

Considerations of designing a container for transporting medical waste inside a health care facility

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Abstract:

This paper studies the dangers of medical waste especially in eras of pandemics such as Covid-19 period. In addition, this paper also attempts to introduce a new design concept for medical waste incinerator that improve efficiency of dealing with those hazardous infectious wastes with the aim of offering safer ways of handling and reducing infection.

Problem Statement: The stage of internal transportation of health care waste within medical institutions and facilities is one of the most important stages of the chain of handling and dealing with medical waste, because of its special nature, as it takes place within the facility itself and between its corridors and rooms, which contains a number of patients and injured persons between its sides who may carry a dangerous and rapidly spreading infection, and they may also have weak immunity for various health reasons, so many problems may occur as a result of the improper management of transporting waste internally from its multiple places of generation to the temporary storage points within the medical institution.

Research Aims: The research aims to clarify the design considerations for containers of transporting medical waste inside the facility, which represents one of the important tools used in the chain of dealing with medical waste in a safe manner.

Importance of research: The research is interested in studying one of the most important stages of management and dealing with medical waste chain, which is the stage of transporting medical waste inside the health care facility, also studying containers for collecting and transporting these wastes as it's one of the most popular tools used at that stage to transport wastes to temporary storage room.

This paper studies container design from all aspects, both functional aspects and usage aspects, aims to provide the necessary safety for handling medical waste technicians, members of the infection control team, patients and visitors within the health care facility alike, by reducing the chances of infection spreading.

Research methodology: based on the analytical descriptive method.

Results: Identify and clarify design considerations of container or cart used to collect and transport medical waste inside health care facilities that ensure safety and usability requirements.

Provide a design concept of container for transporting medical waste within health care facilities that meets design considerations which offers more efficiency in waste internal waste handling and transporting.

Keywords:

Industrial Design, Product Design, Hazardous Medical Waste, Waste Cart, Environment, Waste transportation container

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