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## Application of LCA analysis to hospital solid waste in a developing country: The case of district Swat, Pakistan

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Health care waste, if not managed scientifically has the potential of posing a serious threat to health and environment. The present study investigated the overall hospital waste management practices used in District Swat, Pakistan and determined the total daily generation and disposal rate of their wastes. Waste collection, transportation, and storage and disposal are not done as per the norms. Infectious non-plastic and non-infectious (general) waste, all other categories of waste is not treated and disposed in a central collection and treatment site. Records are not kept of waste weight, autoclave cycles, paper shredded and plastic shredded. To assist in developing sector regulations for the small generators, we

evaluated two management scenarios using decision-making tools. Consisted of a two treatment techniques pyrolysis for waste like infectious and pathological, while chemical disinfection for sharp waste, focus is made on recovery and recycling of material and waste water reuse after treatment from the waste stream which then followed by landfilling. These methods were evaluated based on their emissions. Landfilling and incineration turned out to be the worst final disposal alternatives. Policymakers for the formulation of an integrated hospital waste management plan can use this study.

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