

## Dangers to Health in Accidents and Treatment Classification

Dr. Hisae Nakatani\*

Department of Medical III, University of Medicine and Pharmacy, Iasi, Japan

### Abstract

A disaster is a situation that poses an immediate threat to health, life, property, or the health of the planet. The acute care of patients who arrive without an appointment, either on their own initiative or via ambulance, is the specialty of a medical treatment facility known as an emergency department (ED).

**Keywords:** Triage settings; Health risks; Emergencies

### Introduction

According to how serious a patient's condition is, a technique known as triage is used to prioritise their medical care. Whereas health care's professionals are defined as anyone whose main goal is to improve health. They are essential to the operation of the majority of health systems and make significant contributions. Health care workers (HCWs) who are employed in emergency and triage settings are subjected to a variety of biological, chemical, and physical dangers. The majority of HCWs are the first hospital personnel to interact with patients who have suffered trauma or highly complex illnesses. The environment in the emergency department (ED) may be less controlled due to the urgent nature of their situations. HCWs might not follow the correct stages of protocols due to life-threatening circumstances. HCWs can interact with many sick patients and a wide range of dangerous situations due to the ED's high patient turnover during a single shift. Doctors, nurses, chemists, dentists, laundry staff, housekeepers, dental hygienists, maintenance staff, laboratory technicians, radiology technicians and physical therapists are among the health care professionals who assist in providing emergency care to patients.

### Materials and Methods

#### Various health risks

Physical aspects: these include slips, falls, latex allergy, equipment & electrical dangers, workplace violence, ergonomic issues, and communicable illnesses. It also includes accidents, bloodborne infections, needle stick injuries, hazardous chemicals, and communicable diseases.

#### Psychiatric considerations occupational stress

Due to the rapid, life-threatening nature of emergency care, emergency department (ED) staff are particularly at risk for exposure to blood, OPIM, and bloodborne pathogens[4]. Blood-borne pathogens can also be spread by venipuncture procedures, mucocutaneous contact to blood and blood-containing bodily fluids, and percutaneous exposure (PCE). Needlestick injuries can result in the transfer of blood-borne pathogens, infectious diseases, including tuberculosis, the hepatitis B, C, and G viruses, and the immunodeficiency virus. In comparison to other settings, the emergency and triage settings have a higher risk of exposure. This Table 1 provides an overview of various occupational health hazard categories [1-3] and some examples within each category. However, please note that the table is not exhaustive and specific hazards can vary depending on the industry and work environment. It's important for employers and employees to conduct thorough risk assessments and implement appropriate measures to mitigate these hazards.

### Injection stuck injuries

The leading cause of occupational health risks for healthcare professionals is needle stick injuries. Compared to other hospital departments, the emergency department had a higher rate of exposure (19.2%). Nurses are more likely to have a needle stick injury (65.6%) than doctors (19.2%), technicians (9.6%), and other healthcare workers (5.5%). Health care workers' most recent needle stick injuries have been blamed on fatigue (50.4%), a lack of support (27%), being hurried (11.7%), and 10.9% of cases being completely avoidable. In total, 34.8% of healthcare workers experience a needle stick injury at some point in their lives. The majority of needle stick injuries happened when disposing of sharps (31.7%), performing surgery (21.6%), taking blood samples (13.8%), initiating an intravenous line (13.4%), and administering injections (13.2%). Less than 10% of HIV among health professionals is caused by occupational exposure, needlestick injuries, but 37% of hepatitis B among health care workers (HCWs) were as a result of occupational exposure (Sharp injuries). However, 95% of occupational exposure to HIV and hepatitis may be avoided with safe, simple, and inexpensive precautions.

### Exposed conjunctiva

Lack of eye protection leads to conjunctiva exposures, which are most frequently linked to the spread of pathogens among all types of blood exposures. When performing an invasive surgery, HCWs should wear eye and facial protection. Glasses are insufficient. To stop blood from leaking from the forehead into the eyes, eye protection should have a seal above the eyes. Falling and slipping may occur due to the emergency situation (i.e., heavy foot traffic and small treatment areas). Falls, trips, and slips could pose a particular risk in ED areas. If water is unexpectedly spilled on the floor, electrical lines cross [2-7] walkways, or if emergency supplies or equipment block walkways, there is a chance that someone could slip and fall. Due to frequent glove use in the emergency department (ED) and occupational exposure to OPIM and blood, there is a chance that some staff members could acquire a latex allergy from using latex gloves. Hypoallergenic latex gloves expose healthcare professionals to a risk of latex sensitization. When HCWs

\*Corresponding author: Dr. Hisae Nakatani, Department of Medical III, University of Medicine and Pharmacy, Iasi, Japan, E-mail: nakatani@gmail.com

**Received:** 01-May-2023, Manuscript No: jhcprn-23-98216, **Editor assigned:** 03-May-2023, PreQC No: jhcprn-23-98216 (PQ), **Reviewed:** 17-May-2023, QC No: jhcprn-23-98216, **Revised:** 19-May-2023, Manuscript No: jhcprn-23-98216(R) **Published:** 27-May-2023, DOI: 10.4172/jhcprn.1000194

**Citation:** Nakatani H (2023) Dangers to Health in Accidents and Treatment Classification. J Health Care Prev, 6: 194.

**Copyright:** © 2023 Nakatani H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Table 1:** Table provides an overview of various occupational health hazard categories.

Hazard Category	Examples of Hazards
Physical Hazards	Noise, vibrations, extreme temperatures, ionizing and non-ionizing radiation, slips and falls
Chemical Hazards	Hazardous chemicals, such as solvents, acids, pesticides, carcinogens
Biological Hazards	Bacteria, viruses, fungi, bloodborne pathogens, allergens
Ergonomic Hazards	Repetitive motions, awkward postures, lifting heavy objects, inadequate workstation setup
Psychosocial Hazards	Work-related stress, bullying, violence, long work hours, lack of support
Safety Hazards	Machinery accidents, electrical hazards, confined spaces, fire and explosions, falling objects

change the gloves, it is due to a reaction to specific proteins (skin rash, flushing, itching, nasal, eye, or sinus problems, asthma, and shock). 6% Of healthcare professionals experienced latex allergy-like symptoms.

### Devices and power dangers

Employees may sustain injuries as a result of inadequate training or incorrect usage of equipment (such as defibrillators). Inadequate maintenance or improper use of the apparatus and/or its controls can potentially result in electric shock. Water and atmospheres high in oxygen can create dangerous circumstances. Electrical hazards that could affect workers include explosions, fires, and electrocutions. Damaged electrical cords could result in electrocution or shocks. A flexible electrical cord may deteriorate over time due to ageing, equipment rolling over it, staples and fastenings, door or window edges, and other factors.

Musculoskeletal work-related disorders (back injuries, neck, shoulder, arm, wrist, and knee disorders) are the main issue with ergonomics in nursing. The population of nurses consistently struggles with low back discomfort.

## Results and Discussion

### Occupational violence

Due to the crowded and stressful conditions that can arise with emergencies, it is a problem in EDs. The risk of workplace violence for ED staff members may increase if ED patients are connected to crimes, firearms, or other forms of violence. Physical violence was more prevalent among female emergency room doctors, but not other types of violence. 7.6% of emergency physicians reported having a sporadic fear of workplace violence, whereas 9.4% reported having a recurring fear. In response to the actual or imagined violence, 42% of emergency physicians sought various means of protection, such as getting a gun (18%), knife (20%), concealed weapon licence (13%), mace (7%), club (4%), or security escort (31%). Violence in the ED is primarily committed by patients and their relatives, according to the established contributing factors. Overcrowding, a lack of resources, a shortage of staff members, and the absence of effective antiviolence policies have all been recognised as contributory reasons to workplace violence.

### Societal medical conditions

The National Institute of workplace Safety and Health (NIOSH) acknowledges that health care employees frequently have workplace exposure to influenza, SARS, and TB. By dressing properly and isolating yourself, you can prevent exposure to contagious diseases. Staff members could be attending to an emergency while being blind to other infectious pre-existing diseases.

### Environment pressure

HCWs are known to experience workplace stress. One of the professions with a higher than predicted frequency of stress-related health issues was discovered to be nursing. According to studies, stress at work may increase a person's risk for heart disease, psychological

illnesses, workplace accidents, and other medical issues. Headaches, sleep difficulties, difficulty concentrating, work unhappiness, and low morale are some early warning signs that may appear. Nurses working in emergency rooms are required to manage additional stressors. These consist of : Unexpectedly large patient populations at [8] any given time, unexpectedly quick changes in patients' circumstances, and daily responses to painful or upsetting events like sudden death, patient violence, inappropriate attendees, and physical or verbal abuse are just a few of the challenges healthcare professionals face.

Patients exposed to traumatic circumstances are frequently cared for by emergency nurses. Nurses exposed to such stressors over time may experience Secondary Traumatic Stress (STS) or Compassion Fatigue (CF), even in the presence of empathic caring. The intrusion, avoidance, and arousal symptoms of STS might result in burnout or job dissatisfaction.

### High danger

Due to factors including shift work, long hours, exhaustion, and strong emotional circumstances (e.g., the suffering and death of patients), all hospital personnel, but especially ED employees, are exposed to several stressors at work that can promote workplace stress and burnout. The coping techniques listed below will be helpful for nurses working in emergency rooms:- a) Self-Controlling: In Asia, nurses frequently exhibit this cultural character characteristic.

b) Positive Reappraisal: It includes coping mechanisms and has a religious component.

c) Taking accountability

### Conclusion

Workers in the healthcare industry (HCWs) need to be protected from these risks at work.HCWs are frequently thought of as "immune" to disease or injury, despite the fact that their work is to care for the injured and unwell. For the benefit of their patients, they are frequently required to forego their own wellbeing. In fact, safeguarding the health of healthcare professionals has the extra advantage of improving patient care and bolstering the healthcare system. Health care employees are safeguarded from harm by some of the same procedures that protect patients from diseases, such as having enough staff. Simple interventions including general precautions, immunisation, and specific care for hazard-exposed HCWs and strategic management of environments that encourage stressful situations and injuries in ED can reduce occupational risks among HCWs working in ED. the fact that EDs experience needle stick injuries more frequently than other hospital departments.

### References

1. Irwin MR, Opp MR (2017) Sleep health: reciprocal regulation of sleep and innate immunity. *Neuropsychopharmacology* 42:129-155.
2. Das B, Ghosh TS, Kedia S (2018) Analysis of the Gut Microbiome of Rural and Urban Healthy Indians Living in Sea Level and High Altitude Areas. *Sci Rep*: 10104.

3. El Kaoutari, Armougom F, Gordon J (2013) The abundance and variety of carbohydrate-active enzymes in the human gut microbiota. *Nat Rev Microbiol*: 497–504.
4. Baumler AJ, Sperandio V (2016) Interactions between the microbiota and pathogenic bacteria in the gut. *Nature* 535: 85–93.
5. Hsiao A (2014) Members of the human gut microbiota involved in recovery from *Vibrio cholera* infection. *Nature* 515: 423-6.
6. Sinclair JR (2019) Importance of a One Health approach in advancing global health security and the Sustainable Development Goals. *Revue scientifique et technique* 38: 145-154.
7. Aslam B, Khurshid M, Arshad MI, Muzammil S, Rasool M, et al. (2021) Antibiotic resistance: one health one world outlook. *Frontiers in Cellular and Infection Microbiology* 11:53.
8. Doherty R, Madigan S, Warrington G, Ellis J (2019) Sleep and nutrition interactions: implications for athletes. *Nutrients* 11:822.