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Assessing healthcare liquid waste management in Kathmandu, Nepal

Bandana K Pradhan
Tribhuvan University, Nepal

Over the years, the number of healthcare services, particularly in large cities of Nepal has been increasing and consequently healthcare liquid waste management is becoming a crucial challenge to the public health. There have been limited efforts to explore the healthcare service management in Nepal. This paper intends to assess the healthcare liquid waste (HCLW) management in the hospitals of Kathmandu city, Nepal. Based on the descriptive cross sectional design, 15 out of 35 hospitals with over 50 beds, consisting of six public and nine private types were selected randomly. This study has estimated of HCLW generation by the sample hospitals at 976 m³/day. The HCLW has shown acidic with an average of pH 5.6. The average temperature ranged from 26°C to 29°C and the conductivity was recorded at >500 µS/cm. In the sample hospitals, dissolved oxygen was less than 2 mg/l, whereas the ratio of chemical oxygen demand and biological oxygen demand ranged from 1.7 to 2.7. They indicate high organic load and higher toxic and non biodegradable chemicals in the wastewater. It was also detected high bacteriological load and concentration of free residual chlorine. This means that the HCLW has been directly discharged into the surface water. The Waste Management Committee (WMC) to be formed in each hospital has to look after HCLW, but not in all sample hospitals. Only one hospital had HCLW treatment plant, which was also not functioning. The number of hospital staff being involved in the waste management was however just adequate according to the national standard, but none of them had got training in HCLW management. It was found that, none of the hospitals had complied with the national healthcare liquid waste management guidelines.

Biography

Bandana K Pradhan has completed PhD from BOKU, University of Natural Resources and Life Science, Vienna, Austria in 1998 and MSc in Basic Science (Botany), Tribhuvan University, Kathmandu, Nepal. She is Professor at the Department of Community Medicine and Public Health, Institute of Medicine, Tribhuvan University, Kathmandu and also is a Program Coordinator of Masters of Public Health. She has teaching experience of more than 25 years as a faculty in the IOM, TU. She has given academic contribution also in the national level especially for Ministry of Environment (MoEnv) and Ministry of Health and Population (MoHP) for producing "State of Environment Report 2001" and other Climate Change related Policy Documents, Strategy and Action Plans. She has published over 30 papers in reputed national and international journals in the field of Environment Health and Climate Change.

bandana@reachpuba.org