



Status and Challenges of Medical Waste Management in Hospitals of Iran

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Received 07 August 2017; Accepted 26 September 2017

Abstract

Medical waste is of great importance due to its hazardous nature that can cause undesirable effects on humans and the environment. This study focuses on medical waste management in hospitals of Iran. Data were collected based on questionnaires and for self-report of medical waste management. The results along with other information were sent to the ministry of health network system. Results indicated that the mean generation rate of non-hazardous and sharp and infectious and total wastes in Iran were, respectively, 1.84, 1.09 (36.9% of total waste generated) and 2.98 kg/bed/day. Chemical waste generation rate in Iran is 0.02 kg/bed/day (0.68%) that relative to infectious waste and total waste generation rate is much lower which could be due to improper segregation of medical wastes. There is significant differences between private and governmental hospitals, in terms of infectious and sharp waste generation rates ($P=0.027$). Also there are significant differences between specialized and general hospitals in group of non-hazardous waste ($P=0.039$), infectious waste ($P=0.001$) and total waste generation rate ($P=0.02$). 65.41% of governmental hospitals used autoclave for infectious waste treatment. In the private and governmental hospitals 14.8% and 24.29%, respectively not have any treatment devices and hazardous waste was disposed without treatment.

Keywords: Medical Waste Management; Infectious Waste Treatment; Hospital; Iran.

1. Introduction

Medicine is one of the significant sectors showing improvement throughout the world during recent decades [1]. Medical waste (MW) constitutes a significant fraction of infectious wastes, which are potentially dangerous since they may contain pathogenic agents. The production of these wastes will continue to be an on-going phenomenon as long as there are human activities. There has been an increase in the public concern about the management of hospital waste on a global basis especially in developing countries where both financial and technological resources on medical waste management are still lacking [2, 3]. The World Health Organization designates medical waste as the waste generated by health-care activities that can include a wide range of materials, such as used needles and syringes, soiled dressings, body parts, diagnostic samples, blood, chemicals, pharmaceuticals, medical devices and radioactive materials. [4]. When hazardous health care wastes are not properly managed, exposure to them could lead to infections, infertility, genital deformities, hormonally triggered cancers, mutagenicity, dermatitis, asthma and neurological disorders in children;

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DOI: <http://dx.doi.org/10.21859/cej-030910>

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