**Assessing the Biomedical Waste Management Practice among the Health Care Institution of Nepal**

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**Background**

Health care waste (HCW) includes all the waste generated by health care institutions (HCIs), research facilities and medical laboratories during diagnosis, treatment or immunization of human beings or animals or in research activities. Policy maker must be known about the management practices in health care institution and waste generation. Thus this study aimed at providing the baseline information on health care waste management in different health care settings and to assess the present scenario so that evidence based decisions can be made by different stakeholders at central, regional and peripheral levels.

**Methods**

The methodology for data collection of this research includes face to face interview, observation and key informant interview. A structured questionnaire was designed to collect information addressing the generation of different medical wastes. The collected data with the close ended questionnaire were analyzed, mainly with simple descriptive statistics while the qualitative mode of analysis was mainly in narrative form.

**Results**

It was clearly seen that 35% of the institutions followed the health care waste management guidelines 2065, 45% of the institutions followed self-developed protocol, 155 of the health care institutions did not follow any guidelines, whereas 5% of the health care institutions followed Nepal Health Care Waste Management Guidelines 2002. Data regarding different types of average health care waste production in kg per day per patient revealed that total waste production in health care institutions was 3.0 kg/day/patient, whereas general waste was 1.6 kg/day/patient, 0.41, 0.47, 0.20, 0.18, 0.10 and 0.02 kg/day/patient recyclable, infectious, pharmaceutical, sharp, chemical and radioactive waste was produced respectively. Seventy one percent of the institutions had not conducted Environmental Impact Assessment (EIA) or Initial Environment Examination (IEE). Seventy six percent of the hospitals had no waste management committee. It was revealed that 61.29% of the institutions adopted reuse strategy, similarly 61.29% and 40.32% of the institutions followed recycle and avoidance respectively, whereas 22.58% of the hospital followed none of the strategies. It was seen that 40% of the hospitals spent 1-5% of the total budget, 18% of the institutions spent less than 1% of the total budget, whereas only 2% of the hospitals spent more than 20% of the total annual budget in health care waste management. The study revealed only 60% of the health carewaste management workers had been given vaccination. Regarding importance of the waste segregation in waste handling, 51% of the hospital representative perceived it as highly significant.

**Conclusions**

Health care institutions must implement the standard waste management procedures guided by national legislation of health care waste. Health care waste management persons as well as general public must be aware about the health impact of weak health care waste management practice.

**Keywords:** environmental impact assessment; guidelines; health care institutions; health care waste; health care waste management; production.