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**Health Care Waste Management in Government Hospitals in Western Province: A Preliminary Analysis**

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**Abstract**

Health-care waste is defined as all waste generated by health-care establishments, research facilities, and laboratories. Health care waste management is a major issue in developing countries especially in South Asian countries. Western Province of Sri Lanka is no exception with its high population density and lesser land availability. Proper estimation of actual quantities of waste is an initial step towards identification of better hospital waste management options. Therefore, this study intends to quantify different waste types generated by government hospitals in the western province and aims to investigate current waste management practices and the issues related to them. Seven hospitals were randomly selected from the data available from National classification of hospitals. Different waste types of each hospital were then identified and the amount under each category was quantified using data obtained from hospital authorities and verified by actual measurements taken at different wards. Current waste management practices were also recorded for each waste type. In addition, number of wards, bed occupancy rate, number of admissions were taken from each hospital in order to calculate the rate of waste generation. According to the collected data, there were 12 different waste types in hospitals and the total annual waste quantity of surveyed hospitals is 3,868 tons. Colombo National Hospital, North-Colombo Teaching Hospital, Lady Ridgeway, Bandaragama Divisional Hospital had the highest quantity of Biodegradable waste which is 60% of the total waste produced per day. Infectious waste showed the prominent waste type in Castle Street Hospital for Women, Panadura Base Hospital and Kandana Divisional Hospital. According to the study, Lady Ridgeway Hospital has the highest rate of waste generation of 2.83 Kg/bed/day followed by North-Colombo Teaching Hospital with 2.28 Kg/bed/day. The least amount of waste generation is from Bandaragama Divisional Hospital. The common waste management method for infectious waste, sharps and pharmaceuticals is incineration although the efficiency of the process is questionable. Public nuisances and protests for incineration facilities have lead accumulation of waste in certain hospitals. Major part of plastic polythene and glass are sent for recycling. Biodegradable wastes are being sent to piggeries. The study highlights potential and the need for better waste management options.

**Keywords:** Health care waste, Western Province, Waste generation rate