



Western Canada Fire & First Aid, Inc.

CHAPTER 1

PRINCIPLES AND MANAGEMENT OF WORKPLACE FIRST AID

Objectives

- i. Discuss first aid and the importance of proper first aid training;
- ii. Identify the scope of practice and the standards that are set to ensure competence in the delivery of first aid;
- iii. Emphasize the importance of personal safety in responding to emergency situations and hazard assessment;
- iv. Demonstrate proper use of personal protective equipment;
- v. Discuss safe work practices such as decontamination process, incident reporting and risk assessment; and
- vi. Explain the barriers and guidelines to effective communication.

First Aid Training in the Workplace

First aiders are the first to render medical aid to people in emergency situations. Proper training in first aid will teach how to recognize an emergency; when to call emergency medical services; and how to give first aid until advanced care arrives. First aid training is; designed to build confidence in people who may have to aid at the scene of an emergency, ease pain and discomfort of the injured or ill, and even save lives. What we do, and how we do it, can make the difference between life and death. Information OH&S requirements for first aid may be found in OH&S code Part 11. Information on OH&S requirements for first aid kits may be found in OH&S code Schedule 2.



A workplace first aider is a worker with a first aid certificate that is current and recognized as defined by Alberta Occupational Health & Safety (L.1.1.1).¹

In Alberta, workplace first aiders need to be aware of the legal requirements that might impact the services they provide. Employers and prime contractors are required to provide first aid services, supplies and equipment. The number of first aiders, their qualifications and training must comply with mandated first aid standards. Employers must ensure workplace first aiders successfully complete training from an approved first aid training agency. Moreover, record keeping requirements require that all injuries and illnesses that occur at the work site must be recorded and managed in accordance with the OHS Code. Lastly, employers must provide necessary information about a product or services in order to treat an injured worker.²

The role of a workplace first aider is to provide immediate and lifesaving care before the arrival of advanced medical help. This includes performing cardiopulmonary resuscitation (CPR), using an automated external defibrillator (AED), controlling bleeding, and so on (**L.1.1.2**).



First Aiders should to be competent when providing care. Competent as being adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision”.³

There are standards set that detail roles of the Alberta first aider. Each of these competencies identifies a specific role that is required by the first aider (**L.1.1.3**).⁴

¹ Canadian Standards Group (CSA) First aid training for the workplace—Curriculum and quality management for training agencies.

² Workplace first aiders and legal requirements: OHS information (2019) Government of Alberta FA011.

³ Alberta Occupational Health & Safety (OH&S) Bulletin FA014.

⁴ Canadian Standards Group (Curriculum and Quality Management for Training Agencies (Z1210-17); Alberta Occupational Health & Safety (as adopted); and Alberta Plus Quality Management Plan (as incorporated).

First Aid Legislation and Scope of Practice

The Emergency Medical Aid Act⁵ protects first aiders from litigation while performing first aid if they are not on duty. First aiders are protected by this legislation, *if they act within reason*, or if they choose not to act at all. As long as first aid is done in good faith, and within a first aider's level of training protection they are safe **(L.1.1.3)**.

All Provinces and Territories have legislation designed to protect first aiders from civil legal action. Although there are slight variations from one jurisdiction to another the general spirit of the law is the same. Quebec is the exception to this rule, where all people are required to render aid at the scene of an emergency.



Workers whose job description includes first aid may not be covered under this legislation and should speak with their employer regarding their legal status and protections in the provision of first aid services.⁶

Any action taken by a first aider while providing first aid that is not outlined in CSA Z1210-17 or the Alberta+ Quality Management Plan may be deemed as out of scope and its reasonability may be called into question **(L.1.1.5)**.

Before treating an adult or their dependent in Alberta, consent must be obtained. There are three types of consent that the first aider must be aware of. They are express consent, implied consent and minor consent. **Express consent** is a person giving verbal, non-verbal or written permission for first aid to be performed. **Implied consent** is automatically assumed if the person requiring aid is not capable of communicating with the first aider. Implied consent most often is obtained when the ill or injured person is unconscious.

A minor in Alberta is defined as a person under 18 years of age. Legally, minors are not able to provide consent. Parents or legal guardians are responsible for providing consent for the care of minors, this is known as **Minor consent**. If a legal guardian is not present, care can be given under implied consent.



Adults who are of sound mind and judgment in Alberta have the right to refuse medical care for both themselves and their dependents. If a patient refuses care, this must be respected by the first aider. If the patient appears to be not of sound mind, the first aider should call 911. In these cases, the patient may receive care against their will from emergency services (L.1.1.4).

⁵ This legislation may be found online at <http://www.qp.alberta.ca/documents/Acts/E07.pdf>.

⁶ Occupational Health and Safety (OHS) Code.

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First aiders may **assist** patients with medication; however, they may not **administer** medication. Helping a patient take their own medication is considered assisting. A physician prescribing a patient medication or making the decision to give medication in an emergency is considered administration **(L.1.2.1)**.

If a patient has medication prescribed to them by a physician or over-the-counter medication that they would like to take, the first aider may assist the patient with their medication.



As first aiders may not, and are not required to have, an advanced understanding of pharmaceuticals, they may not be aware of possible complications that can occur if a patient takes or denies a medication. Therefore, first aiders must defer to the patient's choice in this matter.

Paramedics and nurses may only administer medication under the direction of a physician. These medications are carried and or supplied to the patient by the health care professionals caring for the patient. First aiders should not carry medication for the purposes of administering them to patients nor should medications be stored in first aid kits⁷ **(L.1.2.2)**.

The CSA Standard, First Aid Kits⁸ for the workplace, provides general requirements for workplace first aid kits, specifies a classification system for the kits, and sets minimum requirements for their contents based on their classification. Likewise, it provides requirements for the selection of first aid kits based on various workplace environments for their containers, the marking of containers and ongoing kit maintenance. Three classifications of workplace first aid kits include: Type 1: Personal, Type 2: Basic and Type 3: Intermediate. The intermediate kit is intended to be utilized within workplaces with higher risk environments **(L.1.3.1)**.

Alberta's Occupational Health and Safety Code Part 11⁹ guides employers who must provide first aid training to workers, requirements for provision of first aid services, supplies and equipment, considering three essential factors: hazards in the workplace, remoteness of the work site and number of employees on each shift **(L.1.3.1; 10.2)**.

⁷ Medications in First Aid Kits: OHS Information for Employers (See Appendices).

⁸ CSA Z1220-17 First Aid Kits for the Workplace (See Appendices).

⁹ Alberta OHS Code, Part 11 (See Appendices).

Personal Safety and Hazard Control

A first aider should not initiate first aid treatment until all hazards on the scene have been mitigated. If hazards cannot be mitigated and if enough competent people are present, the patient can be moved to safety for first aid to be rendered. The first aider should help if they can, but never at risk to themselves. Only move a casualty if leaving them would cause more harm **(L.1.5.1)**.



Personal safety is the primary responsibility of the first aider.

Only provide first aid when it is safe to do so. Use infection control procedures and safely dispose of any waste generated during first aid. If the scene becomes unsafe retreat to a safe place.



“First, do no harm”¹⁰ reminds first aiders to understand their limits and never bring harm to patients. Given an existing problem, it may be better not to do something, or even do nothing, than to risk causing more harm than good.

Alberta Occupational Health and Safety defines a hazard as “a situation, condition or thing that may be dangerous to the safety or health of workers” **(L.1.6.1)**.¹¹

There are three main categories of hazards in the workplace; physical (radiation, extremes in temperature, noise), psychological (workload, lack of respect or lack of rest in the workplace) and environmental (exposure to disease and hazards like spills and poor working conditions).

Before any task in the workplace starts, a hazard assessment must be completed. A supervisor should lead the hazard assessment and any affected workers must be involved.¹¹ The emergent nature of first aid may present challenges in performing a proper hazard assessment, therefore, hazard assessments for common tasks in first aid should be completed as part of a company’s health and safety management plan **(L.1.5.1)**.

¹⁰ First Do No Harm (n.d.) *Mc Graw-Hill Concise Dictionary of Modern Medicine*.

¹¹ Hazard Assessment and Control: a handbook for Alberta employers and workers.

Body Substance Isolation

Performing first aid requires close physical contact between the first aider and the patient. If little is known about the patient, the first aider should assume they may be exposed to infectious disease carried by the patient. The use of personal protective equipment, such as disposable gloves and safety glasses, can greatly reduce the risk of transferring infectious disease. This personal protective equipment is often referred to in the medical profession as body substance isolation.

There are six specific ways a disease may be transferred from an infected person to an uninfected person. Knowledge of the routes of disease transmission is one of the best lines of defense first aiders have to protecting themselves. Listed below are the different ways in which disease transmission can occur (**L.1.5.2**):

- i. Droplet contact: bodily fluids contacting eyes, nose, mouth, etc. (drops from a cough or a sneeze);
- ii. Direct physical contact: physical contact with an infected person, (a handshake, sexual contact, etc.);
- iii. Indirect physical contact: physical contact with an object that an infected person has been in contact with (touching a doorknob);
- iv. Air-borne transmission: transmitted through air;(tuberculosis)
- v. Fecal-oral transmission: ingesting contaminated food or water source; and
- vi. Vector-borne transmission: contact with a living organism that carries and transmits the disease (mosquitoes transmitting West Nile Virus).

"It is well documented that one of the most important measures for preventing the spread of pathogens is effective hand washing." Washing your hands correctly is the most effective way to protect yourself against several infectious diseases.¹²



¹²Canadian Center for Chronic Disease Control and Prevention (CCDPC).

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In addition to proper hand washing techniques, breathing barriers (pocket masks) and gloves should be available in places where resuscitation and first aid treatment is likely. It is recommended that nitrile gloves and barrier devices with a one-way valve be provided in all first aid kits used by rescuers who have a responsibility to respond. Finally, first aid equipment must be available to workers **(L.1.5.3)**.¹³

Educate and ensure workers know how to select and properly use personal protective equipment to prevent exposure to infectious agents or chemicals. Types of personal protective equipment, include:

Pocket masks are used to protect first aiders from the transmission of air borne and fluid borne disease during resuscitation. There are many different types of barrier devices, but barrier devices with both a filter barrier and a one-way valve is recommended.



Protective gloves are important to prevent your hands from contacting a patient's bodily fluids. Using nitrile gloves is recommended, ensure contaminated gloves are disposed of in an acceptable manner.



Gloves should be removed in a manner that does not involve the first aider's bare skin touching the outside of either glove at any time (L.1.5.4).

Eye protection is an essential part of body substance isolation. Many diseases that are transmitted through direct exposure from a sneeze or cough are easily transmitted through contact with the eyes, including exposure to blood that occur from trauma or disease, the chance of transmission through droplet contact greatly increases.




¹³Occupational Health & Safety's First Aid Regulations (OH&S)

Safe Work Practice – Decontamination

Decontamination after a first aid incident reduces the risk of accidental exposure to biohazards and other contaminants. Decontamination also prevents these hazards from being transported off site. Cleaning and disinfecting supplies are critical for a safe workplace. A decontamination plan should be in place prior to allowing personnel to enter a scene that may be hazardous.

The following supplies should be available in the workplace: detergent for general *cleaning*, alcohol wipes for *disinfecting* smooth surfaces, bleach (5% sodium hypochlorite) in a 1:50 dilution for general *disinfection*, and clean water (**L.1.5.5**). The critical elements and methods of decontamination are incorporated in the workplace to ensure a safe work environment (**L.1.5.6**). Methods in the safe handling and disinfection of contaminated first aid equipment is described below.

- i. Remove dirt and waste residue by using cleaning agents (e.g. detergent);
- ii. Methodically clean used supplies and equipment with water and detergent (where appropriate) as soon as practical after use;
- iii. Rinse adequately to remove cleaning residue;
- iv. Inspect equipment and discard or repair anything that fails to perform properly;
- v. Replace used supplies and equipment;
- vi. Clean and disinfect surfaces on a regular basis, when spills occur and when these surfaces are visibly soiled; and
- vii. Decontaminate or dispose of used cleaning equipment.

 Follow the manufacturers recommendations when using cleaners and disinfectants (amount, dilution, contact time, safe use, disposal etc.). The recommendations for decontamination presented here, are intended to be modified to meet company or site-specific requirements. Without these modifications, the SDS may not be appropriate. Although, the information provided here is consistent with good industry practices, employers are urged to check current regulations and ensure they are still appropriate and conforms with company or site-specific standards.

Effective clean-up following a first aid incident can help control or eliminate workplace contamination and hazards. This includes: immediate clean-up of supplies and equipment (organic wastes that have dried up on surfaces are harder to eliminate); proper waste disposal (discarding of waste into containers and labelling them as hazardous, if applicable); removal of unused materials (putting back unused supplies and replenishing used supplies); clean and disinfect supplies and equipment; and examine whether the clean-up procedure was executed properly following a first aid incident **(L.5.5.6)**.

Sharps

It is possible while performing first aid in the workplace, that a first aider may be exposed to the hazards of sharps. Sharps are any device with sharp points or edges that may puncture skin. The most common type of sharps a first aider may be exposed to are needles and lancets. Extreme care should be taken when handling sharps and the following steps are a best practice for the disposal of sharps.¹⁴

- i. Put on nitrile, rubber, or leather gloves to protect your hands;
- ii. Use tongs, pliers, or tweezers to carefully pick up the needle by the plastic end. Don't pick it up by the sharp, metal tip and **always keep the tip pointed away from you**.
- iii. Put the needle into a sharps container with the tip pointing down. If you don't have a sharps container, put the needle in a container **with a lid** that won't break or puncture easily, such as a thick plastic bottle or tin can, and close the container tightly;
- iv. Clean and disinfect the tool you used to pick up the needle, if you want to keep it. If you don't want to keep the tool, put it in the sharps container or other container that won't break or puncture;
- v. Take your gloves off and dispose of them or clean and disinfect them;
- vi. Wash your hands with soap and water or use an alcohol-based hand sanitizer; and
- vii. Drop the container off at a needle disposal location. You can also call 311 for more information. **(L.1.5.7)**.

¹⁴ MyHealth.Alberta.ca, Retrieved from: <https://myhealth.alberta.ca/Alberta/Pages/Getting-Rid-of-Needles-Safely.aspx>

Safety Data Sheets

Accurately identifying hazards in the workplace that may compromise the safety and welfare of workers must be considered. By reviewing safety data sheets, work-site inspections, workplace incidents and organizational manuals, hazards can be identified.



Safety Data Sheets (SDS) are summary documents that provide information about the hazards and the safety precautions of a product.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) defines and classifies the hazards of chemical products and communicates health and safety information through labels and safety data sheets. SDSs are usually written by the manufacturer or supplier of the product. In some circumstances, an employer may be required to prepare an SDS (when the product is produced and used exclusively in that workplace). SDSs provide more detailed hazard information about the product than the label does. SDSs tell users what the hazards of the product are, how to use the product safely, how to recognize signs and symptoms of exposure, and what to do if emergencies occur **(L.1.6.3)**.¹⁵

Any pertinent SDS sheets should be passed on to medical professionals when transferring care to patients **(7.1)**.¹⁶

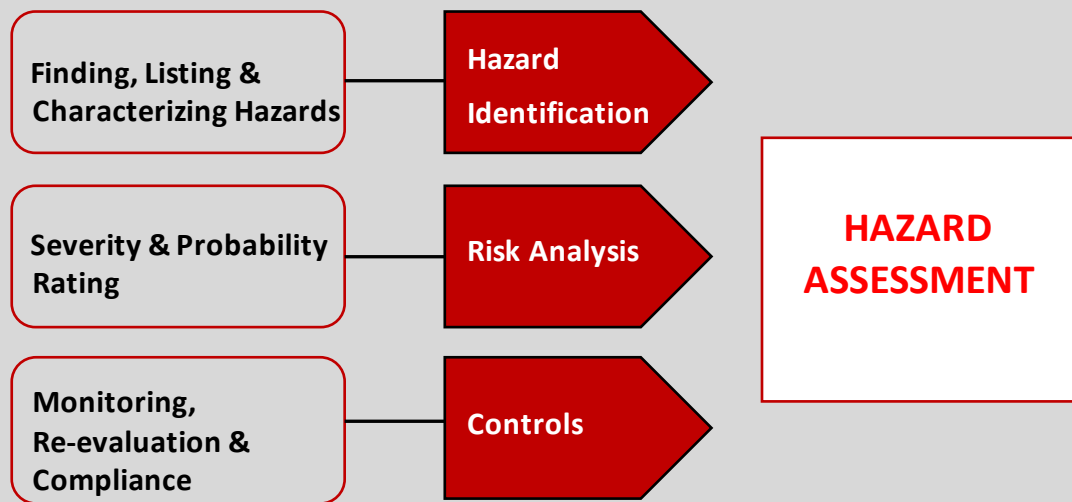
Hazard Assessment

Identification of hazards in the workplace will enable organizations to evaluate the level of risk that accompany these hazards. Hazard assessments include both the probability of an incident occurring and the severity that incident may have upon the worker and the environment. Hazards may be categorized as either low, medium or high.

An occupational health and safety management plan embodies the hazard assessment process in that it provides information about hazards and risks, who may be at risk, how to mitigate the hazards and how to assess whether the safety management plan is adequate and effective.

¹⁵ Canadian Center for Occupational Health and Safety, Retrieved from:
http://www.ccohs.ca/oshanswers/chemical/whmis_ghs/sds.html

¹⁶ OHS Code, Part 29, Section 413.



A hazard assessment is a thorough look at your workplace to identify those things, situations, processes, etc. that may cause harm, particularly to people. After identification is made, you analyze and evaluate how likely and severe the risk is. When this determination is made, you can next, decide what measures should be in place to effectively eliminate or control the harm from happening **(L.1.6.2)**.¹⁷

Workplace First Aiders

A first aider is equipped with the fundamental skills to render first aid through a recognized first aid training agency. Even though certification is valid for 3 years, an annual refresher training is essential for first aiders to stay current in first aid. A first aiders is expected to be able to provide care in accordance with current standards. However, should emergency circumstances demand treatment beyond a first-aider's capability, the first aider should encourage the injured or ill person seek medical assistance or should do so on behalf of the injured person if they are unable **(L.1.6.4)**.

If first aid is required and provided, the first aider must report and record what was done. The first aid report form should be filled out by the first aider. This generally includes the: date, name, time, symptoms, treatment and referral recommendations.

¹⁷ CSA Standard Z1002 "Occupational Health and Safety - Hazard identification and elimination and risk assessment and control"

The key principles of the legal requirements of first aiders in the workplace are:

- i. Education and training are vital components of safe, healthy working environments. Workers and employers must be made aware of the importance of establishing safe working procedures and of how to do so. Trainers must be trained in areas of special relevance to particular industries so that they can address the specific occupational safety and health concerns;
- ii. Workers, employers and competent authorities have certain responsibilities, duties, and obligations (workers must follow established safety procedures; employers must provide safe workplaces and ensure access to first aid); and the competent authorities must devise, communicate and periodically review and update occupational safety and health policies; and
- iii. Policies must be enforced. A system of inspection must be in place to secure compliance with occupational safety and health measures. Information is needed for the prevention as well as the treatment of occupational injuries and diseases. It is also needed for the creation of effective policies and to ensure that they are enforced **(L.1.6.5)**.¹⁸

Effective Communication

Effective communication is a vital skill in the proper handling of casualties during an emergency. This is best exemplified when first aiders are handing their patients over to a higher level of care. Being able to manage the information exchange in a reliable and timely manner, including information from a variety of sources results in a more effective transfer of patients to the next level of care.

In the event of a medical emergency, the first aider must notify emergency medical services or activate the local emergency response team. The patient's level of consciousness will be the most important factor when gathering information. If the patient's LOC decreases to the point where they can't communicate, EMS only has the information provided by the first aider. Specific information about the patient taken during the primary and secondary assessment (mechanism of injury, vital signs, etc.) and other important information must be passed on to EMS **(L.1.4.1)**.

The information may come to a first aider from a variety of sources (bystanders, emergency responders, etc.). The information gathered from these people, needs to be evaluated and prioritized. As important as the flow of information is to the first aider, the flow of information out to emergency medical responders is critical. Dissemination of timely and relevant information can minimize the potential for loss of life and injury. Emergency communications must be clear, contain specific and adequate information, and be consistent with other information being passed on **(L.1.4.2)**.

¹⁸ Alberta Occupational Health and Safety (OH&S) *Workplace First Aiders and Legal Requirements*



Emergency communication differs from routine communication due to barriers, timeliness and required response.

During emergency situations, there are various barriers that may impede the efficient and effective management of information exchange (cultural barriers, physical impairments, environmental obstructions, generational differences, technology, etc.) **(L.1.4.3)**.

Initial communication begins with notifying emergency responders and effectively ends when handing over patients to their care. However, if the first aid emergency requires reporting to necessary government agencies (WCB or OH&S), such as in the case filing for lost-time incidents, a detailed incident report is required. Documents must be kept for at least 3 years for legal purposes **(L.1.4.4)**.¹⁹

¹⁹ Occupational Health and Safety “*First Aid Regulations*”

Questions

1. (L.1.1.1) Proper training in first aid includes:
 - A. how to recognize an emergency
 - B. when to call emergency medical services
 - C. how to render first aid until advanced care arrives
 - D. all the above

2. (A+ 10.2) Information OH&S requirements for first aid may be found in OH&S code Part ____.
 - A. 2
 - B. 9
 - C. 11
 - D. 15

3. (A+ 10.2) Information OH&S requirements for first aid kits may be found in OH&S code Schedule ____.
 - A. 2
 - B. 9
 - C. 11
 - D. 15

4. (L.1.1.2) The role of a workplace first aider is to provide immediate, lifesaving, medical care before the arrival of advanced medical help in order to preserve life. This includes performing procedures such as:
 - A. cardiopulmonary resuscitation (CPR)
 - B. use of an automated external defibrillator (AED)
 - C. bleeding control
 - D. all the above

5. (L.1.1.3) Which of the following Acts legally protects first aiders when performing first aid.
 - A. Emergency Medical Aid Act
 - B. CSA Z1210-17
 - C. Alberta+ Quality Management Plan
 - D. Occupational Health & Safety Standards

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6. (L.1.1.5) Which of the following document/s outlines the “Scope of Practice” for first aiders in Alberta.
- A. CSA Z1210-17
 - B. Alberta+ Quality Management Plan
 - C. Both a and b
 - D. None of the above
7. (L.1.1.4) If a patient refuses care, this must be respected by the first aider. However, if this patient does not appear to be of sound mind, the first aider should:
- A. call 911
 - B. leave patient alone
 - C. obtain consent
 - D. none of the above
8. (L.1.2.1, & L.1.2.2) Helping a patient take their own medication is considered:
- A. assisting
 - B. administering
 - C. prescribing
 - D. none of the above
9. (L.1.4.1) During an emergency, the first aider on the scene may need to activate their local emergency response plan. Which of the following piece/s of information may be important for the first aider to pass on to first responders?
- A. patient’s location
 - B. patient’s identification
 - C. patient’s condition
 - D. all of the above
10. (L.1.4.2) Emergency communications should be:
- A. clear
 - B. concise
 - C. consistent
 - D. all the above
11. (L.1.4.3) Which of the following factors may affect communication in an emergency?
- A. environmental obstructions
 - B. cultural barriers
 - C. technological barriers
 - D. all the above

12. (L.1.4.4) How long should first aid reports be kept after the date of the incident?
- A. three years
 - B. one year
 - C. indefinitely
 - D. quarterly
13. (L.1.5.1) Identification of hazards in the workplace will enable organizations to evaluate the level of risk that accompany these hazards. Which of the following process identifies the likelihood of a harmful event occurring alongside the extent of harm inflicted onto the organization:
- A. risk analysis
 - B. hazards assessment
 - C. control processes
 - D. risk control
14. (L.1.5.2) This is a route of disease transmission that may occur during a handshake:
- A. indirect contact
 - B. direct contact
 - C. vector-borne
 - D. airborne
15. (L.1.5.3) Body substance isolation is:
- A. guaranteed to protect the first aider
 - B. always readily available
 - C. used to protect first aiders from slips and falls
 - D. used to reduce the risk of transmission of disease
16. (A+ 7.1) A Safety Data Sheet (SDS) may be used to find information on:
- A. how to use a product safely
 - B. how to recognize signs and symptoms of exposure
 - C. what to do if an emergency occurs
 - D. all of the above
17. (L.1.6.1) Alberta Occupational Health and Safety defines this concept as “a situation, condition or thing that may be dangerous to the safety or health of workers”.
- A. Injury
 - B. Illness
 - C. Emergency
 - D. Hazard

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Demonstrate the use of gloves (donning and doffing) and mask as a personal protective equipment (PPE) and when to use it? *Refer to Practical Skill Sheet Competency (L.1.5.4).*