Standard Precautions in Perioperative Environment

Student name

Course name and number

Institution name

Tutor’s name

Due date

This essay will cover standard precautions that are exercised in perioperative environments by operating department practitioners. These standard precautions are anchored in personal protective equipment in a perioperative environment, dealing with sharps safety and their disposal, observing hand washing, and the use of gloves in a perioperative environment. Additionally, the essay will elaborate on the disposal of clinical wastes and dirty linen, routine cleaning, decontamination, and the operating environment. Further, spillage of body fluids and solutions, and specimens and human tissue disposal will be elaborated. The observation of the Health and Safety at Work Act, and control of substances hazardous to health will enhance care delivery by the operating department practitioners. Disregarding these precautionary standards by the operating department practitioners would negatively implicate the perioperative environment.

Perioperative care is the care given before, during, and after surgical procedures to full recovery of the patients. The term perioperative comes from two words, “peri” meaning around “operative” meaning surgery. Perioperative care thus is the care given to the patients immediately when they are referred for surgery through the time they are discharged and back home for recovery. Perioperative care is sustained by multidisciplinary carers who address various issues arising from referral to surgery through home recovery. The team includes nurses, anaesthetics, surgeons, pharmacists, dietitians, elderly care physicians, perioperative assessment nurses, and general practitioners among others. Due to the different roles played by these teams, perioperative care ensures teamwork from multidisciplinary personnel toward a common goal of the best healthcare outcome (Boney, 2025).

According to England, N.H.S. (2024), the care is carried out by multidisciplinary operating department practitioners. The care includes individual patient risk assessment and medical management before anaesthesia and surgery. This care not only improves the operating services but also enhances patients’ care. The care has precautions that enable the success of the surgical processes from pre-surgical to recovery. These perioperative precaution standards are essential as outlined in the health and safety at work etc. Act (1974), and control of substances hazardous to health, COSHH (2002).

One of the major concerns in the hospital operating environment by the surgeons and surgical facilities is maintaining safety for both the patients and the entire multidisciplinary team involved in perioperative care. Thus, avoiding safety faults is crucial in the surgical environment to prevent complications, injuries, and infections. Traditionally, general nurses and anaesthetic teams were the only ones involved in perioperative care. However, as the surgical environment became complicated, more expertise and needs arose leading to the creation of multidisciplinary team involvement. This new development has been greatly associated with an exponential increase in precautionary measures in perioperative care to meet health and safety measures in the surgical environment (Safety and Health Act, 1974). The subsequent paragraphs will elaborate on perioperative precautions as practiced by operating department practitioners to enhance successful surgical processes to recovery.

The use of personal protective equipment is a requirement in health and social care settings. Critical health care settings such as surgical environments require the operating department practitioners to put on appropriate PPEs to promote health and safety at work according to the health and safety at work etc. Act (1974), and control of hazardous substance to health, COSHH, (2002). The perioperative care teams are advised to use appropriate PPEs such as aprons, and gowns that cover the full torso from the neck to knees to arms, wrists, and to the back. Gloves too should be worn when handling patients, specimens, and surgical equipment and during cleaning (Act, 1974).

The team should wear eye protective gear that fully covers the eyes, and facemasks that cover the nose and mouth to prevent inhaling and swallowing of substances. Procedurally, gloves should be removed before exiting the operating room and in a way that limits self-contamination (Safety and Health Act, 1974). The same should be applied when removing the apron, gown, eye protective gear, and face masks. The PPEs prevent the pathogens from spreading through blood-borne viruses and venipuncture. Operating department practitioners should wear gowns, aprons, facemasks, and gloves appropriately to enhance health and safety work and COSHH (Holm and Dunn, 2022).

In addition to the PPEs, Safety and Health Act (1974) and COSHH (2002) operating department practitioners to observe hand hygiene and use of gloves to infection risk reduction in perioperative. Hands that have not been cleaned well in a surgical environment are agents of bacterial infections. Hands should be sterilised using antiseptics before a perioperative care team wears gloves (Safety and Health Act, 1974). A simple procedure for hand hygiene includes: the removal of watches, bracelets and rings, and debris beneath the fingernails under running water with a nail cleaner. Then, the hands are scrubbed to the forearms using an antimicrobial soap for about seven minutes. Alternatively, hands may be prewashed and alcohol solutions applied and left to dry before wearing sterile gloves in non-antimicrobial cleaning. However, the use of antimicrobial hand hygiene is recommended to prevent the growth of bacteria under sterile gloves (Simmons et al., 2022).

Double gloves should also be adopted where a high risk of blood infection is likely such as invasive surgeries. Hand hygiene should always be a priority in the surgical environment. A clean environment through hand hygiene by operating department practitioners enhances patient clinical safety by limiting and minimizing the transmission of infections. Hand hygiene should be reinforced by the use of gloves while handling patients, surgical equipment, and specimens, and while maintaining general cleaning (Simmons et al., 2022). Operating department practitioners should change gloves and wash hands after every activity around the operating environment to promote safety and health.

Besides, health and safety at work for operating department practitioners are greatly affected by the wastes produced in the operating environment. According to Warda (2024), waste is generated by syringes, partially or unused drugs, and inhalation agents among others. As defined by the World Health Organization, waste produced in a surgical environment may be categorised as hazardous (clinical) or non-hazardous. These wastes account for about 75% to 90% of general wastes while clinical wastes account for 10% to 25%. The clinical or hazardous are critical health risks comprising pharmaceuticals, infectious materials, radioactive and sharps such as syringe needles and scalpels (Safety and Health at Work Act, 1974).

Differentiating these wastes in the operating environment is helpful, especially during waste disposal processes. Non-hazardous wastes are easily disposed and waste disposal is cheap. However, hazardous or clinical wastes are usually incinerated as a very costly disposal strategy, accounting for over 80% of waste disposal costs. Improper disposal practices by the operating department practitioners easily lead to unhealthy, lack of safety and poor control of hazardous substances to health in a perioperative environment. Wastes should be disposed of separately in well-labeled and coloured polythene bags for incineration or sterilisation for reuse. This promotes the regulations of the healthcare sector such as the Safety and Health at Work Act (1974) and COSHH (2002) among others.

In the operating environment, sharps such as needles on the syringes, venipunctures, and broken glasses are likely to cause injuries if not handled with safety measures. Operating department practitioners however have the responsibility to observe and outline safety measures for handling and disposing of sharps as directed by health and safety at work etc. Act (1974) and COSHH guidelines (2002) when administering injections, venipunctures, suturing, and disposing of needles. Sharps account for about 50% of the waste from the operating environment. Perioperative care teams usually encounter sharps in large numbers compared to other departments of the healthcare facilities. Observing and outlining safety measures prevents injuries from sharps and infection spread through body fluid contamination sharps or poorly disposed sharps. Operating department practitioners should assess risks of sharps, label sharps, immediately dispose of used sharps, ensure PPEs are properly worn, needles should not be bent or broken before use, do not pass sharps from hand to hand, do not sheath used needles, and needles should be disposed as single units (England, N.H.S., 2024).

Further, routine cleaning and decontamination in the operating environment is a shared responsibility to ensure safety and health and avoid infections for each patient. The operating department practitioners should don proper PPEs, use recommended disinfectants for specific microorganisms, use safety data sheets, and consult with the infection prevention and control department. Practices such as gloves removal before exiting surgical rooms or approaching a teammate should always be adhered to. The use of antimicrobial and non-antimicrobial cleaning procedures to attain required hygiene and cleanliness is highly recommendable to ensure decontamination. To adhere to Safety and Health at Work Act (1974) procedures and observe COSHH guidelines (2002), there should be preliminary cleaning before the first operation case, intraoperative cleaning, between operation procedure cleaning, and terminal cleaning. The procedure should be done on the surfaces, equipment, and operating staff (Assadian et al., 2021).

In conjunction, spillages of the body fluids and solutions cannot be ignored in the operating environment. Operating department practitioners should label the spill site appropriately, don appropriate PPEs, then soak up the spillage using disposable paper towels and dispose of it, clean the area with water and detergent solution, and disinfect the area. Then the area should be allowed to dry, remove, and dispose of PPEs appropriately, perform hand hygiene, and remove the spill signage (England, N.H.S., 2022). Further, proper PPEs such as double gloves in invasive surgical procedures where the risk of blood and other body fluid spillages are prone should be adopted. Perioperative care teams should reinforce spillage infection control by wearing eye protective gear, face masks to cover the nose and mouth, and apron to cover the torso. Preventing body contact with blood and other specimen fluids and operated parts ensures infection control for both patients and the staff. According to the Safety and Health at Work Act (1974) and COSHH guidelines (2002), spillages of body fluids and solutions should be addressed properly to ensure a clean environment, infection control, and prevention of accidents such as falls.

Additionally, human tissues and specimens should be handled and disposed of accordingly. The aim of their disposal is mainly to prevent infections and disinfect the operating room environment according to the Health and Safety at Work Act (1974), and Human Tissue Act (2004). Before their disposal, human body samples and specimens should be handled with care to avoid blood spillages on the floors, walls, and bedding. Decontamination through cleaning should be done before and after any surgical procedure to prevent infection and reinfection between surgical procedures. However, human tissues and sample disposal is a sensitive issue due to the dignity accorded to them. Once they have been collected, human tissues and specimens are sorted and separated from other wastes. Mainly, they are prepared for cremation or are buried. Operating department practitioners ensure that human tissues are disposed of in yellow burn bins. Bins should be double-lined with yellow bags having adsorbents to absorb any fluids. All bins should be filled up to the fill line, three-quarters of the bin, and poly bags be sealed securely with a cable tie before the bin is closed with the lid. Then all bins should be tagged with blue waste tags and recorded (England, N.H.S., 2024).

Consequently, failure to adhere to standard precautions in a perioperative environment could lead to negative implications for operating department practitioners, patients, and other users of the environment contrary to the Health and Safety Act (1974), and COSHH guidelines (2002). According to Wolfhagen et al. (2022), patients in a surgical environment may incur risks of surgical site infections, the potential of suffering from severe complications, and transmission of blood-borne pathogens, which may result in increased length of hospital stay. Operating department practitioners on the other hand also have a risk of contracting infections, exposing themselves to occupational hazards by coming into contact with infected body fluids, pathological stress of exposing themselves to stress, and facing legal implications from patients who may contract preventable infections (Wolfhagen et al., 2022). Apart from health hazards that may arise from disregarding standard precautions in a perioperative environment, patients, and the staff directly, the consequences are likely to overflow. The cost of dealing with the aftermath is very high especially infections spread by the injuries, wastes, and environmental degradation outside the hospital setting (COSHH guidelines, 2002).

In conclusion, surgical procedures require keen adherence to safety precautions to enhance patients’ surgical procedure preparation for recovery. This primary role of operating department practitioners is fundamental in the perioperative surgical environment. Adherence to precautions according to the Health and Safety Act, and COSHH guidelines of proper PPEs, sharps safety and their disposal, use of gloves and handwashing, disposal of clinical waste and dirty linen, routine cleaning and decontamination, handling spillage of blood and solutions, and disposal of human tissues and specimen promotes proper perioperative environment practices. Failure to adhere to these precautions and guidelines negatively impacts the patients and staff.

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