

I. What is an occupational health strategy?

An occupational health strategy regularly and systematically identifies hazardous exposures in the workplace and uses elements from the Hierarchy of Controls to protect workers. Mechanisms for worker participation in decision-making are a critical part of this strategy. The Hierarchy of Controls approach is a set of actions that are prioritized from the most protective to the least protective:

1. Elimination of the hazard from the workplace when feasible.
2. Substitution for the hazard with less hazardous products and processes.
3. Engineering remedies, such as isolating workers from exposures or increased room ventilation to dilute airborne exposures.
4. Administrative remedies such as limiting the time any given worker is exposed to potentially hazardous exposures.
5. Personal protective equipment, such as gloves, respirators, and eye protection.¹⁷

II. Why do we need an occupational health substitution strategy?

An occupational health strategy maintains a safe and healthy workplace. Prevention not only reduces major illness and injury, but is more cost-effective. In addition to worker safety, patient safety needs to be considered when selecting potentially hazardous chemicals to be used in the health care setting (i.e. disinfectants, sterilants, pesticides, cleaners and other hazardous chemicals). By implementing a comprehensive occupational health policy, employers will determine the health risks associated with current products and processes, eliminate hazards where possible, and identify safer alternatives. This process results in the selection of safer substitutes or the elimination of unnecessary hazards, creates healthier and safer work places and patient/public areas. This process will also ideally help create market forces for the creation of safer alternatives.

“Health care is the leading industry for work-related asthma.”

Presently, workers in the U.S. are protected by the Occupational Safety and Health Administration’s (OSHA’s) Hazard Communication (Haz Com) Standard, often referred to as the Worker Right-to-Know. The Haz Com standard does not provide sufficient worker protection, because it merely mandates that workers receive information about potentially hazardous exposures rather than require additional worker protection. While educating workers about potential health and safety hazards is a critical element of the standard’s requirement, without a requirement for associated reduction of exposures, no real health and safety progress is achieved. This is further hindered by the poor quality of information provided by chemical manufacturers on Material Safety Data Sheets (MSDS), which are the chief conveyor of information related to potentially hazardous chemicals. MSDS sheets have been demonstrated to be inaccurate and in some cases incomprehensible. There is also no standardized format for key information.

III. Are health care workers at increased risk?

Due to the toxic nature of many chemicals in the health care setting, additional protection is needed for health care workers. Health care is the leading industry for work-related asthma. Several chemicals that are commonly used in health care are either asthmagens (meaning they can cause asthma) or asthma triggers (meaning they cause symptoms in a person with asthma). Potentially toxic chemicals in hospitals include glutaraldehyde, latex, ethylene oxide (EtO, a sterilant), cleaning products, pesticides, drugs, disinfectants, and floor care products (wax and strippers). Finally, many of the pharmaceuticals that health care workers may handle are associated with reproductive and developmental effects.

IV. What is the process for establishing an occupational health strategy?

An occupational health strategy begins with the development of a committee at the health care institution that is charged with implementing a program to decrease workplace chemical exposures. Existing health and safety committees may serve this function. This multidisciplinary team approach is critical for creating an infrastructure for the occupational health program that is sustainable as well as health protective for workers and patients. This committee should include frontline workers, such as nurses, housekeeping and laboratories and representatives from key departments, such as the health and safety department and environmental services. If there is an occupational health clinic/office within the facility, it should be represented as well.

V. What are the elements of an occupational health strategy?

- Development or empowering of existing occupational health committee.
- Implementation of a facility based Incident Reporting System.
- Creation of a system for workers to identify chemicals of concern, and to request an evaluation of a chemical or exposure.
- Transparent method for assessments of exposure to hazards.
- Review of scientific literature regarding chemicals of concern, and surveys of workers' symptoms that may be related to exposure (headaches, dizziness, asthma, respiratory distress, nausea).

“An occupational health strategy begins with the development of a committee at the health care institution that is charged with implementing a program to decrease workplace chemical exposures.”

VI. What are the tasks of an occupational health program committee?

- Evaluate hazards in the hospital that can lead to occupational problems (key questions about the hazards to be evaluated include where the chemical is used, who is exposed, what are potential health effects).
- Develop a plan to communicate those hazards to appropriate staff.
- Research and evaluate alternatives to the hazards (get data on alternatives).
- Develop an elimination or substitution strategy where safer alternatives are available.
- Control hazards where safer substitutes are not available by applying the hierarchy of controls with engineering, work practice and Personal Protective Equipment (PPE) to protect workers.

Chapter Notes

17. When applying PPE to protect workers from chemicals that cannot be substituted, the chemical barrier property of the gloves must be considered. Latex is an inadequate barrier for many chemicals. Every facility should at the minimum provide nitrile gloves for protection and access to silver shield gloves.