Hospital Waste Management as an Emergent Public Health Concern in Pakistan

Hanna Khair Tunio1* and Imran MirBahar1

¹Department of Community Health Sciences, Peoples University of Medical and Health Sciences (PUMHSW), NawabShah, Pakistan

Hospital waste is very small in quantity but it carries a huge risk in the transmission of disease and injury. It is considered a special type of waste due to its potency to infect the population. According to World Health Organization (WHO) waste that is contagious, containing toxic metals, infected diagnostic material, and decontaminators is said to be hospital waste [1]. According to WHO estimates around three million healthcare providers globally are exposed to blood-borne infections [2]. Poor and inappropriate management of waste material can cause very serious health outcomes and it may contribute a substantial impact on the environment [3].

The term hospital waste management means the methods and techniques used by hospitals to restrict disease from spreading into the environment. In low to middle-income c of hospital waste. The lack of appropriate segregation of the contaminated material, its collection method, proper storage mechanism, and transportation leads to the failure of management of hospital waste. This failure is the foremost reason for the spread of many infectious diseases within the population and may burden the healthcare system [4]. In 2005, the Biosafety Rules came into existence, but these rules are not followed by healthcare institutions and healthcare professionals for the management of hospital waste. There is not any appropriate storage of the waste material before it may be disposed of and the waste material's segregation into various sections is nearly non-existing in the healthcare setup in Pakistan [5].

According to the Pakistan Hospital waste management (PAK HWM) Rules 2005, there is a structured hospital waste management system that includes a team for hospital waste, a proper waste management plan, and reporting of generated waste within the hospital every week [6]. For the development of proper hospital waste management, healthcare institutions are required to create policies to address the waste management issue. Along with the policies for hospital waste management, compliance with the documentation of the activities is an important step for the surveillance of waste management [7]. The existence of appropriate legislation, adequate financial aid, and proper training of hospital managers and clinical staff can improve waste management in hospitals. Lack of knowledge regarding the laws and the incorrect use of rules and regulations leads to the reuse of the waste material which is a source for the spread of diseases [8].

The goal of the management of hospital waste is to prevent the spread of diseases within the population. To understand

*Corresponding author: Hanna Khair Tunio, Peoples University of Medical and Health Sciences, NawabShah, Pakistan, Cell: +923009224945,

Email: drhanna.khair@yahoo.com

Received: April 27, 2023 Revised: June 8, 2023 Accepted: June 9, 2023 DOI: https://doi.org/10.37184/jlnh.2959-1805.1.10

this, management of the waste material and its appropriate segregation is the foremost important aspect and a cost-effective method to deal with the rising concern in Pakistan. Investing in technologies without properly assigning the responsibilities to the staff, according to their role in waste production and its disposal may lead to disastrous effects and a failure to control communicable diseases. To improve adherence to the national guidelines in hospitals and a mechanism to maintain a clean and healthy environment for the nation.

REFERENCES

- Gill YQ, Khurshid M, Abid U, Ijaz MW. Review of hospital plastic waste management strategies for Pakistan. Environ Sci Pollut Res 2021; 29: 9408-21.
 - DOI: https://doi.org/10.1007/s11356-021-17731-9

32834485

ISSN: 2959-1805

- Wahab AAA, Ismail R, Ismail H. Occupational Sharps Injury Management. Int. J. Public Health Res 2022; 12(1): 1584-90. DOI: http://dx.doi.org/10.17576/ijphr.1201.2022.13
- Zand AD, Heir AV. Emerging challenges in urban waste management in Tehran, Iran during the COVID-19 pandemic. Resour Conserv Recycl 2020; 162: 105051.
 DOI: https://doi.org/10.1016%2Fj.resconrec.2020.105051 PMID:
- 4. Khan NH, Aziz A, Khan M, Ilyas M, Saeed T, Bashir A. The current status and steps towards hospital waste management in the public and private sector hospitals of district Swabi, KP, Pakistan. Waste Forum 2023; 1: 45-57.
- Mushtaq MH, Noor F, Mujtaba MA, Asghar S, Yusuf AA, Soudagar ME, et al. Environmental performance of alternative hospital waste management strategies using life cycle assessment (LCA) approach. Sustainability 2022; 14(22): 14942. DOI: https://doi.org/10.3390/su142214942
- Khalid S, Haq N, Sabiha ZU, Latif A, Khan MA, Iqbal J, et al. Current practices of waste management in teaching hospitals and presence of incinerators in densely populated areas. BMC Public Health 2021; 21(1): 1340.
 - DOI: https://doi.org/10.1186/s12889-021-11389-1 PMID: 34233645
- Zand AD, Heir AV. Emanating challenges in urban and healthcare waste management in Isfahan, Iran after the outbreak of COVID-19. Environ Technol 2021; 42(2): 329-36.
 - DOI: https://doi.org/10.1080/09593330.2020.1866082 PMID: 33331802
- Letho Z, Yangdon T, Lhamo C, Limbu CB, Yoezer S, Jamtsho T, et al. Awareness and practice of medical waste management among healthcare providers in National Referral Hospital. PLoS One 2021; 16(1): e0243817.

DOI: https://doi.org/10.1371/journal.pone.0243817 PMID: 33406119