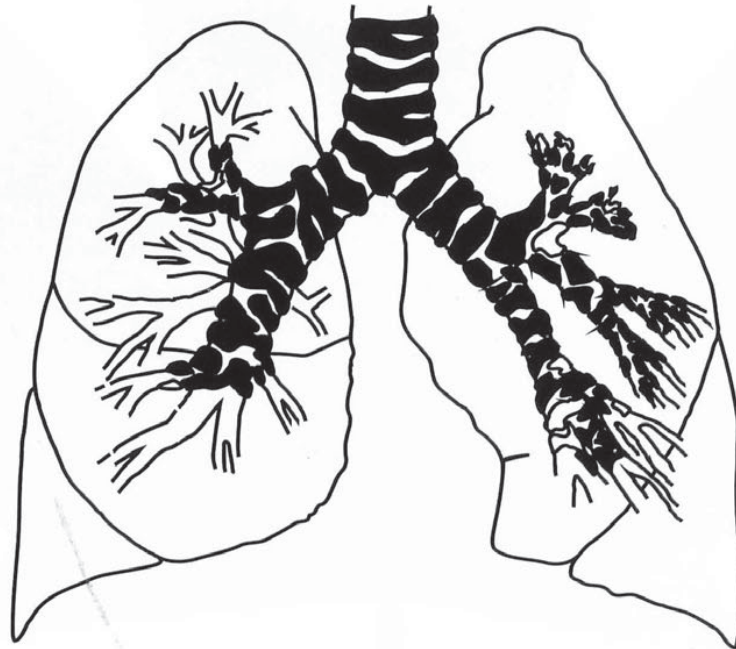


Canadian respiratory journal : journal
no. 3 (May-Jun 1999)
General Collection
V. CA659T
Received: 07-10-1999

VOLUME 6 NUMBER 3

CANADIAN RESPIRATORY JOURNAL



PROPERTY OF THE
NATIONAL
LIBRARY OF
MEDICINE

JOURNAL OF THE CANADIAN THORACIC SOCIETY
JOURNAL DE LA SOCIÉTÉ CANADIENNE DE THORACOLOGIE

Medical section of
Section médicale de

THE  LUNG ASSOCIATION
L'ASSOCIATION PULMONAIRE

PULSUS
This material was copied



**DOCKET
ALARM**

Find authenticated court documents without watermarks at docketalarm.com.



CANADIAN RESPIRATORY JOURNAL

GENERAL INFORMATION

The *Canadian Respiratory Journal* – the official journal of the Canadian Thoracic Society – is published six times a year by Pulsus Group Inc and is printed on recycled paper in Canada. Circulation: 15,500.

© 1999 *Canadian Respiratory Journal*. All rights reserved. The contents of this *Journal* may not be reproduced without the consent of the publisher.

All editorial matter published in the *Canadian Respiratory Journal* represents the opinions of the authors and not necessarily those of the publisher, the Canadian Thoracic Society or the sponsors. Statements and opinions expressed in the *Canadian Respiratory Journal* do not represent the official policy of the Canadian Thoracic Society unless so stated.

No responsibility is assumed by the Canadian Thoracic Society, the Publisher or the sponsor for any injury and/or damage to persons or property arising from any errors or omission or from the use of any information or advice contained in the *Canadian Respiratory Journal* including articles, editorials, studies, reports, letters and advertisements. Discussions, views and recommendations as to medical procedures, choice of drugs and drug dosages are the responsibility of the authors.

All drug advertisements have been cleared by the Pharmaceutical Advertising Advisory Board; however, inclusion in the *Canadian Respiratory Journal* does not constitute a guarantee or endorsement by the Canadian Thoracic Society or the Publisher of the quality or value of products or of claims made of them by their manufacturers.

ISSN-1198-2241

Date of Issue: June 1999

Canadian publications mail product sales agreement number: 458457

Postage paid at Winnipeg, Manitoba

Indexed/Abstracted by

EMBASE/Excerpta Medica, Index Medicus, MEDLINE

Abstracts

Abstracts of articles published in the *Journal* are available online at www.pulsus.com/Respir/home.htm

Subscriptions

Please direct orders for subscriptions, single orders and back issues, changes of address and claims for missing issues to Pulsus Group Inc, 2902 South Sheridan Way, Oakville, Ontario, Canada L6J 7L6, fax 905-829-4799, e-mail pulsus@pulsus.com

Reprints

Requests for single reprints should be directed to individual authors. Inquiries regarding multiple reprints (100 or more) should be made to the Publisher.

Instructions to Authors

Manuscripts should be submitted in triplicate to the Editor-in-Chief. Full Instructions to Authors are available from the Publisher and are published regularly in the *Journal*.

Display/classified advertising

For information regarding advertising, please contact an Account Manager at Pulsus Group Inc. *Please send announcements for classified advertising at least two months prior to desired publication date.*



The *Canadian Respiratory Journal* is a 'Canadian Periodical' as defined by section 19 of the Income Tax act. The deduction of advertising costs for advertising in this periodical is therefore not restricted.

Mail subscription form and payment to:

Pulsus Group Inc, 2902 South Sheridan Way, Oakville, Ontario, Canada L6J 7L6 (telephone 905-829-4770, fax 905-829-4799, e-mail pulsus@pulsus.com) or subscribe online at www.pulsus.com

Canada – \$110 (personal); \$145 (institutional)
(includes GST @ 7% – Registration number R100761253)

USA – US\$95 (personal); US\$135 (institutional)

Other countries – US\$150 (personal);
US\$190 (institutional)

Enclose cheque (made payable to Pulsus Group Inc)

OR

Charge to Mastercard or Visa

Mastercard No: _____

Visa No: _____

Expiry Date: _____



CANADIAN RESPIRATORY JOURNAL

Please enter my subscription for 1999 (six issues)

Name _____

Address _____

Signature _____



CANADIAN RESPIRATORY JOURNAL

MAY/JUNE 1999

VOLUME 6 NUMBER 3

EDITORIAL

The "Shoulders of Giants", again 217

Encore les « Épaules des géants » 218

Norman L Jones

CTS ANNOUNCEMENTS/ANNONCES DE LA SCT 221, 225

EDITORIAL – UPDATE IN ASTHMA

1998 revision of the Canadian Asthma Consensus Guidelines 231

Louis-Philippe Boulet, Allan Becker, Denis Bérubé, Pierre Ernst, Robert Beveridge. Asthma Consensus Conference Editorial Committee

ÉDITORIAL – LE POINT SUR L'ASTHME

Révision des Lignes directrices canadiennes de consensus sur l'asthme de 1998 233

Louis-Philippe Boulet, Allan Becker, Denis Bérubé, Pierre Ernst, Robert Beveridge. Asthma Consensus Conference Editorial Committee

ORIGINAL ARTICLES

Inhaler education for hospital-based pharmacists: How much is required? 237

Cynthia Anne Jackevicius, Kenneth R Chapman

Patients often have difficulty learning to use inhalers and spacing devices, and require ongoing education from health care practitioners to maintain the proper technique. However, several studies have found that medical personnel often lack basic inhalers skills. In an effort to increase these basic skills, this study compared the effectiveness of a more intensive educational intervention for hospital-based pharmacists (a 1 h workshop with a specialized educator) with a less intensive intervention (reading the package inserts) to determine which intervention provided better results.

Bronchial mucus properties in lung cancer: Relationship with site of lesion 246

J Gustavo Zayas, Bruce K Rubin, Ernest L York, Dale C Lien, Malcolm King

This study compared the biophysical properties of mucus from the left and right mainstem bronchi in patients undergoing diagnostic bronchoscopy because of a unilateral radiological abnormality. It was thought that abnormalities in the properties of mucus would be greater on the side with the lesion and that this would be most obvious in patients with unilateral lung cancer.

Effect of dead volume on the efficiency and the cost to deliver medications in cystic fibrosis with four disposable nebulizers 253

Sharon L Ho, Allan L Coates

Inhalation aerosol therapy is widely used to deliver bronchodilators and antibiotics in the treatment of cystic fibrosis. The authors evaluated the factors that affect nebulizer efficiency and compared the relative cost effectiveness of nebulized medications used in the treatment of cystic fibrosis delivered by four types of disposable jet nebulizers.

Contents continued on page 215



CANADIAN RESPIRATORY JOURNAL

MAY/JUNE 1999

VOLUME 6 NUMBER 3

UPDATE IN ASTHMA

The 1996 and 1997 National Survey of Physician Asthma Management Practices: Background and study methodology **269**

Robert L Jin, Bernard CK Choi

In 1996, the Laboratory Centre for Disease Control commissioned a national survey to find out how physicians manage asthma. The survey sought to establish national baseline information on asthma management practices of physicians and to compare these practices with the recommendations of the Canadian Asthma Consensus Conference. This article described the methodology of the survey.

Asthma education, action plans, psychosocial issues and adherence **273**

John Kolbe

Consensus guidelines have stressed the importance of asthma education and patient self-management as integral components of asthma management. This article discusses four topics related to this area. Asthma education is reviewed and action plans are discussed. Psychological issues and adherence are briefly commented on, particularly in reference to asthma education and action plans.

New delivery systems and propellants **290**

Myrna Dolovich

Pressured metered dose inhalers have been given temporary exemptions from the *Montreal Protocol* process to remove chlorofluorocarbon propellants from industrial and household products. These exemptions continue until replacement formulations are available. Replacement formulations for almost all inhalant respiratory medications have been or are being produced and tested; it is anticipated that, in Canada, the transition to hydrofluorocarbon pMDIs will be completed by 2005. This article discusses the *in vitro* aerosol characteristics, *in vivo* deposition and clinical data for several hydrofluorocarbon pMDIs. Alternative delivery systems to the pMDIs are also briefly reviewed.

DEPARTMENTS

Advertisers' Index **289**

Instructions To Authors **302**

Book Review **304**

Calendar of Events **IBC**

New delivery systems and propellants

Myrna Dolovich P Eng
 Department of Medicine, Faculty of Health Sciences,
 McMaster University, Hamilton, Ontario

M Dolovich. New delivery systems and propellants. Can Respir J 1999;6(3):290-295.

The removal of chlorofluorocarbon (CFC) propellants from industrial and household products has been agreed to by over 165 countries of which more than 135 are developing countries. The timetable for this process is outlined in the *Montreal Protocol on Substances that Deplete the Ozone Layer* document and in several subsequent amendments. Pressured metered dose inhalers (pMDIs) for medical use have been granted temporary exemptions until replacement formulations, providing the same medication via the same route, and with the same efficacy and safety profiles, are approved for human use. Hydrofluoroalkanes (HFAs) are the alternative propellants for CFCs-12 and -114. Their potential for damage to the ozone layer is nonexistent, and while they are greenhouse gases, their global warming potential is a fraction (one-tenth) of that of CFCs. Replacement formulations for almost all inhalant respiratory medications have been or are being produced and tested; in Canada, it is anticipated that the transition to these HFA or CFC-free pMDIs will be complete by the year 2005. Initially, an HFA pMDI was to be equivalent to the CFC pMDI being replaced, in terms of aerosol properties and effective clinical dose. However, this will not necessarily be the situation, particularly for some corticosteroid products. Currently, only one CFC-free formulation is available in Canada – Airomir, a HFA salbutamol pMDI. This paper discusses the *in vitro* aerosol characteristics, *in vivo* deposition and clinical data for several HFA pMDIs for which there are data available in the literature. Alternative delivery systems to the pMDI, namely, dry powder inhalers and nebulizers, are briefly reviewed.

Key Words: *Aerosol delivery devices; Beclomethasone; HFA propellants; Metered-dose inhalers; Montreal Protocol; Salbutamol*

Nouveaux dispositifs de délivrance des médicaments et gaz de substitution

RÉSUMÉ : Le retrait des produits domestiques et industriels des propulseurs contenant des chlorofluorocarbones (CFC) a été approuvé par plus de 165 pays dont plus de 135 sont des pays en voie de développement. L'échéancier de ce processus est présenté dans le document intitulé *Protocole de Montréal relatif à des substances qui appauvrissent la couche d'ozone* et dans plusieurs de ses amendements subséquents. Les aérosols-doseurs à usage médical ont été temporairement exemptés jusqu'à ce que des formules de substitution, fournissant le même médicament par la même voie d'administration, et avec les mêmes profils d'efficacité et d'innocuité, soient approuvées pour utilisation chez l'humain. Les hydrofluoroalkanes (HFA) ont été choisis comme gaz de substitution des CFC-12 et CFC-114. Leur potentiel d'appauvrissement de la couche d'ozone est inexistant, et alors qu'ils sont des gaz à effet de serre, leur potentiel global de réchauffement représente une fraction (un dixième) de celui des CFC. Des formules de substitution pour presque tous les médicaments respiratoires administrés par inhalation ont été et sont testées. Au Canada, on espère que la transition vers ces aérosols-doseurs générés aux HFA ou ne contenant pas de CFC sera terminée vers 2005. Initialement, un aérosol-doseur généré par HFA devait être équivalent à l'aérosol-doseur généré par CFC que l'on remplaçait, relativement aux propriétés de l'aérosol et à la dose clinique efficace. Cependant, ce ne sera pas nécessairement le cas, en particulier pour certains produits contenant des corticostéroïdes. Actuellement, une seule formulation sans CFC est disponible au Canada – Airomir, un aérosol-doseur contenant du salbutamol et généré par HFA. Le présent article discute des caractéristiques de l'aérosol *in vitro* et du dépôt *in vivo*, et des données cliniques obtenues sur plusieurs aérosols-doseurs générés par HFA et sur lesquels des données sont disponibles dans la littérature. L'alternative aux aérosols-doseurs, à savoir, les inhalateurs à poudre sèche et les nébuliseurs, sont brièvement passés en revue.

Correspondence and reprints: Myrna Dolovich P Eng, McMaster University, 1200 Main Street West, HSC 1V18, Hamilton, Ontario L8N 3Z5. Telephone 905-521-2100 ext 3454, fax 905-546-1125, e-mail mdolovic@fhs.mcmaster.ca

This material was copied

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.