



Research Paper

The Importance of Infection Prevention in Hospital Ambulances: A Research

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Abstract

Ambulances contain several germs and microbes which are potentially extremely harmful to the patients themselves and the companions who might be travelling with the. The contamination of hospital ambulances poses a great threat to the health of those not immune to diseases. Hence, several measurements and practices are taken to wipe out any chances of bacteria or other harmful microorganisms which shall be described in this paper. The main purpose of this research review is to highlight the importance and significance of infection prevention in hospital ambulances. For this, several research papers were reviewed and results and conclusions were drawn. There were no limitations as all the data was readily available. Secondary data was collected for this research.

Keywords: Ambulance, diseases, microorganisms, bacteria, contamination, infection prevention control, disinfection, cleaning.

Introduction

The emergency services workforces such as ambulances, provide fast and efficient service to the people in need. Ambulances play a vital role in saving a human being's life, by transporting a patient from the place of accident to the hospital where he/she could be properly treated.

However, these ambulances can become the very carrier of diseases if they become contaminated. It has been proven through several studies that ambulances carry pathogens microorganisms such as bacteria, viruses, pathogenic fungi, protozoa, worms, prions and many more that spread infections through inhalation, indirect contact,

direct contact, ingestion, inoculation, fomite, air, vectors, the chain of infections, the causative organisms and the reservoirs. (Woodside) Many preventions and precautions are taken to reduce the chances of infections by these pathogens in the ambulances. The purpose of this study is to highlight those preventive measures and also shed light on the significance of infection prevention control in emergency services such as ambulances.

Data Collection

Methodology

For the purpose of this research review, a total of

5-6 papers were reviewed. Apart from this, several articles were also undertaken study and are references and cited throughout the paper. Studies were screened by title and abstracts and then by a fully text review against specific inclusion criteria. These studies were thoroughly analyzed and results were presented.

Ethical Considerations

All the articles and student papers are cited properly and referenced at the end of this research paper. No plagiarism has been tolerated.

Research Findings

Following are some of the research findings, which emphasize on the importance of infection prevention in hospital ambulances through explaining the precautions and other measures. These precautions are undertaken by the ambulance staff in order to minimize the chances of infections.

Standard Infection Control Precautions:

Personal Hygiene

It is common knowledge that washing hands is the most important factor in preventing diseases and infections. The procedure should include washing the front and back of hands through soap thoroughly, and with running tap water. And the sole purpose is to remove any type of dirt or microorganisms from the hands. (Taylor-Robinson,2019)

Wearing of Gloves

A pair of gloves should be worn at most time especially when your hands are in direct contact with the body of a patient or any fluids. But the gloves should not be worn when they are not needed, as the bacteria could accumulate and could cause more danger to the patients. Another important factor to note is that gloves should not be worn while driving and then coming in contact with the patient. (Taylor-Robinson,2019)

Carry personal Protective Equipment

It is advised to carry necessary equipment in the

ambulance in case of any emergency. These equipment's include gloves, face masks, eye protection masks, plastic bags and suits etc (Taylor-Robinson,2019)

Disease Prevention that may cause Infections due to contamination

Tuberculosis TB

TB affects almost every part of the body, but it injures lungs the most. It could spread through air or nasal inhalation. The patients who have this disease should be advised to cough or sneeze in their elbow or inside a tissue paper so as to not contaminate the ambulance. Apart from that, SICPs should also be undertaken while dealing with TB patients. (Mackenzie,2019)

Meningitis

This illness involves the inflammation of membrane that covers the brain and spinal cord. It can be caused by many organisms such as bacteria and viruses. SCIPs should be strictly followed while dealing with patients with meningitis because this disease is hardly curable and can spread very readily. (Mackenzie,2019)

Hepatitis B (HBV)

Hepatitis B (HBV) can be found in all of the body fluids in an infected person. These body fluids include blood and saliva, vaginal fluids and semen and urine. It can be transferred by open cuts by a sharp blade or through mucus membranes. For the screening and cleaning the contamination of this disease, strict SICPs must be followed inside an ambulance. (Mackenzie,2019)

Hepatitis C (HCV)

This disease is also transmitted through viruses, and it is spread through the blood of an infectious person. So strict SICPs should also be applied when dealing with such patients. (Mackenzie,2019)

Other Diseases

There are several other diseases that can be caused through contamination such as smallpox, viral

hemorrhagic fevers, rabies, yellow fever, Lassa fever, Ebola and many more. (Mackenzie,2019)

Management of Sharp Materials

Sharps are characterized as any item or instrument utilized in unambiguous medical services exercises which can cut, prick or cause injuries and diseases. This incorporates needles, surgical blades and other sharp clinical instruments. The individual who has utilized an expendable sharp instrument or gear is liable for its prompt safe removal after use.

Sharps ought to be dealt with and discarded in a way which forestalls injury gambles. This incorporates the utilization of needle safe gadgets, and the discarding needles and needles as one single unit.

- Sharps need to be disposed of in a supported holder at the place of purpose and never be packed over 2/3rds or as outlined on the compartment.
- Needles should not be re-covered, and sharps should not be passed from one individual to another by the use of hand.
- Needle stick injury convention should be followed. All occurrences should be accounted for in agreement with the HSE Incident Management Framework when is practicable after a sharp injury happens and no later than one working day after the episode.

Implementation of the best practices for the prevention of diseases

Considering the aggregate group of exploration which features that bacterial tainting of ambulances of various kinds is a regular event ,the general execution of normalized, streamlined disease control conventions is a high-need general wellbeing arrangement. Crisis administrations team, their patients and mates have a raised gamble of contracting contamination without there being set up clear rules and a comprehension of, and adherence to, these conventions by paramedics. Consistence with best practices for cleaning and sanitizing inside crisis clinical

vehicles, gear and supplies is a significant thought in expecting to forestall the spread of anti-microbial safe microscopic organisms in pre-medical clinic care settings. (Taylor-Robinson ,2019). This may likewise drive the broader advancement of new or further developed arrangements and methodology the adherence to which could diminish the everyday transmission of lethal microorganisms and lighten disease by pandemic-or bioterrorism-related organisms.

Conclusion and Results

All the findings discussed in this research review, emphasize and stress over the utmost significance of infection prevention in hospital ambulances by first pointing out the methods used to decontaminate the ambulance services. And then discussing the potential harmful diseases that could infect patients if ambulances are not decontaminated. At the very end, it discusses how these measures could be implemented to prevent the maximum spread of the diseases.

Limitations

There were no limitations to this review paper as all the secondary data was readily available.

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