

Chapter 1: Feedback on the self-assessment exercises

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Question 1: statement c is the correct answer.

Nurses (and other personnel in operating rooms) have exposure to multiple hazards: 1) chemical (such as anesthetic gases, latex gloves); 2) biological (blood-borne pathogens including hepatitis B, hepatitis C, HIV/AIDS and other infectious agents such as bacteria, prions, fungi); 3) physical (ionizing radiation from radiography); 4) an upright posture and bending during long working periods and 5) stress caused by a responsible job, demanding surgeons,....

Protective measures such as safety clothes, goggles, latex-free gloves, ventilation, standard procedures, etc. can reduce the exposure and keep hazards and risks under control but cannot eliminate them.

Question 2: statement d is the right answer.

Hazard means anything that can cause harm = a dangerous animal

Risk is the chance, high or low, that somebody will be harmed by the hazard = a man together with a dangerous animal

Risk control is taking steps to reduce the chance and/or mitigate the consequences, of the hazard causing harm = put the animal behind bars, in a cage

Risk assessment is evaluating the risks and deciding whether precautions are adequate or more should be done = more preventive measures should be taken, such as keeping distance from the cage.

Question 3: statement a is the right answer.

Just like occupational diseases, accidents at work are not always reported or recorded. The international statistics only include accidents with a minimum of three days' absence at work. In addition, people may fear to be blamed or to lose their job. Employers may not report the accident because they are afraid that their insurance premium will be raised substantially.





Figure 1. The Heinrich pyramid

Safety pyramid developed by Heinrich (1931)



Here, we can also use the metaphor of the iceberg/ pyramid: this demonstrates that for each industrial incident causing serious injury a much larger number of incidents resulted in minor injuries or no injury at all, at a ratio of 1:29:300.

Question 4: statement b is the right answer.

In general, occupational diseases are related to an exposure in a person's occupation. For example, occupational asthma in a baker after exposure to flour dust. A work-related disease is defined as a multifactorial disease which is partly caused by work but has also other etiological factors such as exposures in the living environment, lifestyle, heredity, etc.

The emotional distress at work was the trigger for Lucy's myocardial infarction but she presented other well-known cardiovascular risk factors as well such as smoking and a high cholesterol level.

Occupational diseases usually develop over a period of time and often resemble or duplicate diseases occurring in other settings. By comparison, occupational injuries are mostly the immediate result of mechanical factors such as lifting or bending, or failures in safety measures resulting in accidents or fires. In practice, the dividing line between diseases and accidents is rather arbitrary and established because of administrative convenience.

Question 5: statement a is the right answer.

The determinants and economic consequences of presenteeism have recently become a subject of investigation. Presenteeism implies that the worker cannot reach his full capacity and thus implicates a productivity loss for the employer. Several researchers tried to estimate the costs of presenteeism and they did found that these even exceed the costs associated with sickness absence.

Goetzel RZ, Long SR, Ozminkowski RJ, Hawkins K, Wang S, Lynch W (2004) Health, absence, disability, and presenteeism cost estimates of certain physical and mental health conditions affecting U.S. employers. J Occup Environ Med 46(4):398-412.



Stewart WF, Ricci JA, Chee E, Morganstein D (2003) Lost productive work time costs from health conditions in the United States: results from the American Productivity Audit. J Occup Environ Med 45(12):1234-1246.

Question 6: statement c is the right answer.

Question 7: statement b is the right answer.

ILO : International Labour Office WHO : World Health Organisation

OSHA: European Agency for Safety and Health at Work (Occupational Safety and Health Agency)

DALY: Disability-adjusted life year GPD: Gross Domestic Product