

Report from

**State-of-the-Art Conference &
International Conference of Occupational Health
for
Health Care Workers**

**October 2007
Vancouver, BC, Canada**

Prepared for
MOBBS Travelling Fellowship Panel
The Faculty of Occupational Medicine

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Preface

As a specialist registrar in the NHS, I believed that this conference would be a great opportunity for me to share knowledge and experience in this field and to meet colleagues from around the globe. I submitted three abstracts to the joint conference of the International Commission on Occupational Health (ICOH) and American College of Occupational and Environmental Medicine (ACOEM) on occupational health for health care workers, which were accepted for presentation at the conference. To be able to attend this scientific event, I submitted my application to the MOBBS Travelling Fellowship Panel. The panel kindly agreed that my application met the requirement for the fellowship and as a result the Faculty provided me with the funding. I am sincerely grateful to the Faculty of Occupational Medicine, the MOBBS Travelling Fellowship Panel and in particular Dr. Ray Johnston, the chairman of the panel, for the guidance and supports both financial and moral, which enabled me to attend this conference. Prior to the conference, I stayed in Montreal for few days. During my stay I visited the department of occupational health at McGill University and Montreal Chest Institute which has dedicated clinics for occupational asthma and receives referral from Quebec and neighbouring provinces.

I prepared my report in four sections as follows:

- Economy of Canada
- Brief outline of occupational medicine training in Canada
- Department of occupational health, McGill university
- ACOEM/ICOH conference , Vancouver

SECTION 1

Economy and Industries of Canada

Canada is one of the world's wealthiest nations, and a member of the Group of Eight (G8). The Canadian economy, similar to other developed nations, is dominated by the service industry employing about three quarters of Canadians. Canada is different among developed countries in the importance of the primary sector, with the forestry and oil industries being two of the Canada's most important industries. Canada also has a significant manufacturing sector, largely located in Ontario, and the automobile industry is especially important manufacturing industry.

The United States of America, as its largest trading partner, accounts for about 79% of exports and 66% of imports as of 2006.

Canada is the second largest country in the world after Russia and has considerable natural resources spread across its regions. In British Columbia, the forestry industry is of great importance, while the oil industry is central to Alberta's, and recently Saskatchewan's, prosperity. Northern Ontario is home to a wide array of mines, while the fishing industry has long been central to the economy of the Atlantic Provinces. Canada is among world leaders in the production of many natural resources such as gold, nickel, uranium, diamonds and lead. However, these industries are increasingly becoming less important to the overall economy.

There are large gas and oil resources in Canada centered in Alberta but also in other provinces such as Saskatchewan and Newfoundland. Canada is the third-largest producer of natural gas and the seventh-largest producer of crude oil in the world – with production of over 2.6 million barrels of oil per day - and oil sands now account for nearly 30% of Canada's total oil production.

Oil Sands are deposits of bitumen, a semisolid form of crude oil, which will not flow unless heated or diluted with lighter hydrocarbons. Oil sand deposits can be strip mined or made to flow into producing wells by techniques to reduce



the oil's viscosity using steam and/or solvents. These processes need a great deal of water and large amounts of energy. The total cost of production and upgrading the crude bitumen to synthetic crude oil would be \$36-40 per barrel for a new mining operation.

Alberta's oil sands deposits contain as much as 175 billion barrels of economically viable oil, or enough oil to meet the country's current energy needs for 500 years.

With current technology, Canada's oil sands are second only to Saudi Arabia in global oil reserves. Improvement in technology increases the potential to produce more oil from the oil sands.

Oil sands now account for 39 per cent of Canada's total oil production at approximately one million barrels per day. By 2020, production will grow to four million barrels per day.

As Canada has wide variety of industries such as fishing, mining, gas&oil, agriculture and forestry etc, occupational health seems to be an important field.

STATISTICS

Area 9,984,670 sq km

Population 33,194,100 approximately 90% of the population is concentrated within 160 km of the US border

GDP \$1.165 trillion (2006)

GDP per capita \$35,200 (2006)

GDP growth 2.8% (2006)

GDP by sector services: 71.3%, industry: 26.4%, agriculture: 2.3% (2004)

Labor force 17.95 million agriculture 3%, manufacturing 15%, construction 5%, services 74%, other 3%

Railways 48068 km

Military expenditure 1.1%

Percentage GDP

SECTION 2

Training in Occupational Medicine in Canada

Duration and structure of Training

Occupational Medicine used to be a 5-year specialty training but The Royal College of Physicians and Surgeons of Canada has decided that after July 2006, three years of primary specialty training and Royal College certification in Internal Medicine must be completed before entering occupational medicine as a subspecialty. Training in Family Medicine or Community Medicine may also be acceptable depending on the nature and duration of the training.

Two years of approved subspecialty training in Occupational Medicine include:

- Training in clinical Occupational Medicine with emphasis on determination of workplace etiology and fitness to work in specialties relevant to the practice of Occupational Medicine
- Didactic training in toxicology, occupational hygiene, ergonomics, epidemiology, biostatistics, occupational health legislation and organization and management of occupational health services
- Training in approved field settings; at least one of these shall be in industry and the others must be in approved government agencies such as a workers' compensation board or a government occupational health department

I understand that in the Quebec, Occupational Medicine is considered a special interest in Public Health Medicine.

Accredited Programs

Currently, accredited residency programs in Canada are as follows:

- University of Alberta, Edmonton
- University of Toronto, Toronto, Ontario

Examination Format

The comprehensive objective examinations are considered a "whole" and cannot be fragmented. Candidates do not need to pass the written component in order to take the oral component. Success or failure is based on consideration of all components of the examination. The exam consists of two components as follows:

- Written Component consists of two 3-hour papers:

The papers will be composed of short-answer questions that deal with the clinical and basic science aspects of occupational medicine including epidemiology, biostatistics, toxicology, occupational hygiene, accident prevention, ergonomics, and occupational medicine practice.

- Oral and Clinical Component consists of:

One two-hour clinical and oral examination in which the candidate evaluates a patient for one hour followed by a one hour oral examination relating to the patient and clinical and medical sciences including the interpretation of clinical information provided by radiographs, audiograms and lung function data.

One 1-hour oral examination on basic, clinical sciences and administrative programs includes the use of occupational hygiene and safety equipment.

SECTION 3

McGill University
Faculty of Medicine

Department of Occupational Health

The Department of Occupational Health of the Faculty of Medicine is a multidisciplinary centre for advanced learning and scientific research in occupational health sciences.

The Department pursues the following academic objectives:

-To educate professionals in occupational health and safety, and in occupational hygiene who will be capable of evaluating the work environment and its hazards, and of proposing appropriate methods of prevention and control.

- To train independent researchers in the field of occupational health and safety, and workplace environmental sciences.

Classes are taught in English. Students may write exams and papers in either French or English.

The Department of Occupational Health, Faculty of Medicine, offers two graduate degree programs: a doctorate (PhD) and a Master (MSc - Applied) degree program in occupational health sciences. The master's program is available on campus or in a distance-learning format.

During my visit, I met Professor Gilles Theriault, head of department of occupational health. I explained about training in occupational medicine in the UK. I was advised that in Quebec occupational medicine is considered as a special interest in public health medicine. However, in the rest of the Canada occupational medicine is a sub-specialty following 3-year training in internal medicine. Currently there is no training program for occupational medicine in Quebec. Medical practitioners may take an Msc in occupational health and McGill is a popular course in Quebec.

During my stay I attended training sessions in occupational health including a training module in occupational contact dermatitis.

The module was presented by Professor Heroux.



I also visited “Institut Thoracique De Montreal” which has a dedicated occupational asthma clinic.



During my visit, I had the honour to meet Dr. Margaret Becklake a co-author of the book “Asthma in the Workplace”.

In this meeting we discussed about occupational asthma.

I also outlined the training pathway for occupational



medicine in the UK. In particular she was interested in occupational health setting and the presence of occupational health physicians in the NHS hospitals.

SECTION 4

International Conference of Occupational Health

for

Health Care Workers

Vancouver

2007

PRE-CONFERENCE COURSES

Musculoskeletal Exam and Treatment Techniques (2 Days)

24-25 October 2007

This two-day course featured both lectures and interaction with a diverse faculty who delivered a significant “hands-on” workshop component. The didactic portion included lectures on general management of work injuries, causality analysis in addition to discussing musculoskeletal physical examination and treatment techniques for individual body parts including injections techniques. Return to work following musculoskeletal disorders including low back pain was also discussed.

WORKSITE VISIT

Friday, October 26, 2007

On the first day of the conference, 26 October 2007, we had a workplace visit from Washington Marine Group. Worksite visit include a shipyard visit, new construction shop, repair facility, paint shed, various vessels and barges in and out of the water.

Company Profiles

The Washington Marine Group is comprised of several Canadian transportation companies dating back over one hundred years.

The Washington Marine Group activity involves a wide range of marine related services to the Pacific Northwest of Canada. The Group includes shipyards, ferry business, and barge transportation companies.



Vancouver shipyards, in business since 1902, provide construction and repair services along the pacific coast of Canada. The company repairs, maintains and builds a wide variety of vessels.

Washington Marine Group Health, Safety and Environment manager has been the Royal Navy's Environmental Health and Safety Officer who took this position in 1999.

Corporate policy and philosophy on accident prevention states that “at the higher level management need to manage safety with the same degree of expertise and to the same standards as other core business activities”.

The Washington Marine Group has established four simple operating priorities:

- Personal Safety

- Environmental Stewardship

- Equipment Safety

- Operating Efficiency

This visit therefore opened up the opportunity to explore a workplace with variety of health & safety hazards in different jobs such as welders, shipfitters, mechanics, painters, machinists, electricians, pipefitters, sandblasters. The company adopted a robust health & safety policy to control and minimize the risks arises from work activities.

CONFERENCE SESSIONS

Friday, October 26, 2007

9:30 am–11:30 am

ICOH Opening Session

Welcome

WHO Global Plan of Action for Workers' Health-Protecting Health Care Workers

Susan Weber-Mosdorf

Role of Infection Control in

Occupational Medicine

Pulmonary Effects from Motor Vehicle Exhaust

12:30 pm–3:00 pm

Opening Plenary Session

Keynote Speaker:

Jorma Rantanen, MD, PhD

Surveillance and Guidance on

Nanotechnology:

John Howard, MD

Discussion of

Imminent Practice Guidelines: Back

This session consisted of brief overview of the ACOEM Guidelines: why and how they should be applied. We reviewed in depth a limited number of selected subjects from the recently revised Back Chapter with attention to areas where there have been substantial advances in scientific knowledge or controversy regarding effective treatment.

3:30 pm–5:00 pm

Concurrent Sessions

Abstract sessions

Occupational Infectious Agents and Diseases

Abstract sessions

Chemical and Reproductive Hazards in the Health Care Industry

6:00 pm–9:00 pm

Seasonal Flu and Pandemic Preparedness - Lecture

Saturday, October 27, 2007

6:45 am –7:45 am

**Breakfast Session:
Ethics: Case Discussions**

8:00 am–9:30 am

**Initiatives for Improving Health Care
Work**

**Impact of SARS on the Health Care
Worker**

Nanotechnology: The New Workplace

10:00 am –12:00 noon

Abstract Session
**Emergency/Disaster Response in
Healthcare**

Abstract Session
**Ergonomics and Musculoskeletal
Problems**

Nanotechnology: The New Workplace

1:30 pm–3:00 pm

Abstract Session
**Surveillance of Occupational Diseases
and Injuries within the Healthcare
Industry**

**Medical Facility Occupational Health in
Developing Countries, Rural/Remote
Areas**

**Panel Discussion on
Medical Surveillance for Nanotechnology
Workers and Other Practical Issues.**

3:30 pm–5:30 pm

Abstract Session
Intervention Effectiveness Research

Abstract Session
**Current Issues in Healthcare Worker
Health**

**Occupational Pulmonary Disease and
the Flavoring Industry**

Sunday, October 28, 2007

8:30 am–12:00 noon

**Protecting Health Care worker Health: A
Global Perspective**

Developing Countries Perspective

**Occupational Pulmonary Disease and
the Flavoring Industry**

10:30 am–12:00 noon

Abstract Session
**Homecare and Itinerant Healthcare
Workers**

Abstract Session
Psychosocial Issues in Healthcare

I had three abstracts accepted for the conference as follows:

Title: Occupational Rhinitis and Formaldehyde Exposure in Histopathology: An Evidence Based Practice Using PICO Model

Presentation type: Oral

Session Day/Date: Friday, 10/26/2007 **Session Time:** 3:30 p.m.-5:00 p.m.

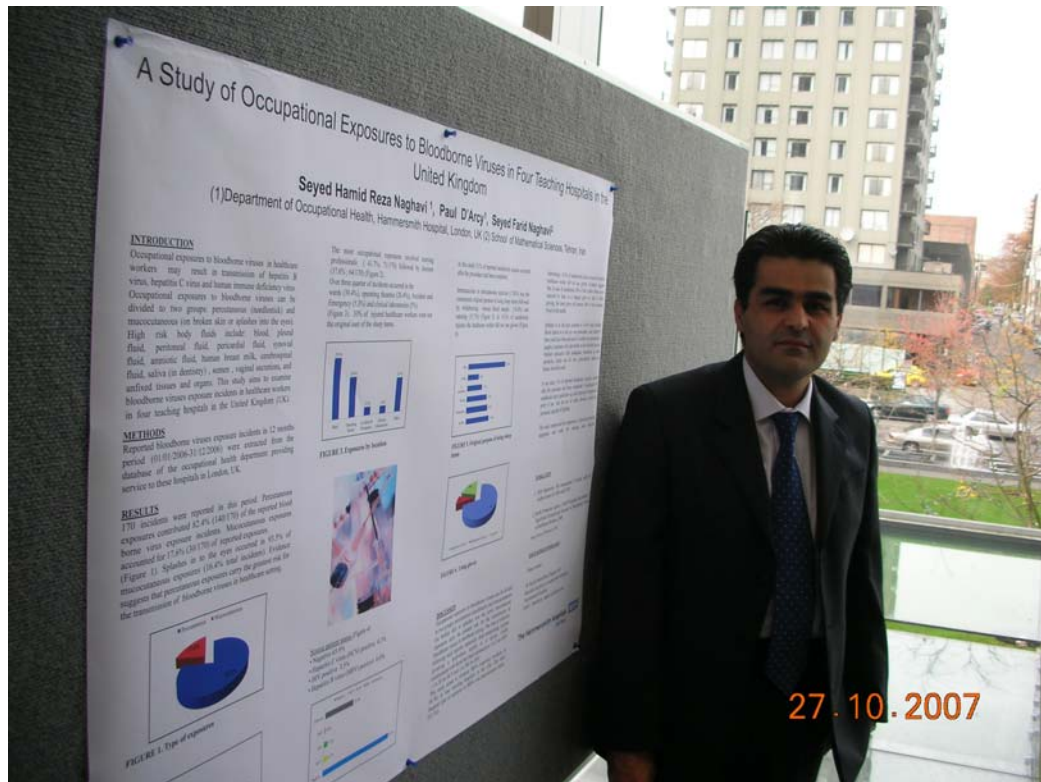
Title: Work-Related Upper Limb Disorder in Hospital Clean Room- A Case Report

Presentation type: Poster



Title: A study of occupational exposures to bloodborne viruses in four teaching hospitals in the United Kingdom

Presentation type: Poster



Finally, once again I express my gratitude to the Faculty of Occupational Medicine for the supports, which enabled me to attend this conference.