

2011

Handbook of Occupational Hazards and Controls for Mental Health Workers

**Government
of Alberta** ■



Credits

This document has been developed by the Government of Alberta and derived as a profession-specific summary of information contained in the five volumes of Best Practices in Occupational Health and Safety in the Health Care Industry. Full text of these documents can be found at <http://www.employment.alberta.ca/SFW/6311.html>

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Occupational Health and Safety Hazards and Controls for Mental Health Staff

Introduction

As part of the Alberta Healthcare Initiative, a series of Best Practice documents were produced by Alberta Employment and Immigration – Workplace Health and Safety to better acquaint healthcare workers (HCW) with workplace hazards and appropriate control measures. Five documents have been produced; each developed with the input of a multidisciplinary stakeholder group. The documents are available on the Alberta Employment and Immigration website <http://www.employment.alberta.ca/SFW/6311.html> as follows:

Overview of Best Practices in Occupational Health and Safety in the Healthcare Industry Vol. 1

http://www.employment.alberta.ca/documents/WHS/WHS-PUB_bp009.pdf

Best Practices for the Assessments and Control of Biological Hazards Vol. 2

http://www.employment.alberta.ca/documents/WHS/WHS-PUB_bp010.pdf

Best Practices for the Assessments and Control of Chemical Hazards, Vol. 3

http://www.employment.alberta.ca/documents/WHS/WHS-PUB_bp011.pdf

Best Practices for the Assessments and Control of Physical Hazards, Vol. 4

Best Practices for the Assessments and Control of Psychological Hazards, Vol. 5

In an effort to focus the hazard assessment and control information for specific healthcare professions, a series of short summaries of relevant information have been produced using excerpts from the five best practice documents. Readers are directed to the original documents for more details and more comprehensive information. Please note that hyperlinks are provided to reference documents for the convenience of the reader. These links are functional at the time of first availability of this document but, due to the changing nature of web information, may not be functional at a later date. The Government of Alberta does not assume responsibility for updating hyperlinks.

This document focuses on hazards and controls for Mental Health workers, both in Mental Health facilities and those who work in community settings.

Hazard Assessment Process

Mental Health workers may be exposed to a variety of workplace hazards in the course of performing their functions. The type and degree of exposure is dependent upon a variety of individual factors including client-related factors as well as environmental issues. A key component of a health and safety program is to identify and assess hazards and determine appropriate controls. A systematic approach to hazard assessment includes the following steps:

1. List all work-related tasks and activities.
2. Identify potential biological, chemical, physical and psychological hazards associated with each task.
3. Assess the risk of the hazard by considering the severity of consequences of exposure, the probability that the exposure will occur and the frequency the task is done.
4. Identify the controls that will eliminate or reduce the risk. The hierarchy of controls should be followed. This means that engineering controls are the most effective, followed by administrative controls (such as training and rules), and followed by personal protective equipment (PPE).
5. Implement the controls for each hazard.
6. Communicate the hazard assessments and required controls to all workers who perform the tasks.
7. Evaluate the controls periodically to ensure they are effective.

Potential Hazards and Recommended Controls

The following charts summarize potential hazards for workers in Mental Health facilities and recommended controls to reduce the risk of exposure to the hazards.

Biological Hazards and Controls

In this section the most commonly encountered biological hazards by Mental Health workers and methods to control them are presented. Employers should carefully evaluate the potential for exposure to biohazardous materials in all tasks and ensure that they have an effective hazard control plan in place. This information will be useful for inclusion into hazard assessments. Please note, this is not designed to be an exhaustive treatment of the subject, but is rather an overview summarizing the biological hazards most frequently encountered by Mental Health workers.

Note:

The following chart provides basic information about control strategies for commonly occurring biological hazards. Administrative controls are based on the risk assessment. Worker education and good communication processes are important administrative controls. Any PPE selected must be based upon the risk assessment of the task and the environment in which it is used. All legislation related to the selection and use of controls must be followed.

| Potential Hazards | Summary of Major Control Strategies | | |
|---|---|---|--|
| | Engineering | Administrative | PPE |
| Exposure to bloodborne pathogens through contact with contaminated items and surfaces, exposure to mucous membranes through bites, spitting, etc. | Vaccines. | Compliance with all infection prevention and control practices. Immunization program. Worker education. | Gloves, protective clothing, eye and face protection. |
| Exposure to airborne biological agents through contact with secretions from infectious clients (coughing, sneezing, etc.) or air contaminated with infectious biological agents | Early detection of infection status. Isolation. Vaccines. | Compliance with all infection prevention and control practices. Immunization program. Worker education. | PPE based on the risk assessment may include eye protection, respiratory protection and other protective clothing. |
| Exposure to environmental biological contaminants from ventilation systems, water or food | Maintenance of ventilation systems; early spill clean-up. Preventive maintenance of ventilation systems and water supply systems with regular | Infection prevention and control practices related to building maintenance and food preparation. Protocols for construction and renovation projects that reduce | Use of proper PPE when cleaning contaminated environmental surfaces, including gloves, respiratory protection, |

testing to ensure proper functioning. Early detection and remediation of mould

contamination. Worker education.

and eye protection.

Notes about controls for biological hazards

Exposure to biological hazards may occur for Mental Health workers in contact with clients, their blood, body fluids, or contaminated items. Controls include any mechanisms to reduce the potential for exposure to infectious agents and the immunization of Mental Health personnel against infectious diseases to which they may be exposed.

Engineering Controls

In the hierarchy of controls, the highest level of control is directed at the source. From an occupational health perspective, the highest level of control may be immunization of workers who may come in direct contact with infected clients. Good engineering controls such as proper design and maintenance of facilities, the use of needleless systems and engineered needle stick prevention devices, and effective biological waste containment also contribute to minimizing the transmission of infectious agents. Engineering controls, once designed and implemented, are not under the control of the worker, but are directed at the source of the hazard.

Safe Needle Devices

Safe needle devices have built-in engineering features that assist in preventing injuries during and after use of the device. While some engineered safe needle devices have been available for some time, new engineered safe needle devices continue to be introduced for the healthcare industry. Sharps disposal containers assist in protecting health care workers (HCWs) from injuries when handling and transporting waste sharps. The CSA standard Z316.6-07 *Evaluation of Single-use and Reusable Medical Sharps Containers for Biohazardous and Cytotoxic Waste* should be consulted when selecting sharps containers.

Decontamination¹ of facilities and materials

Decontamination is a term used to describe procedures that remove contamination by killing microorganisms, rendering the items safe for disposal or use. Sterilization refers to the complete destruction or removal of all microorganisms by chemical or physical means, usually to provide sterile items for use. All contaminated materials must be decontaminated before disposal or cleaning for reuse. The choice of method is determined by the nature of the material to be treated. Disinfection refers to the destruction of specific types of organisms but not all spores, usually by chemical means. Disinfection is a means of decontamination. Surfaces must be decontaminated after any spill of potentially infectious materials and at the end of the working day. Work areas, client rooms, and pieces of equipment may also require decontamination.

General ventilation

General ventilation systems serving buildings must be maintained regularly and inspected for conditions that could adversely affect air quality provided to work spaces. Accumulations of water that could stagnate in humidification systems or drip trays may become sources of potential biological contamination of air handling systems that need regular monitoring and inspection.

Biohazardous organisms may be carried through general ventilation systems, potentially distributing them to other workspaces in a facility. Ultraviolet germicidal irradiation units, and or HEPA filtration media incorporated into air handling systems may be warranted for special circumstances.

Mould growth in the indoor environment can be affected by relative humidity levels, which is a function of some general ventilation systems. High relative humidity levels may contribute to an increase in the growth of some moulds and lead to condensation developing on surfaces. Control of indoor relative humidity levels is an important factor in preventing mould growth.

Administrative Controls

The next level of controls includes administrative controls. Because it is not always possible to eliminate or control the hazard at the source, administrative controls are frequently used for biological hazards in healthcare. Administrative controls focus on ensuring that the appropriate prevention steps are taken, that all proper work procedures are documented, that Mental Health personnel are trained to use the proper procedures, and that their use is enforced. Administrative controls include policies and procedures that

¹ This section was modified from Laboratory Safety: CSMLS Guidelines, sixth edition; Gene Shematek & Wayne Wood; Canadian Society for Medical Laboratory Science; 2006.

establish expectations of performance, codes of practice, staff placement, required orientation and training, work schedules, and occupational health programs in which baseline immune status is recorded and immunizations are provided. For Mental Health workers, a high risk for exposure to biological hazards may occur through contact with client's blood or body fluids through violent or abusive behaviour. This type of exposure is considered in more detail in the physical hazards section of this document.

A comprehensive management system considers the continuum of infection prevention and control efforts across all sites and operations. It includes attention to client, visitor, contractor, volunteer and health care worker (HCW) safety. A comprehensive system should include the following components:

- ☐ A process that ensures comprehensive hazard assessments are conducted for all sites and tasks and appropriate controls are identified
- ☐ An infection prevention and control plan with clear designation of roles and responsibilities
- ☐ Coordinated activities and policies related to IPC and OHS that ensure a consistent approach to infection prevention and control for clients, visitors, and HCWs
- ☐ Consistent standards for the cleaning, disinfection and sterilization of equipment, procedures, and policies including Routine Practices, Additional Precautions, hand hygiene policies and facilities, client risk assessments, communication protocols, decontamination of clothing and dedicated clothing
- ☐ Outbreak prevention and management
- ☐ Required orientation and ongoing education
- ☐ Biomedical waste handling procedures and policies
- ☐ A comprehensive surveillance and monitoring plan
- ☐ Record keeping and regular reporting of outcomes

Routine practices and additional precautions

Procedural controls may include procedures that relate to detection and follow-up of infectious diseases, the use of Routine Practices and Additional Precautions as directed, baseline health assessments and periodic screening of workers, hazard identification and control processes, and outbreak management procedures. Awareness of the infectious disease status of clients is another good control, though this is not always possible for Mental Health staff. All work procedures should include the consideration and control of the risk of exposure to workers. Routine Practices and Additional Precautions (where required) greatly assist in reducing the transmission of infectious agents from both known and unknown client sources by treating all contacts as potential risks.

Infection Prevention and Control Definitions:

- **Routine Practices** include a recommended pattern of behaviours to form the foundation of limiting the transmission of microorganisms in all health care settings and is generally accepted care for all clients. Elements of Routine Practices are: hand hygiene; risk assessment related to client symptoms, care and service delivery, including screening for infectious diseases; risk reduction strategies through the use of PPE, cleaning environment, laundry, disinfection and sterilization of equipment, waste management, safe sharps handling, client placement and healthy workplace practices; and education of healthcare providers, clients and families, and visitors.
- **Additional precautions** are practices used to prevent transmission of infectious agents that are spread by direct or indirect contact with the client or client's environment that are necessary in addition to Routine Practices for certain pathogens or clinical presentations. These precautions include Contact Precautions, Droplet Precautions, and Airborne Precautions that are based on the method of transmission.

For more information: <http://www.health.alberta.ca/documents/IPC-MRSA-Standards-2008.pdf>

Routine Practices include being attentive to all routes of transmission. Awareness of routes of transmission has led to the development of a variety of transmission-route specific strategies. Most of these are well documented in infection prevention and control plans. In particular, hand hygiene is identified as the single most important administrative strategy in infection prevention and control.

Surfaces must be decontaminated after any spill of potentially infectious materials. Specific written protocols must be developed and followed for each decontamination process.

Chemical Disinfectants

Chemical disinfectants are used to decontaminate surfaces, reservoirs of infectious material, and to clean up spills of infectious material. The choice of chemical disinfectant must be made carefully based on:

- Types of organisms, suspected or known
- Items or surfaces to be decontaminated
- Hazards posed to the worker by the disinfectant
- Cost of disinfectant
- Corrosiveness of disinfectant
- Shelf life and required dilution of disinfectant
- Material which inactivates the disinfectant

In many cases, the choice of disinfectant for specific uses may be standardized in the organization and made after evaluation by IPC and OHS professionals.

Spill response procedures

The efficient and effective control of a biological spill requires that all staff members are trained in and have practiced the established spill response techniques. The materials and supplies that are necessary for spill clean-up and decontamination must be readily available to ensure timely spill response. Written spill response procedures should outline spill response actions and roles. The actual procedure used will vary with the size of the spill and the location of spill (including materials, equipment or environmental surfaces affected). All spill responses should be documented as incidents.

Training

Training in biological hazards and controls should be provided to all health care workers (HCWs), including those working in Mental Health. Each HCW must understand the facility's IPC and OHS programs as they relate to their job duties. For newly hired HCWs all relevant IPC and OHS policies and procedures must be provided before they start work. To ensure that HCWs understand and apply this information to their jobs, specific training should also be provided to address job-specific biological hazards. Periodic refresher training to reinforce policies and procedures and introduce any new practices will benefit all HCWs. Competency assessments should be provided for all training, and training records should be maintained.

HCW immunization and health surveillance

An immunization policy and program is a proactive mechanism to reduce risk of communicable diseases for HCWs. Each healthcare organization should have an immunization and health surveillance program in place that is appropriate to the size and type of workplace. Immunization and health surveillance programs should include:

- Education about vaccine-preventable diseases
- Risk assessment to determine the need for immunization or surveillance based on potential exposure
- Administration of immunizations (or referral for immunizations, as appropriate)
- Documentation and follow-up of any baseline health assessments, communicable disease status and immunizations

Ideally, the immunization and surveillance programs should provide easy, authorized access to HCW immune status records for follow up of exposure incidents and outbreaks. In some cases, immunizations or baseline testing may be required prior to commencement of work.

Post-exposure follow-up management

Post-exposure management includes management of HCWs exposed to, colonized by, or infected with microorganisms; an outbreak management process for exposures and/or HCWs who are symptomatic or colonized with infectious disease; and access by Occupational Health professionals to utilize medical assessment and diagnostic services for timely follow-up for HCW exposures.

Personal Protective Equipment (PPE)

Personal protective equipment such as gloves, respiratory protection and eye protection should be used based on the risk assessment. PPE is often used in conjunction with other controls (engineering and administrative) to provide additional protection to workers. The primary types of PPE are designed to protect the worker from infectious disease by breaking the chain of infection at the “portal of entry or exit” of the microorganisms. This means that all PPE is designed to reduce exposure via specific routes of transmission. Gloves, gowns and other protective clothing reduce exposure through the dermal (skin) contact route and help contain the microorganisms to the work environment. Gloves are the most common type of PPE used to reduce exposure to biological hazards. In addition, PPE is required when there is the potential for exposure of the face to splashes or sprays of infectious material.

Chemical Hazards and Controls

Most Mental Health workers do not work with many chemical products. However, they may be exposed to chemical disinfectants as well as client-specific chemical hazards such as fragrances and scents they may be sensitized to, as well as second-hand tobacco smoke. This section will provide a brief overview of selected chemicals that Mental Health personnel may come into contact with.

Note that this list is not extensive or all-inclusive. In the control column, E, A and P are used to designate Engineering, Administrative and PPE controls. These controls are briefly summarized and the reader should link to the references provided for additional information. The proper choice of control measures must be based on a risk assessment for the specific tasks being performed. Safe work practices are administrative controls necessary for working with all harmful substances and educating workers in the practices is vital. Safe work procedures should be designed to:

- Limit the worker's exposure time
- Reduce contact with the substance through any route of exposure to the worker
- Ensure safe disposal of substances and disposable equipment that comes into contact with harmful substances
- Ensure safe handling and decontamination of reusable equipment
- Require the use of all designated controls

Worker education is critical for safely handling harmful substances.

General Resources – Chemical Hazards

For more information about specific chemical hazards, consult the following resources:

NIOSH Pocket Guide to Chemical Hazards (<http://www.cdc.gov/niosh/npg/>).

CCOHS Cheminfo (<http://ccinfoweb.ccohs.ca/>).

Alberta Workplace Health and Safety Bulletins (<http://employment.alberta.ca/SFW/136.html>).

The following charts, taken from Volume 3 – Best Practices for the Assessment and Control of Chemical Hazards in Healthcare, summarize important information about some of the chemical hazards that may be encountered by Mental Health personnel.

Chemicals used for cleaning and disinfection

| Chemical (category or group) | Common Uses and Examples | Exposure and Health Effects Information | Controls | For more information: |
|---|--|--|--|--|
| These are examples of chemicals, uses, health effects and controls. For each chemical used in the workplace, specific information MUST be consulted to determine controls based on what the product is used for, how it is used and the environment it is used in. This may be found on MSDSs, information provided by the manufacturer or supplier, or other sources. Individual reactions to chemicals must also be considered in determining appropriate controls. | | | | |
| Alcohol hand sanitizers | Hand hygiene when water is not available and hands are not visibly soiled | May cause skin dryness. Product is flammable. | A- Appropriate storage of product (away from ignition sources and incompatible products). Provision of hand cream to soothe hand dryness. | http://www.ottawa.ca/residents/health/emergencies/pandemic/hand/faq_gel_en.html http://employment.alberta.ca/documents/WHS/WHS-PUB_fex002.pdf http://www.municipalaffairs.alberta.ca/documents/ss/STANDATA/fire/fcb/97fcb026.pdf |
| Low Level Disinfectants | Chlorine compounds, alcohols, quaternary ammonium salts, iodophors, phenolic compounds, hydrogen peroxide used widely for disinfection; usually prepared and used in low concentrations. | Most are eye, skin, and respiratory irritants, particularly when concentrated. Some products may produce sensitization. Toxic effects depending on nature of chemical. May react with other products to create hazardous products. | E- Substitution with less harmful product. Properly designed and maintained ventilation systems. Automatic diluting machines. Closed systems. A- Practice to purchase products in ready to use concentrations to minimize handling. Safe work procedures. WHMIS program and maintenance of MSDSs. Worker education. Accommodation for sensitized workers or those with health issues. P- Gloves and eye protection. | http://ehs.virginia.edu/biosafety/bio_disinfection.html http://www.cdc.gov/niosh/topics/chemical.html http://cms.h2e-online.org/ee/hazmat/hazmatconcern/steril/ http://www.mtpinnacle.com/pdfs/disinfectant-selection-guidelines.pdf |

Other chemicals and substances

| Chemical | Common Uses; Examples | Exposure and Health Effects Information | Controls | For more information: |
|---|---|--|--|--|
| These are examples of chemicals, uses, health effects and controls. For each chemical used in the workplace, specific information MUST be consulted to determine controls based on what the product is used for, how it is used and the environment it is used in. This may be found on MSDSs, information provided by the manufacturer or supplier, or other sources. Individual reactions to chemicals must also be considered in determining appropriate controls. | | | | |
| Personal care products, scents and fragrances | A wide range of products including personal care items such as shampoos, soaps, perfumes, creams, deodorants, etc. Also contained in, cleaning products. | May cause a variety of mild to severe symptoms. Allergic, asthmatic and sensitive workers may experience reactions. | E- Elimination of scented products. Substitution with less harmful products. Properly designed and maintained ventilation systems. A- Development, implementation and enforcement of scent-free policies. Signage in work areas where affected workers work. Worker education. | http://www.ccohs.ca/oshanswers/hsprograms/scent_free.html |
| Second-hand tobacco smoke | May be present in public places where smoking is permitted. Also may be encountered in homes or establishments where home care workers or public health workers provide services. | Lung cancer and other cancers. Associated with heart disease, respiratory irritation, aggravation of allergies and other pre-existing conditions. Impacts developing foetus. | E- Elimination of smoking within and around facilities. Properly designed and maintained ventilation systems. Isolation of areas where smoking is permitted with dedicated ventilation systems. Substitution with smoking cessation aids. A- Development, implementation and enforcement of no smoking policies and policies related to worker exposure in homes. Substitution with smoking cessation aids. Smoking cessation programs. Collection of patient smoking information on patient intake forms in home or community settings. Worker education. Good housekeeping. Provision of services in an alternate location if client is uncooperative with no smoking policies. | http://www.lung.ca/protect-protegez/tobacco-tabagisme/second-seconde/index_e.php http://www.ccohs.ca/oshanswers/psychosocial/ets_health.html |

In this section the chemical exposure hazards most commonly potential encountered by Mental Health personnel and methods to control them are presented. Employers should carefully evaluate the potential for exposure to chemical hazards in all Mental Health activities and ensure that they have an effective hazard control plan in place. This information will be useful for inclusion into hazard assessments. Please note, this is not designed to be an exhaustive treatment of the subject, but is rather an overview summarizing the most frequently encountered chemical hazards encountered by Mental Health personnel.

Note:

The following charts taken from Volume 3 – Best Practices for the Assessment and Control of Chemical Hazards in Healthcare provide basic information about control strategies for commonly occurring chemical hazards related to Mental Health activities. The selection of controls must be based on a risk assessment of the tasks and environment. Worker education and good communication processes are critical administrative controls. All legislation related to the assessment of hazards, selection and use of controls must be followed.

| Potential Chemical Hazards | Summary of Major Control Strategies | | |
|---|---|--|----------------------------|
| | Engineering | Administrative | PPE |
| Exposure to scented products that may induce sensitization | Elimination of scented products. Substitution with less harmful products. Maintain adequate general ventilation. | Develop scent-free policies. Educate worker in the nature of the hazard. Post signage in work areas where affected workers work. | |
| Exposure to second hand smoke where smoking is permitted | Eliminate smoking. Substitution with smoking cessation aids. Maintain adequate general ventilation. Isolate areas where smoking is permitted. | Develop no smoking policies. Gather patient smoking information on patient intake forms in home or community settings. Maintain good housekeeping. | |
| Exposure to a variety of disinfecting and cleaning agents in routine cleaning activities related to patient care | Maintain adequate general ventilation. Automatic diluting machines. | Purchase in ready to use concentrations to minimize handling. Worker education. Safe work procedures. WHMIS program and maintenance of MSDSs. | Gloves and eye protection. |

Notes about controls for chemical hazards

Engineering Controls

Many engineering controls are available for controlling the hazard at the source and along the path of transmission. For chemical hazards, common engineering controls include:

- Elimination
- General ventilation (only appropriate for non-toxic chemicals)
- Isolation/enclosed processes (e.g. smoking in designated, well-ventilated areas)
- Facility design

For Mental Health personnel, chemical exposures may be limited by ensuring the facilities well designed and have effective ventilation.

Elimination

Elimination of a hazardous chemical from the healthcare workplace is always desirable but not always possible. For example, drugs must still be prepared and administered, disinfectants are required when biological hazards are present, and cleaning solutions are necessary to maintain hygienic conditions. In some cases, exposures can be eliminated by transferring specific processes or activities to another facility, or areas within a facility where better controls are available.

Substitution

Some chemicals used in the health care environment are chosen based on tradition or cost. In recent years, efforts have been made to find less hazardous alternatives to some of the chemicals commonly used. When substituting a chemical for one that is currently in use, it is critical to ensure that the new chemical does not have properties that may make it more toxic or more flammable, etc.

Administrative Controls

Policies and procedures, training

As administrative controls, policies and procedures should be in place to ensure that there are safe work procedures in place for any situation where chemicals are used. Workplace Hazardous Materials Information System (WHMIS) training should be provided to all Mental Health personnel who may come into contact with chemicals. In addition, emergency call lines that provide expertise and advice regarding toxic chemicals should be made available.

Exposure follow-up – emergency response equipment

Two types of exposure follow-up are considered as administrative controls. The first is the provision of appropriate emergency response equipment to reduce the impact of the exposure. The second is the medical follow-up for workers who have had a chemical exposure. In the first case, emergency response equipment for Mental Health personnel usually refers to emergency eyewashes that can provide sufficient water to dilute the contaminant before it can cause extensive damage. Wherever chemical exposure could pose a hazard to eyes and skin, emergency wash devices are required. Appropriate signage that is easily visible must be provided to indicate where the eyewashes are kept.

Medical follow-up of the exposed worker

A worker who has had a chemical exposure may require medical follow-up. Guidelines are available to provide information on the treatment and monitoring of workers with exposure to specific chemicals.

Health Surveillance and Medical Monitoring in the Workplace

The pre-placement assessment considers the worker's personal health status as it relates to potential workplace exposures. It is useful to identify if workers have any allergies or sensitivities to products that they may come into contact with.

Chemical Waste Handling and Disposal

Chemical wastes must be addressed with a good chemical waste management system. Municipal and or Provincial codes address appropriate disposal requirements and aim to reduce contamination, possible injuries, illness or reactions related to chemical exposures.

Additional considerations for reducing risk of exposure

It is prudent to be aware of the need for modification of the work environment, conditions or required PPE for workers who may be medically vulnerable to the effects of some substances. Higher risk workers may include pregnant workers, workers with allergies or those who are sensitized to certain chemicals. Some common approaches to accommodate these workers include temporary reassignment to areas or tasks where the exposure potential is eliminated; work scheduling to reduce the amount of exposure, and changes to the PPE to accommodate limitations.

Personal Protective Equipment

Personal protective equipment (PPE) is considered the lowest level of protection in the hierarchy of controls. This reflects the reliance on proper selection, fit, use and maintenance of the equipment by the organization and individual HCWs. PPE is often used in conjunction with other controls (engineering and administrative) to provide additional protection to workers. PPE is designed to protect the worker from exposure to chemicals by blocking access to the route of entry into the body. Gloves, aprons and other protective clothing reduce exposure through the dermal (skin) contact route. Eye and face protection reduce exposure through skin and mucous membrane contact.

current to January 2017

Physical Hazards and Controls

There are many potential physical hazards to which Mental Health personnel may be exposed. The nature of the work may pose ergonomic hazards, the potential for slips, trips and falls, exposure to environmental conditions, cuts, and electrical hazards. In this section the physical hazards most commonly encountered by Mental Health personnel and methods to control them are presented. Employers should carefully evaluate the potential for exposure to hazards for all Mental Health activities and ensure that they have an effective hazard control plan in place. This information will be useful for inclusion into hazard assessments.

Note:

The following chart provides basic information about control strategies for commonly occurring physical hazards in Mental Health work. The selection of controls must be based on a risk assessment of the tasks and environment. Worker education and good communication processes are critical administrative controls. All legislation related to the assessment of hazards, selection and use of controls must be followed.

| Potential Physical Hazards | Summary of Major Control Strategies | | |
|--|--|---|-----|
| | Engineering | Administrative | PPE |
| Ergonomic hazards associated with computer use or workstation design | Ergonomically designed workstations, chairs and equipment. Incorporate adjustable workstation to accommodate shared use by employees of various sizes. | Adjustment of workstation and chair to fit user. Worker education regarding ergonomic hazards and control strategies. Self assessment tools to assist workers in identifying and controlling risk factors. Safe work procedures. Early reporting of signs and symptoms of ergonomic concerns. Stretches and micro-breaks. Purchasing standards for ergonomically designed computer workstations, chairs and equipment. Ergonomic assessments. Maintenance of workstations, chairs and | |

| | | | |
|--|--|--|--|
| | | equipment. | |
| Ergonomic hazards associated with driving include sustained postures (and potentially awkward posture) and duration | Select an appropriately designed vehicle which incorporates ergonomic and adjustable features. Consider a retrofit back support if the lumbar support in the vehicle seat is inadequate. | Adjust the seat and other features of the vehicle to fit the worker. Follow safe work procedures. Early reporting of signs and symptoms of ergonomic concerns. Stretches and micro-breaks. Vary driving position and vary tasks, when possible. Maintain vehicle. | |
| Falling hazards associated with slips, trips and falls in client homes | | Safe work procedures for working in client homes. Train workers to check outdoor walkways and entrances for tripping hazards. Keep shoes on while working. Check indoor environment for tripping hazards and put controls in place (e.g. close drawers, tuck cords out of the way, etc.). Use handrails while climbing stairs. Carry loads in both hands to keep your balance, and look where you are going. | Appropriate footwear with gripping soles and good support. |
| Falling hazards associated with slips, trips and falls in facilities | Install slip resistant flooring. Design stairwells according to accepted safety standards. Ensure adequate lighting. | Perform regular maintenance on flooring, stairwells, hallways, handrails, etc. Inspect ladders prior to use. Worker education. Implement a spill cleanup program that includes prompt spill cleanup, use of warning signs, etc. Maintain good housekeeping practices and minimize clutter and tripping hazards. | Appropriate footwear with gripping soles and good support. |
| Cuts from sharp instruments, including knives or other weapons | Avoid use of sharps when not required. Replace sharps with Safety Engineered Medical Devices. Proper storage of sharps. | Worker education. Safe work procedures. | |
| Electrical hazards arising from use of electrical cords and appliances | Ground fault circuit interrupters when used close to water sources. | Safe work procedures that include use of electrical cords, power bars and appliances that includes facility | |

| | | |
|---|------------------------------------|---|
| | | approval requirements. Worker training. |
| Motor vehicle collisions from driving vehicles | Purchasing standards for vehicles. | Safe work procedures for driving including the issue of cell phone use. Confirm driver qualifications. Driver training. MVA incident reporting process. Owner maintains and inspects vehicle. Work scheduling to prevent fatigue. |

Notes about controls for physical hazards

Engineering Controls

Ergonomic hazards

One of the most commonly encountered physical hazards for Mental Health personnel is associated with computer ergonomics.

Computer Workstations

The use of computers is ubiquitous in a variety of HCW positions and healthcare settings, including by Mental Health workers. The key biomechanical risk factors for computer use are awkward postures, excessive force, repetition and compression and impact forces.

In addition to biomechanical risk factors, there may be other risk factors related to the work environment (e.g. lighting, noise), workstation design and personal factors. Examples of personal risk factors include state of health, fitness level, casual addictions (e.g. caffeine and smoking), poor posture, poor typing technique (e.g. pounding the keys), and poor typing posture (e.g. bent wrists). In addition to musculoskeletal injuries (MSIs), it should be noted that the signs and symptoms related to poor computer workstation ergonomics may include eye fatigue and discomfort, and in some cases headaches.

A self assessment is a useful tool to assist workers to evaluate biomechanical risk factors related to their computer workstations and to provide recommendations for control measures. Ideally, healthcare organizations should provide workers with self assessment tools and, if concerns persist, an ergonomics assessment should be performed by someone with specialized training. The goal of the hazard assessment is to identify hazards and control strategies to reduce the risk of injury.

Computer workstation ergonomics resources

OSHA, e-tools: Computer workstation checklist, 04/04/2008 www.osha.gov/SLTC/etools/computerworkstations/checklist.html

Occupational Health Clinics for Ontario Workers, Office Ergonomics Handbook, 5th Ed., May 2008

www.ohcow.on.ca/resources/workbooks/ergonomics.pdf

UCLA, Computer workstation self evaluation; www.ergonomics.ucla.edu/Seval_Gen.cfm

WCB – Alberta, Office Ergonomics: Think Detection, Think Prevention, Think Activity, 2007;

www.wcb.ab.ca/pdfs/public/office_ergo.pdf

Engineering controls related to computer ergonomics include

- Providing ergonomically designed equipment and furniture – The goal is to purchase and provide equipment and furniture that will support ergonomically correct work postures and behaviours.
- Designing workstation layout and arrange equipment to minimize biomechanical risk factors. For example, frequently accessed equipment and materials should be located in easy reach (and located to minimize awkward postures).

Ergonomics is also important to consider in driving. Many workers in healthcare drive as part of their daily work tasks and must deal with the ergonomic issues associated with driving, and in some cases transporting materials in their vehicles. It is important for drivers to remember to vary their work activities and work position frequently during the work day for optimal comfort. During long periods of driving, this may mean stopping at a safe location and getting out of the vehicle for a stretch or varying the adjustable seat controls slightly in order to maintain comfort.

Initial driving position and posture guide²

Familiarize yourself with ALL adjustments (e.g. seat, steering, seat belt). Start by getting the seat into the 'initial set up position', where adjustable:

- Steering wheel fully up and fully forward
- Seat height at its lowest

² Loughborough University; *Driving Ergonomics: Initial driving position and posture guide*;

<http://www.lboro.ac.uk/departments/hu/drivingergonomics/downloads/initial%20driving%20position%20and%20posture%20guide.pdf>

- Cushion tilted so that front edge in lowest position
- Back rest approximately 30 degrees reclined from vertical
- Lumbar support adjustment backed off
- Seat fully forward

1. Raise the seat as high as is comfortable to improve your vision of the road.

- Check you have adequate clearance from the roof.
- Ensure you have maximum vision of the road.

2. Move the seat forward until you can easily fully depress the clutch pedal and accelerator pedal (maintain a safe distance from the air bag).

- Adjust seat height as necessary to give good pedal control.

3. Adjust cushion tilt angle so that the thighs are supported along cushion length.

- Avoid pressure behind the knees.

4. Adjust back rest so it provides continuous support along the length of the back and is in contact up to shoulder height.

- Avoid reclining the seat too far as this can cause excessive forward bending of the head and neck and you may feel yourself sliding forwards on the cushion.

5. Adjust the lumbar support to give even pressure along the back rest.

- Ensure lumbar support 'fits' your back, is comfortable with no pressure points or gaps.

6. Adjust steering wheel rearwards and downwards for ease of reach.

- Check for clearance for thighs / knees when using pedals.
- Ensure panel display is in full view and not obstructed.

7. Adjust the head restraint to ensure the risk of injury is reduced in the event of a car accident

Repeat stages 1-7 and fine tune as necessary. *Be aware* that many cars will not allow you as much flexibility of driving posture as you may like.

Particular cars may cause you to adopt a 'coping' posture. For example, limited headroom forces a reclined posture, making reach to the steering wheel a problem. This leads to excessive forward bending of the head and neck and a 'slouched' posture.

Trips, Slips and falls

In order to prevent slips, trips and falls, adequate lighting should be available. Cords and other tripping hazards should not be in the path of traffic. Non-slip flooring should be provided. The following are common engineering controls used to reduce the risk of slips, trips and falls in client care areas:

- Designing client care areas and equipment layout to minimize cords and to accommodate equipment without creating tripping hazards.
- Keeping hallways clear of obstructions.
- Using cord covers over electrical cords, as necessary.
- Ensure stairways in new facilities are designed safely (see National Building Code and local jurisdictional building codes).
- Utilize non-slippery surfaces on the whole steps or at least on the leading edges.
- Perform regular maintenance to keep stairs in good repair. Ensure nothing is sticking out of surfaces on the stairs, handrails or banisters (e.g. nails or splinters).
- Maintain lighting levels.
- Use angular lighting and colour contrast to improve depth perception.

Cuts

The most effective controls to reduce cuts are engineering controls. Common engineering controls include

- Sharps detectors
- Substitution of a sharp instrument with a less sharp alternative (e.g. engineered sharps injury prevention devices)
- Safety cutters as bag and box openers
- Proper storage and disposal of sharps

Electrical Hazards

Insulation protects workers from contact with electricity. All equipment, wiring and cords must be maintained and used in a manner that keeps electrical insulation intact.

Electric appliances and equipment are protected from overloading by means of electric overloading devices such as fuses or circuit breakers. Although these devices will stop the flow of current when too much current flows through them, they are intended to protect equipment but not workers. All overloading devices must be of sufficient ratings. Replacing fuses or circuit breakers with overloading devices that trip at a higher current than specified is a dangerous practice as is replacing overloading devices with a conductor. Ground fault circuit interrupters (GFCIs) are safety devices that will interrupt the flow of current by monitoring the flow of

current to and from the device. GFCIs are important engineering controls that should be used in wet environments and to power tools and equipment outdoors.

Administrative Controls

Ergonomic hazards

Controls that focus on how work is performed and organized are administrative controls. Administrative controls include policies, procedures, work practices, rules, training, and work scheduling, including:

- Establish ergonomic purchasing standards for tools and equipment, including client lifting devices and vehicles.
- Conduct user trials to test new equipment and tools with input from workers.
- Maintain equipment, vehicles and tools to optimize their operation.
- Provide training programs to educate workers regarding biomechanical risk factors, signs and symptoms and safe work practices (including proper lifting methods and proper use of lifting devices),
- Provide self assessment tools to identify and control biomechanical hazards,
- Optimize work shift scheduling to minimize extended work hours and overtime.
- Design break schedules to reduce biomechanical hazards.
- Encourage monitoring and early reporting of the signs and symptoms of MSIs

Trips, Slips and Falls

Administrative controls to prevent slips, trips and falls include:

- Education of workers and enforcement of the use of proper footwear
- Timely clean-up of any spills
- Eliminate the use of extension cords that may pose tripping hazards
- Keep walkways free of clutter

Cuts

Administrative controls widely used to reduce the potential for cuts include

- Worker education
- Safe work procedures
- Restricted access to work areas
- Signs and warnings in hazardous areas, and

- Safe disposal of all sharps, including broken glass.

Electrical Hazards

A major component of an electrical safety program is worker training. Extension cords are used in many applications for temporarily supplying power. Considerations to follow when using extension cords include:

- Protect cords from damage; do not allow vehicles to drive over cords.
- Never keep an extension cord plugged in when it is not in use.
- Do not use a damaged extension cord.
- Extension cords and most appliances have polarized plugs (one blade wider than the other). These plugs are designed to prevent electric shock by properly aligning circuit conductors. Never file or cut the plug blades or grounding pin of an extension cord.
- Do not plug one extension cord into another. Use a single cord of sufficient length.

Hazard assessments should guide the development of work procedures to assess and control electrical hazards.

Personal Protective Equipment Controls

Ergonomic hazards

The most important personal protective equipment to control ergonomic hazards is appropriate footwear with gripping soles and good support.

Trips, Slips and falls

The use of appropriate footwear by Mental Health personnel is essential to prevent trips, slips and falls. Workers should be required to wear flat shoes with non-slip soles that offer good support. (To prevent chemical exposure in the event of a spill, footwear should cover the entire foot and be of non-porous material.)

Cuts

Eye protection is important if there is any possibility that fragments of glass or other sharps may enter the eyes, and footwear must protect the wearer from accidental exposure to sharps. Gloves are usually required as PPE to protect workers from cuts.

Psychological Hazards and Controls

Each Mental Health facility should systematically conduct hazard assessments for tasks performed by Mental Health personnel and identify if and where the potential exists for psychological hazards. In this section, examples are provided of psychological hazards that may be encountered by Mental Health personnel, and possible control measures will be suggested. This information will be useful for inclusion into hazard assessments. Please note, this is not designed to be an exhaustive treatment of the subject, but is rather an overview summarizing the some of the reported psychological hazards in healthcare settings.

Note:

The following chart provides basic information about control strategies for commonly occurring psychological hazards. The selection of controls should be based on a risk assessment of the tasks and environment. Worker tolerance to stressors varies considerably. Most controls listed here relate to organizational controls, with some mention of personal controls that may be useful in controlling risk. Worker education and good communication processes are critical administrative controls. All legislation related to the assessment of hazards, selection and use of controls should be followed.

| Potential Psychological Hazards or Effects of Workplace Stressors | Summary of Major Control Strategies | | |
|---|--|--|---|
| | Engineering | Administrative | Personal |
| Abuse by clients or members of the public | Alarm systems and panic buttons. Video surveillance. | Management policies and procedures related to no tolerance of violence or abuse. Worker education in violence awareness, avoidance and de-escalation procedures. Liaison and response protocols with local police. Working alone policies. Reporting procedures for incidents and near misses. | Ability to request support. Use of counselling services. |
| Abuse by co-workers | Alarm systems and panic buttons. Video surveillance. | Management policies and procedures related to no tolerance of violence or abuse. Worker education in violence awareness, avoidance and de-escalation procedures. Working alone | Assertiveness training. Use of mediation and/or counselling services. |

| | | | |
|--|---|---|--|
| | | <p>policies. Reporting and investigation procedures for incidents and near misses.</p> | |
| Hazards related to working alone <ul style="list-style-type: none"> • Threat of violence • Medical emergencies when alone | <p>Communication devices. Vehicle design considerations. Panic alarms. Bright lighting. Surveillance cameras.</p> | <p>Scheduling to avoid having workers work alone. Worker training. Working alone policies.</p> | |
| Stress related to critical incidents | | <p>Training to increase awareness of signs and symptoms of critical incident stress. Critical incident stress team to respond to incidents. Communication and call procedures to mobilize team. Defusings and debriefings as appropriate.</p> | <p>Development of support systems to assist in dealing with stress. Use of counselling services.</p> |
| “Technostress” related to the introduction of new technology | <p>Design of instruments or equipment with user-friendly features.</p> | <p>Selection procedures to ensure user-friendly technology choices. Provision of sufficient training for workers. Worker participation in selection and implementation of new technology. Provision of problem solving resources and support workers. Back-up plans in the event of failures. Change management strategy for introduction of new technology. Realistic expectations regarding use of communication technology. Limit use of technological monitoring of worker productivity. Setting and communication of priorities.</p> | <p>Self-education concerning new technologies. Time management strategies. Open communication about stress related to change. Healthy lifestyles. Setting realistic goals. Limiting the need to multi-task. Technology “time outs”. E - vacations.</p> |
| Substance abuse as a response to excessive workplace stressors | | <p>Worker involvement in substance abuse policy and procedures development. Worker education about substance abuse. Training workers and supervisors to recognize the signs of substance abuse. Procedures to limit individual access to narcotics. . Provision of counselling services and return to work plans.</p> | <p>Increase awareness of substance abuse signs and symptoms. Communication with counsellors. Report to family physician. Participate in treatment programs and return to work programs.</p> |
| Depression, anxiety, sleep | | <p>Worker education about the signs and</p> | <p>Programs to maintain or build</p> |

| | | | |
|---|---|---|---|
| disorders, other mental illness as a response to excessive workplace stressors | | <p>symptoms of depression, anxiety, sleep disorders, other mental illness. Elimination of workplace risk factors for depression, anxiety, sleep disorders, other mental illness. Provision of support services and programs. Benefit plans provision. Effective return to work programs.</p> | <p>resilience or coping skills. Development of support system. Communication with family physician.</p> |
| Hazards related to impacts of aging on workers | <p>Mechanical devices and power equipment for lifting / moving. Storing objects at appropriate heights, packing in smaller quantities or containers. Supportive, adjustable seating and workstations. Cell phones and pagers that incorporate vibration. Proper lighting.</p> | <p>Management policies and procedures that ensure no age discrimination. Proactive policies to accommodate aging workers. Training opportunities for aging workers. Education for all workers on intergenerational communication. Aging workers as trainers/mentors. Flexible work arrangement. Job redesign to accommodate aging workers.</p> | <p>Healthy lifestyle. Use of client and material handling equipment. Adequate sleep. Awareness of potential side effects of medication.</p> |
| Hazards related to shiftwork, excessive workload and hours of work | <p>Appropriate lighting levels. Lighting levels that are adjustable by workers. Appropriate thermal environment.</p> | <p>Management policies and procedures to address working hours and shift design. Worker involved in design of shift schedule. Limit hours of work and overtime. Shifts designed so workers get enough rest between shifts. Split shifts are avoided, if possible. Train workers and management in fatigue and shift work issues. Work shift schedules designed to minimize fatigue (e.g. maximum number of consecutive night shifts, forward rotation, etc.). Quality breaks are in place. Policies to encourage the reporting of concerns associated with fatigue. Thorough investigation of incidents and near misses with fatigue as a possible cause.</p> | <p>Appropriate sleep schedule and sleep environment. Strategies in place to promote sleep. Diet adjusted to accommodate shift schedule. Healthy lifestyle. Physical exercise. Safe plan for commute to work. Plan for family and friends. Use of stimulants and sedatives are minimized.</p> <p>Alertness strategies are utilized (e.g. bright lighting levels, regular short breaks, communication with co-workers, etc.).</p> |
| Stress related to work-life conflict | | <p>Management policies and procedures that support work-life balance (e.g. voluntary reduced hours, voluntary part-time work, phased in retirement,</p> | <p>Time log used to track time. Work-life balance programs are utilized. Work activities are isolated from home time.</p> |

| | | | |
|---|---|---|---|
| | | telecommuting, job sharing, paid and unpaid leaves, dependent care initiatives, etc.). Work designed to address workload and work demands issues. Reliance on paid and unpaid overtime is reduced. Supportive management culture. Work-life balance policies are communicated to workers. The use and impact of work-life balance policies is measured. | Time is effectively managed. Days off are protected. Appropriate sleep habits. Social support system is in place. |
| Exposure to nuisance or irritating noise levels that may induce stress | Noise reduction equipment. Well maintained vehicles. Sound absorber panels. | Purchasing decisions that take into account noise levels of equipment. Location of noisy equipment to more isolated areas. | |
| Exposure to poor indoor air quality that may induce stress | Proper ventilation system design. Good vehicle maintenance. Isolation/segregation of work processes that may create contaminants. | Selection of low-pollutant cleaning chemicals. Cleaning schedules. Infection prevention and controls standards. Communication to enable frank and timely discussion of IAQ issues and what is being done to resolve them. | |

Notes about controls for psychological hazards

Potential psychological hazards and controls vary greatly in jobs, locations and organizations and are only briefly discussed here. Personal factors impact how stressors are viewed and addressed. A comprehensive discussion of causes and impacts of psychological stressors on workers and on the organization can be found in Best Practices for the Assessments and Control of Psychological Hazards – Vol. 5. Included in the discussion are the topics of environmental factors such as noise and indoor air quality and their impacts on personal health, as well as outcomes of workplace stress that may impact personal health such as substance abuse, depression, anxiety, sleep disorders and other mental illness, and age-related factors.

Program elements for preventing or controlling violence and abuse towards workers in the workplace

Because the scope of abuse of workers is broad, with a wide range of potential internal and external perpetrators and a myriad of individual considerations, prevention of abuse of workers is multi-faceted. This list of prevention procedures and control techniques is not all-inclusive, but rather a sample of the complexities that should be considered in a program for Mental Health personnel:

- ☐ Development, communication and enforcement of policies that indicate no tolerance for any form of violence, harassment, or abuse including bullying. Awareness sessions for all workers on abuse and violence in the workplace, reporting procedures and controls.
- ☐ Staff identification to reduce unauthorized access to areas – this includes a requirement of all workers to wear identification badges. It is suggested that information that is not necessary not be shown on the front to the badge to reduce risk to workers.
- ☐ Client guidelines and signage to emphasize that abuse will not be tolerated – this may include the preparation and dissemination of client information guidelines, in which client behaviour is discussed, the commitment to no tolerance for abuse against workers and the encouragement of mutual respect are covered.
- ☐ Working alone guidelines and communications protocols. Working alone guidelines are required by Alberta occupational health and safety legislation (OHS Code, Part 28), and must include a written hazard assessment as well as communication protocols for workers who must work alone.
- ☐ Alarm systems and emergency communication devices (panic buttons, etc.). Identification of workers or locations that should be provided with alarm systems and panic buttons should occur. Once any alarm systems are installed or provided, all workers should be trained on how to use them and how to respond to alarms.
- ☐ Identification and correction of high risk facility issues (e.g., isolated areas, parking lots, low lighting, no escape routes, etc.). There are many risk factors posed by the design of the facility. The Mental Health division should identify risk factors and work to reduce the risk in the areas. A checklist would be useful for departments to help identify facility issues contributing to worker risk.
- ☐ Training programs that include non-violent crisis intervention and assault management techniques.

Working alone

Working alone is addressed in the Alberta OHS Code 2009.

Controls required

Employers must, for any worker working alone, provide an effective communication system consisting of

- radio communication,
- and land line or cellular telephone communication, or

- some other effective means of electronic communication that includes regular contact by the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.

If effective electronic communication is not practicable at the work site, the employer must ensure that

- the employer or designate visits the worker, or
- the worker contacts the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.

Alberta OHS Code 2009, Part 28

Work-Life balance, including reduction of excessive workloads

An employer should strive to develop policies and programs that support work-life balance. The following is a list of general work-life balance policies and programs to consider:

- Flexible time arrangements including alternative work schedules, compressed work week, voluntary reduced hours / part-time work and phased in retirement
- Flexible work locations through the use of technology such as telecommuting and satellite offices
- Flexible job design through job redesign, job sharing
- Wellness programs
- Flexible benefits including paid and unpaid leaves for maternity, parental care giving, educational and sabbatical leaves
- Employer sponsored childcare and eldercare practice and referral services

A work-life conflict issue recognized in healthcare is often brought on by workload and work demands. Some strategies to reduce the impact of increased workloads and work demands include the following:

- Identify methods to reduce worker workloads. According to research, special attention is required for managers and professionals.
- Track the costs associated with understaffing and overwork (paid and unpaid overtime, increased turnover, employee assistance program use, increased absenteeism).
- Strive to reduce the amount of time workers spend in job-related travel.
- Reduce reliance on paid and unpaid overtime.
- Consider a "time in lieu" system to compensate for overtime.
- Develop norms regarding the use of technology (e.g. cell phones, PDA, laptops, email) outside of work time.
- Allow workers to say "no" to overtime without repercussions.

- Provide a limited number of days of paid leave per year for caregiver responsibilities (childcare and eldercare) and personal problems.
- Measure the use of work-life practices (e.g. job sharing, compressed work week, etc.) and reward sections of the organization with high usage. Investigate sections where usage is low.
- Increase supportive management. Specifically, organizations should increase the extent to which managers are effective at planning the work to be done, make themselves available to answer worker questions, set clear expectations, listen to worker concerns and give recognition for a job well done.

Technostress (stress resulting from the introduction of new technologies)

The primary controls an organization employs to reduce the potential of technostress are administrative controls. While major engineering control opportunities exist in the design and development of technology to make it easier to use, an employer's choice of technology is an administrative control.

Administrative controls an organization can use to reduce the risk of technostress include:

- Selection of technology that is designed to be easy for the user
- Worker participation in selection, trial and implementation of technology and the provision of feedback as to its use
- Sufficient worker training to ensure that workers feel confident and competent to use the technology
- Provision of problem-solving resources and support to workers
- Back-up plans in the event of technology failure
- Influential, credible supporter for the introduction of the new technology (executive support)
- Use of a change management strategy for organization-wide technology change
- Setting of realistic expectations for the use of communication technology
- Reduced use of technological monitoring of worker productivity
- Setting and communicating priorities to relieve stress in multi-tasking
- Updates of hazard assessments each time new technology is introduced

Personal controls for reducing the risk of technostress include:

- Self-education concerning new technologies
- Open communication about stress related to change
- Time management
- Setting priorities

- Healthy lifestyle including good nutrition, exercise and getting enough sleep
- Setting realistic goals
- Limit the need to multi-task
- Technology “time-outs” (avoiding being “plugged in” continually)
- Relaxation, meditation and taking vacations (especially e-vacations)

Shiftwork

The following guidelines will assist in reducing the psychological impacts of shift work.

Good Practice Guideline for Shift Work Schedule Design³

- Plan a workload that is appropriate to the length and timing of the shift.
- Strive to schedule a variety of tasks to be completed during the shift to allow workers some choice about the order they need to be done in.
- Avoid scheduling demanding, dangerous, safety-critical or monotonous tasks during the night shift, particularly during the early morning hours when alertness is at its lowest.
- Engage workers in the design and planning of shift schedules.
- Avoid scheduling workers on permanent night shifts.
- When possible, offer workers a choice between permanent and rotating shifts.
- Use a forward-rotating schedule for rotating shifts, when possible.
- Avoid early morning shift starts before 7 AM, if possible.
- Arrange shift start/end times to correspond to public transportation or consider providing transport for workers on particular shifts.
- Limit shifts to a maximum of 12 hours (including overtime) and consider the needs of vulnerable workers.
- Limit night shift to 8 hours for work that is demanding, dangerous, safety critical or monotonous.
- Avoid split shifts unless absolutely necessary.
- Encourage and promote the benefit of regular breaks away from the workstation.
- Where possible, allow workers some discretion over the timing of breaks but discourage workers from saving up break time for the

³ Adapted from Government of the U.K; Health and Safety Executive; Managing shift work HSG256; 2006;
www.hse.gov.uk/pubns/priced/hsg256.pdf

end of the workday.

- In general, limit consecutive working days to a maximum of 5-7 days.
- For long work shifts (>8 hours), for night shifts and for shifts with early morning starts, consider limiting consecutive shifts to 2-3 days.
- Design shift schedules to ensure adequate rest time between successive shifts.
- When switching from day to night shifts (or vice versa), allow workers a minimum of 2 nights' full sleep.
- Build regular free weekends into the shift schedule.

For a more detailed discussion of controls to prevent or reduce psychological hazards, please consult Best Practices for the Assessments and Control of Psychological Hazards – Vol. 5.

APPENDIX 1 - Additional Resources

The following are useful references and links to relevant resource materials. For complete reference lists, please consult the Best Practice documents developed by Alberta Employment and Immigration available at

<http://www.employment.alberta.ca/SFW/6311.html>

Alberta Government legislation related to chemicals in the workplace may be accessed through the Government website at

<http://employment.alberta.ca/SFW/307.html>

Alberta OHS Code 2009, Part 18 – Personal Protective Equipment

Alberta Workplace Health and Safety *Preventing Violence and Harassment at the Workplace*, Bulletin VAH001, 2006, retrieved from

<http://www.employment.alberta.ca/documents/WHS/WHS-PUB-VAH001.pdf>

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BC Centre for Disease Control – A Guide for the Selection and Use of Disinfectants <http://www.mtpinnacle.com/pdfs/disinfectant-selection-guidelines.pdf>

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Canadian Centre for Occupational Health and Safety (CCOHS), *OHS Answers: Fatigue* July 2007; Retrieved from www.ccohs.ca/oshanswers/psychosocial/fatigue.html

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www.ccohs.ca/oshanswers/psychosocial/substance.html

Canadian Employment Safety and Health Guide *Psychological Harassment in the Workplace: How to Draft a Comprehensive Policy*
Number 308, May 2006,

Government of the U.K, Health and Safety Executive; *HSE Information Sheet; Slips and trips in the health services*; 09/03;
<http://www.hse.gov.uk/pubns/hsis2.pdf>

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Health Canada, *Best Advice on Stress Management in the Workplace, Part 2*, 2000 retrieved from
www.mentalhealthpromotion.net/?i=promenpol.en.toolkit.162

Loughborough University; *Vehicle Ergonomics: Best Practice Guide*, 2007 The Chartered Society of Physiotherapy;
<http://www.lboro.ac.uk/departments/hu/drivingergonomics/downloads/vehicle%20ergonomics%20and%20best%20practice%20guide.pdf>

McPhaul, K. And Lipscomb, J., "Workplace violence in health care: Recognized but not regulated", *Online Journal of Issues in Nursing* Vol. 9, No. 3, Retrieved from
www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume92004/No3Sept04/ViolenceinHealthCare.aspx

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<http://www.cdc.gov/niosh/docs/2000-108/>

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<http://www.ohcow.on.ca/resources/workbooks/ergonomics.pdf>

OSHA, e-tools: *Computer workstation checklist*, 04/04/2008 <http://www.osha.gov/SLTC/etools/computerworkstations/checklist.html>

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<http://www.lboro.ac.uk/departments/hu/drivingergonomics/downloads/takethepainoutofdriving.pdf>;

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http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/violhealthcare.pdf

WorkSafeBC; *Home and Community Health Worker Handbook*; 2006;
http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/community_health_workers.pdf

WorkSafeBC; *Understanding the Risks of Musculoskeletal Injury (MSI)*; 2008;
http://www.worksafebc.com/publications/Health_and_Safety/by_topic/assets/pdf/msi_workers.pdf

APPENDIX 2 - Learning Objectives for this Module

1. Understand the need for and the procedure for conducting hazard assessments and risk evaluations.
2. Identify significant biological hazards that may impact Mental Health personnel.
3. Identify significant chemical hazards that may impact Mental Health personnel.
4. Identify significant physical hazards that may impact Mental Health personnel.
5. Identify potential psychological hazards that may impact Mental Health personnel.
6. Identify the hierarchy of controls that should be implemented to control hazards in the workplace.
7. Identify engineering controls and describe how they work.
8. Provide examples of administrative controls.
9. Describe the important considerations when selecting personal protective equipment.
10. For each type of hazard, identify possible engineering, administrative and personal protective equipment controls.

APPENDIX 3 - Test Your Knowledge

1. In what way can Mental Health personnel be exposed to biological hazards?
2. What is meant by the “hierarchy of controls”?
3. Give three examples of engineering controls.
4. Give three examples of administrative controls.
5. Name two chemical hazards to which Mental Health workers may be exposed.
6. What are the major physical hazards that Mental Health personnel may be exposed to?
7. What controls may be in place to reduce hazards associated with driving?
8. Does working alone legislation apply to Mental Health workers?
9. How can the risk of violence be reduced?
10. Identify three strategies to deal with workplace stress.

Test Your Knowledge - Answers

1. Mental Health personnel may be exposed to biological hazards through contact with clients, members of the public or through contaminated products or contaminated ventilation systems.
2. The hierarchy of controls refers to a preferred order of controls for implementation. The highest level is engineering controls, because these control the exposure at the source. The next level is administrative controls, which relies on worker compliance. The least effective and lowest level of control is personal protective equipment, because if the equipment fails the worker is likely to be exposed.
3. Preventive maintenance of equipment, safety engineered medical devices, segregated areas, installation of panic buttons, room design to avoid entrapment, automated procedures, windows in interview rooms, ergonomically designed work stations, machine guarding, etc.
4. Training, policies, safe work procedures, restricted access, appropriate staffing, signage, purchasing standards, working alone policies, education, non-violent crisis intervention, etc.
5. Cleaning disinfectants, drugs that clients may be on, tobacco smoke, scented products
6. Ergonomic, slips, trips, falls, musculoskeletal injuries related to poor ergonomics of work stations or driving, motor vehicle collisions
7. Make these adjustments to improve ergonomics.
 - a. Raise the seat as high as is comfortable to improve your vision of the road.
 - b. Check you have adequate clearance from the roof.
 - c. Ensure you have maximum vision of the road.
 - d. Move the seat forward until you can easily fully depress the clutch pedal and accelerator pedal (maintain a safe distance from the air bag).
 - e. Adjust seat height as necessary to give good pedal control.
 - f. Adjust cushion tilt angle so that the thighs are supported along cushion length.
 - g. Avoid pressure behind the knees.
 - h. Adjust back rest so it provides continuous support along the length of the back and is in contact up to shoulder height.
 - i. Avoid reclining the seat too far as this can cause excessive forward bending of the head and neck and you may feel yourself sliding forwards on the cushion.
 - j. Adjust the lumbar support to give even pressure along the back rest.
 - k. Ensure lumbar support 'fits' your back, is comfortable with no pressure points or gaps.
 - l. Adjust steering wheel rearwards and downwards for ease of reach.
 - m. Check for clearance for thighs / knees when using pedals.
 - n. Ensure panel display is in full view and not obstructed.

- o. Adjust the head restraint to ensure the risk of injury is reduced in the event of a car accident
- 8. Yes, working alone legislation applies to all workers. Employers must, for any worker working alone, provide an effective communication system consisting of
 - a. radio communication,
 - b. and land line or cellular telephone communication, or
 - c. some other effective means of electronic communication that includes regular contact by the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.
- 9. Having a violence prevention and management program that includes engineering and administrative controls; establishing and communicating a policy that indicates no tolerance of abusive behaviour; conducting hazard assessments for all Mental Health worker tasks to identify and control the potential for violence.
- 10. Strategies to deal with workplace stress include organizational efforts to improve work-life balance, awareness and control of specific hazards, avenues of communication for staff, staff participation and involvement in health and safety programs and work organization, providing critical incident stress responses, etc.

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