

A TOTAL QUALITY MANAGEMENT APPROACH TO HANDLE VETERINARY HOSPITAL WASTE MANAGEMENT

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ABSTRACT

Case study was conducted at Civil Veterinary Hospital Chak-44, which is providing veterinary services in three union councils of tehsil Muridkey, District Sheikhpura. A questionnaire was developed as a tool for collecting information. Exposure of humans to disease-causing pathogens of animal origin can occur via occupational exposure, water, food, air or soil. The animal wastes include faecal material, respiratory secretions, urine, sloughed feathers, fur, skin and internal body organs which contain high concentrations of both human and animal pathogens (disease-causing microorganisms) and upon transmission to humans and animals, these pathogens can cause illness and even death. From the present study, it was concluded that there is lack of education and proper training of veterinarian and para-veterinary staff regarding proper handling and disposal of animal waste.

Key Words: Animal, Management, Pathogen, Veterinary, Waste.

INTRODUCTION

Various bacteria, viruses, and protozoa exist in apparently healthy animals, and their transmission to humans can cause illness and even death. Exposure of humans to these disease-causing pathogens can occur via occupational exposure, water, food, air or soil. The fecal wastes and other wastes (such as respiratory secretions, urine, and sloughed feathers, fur or skin) of various agricultural (livestock) and feral animals often contain high concentrations of human and animal pathogens (disease-causing microorganisms). Concentrations of some pathogens occur at levels of millions to billions per gram of wet weight feces or millions per ml of urine. Furthermore, the trend for production facilities to harbor hundred to thousands of animals in relatively small spaces results in the generation of very large quantities of concentrated fecal and other wastes that must be effectively managed to minimize environmental and public health risks (Sobsey *et al.*, 2006).

Veterinary Hospitals are providing health services to the livestock in rural and urban community. During these activities the waste produced, if not properly disposed off, can result in epidemics in vast area. In Pakistan, systematic approaches for the disposal of veterinary waste lack. Hospital wastes are simply thrown out on the ground or mixed with the ordinary waste or buried without any appropriate measure. Veterinary Hospital wastes are categorized according to their weight, density and constituents. The veterinary waste has been classified into different categories; anatomical, infectious, sharps, pathological, chemical, radioactive and domestic as (Nowlan, 1997). A very little

data, if ever exists on veterinary hospitals/clinic/laboratories waste in Punjab. This type of waste has a bad effect on the environment by contaminating the land, air and water resources. This study was conducted to determine the awareness regarding waste management policy, documentation and implementation by the staff of Civil Veterinary Hospital.

MATERIALS AND METHODS

Case study method was conducted (Siddiqui *et al.*, 2005) to determine the hospital waste management in Civil Veterinary Hospital Chak-44, Distt. Sheikhpura. This hospital is providing veterinary services in Three Union councils of Tehsil Muridkey, District Sheikhpura. Data regarding veterinary practices and identification of waste was collected through questionnaire and by personal interview with Veterinarian and Para – Veterinary Staff. A questionnaire was used as a tool for collecting information (Suedi *et al.*, 2000).

RESULTS AND DISCUSSION

The staff working in the Civil Veterinary Hospital chak-44 restricted to the treatment of animals, water supply, removal of carcasses, sharps, chemicals & domestic waste collection and were not aware of National Environment Management Act (NEMA), Environment Conservation Act (ECA) and non of them have either received any training in waste handling, use of protective equipments and waste management. The staff of the hospital was neither vaccinated against contagious/infectious disease of zoonotic importance nor

had training for Health Care Waste Management (HCWM). The staff had lack of attitude and ignorance towards waste and had low priority in handling waste management. There was not any method of identification labeling and segregation of the waste while all the waste was thrown outside the boundary wall of the hospital. A common practice of using same needle to different animals is also one of the sources of spreading diseases among the animals. The proper sanitary conditions were not found and animals feces, urine and droppings were spread on the floor of the civil veterinary hospital. Veterinarian, veterinary assistant and sanitary workers are at risk of being infected with infections because of not properly Health Care Waste Management (HCWM) in the civil veterinary hospital. Because of poor hygienic and sanitary conditions animals are at risk of picking up disease from the ground through mouth, inhalation and wound. During the generation of the waste and then its handling, the veterinary staff and sanitary worker found injured because of improper handling and disposing of waste. The waste was not segregated. Discarded needles, syringes, other sharps, vaccines vials and other animal waste that is known to be potentially harmful to human beings were not properly handled as veterinary medical waste. It should be decontaminated prior to disposal. The most popular, effective method of incineration was not present in the civil veterinary hospital. The veterinarian must ensure that the waste collecting from his premises is safe and environmentally appropriate waste transport and disposal but Veterinarian and Para-veterinary staff were not aware of their responsibilities in terms of legislation and proposed policies of waste.

Hospital waste management training programme should be initiated for veterinarian and Para-veterinary staff. Protocol for waste management should be made and widely discussed with the staff of the civil veterinary hospitals.

Poor waste management in the veterinary practices, followed by incorrect transport and disposal measures, as well as failure to inform and equip staff sufficiently, are just some aspects of non-compliance by veterinarians. More recently, however, with veterinary practices, clinics and hospitals now included as health care facilities with minimum requirements and with hazardous veterinary waste, assigned the same status as human Health Care Worker (HCW), there can be no excuse for non-compliance.

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