ABSTRACT

A WHO report on health workers infections during the 2014-2016 Ebola virus epidemics in Guinea and Liberia found a number of deficiencies from challenges in training to human factors and characteristics of PPE equipment. Studies have highlighted that ineffective management of biohazards in developing countries can compromise the quality of patient care and create occupational and environmental health risks. An assessment conducted in Kenya in 2013 showed that 18-64% of laboratory facilities do not practice adequate waste management, infection prevention and compliance practices. Studies show that Kisumu County has been burdened by TB and HIV and that this burden could be reincarnated among laboratory personnel who are responsible for patient samples processing. Despite the fact that there are a lot of laboratory health hazards in Kisumu County, statistics on the biohazard management practices in medical laboratories in Kisumu East Sub-County remains unreported. As such, the main objective of the study was to evaluate biohazards management practices by occupationally-exposed medical laboratory personnel in health facilities in Kisumu East Sub-County, Kisumu County Kenya. The specific objectives were: to assess hazardous wastes disposal, examine infection control measures, determine training and compliance practices by occupationally-exposed medical laboratory personnel in health facilities in Kisumu East Sub-County, Kisumu County, Kenya. The study was conducted among laboratory personnel within Kisumu East Sub-County. Using a cross-sectional design, saturated sampling of 121 laboratory personnel was done. Self-administered questionnaires were used to collect information on biohazard management practices. Frequency tabulation was used to determine frequencies and percentages. Results on biological waste disposal showed 90 (74.4%) incineration while waste segregation 118 (97.5%). Infection control showed that 53 (61.2%) of those working in BSL2 were not on immunization programmes and 44 (73.7%) had no biosafety cabinets. Training and compliance practices showed that 36 (27.9%) had not been trained on Good Clinical and Laboratory Practice while 63 (52.1%) had not been trained on laboratory biosafety and shipment 38 (31.4%). It was concluded that: Hazardous waste management and segregation in few facilities were not in line with the WHO Laboratory Biosafety Standards prescribed. Most facilities lacked infection control items such as biosafety cabinets, immunization programs, eye wash, spill kits and first aid kits; majority of personnel have not been trained on Laboratory biosafety, GCLP and specimen shipment. The following were recommended in order to conform with the WHO Laboratory Biosafety Manual Standards: All laboratory staff should be well trained on biohazardous waste management, laboratories should have infection control measures like immunizations and biosafety cabinets. Additionally, trainings and compliance practices should be implemented in all laboratories. The significance of this study is to identify gaps in laboratory biohazard management practices and use to findings to improve occupational health and safety in laboratory facilities in Kisumu East Sub-County, Kenya.