



Occupational
Hygiene Association
of Ontario
FORUM



Anne-Marie Landis-Groom,
BSc, MHS, CIH, ROH

President’s Message

As we approach the winter season, I hope that you and your families, friends and colleagues are well. It has been another year in which we have all had to monitor, modify, pivot, stress, and cry. This year has left me thinking: what was that? Routines are not back to normal, stores are marketing video conferencing accessories as great holiday gifts, and filling out symptom screening forms feels a bit of a sport. Now there is Omicron ...it is unclear when this will end.

a professional association. In light of continued concerns about the pandemic, we also made the decision to offer the Spring 2022 symposium virtually.

In addition to OHAO’s regular duties, OHAO has been busy closely monitoring the global and national situation. Our members know occupational hygienists continue to play a significant role in assisting workplaces stay safe and healthy through the pandemic. It is not easy to speak up in uncertain times, but it is important to speak up. It is important that OHAO and its members continue to communicate about our field, our skills, our values and our mission. Some related 2021 highlights:

- OHAO was a participating body on the letter to all levels of government to take airborne SARS-COV2 transmission seriously.
- OHAO wrote directly to the provincial government, including the MLTSD and PHO, to do more to control workplace transmission and to engage occupational hygiene expertise.
- Media outlets engaged OHAO on several occasions, including the Globe and Mail, the Toronto Star, Global News Network, CBC, and most recently the HR Reporter, to discuss issues around workplace transmission. We took these opportunities to

Since my last message, the OHAO Board of Directors and the OHAO committees have continued to work to advocate for our members throughout the pandemic. The OHAO Member survey has provided some valuable information about how OHAO can better serve our membership and strengthen our representation. When asked what members want from OHAO in the next five years, members seek greater “public awareness” and “recognition”. Our members also highly value education, science-based policy and continuous improvement. We also note that members desire a more user-friendly website. With this feedback, we have tweaked our 3-year plan which continues to focus on the themes of “Reach, Reputation and Recognition”. The Board will be taking a Diversity and Inclusion training session in early 2022 to better understand how these issues may be addressed and promoted by

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raise awareness about the field of occupational hygiene and OHAO.

- Given the references to occupational hygiene in the media, OHAO issued a letter to the editor of the Globe and Mail Letter about the field of occupational hygiene but it was sadly not published.
- OHAO was invited to collaborate with the “Canadian Aerosol Transmission Coalition”—a group of like-minded occupational health professionals and ventilation specialists with the aim to clearly communicate to all levels of government that a multi-disciplinary approach in pandemic preparedness must be taken, and this approach requires the involvement of occupational hygienists.

To borrow from familiar saying from “the Great One”: you miss 100% of the opportunities to be heard when you don’t speak.

In closing, the OHAO Board continues to advocate and bring attention to our organization and members, the values we hold, and the expertise we have to offer to industry, the public and other stakeholder organizations. All our Board members are volunteers, and I want to thank them for their service while managing their regular work and other obligations.

Let’s continue to advance the profession of occupational hygiene together. Let’s work together to make 2022 a great year!

*Anne-Marie Landis-Groom,
BSc, MHSc, CIH, ROH*

Editor’s Message

Greetings everyone! As we close the fall season and prepare for the festivities this time of year, I would like to share this last OHAO Forum of 2021 with all of you. It has been another trying year and we all continue to persevere. Although these recent years have been filled with challenges, I feel that we have all grown, matured and become more resilient (I have the gray hair to prove it).

I know that some of us are probably involved in some form or another in pandemic planning. To those I wish patience and luck in planning and implementation of your controls. I hope that 2022 will be a year when we stop being afraid of COVID-19 and start the process of living with it as we pursue our normal lives and usual activities.

In this issue, we bring you updates from our Board of Directors, the issues with hearing protection for those with hearing aids, pandemic lessons, some articles of interest from WSPS, etc. I hope that you will enjoy these articles when you have a few peaceful moments this holiday season. All the best to you and yours.

Merry and happy,

Negin Ghanavatian, MHSc., CRSP

Email articles to: neginghanavatian@gmail.com

OHAO Webinar: Monday, January 11, Register Today

BUSINESS CONSIDERATIONS AND WORK-PLACE SAFETY DURING THE PANDEMIC

Presenter: Dr. Jonathan w. Davids, MD, CCFP, FCFP, CCBOM, MRO (AAMRO), DIP. SPORT MED, CD
Corporate Medical Director

Monday, January 11, 2022

4:00 PM to 5:00 PM

Topics include:

- The past, present, and future state of the global pandemic and the impact on workplaces
- Update on Omicron variant
- Rapid antigen testing and how this can keep your employees and workplace safe
- Vaccination recommendations for workers
- Effectiveness, safety and boosters
- Dispelling myths

Registration information and link is in the email you received this issue of the Forum in and the OHAO website.

OH FORUM

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Mission Statement

To advance the profession of occupational hygiene and to serve the interests of our members by:

- sponsoring professional development and training;
- promoting public and legal recognition;
- developing partnerships with stakeholders;
- providing public education;
- fostering communication and networking.

rev. May 2010

Use of Hearing Aids in Noisy Workplaces

Alberto Behar, PEng, CIH
Research Associate Ryerson University

INTRODUCTION

You are the H&S manager of a workplace. A worker comes to you with the following problem: because of his hearing loss, he uses hearing aids (HAs), mainly to understand speech. In his expression, he hears but does not understand. On the other hand, at his workplace, use of HPs is compulsory. He wants to know if his HAs, are acting as HPs. Since they are located in the ear canal maybe they are blocking the noise. If that is not the case, what should he do? He needs an answer and he needs it now!

This is not an uncommon situation. The fact that it doesn't happen more often is just because HAs wearers do not think that there is a solution to their problem of protecting from the noise. However, the problem is there and needs to be dealt with.

BACKGROUND

Hearing loss is a well-known fact, resulting from many causes; the main being aging and exposure to high noise levels for extended periods of time. It is also a fact that presently there is no known cure for this symptom that affects oral communication among other functions. It is also no secret that hearing aids greatly facilitate navigating through everyday life by allowing the wearer to listen to speech, music and noise in general.

Use of hearing aids has become more and more common. One reason is the increasing awareness of the benefits of these devices, another is their acceptance by the population in general. Their miniaturization and the consequent "invisibility", coupled with the improved efficiency and extended battery charge duration, are other reasons for their increased acceptance. This is why more and more hearing aid wearers are found among the population in general and among the workforce in particular.

A person with hearing loss has difficulties understanding speech. Those difficulties increase with the ambient noise

level, especially if the spectrum of the noise coincides with the frequencies of the speech. He also has problems with the perception of alarm signal as well as with an eventual change of machine noise spectrum when there is a problem. Also, not hearing well increases the risk of accidents in the workplace, if there are moving sound sources such as trucks or forklifts.

So, the apparently logical answer to many of those problems is for the worker to wear hearing aids. Although it is not a complete solution, it allows the worker to better interact with the environment and his co-workers. It also improves the wearer's safety by increasing the perception of alarm signals and the noise from approaching mobile sources.

Now, wearing hearing aids amplifies the sound level of both signals and ambient noise. As a result, there is a risk for enhancing the person's hearing loss. This is the main problem that the person responsible for the Hearing Conservation Program in the workplace has to deal with.

From the above it becomes clear that there is not a simple answer to this question. This is because there are multiple aspects involved when a person with hearing loss is working in a noisy environment.

Some of they are:

- compromised oral communication becomes even more difficult
- impaired ability to hear warning signals
- impaired ability to monitor equipment or the environment
- impact on job safety
- impact on job performance
- stress and/or fatigue
- risk of aggravating hearing loss

Some of the above problems may become more serious when the person with hearing loss is wearing hearing protection.

SOME RECOMMENDATIONS

WorkSafeBC has an information sheet, Hearing Aids at Work, with recommendations that workers do not use hearing aids when working around hazardous noise.

Similarly, OSHA (US) advises that hearing-impaired individuals should not wear their hearing aids without additional hearing protection in workplaces with potentially hazardous noise levels.

Both institutions recommend that the conditions at the workplace as well as the individual's work requirements should be examined in consultation with professionals before making any decision. It becomes quite clear that there are no rules that could apply to all situations.

SO, WHAT TO DO?

The following basic rules should always be applied in noisy places:

- HAs are not substitute for HPDs
- HPDs must always be worn
- People who wear HAs, should also wear earmuffs.

A more detailed stepwise process can be summarized as follows:

1. Perform a job analysis regarding the requirements that the worker has to fulfill, such as need for oral communication
2. Perform a safety analysis, taking into account moving elements, such as forklifts, trucks, etc.
3. Perform a detailed noise exposure measurement to determine the attenuation needs for the worker
4. Determine if he needs to wear HAs at work
5. Eventually consult with a health professional even if protected, the worker can be exposed to the noise at his workplace during the extension of the entire workday.
6. Most important: perform audiograms every 6 months to see if there are changes in his hearing and act accordingly.

Where to get additional information:

1. NATIONAL: The Canadian Hard of Hearing Association (CHHA) 2415 Holly Lane, Suite 205 Ottawa, Ontario K1V 7P2 Phone: (800) 263-8068 (613) 526-1584 TTY: (613) 526-2692 Fax: (613) 526-4718 chhanational@chha.ca www.chha.ca
2. ONTARIO: Canadian Hearing Society (CHS) 271 Spadina Road Toronto, Ontario M5R 2V3 Phone: (416) 928-2504 TTY: (416) 964-6023 Fax: (416) 928-2523 www.chs.ca
3. HEARING LOSS ASSOCIATION OF AMERICA (HLAA) 7910 Woodmont Avenue, Suite 1200 Bethesda, Maryland, USA 20814 Voice: (301) 657-2248 TTY: (301) 657-2249 Fax: (301) 913-9413 www.hearingloss.org
4. CANADIAN ASSOCIATION OF SPEECH LANGUAGE PATHOLOGISTS AND AUDIOLOGISTS 920 – 1 Nicholas St. Ottawa, Ontario K1N 7B7 Phone: (613) 567-9968 Toll Free: (800) 259-8519 fax: (613) 567-2859 caslpa@caslpa.ca www.caslpa.ca
5. CANADIAN ACADEMY OF AUDIOLOGISTS 1771 Avenue Road P.O.Box 54541 Toronto, Ontario M5M 4N5 Phone: (416) 494-6672 Toll Free: (800) 264-5106 caa@canadianaudiology.ca www.canadianaudiology.ca

A Tale of Two Principles: Precautionary and Scientific Certainty

E.A. Sullivan, PhD, CIH, ROH, CChem

Preventable infections and deaths feature in three notable public health episodes: the Canadian blood-supply crisis of the late 1970s and early 1980s,¹ SARS-CoV-1 outbreaks in Toronto (2003)² and the current SARS-CoV-2 (COVID-19) pandemic.³ Common to all was the lack of scientific certainty in the mode of viral transmission upon which infection controls depended. There were divergent views as to whether HIV/AIDS and hepatitis C were transmitted through lifestyle practices, environmental factors or by transfusion of blood/components/products; for SARS-CoV-1&2, the issue was transmission by droplets or aerosols. Officials and regulators could either adopt the precautionary principle or rely upon evolving contemporary scientific/medical evidence for direction. Public-health advisors, not unnaturally, followed their mandate⁴ to ‘provide scientific and technical advice and support to clients working in government, public health, health care, and related sectors’ with consistently disastrous results.

The Precautionary Principle holds that reasonable action to reduce risk should not await scientific certainty. Proponents of the ‘scientific certainty’ principle have cited, as supportive evidence: lack of definitive proof for alternative modes of transmission; consistency of existing national and international opinions and procedures; enhanced PPE (N95 respirators) unnecessary or unavailable; risk of adverse effects remote, miniscule, insignificant or overrated; or that departure from orthodoxy could cause public confusion, fear and distrust of the system. Necessity for the precautionary principle was, however, a salient conclusion of the Kreyer report on the tainted-blood scandal;^{1a-d} counsel to the Canadian Red Cross had even advised it in 1983,^{1a} however, the organization was a ‘tentative and ineffective decision maker that recoiled from its responsibility to make timely decisions on matters of safety’.^{1b} Similarly in the US,

‘...preference for the status quo under the prevailing [high-stakes] conditions of uncertainty and danger led decisionmakers to underestimate the threat of AIDS for

blood recipients...authorities consistently chose the least aggressive option that was justifiable...while not in conflict with the available scientific information.’⁵

Reliance upon orthodoxy proved costly for Canadians:⁶

OUTCOMES	COSTS
Hepatitis C Infections, 1980-1990	>30,000; 85% preventable ^{1c}
HIV Infections, 1980-1985	2,000
Deaths, Actual & expected	ca. 8,000
Compensation for Hepatitis C victims	\$1B
Legal Claims	\$10B
Kreyer Inquiry	\$2.5M
Red Cross Penalty, 2005	\$5,000

The Campbell report (2006) on SARS-CoV-1 re-formulated the neglected precautionary principle:^{2a,b}

‘The point is not who is right and who is wrong about airborne transmission. The point is not science, but safety. Scientific knowledge changes constantly. Yesterday’s scientific dogma is today’s discarded fable. When it comes to worker safety in hospitals, we should not be driven by the scientific dogma of yesterday or even the scientific dogma of today. We should be driven by the precautionary principle...’ and ‘Until this precautionary principle is fully recognized, mandated and enforced in our health care system, nurses and doctors and other health workers will continue to be at risk from new infections like SARS.’

Addressing communicable diseases in the community is public health’s role. In Ontario workplaces, employers have a legislated duty – consonant with the precautionary principle – to ‘take every precaution reasonable in the circumstances for the protection of a worker’; additionally, the regulator is mandated to enforce workplace standards and implement strategies to prevent workplace injuries and illnesses. Despite enforcement,^{3a,7} 3310 workplace COVID-19 outbreaks⁸ – 25.0% of the current (2021-12-06) cumulative total – have occurred; concomitantly, WSIB has acknowledged 28,546 COVID-related claims⁹ and 97 deaths from 9027 exposure incident reports. These data hardly suggest ‘every precaution reasonable’ being taken to prevent workplace transmission.

Campbell remarked on the two ‘solitudes’ of safety and infection control.^{2b} The precautionary and the scientific certainty principles do, however, have one thing in common:

The Scientific Method. This philosophy favours single theories over multiplicities, to best fit contemporary facts until subsequent data suggest a better model. Public Health has ardently embraced the historical contact-infection (‘droplet’) paradigm;¹⁰ the ‘aerosol’ paradigm^{11,12} is currently acknowledged by AIHA¹³ and ACGIH/ASHRAE¹⁴ but acceptance by public health agencies still seems reserved.¹⁵⁻¹⁷ There should be no philosophical inconsistency in adopting a model involving ‘droplets’ of all sizes but deep-seated beliefs die hard and lessons regarding the precautionary principle as yet appear unlearned.

References

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2. The SARS Commission - Final Report (gov.on.ca) a: v1(12); b: v3(1042-1116).
3. Investigation: How Canada failed health workers and mismanaged COVID-19 - Canada’s NursesCanada’s Nurses (nursesunions.ca) a: pp.130-132.
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11. It Is Time to Address Airborne Transmission of Coronavirus Disease 2019 (COVID-19) | Clinical Infectious Diseases | Oxford Academic (oup.com)
12. Ten scientific reasons in support of airborne transmission of SARS-CoV-2 (nih.gov)
13. Joint-Consensus-Statement-on-Addressing-the-Aerosol-Transmission-of-SARS-CoV-2-Fact-Sheet.pdf (digitaloceanspaces.com)
14. ASHRAE-ACGIH-COVID-19-White-Paper.pdf
15. Coronavirus disease (COVID-19): How is it transmitted? (who.int)

Renew for 2022 and Take Advantage of OHAO Opportunities!

Join a Committee

There is no better way to connect with other OHAO members and contribute to your personal and professional growth. There is a committee for every interest: Education, Communications, Regional Meetings and more. Contact office@ohao.org for more details.

Become a Mentor

Become an OHAO mentor and provide guidance and feedback to students and new occupational hygienists. Contact office@ohao.org for more details.

Write an Article for Forum

We are always looking for new contributors to the newsletter. If you have an article you would like to have considered for publication email articles to: neginghanavatian@gmail.com

Promote Your Business

When people are looking for occupational hygienists they often end up at the OHAO Consultants Directory. List your company in the directory and gain exposure and business. There is an annual fee for a listing in the directory. [Click here for details.](#)

Career Postings

Whether you are looking for a job or looking to hire the OHAO job listings are a great place to post your jobs for a reasonable fee. All job postings are shared on our new LinkedIn page. [Click here for the job posting page.](#)

LinkedIn

OHAO now has our own LinkedIn page. Be sure to follow us for updates and information related to occupational hygiene. [Click here to visit our LinkedIn page.](#)

CNSC Publication Notice

The amendment entitled “Regulations Amending the Transportation of Dangerous Goods Regulations (TDGR) (Part 6 – Training)” was published in the Canada Gazette, Part 1 (CGI) on December 11, 2021 for a 60-day comment period.

The amendment is accessible through the following URL: <https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-11/html/reg2-eng.html>

The proposed amendment includes important elements that would update the TDGR to:

- Introduce the Competency-Based Training and Assessment (CBTA) and require that persons be competent to perform transportation of dangerous goods tasks;
- Incorporate by reference the new Canadian General Standards Board (CGSB) standard: CGSB-192.3-2020 “Transportation of dangerous goods - training, assessment and competency”, as amended from time to time, which outlines the requirements for competency: general awareness and function-specific training and assessment; and
- Align training requirements in the TDGR with the current versions of the United Nations Model Regulations for the Transportation of Dangerous Goods (UN Model Regulations), Title 49 of the United States Code of Federal Regulations (U.S. 49 CFR), the International Maritime Dangerous Goods (IMDG) Code, and the International Civil Aviation Organization (ICAO) Technical Instructions.

All interested parties are invited to comment on this proposed amendment prior to February 9, 2022. TC is now accepting comments through the online regulatory consultation system through the CGI publication. The feedback received will be taken into consideration in the development of the final amendment to be published in the Canada Gazette, Part II.

OHAO Updates

WSPS Resources

WSPS and OHAO signed a letter of intent this year and part of that letter was to share resources where appropriate. For this issue of Forum WSPS have shared a number of links to information that OHAO members may find useful.

[Did you know wearing eye protection can be a COVID requirement? \(wsps.ca\)](#)

[Conducting a COVID-19 risk assessment before bringing employees back \(wsps.ca\)](#)

[Manage workplace impairment during the pandemic with these six steps \(wsps.ca\)](#)

AIHA Resources

As part of OHAO’s MOU with AIHA in the new year we will be including one AIHA Synergist article in each issue of Forum to provide our members with some additional content. Look for the first article in the Spring 2022 edition.

Save the Dates

The OHAO Spring PDC and Symposium/AGM will take place on March 23 and 24, 2022. With the future of live events still uncertain at this point in time the events will be held virtually on the Zoom webinar platform.

More details will be available in January.