from future outbreaks of infectious diseases. For the complete document go to their website at www.changefoundation.com/

Executive Summary

On March 12, 2003, the World Health Organization (WHO) announced a global outbreak of an atypical pneumonia that was quickly named Severe Acute Respiratory Syndrome (SARS) and shortly thereafter determined to be caused by a novel coronavirus. The virus spread internationally along travel routes and caused the well-documented nosocomial outbreaks in the Greater Toronto Area, China, Hong Kong, Vietnam and Singapore. Contact, droplet and airborne precautions were reportedly instituted in affected hospitals; however, they were apparently incomplete, intermittently applied or only partially effective.

The Canadian outbreak resulted in 438 cases, 51% of these were health care workers (HCWs) with three related deaths. The objective of this report is to summarize our findings from an analysis of the key domains, as pertinent to improving the effectiveness of facial protective equipment (FPE) in preventing occupational-associated respiratory disease transmission in healthcare workers.

The report includes:

1. A review of the scientific literature dealing with bioaerosols, filtration and how this influences the design and performance of FPE
2. A review of the scientific literature of the organizational, environmental and individual factors that influence the effectiveness of occupational health and safety in general, and infection control procedures, in particular
3. An analysis of these factors as identified through a series of 15 focus group discussions involving front-line healthcare workers and

4. A framework for assigning priorities for further research and a list of priorities derived from the gaps identified in the literature review and the priorities of front-line healthcare workers.

AstraZeneca Increases Asthma Research Funding

AstraZeneca has announced additional funding of \$2 million over five years to support St. Joseph's Healthcare/McMaster University's Firestone Institute. This new additional funding will be used for investigator-initiated respiratory research.

Additionally, AstraZeneca will provide a minimum of \$5 million over five years to the Canadian Masters Program; three world class symposiums directed by the Firestone Institute which will facilitate the establishment of a cooperative national network of future Canadian leaders in both community medicine and academia, and provide opportunities to examine and discuss advances in front line research with international leaders.

AstraZeneca Canada has also made an additional contribution of \$900,000, to support an endowed chair in asthma research at the University of Alberta. AstraZeneca has now donated \$3 million to support the chairholder's work. Researchers will intensify their efforts to find answers to some of the yet-unanswered questions about the disease.

Mission Lung Function Laboratory Respiratory Therapist Required

Mission Lung Function Laboratory Respiratory Therapist, with CARTA credentials required to perform a variety of functions including PFT's, for a very busy private laboratory in Calgary. Positions availability for the summer months and to cover maternity leave. Training is provided.
Fax resume to Helen (403) 258-3518 or email rjkennedy@shaw.ca.

Caring Together

The 16th Annual Edmonton Palliative Care Conference

Education and Research Days "Caring Together" will be held October 18 and 19, 2004 at the Fantasyland Hotel, West Edmonton Mall. Conference topics will cover the physical, psychosocial and spiritual care at the end of life, as well as caring for the caregivers.

For further information, please contact the conference secretary at:

(780)482-8081; fax (780)450-7700

e-mail: pallconf.gnch@cha.ab.ca

or check the palliative website at

www.palliative.org for updates.

La Régie régionale de la santé Beauséjour

La Régie régionale de la santé Beauséjour, située à Moncton au Nouveau-Brunswick, est le plus vaste regroupement francophone de services de santé dans la région de l'Atlantique. Elle regroupe l'Hôpital régional D'-Georges-L.-Dumont, l'Hôpital Stella-Maris-de-Kent, le Centre médical régional de Shediac, l'Unité de médecine familiale de Dieppe, le Programme extra-mural et le Centre de santé des anciens combattants. Nous sollicitons des candidatures pour les postes suivants:

THÉRAPEUTES RESPIRATOIRES

(Temps complet, temps partiel et occasionnel)

Compétences requises :

- Avoir complété avec succès un cours de formation en thérapie respiratoire;
- Être membre en règle de l'Association canadienne des thérapeutes respiratoires (C.S.R.T.) et/ou de l'Ordre professionnel des thérapeutes respiratoires du Québec (O.P.I.Q.);
- Maîtriser le français et avoir une connaissance fonctionnelle de l'anglais;
- Avoir un bon dossier d'emploi et d'assiduité au travail;
- Être physiquement en mesure de faire le travail assigné.

Pour de plus amples renseignements au sujet de nos postes vacants et de la possibilité d'aide à la relocalisation, veuillez communiquer avec :

Monsieur Roger Basque
Agent de recrutement
Régie régionale de la santé Beauséjour
330, avenue Université
Moncton NB E1C 2Z3
Téléphone : 506-862-4250
courriel : ressourceshumaines@health.nb.ca





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