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### **Original Research Article**

# Investigating Recycling of Chemicals Used in Pre-Hospital Care Based on Decision Support System

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### **ABSTRACT**

Hospital waste is one of the urban wastes produced by hospitals, clinics, medical research centers, and pharmacies. The management of healthcare waste includes production, storage and collection, transportation, processing and disposal, and preventing the production of waste materials and care. After disposal and preliminary treatment, it is one of the characteristics of healthcare waste management, which has been emphasized in these management systems due to the hazardous nature of these materials. This is an important environmental challenge in most developing countries. Failure to properly identify, separate, store and disinfect hazardous hospital waste has caused health problems and environmental pollution. According to the World Health Organization standard, hospital hazardous waste is divided into nine groups, including infectious, pathological, chemical, genotoxic, sharp and sharp, pharmaceutical, heavy metal waste, pressurized and radioactive waste. Waste produced in healthcare centers includes infectious waste, non-infectious solid waste and many dangerous substances. Treatment and disposal of hospital waste is done with the aim of changing the biological characteristics of waste materials in order to eliminate or minimize their ability to cause harm. In the existing laws of the United States of America, 20-25% of infectious hospital waste is meant, and the Center for Disease Control in this country mentions the mentioned amount as 3-5%. In general, the amount of infectious and non-infectious waste in hospitals depends on various factors that need to be investigated on a case-by-case basis to know their exact amount.

**Keywords:** Recycling of Chemicals, Pre-Hospital Care, DSS, Purification of Chemicals, Environment.