

## Setting up Model Hospitals in Health Care Waste Management in Madagascar

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**Abstract :** Madagascar, in 2018, set up the first best available technology, autoclave, to treat the health care waste in public hospitals according the best environmental practices in health care waste management. Incineration of health care waste, frequently through open burning is the most common practice of treatment and elimination of health care waste across the country. Autoclave is a best available technology for non-incineration of health care waste that permits recycling of treated waste and prevents harm in environment through the reduction of unintended persistent organic pollutants from the health sector. A Global Environment Fund project supported the introduction of the non-incineration treatment of health care waste to help countries in Africa to move towards Stockholm Convention objectives in the health sector. Two teaching hospitals in Antananarivo and one district hospital in Manjakandriana were equipped respectively with 1300L, 250L and 80L autoclaves. The capacity of these model hospitals was strengthened by the donation of equipment and materials and the training of the health workers in best environmental practices in health care waste management. Proper segregation of waste in the wards to collect the infectious waste that was treated in the autoclave was the main step guaranteeing a cost-efficient non-incineration of health care waste. Therefore, the start-up of the switch of incineration into non-incineration treatment was carried out progressively in each ward with close supervision of hygienist. Emissions avoided of unintended persistent organic pollutants during these four months of autoclaves use is 9.4 g Toxic Equivalent per year. Public hospitals in low income countries can be model in best environmental practices in health care waste management but efforts must be made internally for sustainment.

**Keywords :** autoclave, health care waste management, model hospitals, non-incineration

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