

Workplace Health and Safety Bulletin



Immunizations for Worker Exposure

Workers in a variety of settings may be exposed to biohazardous substances which cause disease. In some instances, immunization may be recommended as one of the control measures used to prevent illness if exposure cannot be avoided.

Under the Alberta *Occupational Health and Safety Act*, Section 2(1),
“Every employer shall ensure, as far as it reasonably practicable for the employer to do so,

- (a) *the health and safety of*
 - (i) *workers engaged in the work of that employer, and*
 - (ii) *those workers not engaged in the work of that employer but present at the work site at which that work is being carried out, and*
- (b) *that the workers engaged in the work of that employer are aware of their responsibilities and duties under this Act, the regulations and the adopted code.”*

Hazard assessment

Under the Occupational Health and Safety Code, Section 7 (1) (2),

- (1) *“An employer must assess a worksite and identify existing and potential hazards before work begins at the work site or prior to construction of a new work site.*
- (2) *An employer must prepare a report of the results of a hazard assessment and the methods used to control or eliminate the hazards identified.”*

Government of Alberta ■
Employment and Immigration

The Employer has the responsibility of hazard assessment and control.

Under the *Occupational Health and Safety Act*, Section (2) (2) (a),
“*Every worker shall, while engaged in an occupation,*
(a) *take reasonable care to protect the health and safety of the worker and of other workers present while the worker is working*”

Under the *Occupational Health and Safety Code*, Section 528(1),
“*An Employer must establish policies and procedures dealing with storing, handling, using and disposing of biohazardous materials.*”

Prior to the implementation of a workplace immunization program, it is important that a hazard assessment be completed to determine the level of the worker’s risk of exposure. Where workers are required to handle, use or produce an infectious material or organism, or are likely to be exposed to an infectious material or organism at a place of employment, the employer must conduct a hazard assessment that identifies existing and potential exposure to infectious substances that could include:

- review of job tasks performed;
- identification of all tasks and procedures, as well as job classifications, where there is a potential for occupational exposure to the infectious substance; and
- identification of all workers who may be exposed to the infectious substance.

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The hazard assessment must include control methods.

Control measures

For hazard control implementation, the employer should develop a plan which includes all methods of control to eliminate or prevent exposure including:

- *engineering controls* — such as elimination, ventilation and structural arrangement of the workplace;
- *administrative controls* — such as safe work practices or protocols, worker education and training. If these two primary methods cannot ensure control of exposure then personal protective equipment should be used.

- *personal protective equipment* — this includes the use of gloves, gowns, respirators, etc. when working in areas where there is a risk of exposure.

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Immunization

Diphtheria and Tetanus (Td) — immunization is recommended for all adults in Canada. For optimal protection booster doses of Td should be given routinely every 10 years.

If the risk of work related exposure is determined to be significant other immunizations may be considered. These include the following:

Hepatitis A — instances where workers may be at risk include:

- workers traveling to areas or countries where there is a high rate of Hepatitis A infection, especially in rural areas or places with inadequate sanitation facilities;
- staff of institutions for the developmentally challenged where there is an ongoing problem with Hepatitis A virus (HAV) transmission;
- zoo-keepers, veterinarians and researchers who handle non-human primates;
- workers involved in research on Hepatitis A virus or production of HAV vaccine
- for workers such as firefighters and sewage workers that could potentially be exposed, a hazard assessment should be completed to determine if immunization is indicated.

Hepatitis B — immunization should be offered to:

- health care workers (people employed by an employer to provide health services that carry with them the potential for exposure incidents) and other individuals who are at risk of exposure to blood, blood products and body fluids that may contain the virus; or are at increased risk of sharps injury, bites or penetrating injuries;
- emergency service workers, such as police or firefighters;
- staff of institutions for the developmentally challenged;
- staff of provincial correctional facilities
- workers who have first aid responsibilities as part of their job.

Rabies — pre-exposure vaccination should be offered to persons at potentially high risk of contact with rabies such as:

- workers caring for animals such as veterinarians, veterinarian health technicians, veterinarian assistants;
- animal control workers such as bylaw officers, dog pound workers, zoo workers;
- animal research workers including rabies laboratory workers;
- workers traveling to places where there is rabies;
- wild life workers and foresters.

Poliomyelitis — routine immunization for workers living in Canada is not recommended. Primary immunization is recommended for workers at greater risk of exposure in work settings including:

- laboratory workers handling specimens that may contain polioviruses,
- health care workers in close contact with individuals who may be excreting wild or vaccine strains of polioviruses;
- workers traveling to places where poliomyelitis is common or any areas where the virus is known or suspected to be circulating.

BCG — routine worker immunization is not recommended. It may be offered to:

- health care workers intending to work for extended periods of time in areas of the world with high rates for TB. They should consult with Alberta TB Services as to the need to receive the BCG vaccine.

Measles (Red Measles) — workers born prior to 1970 can be assumed to have acquired natural protection. Workers at greatest risk of exposure should receive the vaccine and these include:

- workers born in 1970 or later who do not have evidence of immunity to measles or documented vaccination;
- workers traveling to an area where measles is common;
- health care workers.

Mumps — vaccine should be offered to susceptible health care workers born in 1970 or later who do not have evidence of immunity to mumps or documented vaccination.

Rubella (German Measles) — in health care settings, health care workers of either sex not having evidence of immunity to rubella or documented vaccination should be immunized because they may, through frequent face-to-face contact, expose pregnant women to rubella.

Varicella (Chicken Pox) — vaccine is recommended for susceptible workers who may be exposed and do not have evidence of immunity to varicella or documented vaccination. These include:

- health care workers;
- teachers;
- child care workers.

Pertussis — workers who have previously not been vaccinated and who may be exposed should be vaccinated. They include:

- health care workers;
- teachers;
- child care workers.

Meningococcal Vaccine — The vaccine is recommended for :

- workers traveling to an area in which there is a high incidence of meningococcal disease;
- workers in child care and nursery school facilities;
- research, industrial and clinical laboratory workers who are at risk of exposure.

Influenza — annual influenza immunization is recommended for :

- all health care workers and other care providers in facilities and community settings, who through their activities, are potentially capable of transmitting influenza to those at high risk of influenza complications (e. g. staff who have contact with residents of continuing care facilities or residences, staff who provide home care for persons in high- risk groups);
- workers who provide essential community services (e.g. paramedics);
- workers in direct contact with avian influenza-infected poultry during culling (removing sick or weak animals from a herd or flock) operations.

Typhoid — immunization should be considered for workers at particularly high risk of exposure such as;

- laboratory workers in clinical or research facilities who frequently handle cultures of *Salmonella typhi*. Technicians working in routine microbiology laboratories **do not** need to receive this vaccine;
- workers traveling who will have prolonged (> 4 weeks) exposure to potentially contaminated food and water; especially those traveling to or working in small cities, villages or rural areas in countries with a high incidence of disease. Immunization is not routinely recommended for business or short term (< 4 weeks) travel.

Cholera — the vaccine is recommended for :

- workers at considerably increased risk of exposure (e.g. relief and aid workers) or health care workers working in countries where cholera is prevalent).

Japanese Encephalitis — the vaccine is recommended for :

- all laboratory personnel working with the Japanese Encephalitis (JE) virus.
- workers who travel to places where JE is common.

Payment for immunization

It is important to note, that the cost of immunization specifically required for work related (occupational) exposures may **NOT** be covered by Alberta Health and Wellness.

Employers may have immunization programs delivered by their own internal Occupational Health Service, by contracted external Occupational Health Services, or in some instances, they may make special arrangements with the local Regional Health Authority to contract their services. Employers and workers should check with their local Regional Health Authority – Public Health regarding the cost and payment for both the vaccine and the administration of immunizations.

For more detailed information of specific immunizations contact your local Regional Health Authority.

References

Public Health Agency of Canada. (2006). *Canadian Immunization Guide, Seventh Edition*. Ottawa, ON: Author.

Alberta Health and Wellness. (2001). *Alberta Immunization Manual*. Edmonton, AB: Author.


Health Canada. (2002). Infection Control Guidelines: Prevention and Control of Occupational Infections in Health Care. *Canada Communicable Disease Report (CCDR)*, Volume: 28S1, 1183-1187.


BC Centre for Disease Control. (2007). *Immunization Manual*. <http://www.bccdc.org/content.php?item=193> (Immunization Program, Section II – Immunization Schedules). Retrieved January 30, 2008.

Alberta Health and Wellness. (2008). Personal Communication.

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