Hospital waste generation, classification, and management

Ahmad Irshad, Ali Saadat and Abdullah Ali
PPI Islamabad, Pakistan

Waste produced during treatment and diagnosis of patients and immunization in healthcare settings is called healthcare waste. Healthcare waste is generally divided into two classes: Infectious and non-infectious. Some infectious and non-infectious waste can be hazardous due to the dangerous chemicals, pharmaceuticals, radioactivity able to cause an adverse reaction or poor management. Hospital waste (generation & classification) survey was carried out at 14 Public and Private Sector Hospital at 10 District Headquarters of AJ&K. During the survey, it was found that hospital waste generation rate is 0.15kg/patient/day, out of which 0.08kg/patient/day (53%) is an infectious waste and 0.07kg/patient/day (47%) is a general waste. The rates observed are in the range of 0.03 to 0.72kg/patient/day. The highest amount of hospital waste produced by per patient is 0.72kg/patient/day in DHQ, Bhimber, while the lowest amount is 0.03kg/patient/day from DHQ, Forward Kahuta. Hospital waste generation rate is 1.27kg/bed/day out of which 0.68kg/bed/day (54%) is infectious hospital waste and 0.59kg/bed/day (46%) is general hospital waste. The infectious hospital waste generation rate is in the range of 0.57 to 4.53kg/bed/day. The hospitals were categorized into 4 categories, i.e. A, B, C and D on the basis of compliance with 9 steps of Hospital Waste Management Rules of Pakistan. The situational analysis reveals that: It is a common observation that the scavengers take out recyclable material from the dumping sites containing solid and hospital waste as such they are exposed to hepatitis C. There is burning at the dumping site to decrease the volume of waste causing air pollution and foul odor. Indiscriminate disposal of pharmaceutical products (antibiotics and cytotoxic drugs) and discharge of untreated wastewater generated from the hospitals have disastrous ecological effects on surface and groundwater resources. The objective of the strategy is to provide an effective, efficient, affordable, safe and sustainable hospital waste management system for all healthcare facilities in AJK by 2021 so as to meet the sustainable development goals and well-being of people of the State.