

# Medical waste: Where does it go?

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THESE are both troubled and troubling times. The fear of the coronavirus is omnipresent. There is almost no aspect of life that has not been warped by the pandemic and even when we wish to put it out of our minds, we are reminded of it in ways large and small. To cope, people engage in various activities — personal, family, community and even country-related.

Rare are those who question how things are done in order that when the new normal comes, there is a plan in place to effectively approach a contributory factor to, specifically, infectious and communicable disease control. One such factor is the matter of medical waste disposal

At no other time has public interest on the whereabouts of medical waste become prominent than in this time of pandemic brought about by Covid-19. Indeed, what is the final disposal method for personal protection equipment, disposable gloves, face masks, swabs, syringes? The concern revolves around exposure of health workers or frontliners, waste workers and the public in general when waste is improperly handled or finally disposed of in an environmentally unsound manner.

Referred to as health care waste in the Health Care Manual of the Department of Health (DoH) and medical waste in Philippine environmental legislation, they include all wastes produced as a result of diagnosis and treatment of human beings or animals. Medical wastes are produced not only by hospitals but also by laboratories, drug manufacturers, nursing homes, cosmetic ear piercing and tattoo parlors, medical schools, etc.

Medical waste includes: 1) infectious waste, which are suspected to contain pathogens (e.g. bacteria, viruses, parasites or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts. Those are the outcome of surgeries or autopsies of patients with infectious diseases; waste from infected persons in isolation wards (e.g. excreta, dressings from infected or surgical wounds); 2) pathological waste consists of tissues, organs, body parts, human fetus, blood or body fluids, etc.; 3) sharps are needles, scalpels or any item that can cut or puncture wounds; and 4) pharmaceutical waste which include expired drugs that need to be properly disposed of.

### **A growing environmental challenge**

According to the World Health Organization (WHO), medical wastes present health risks indirectly by releasing pathogens or toxic pollutants into the environment. Their disposal via landfill can lead to pollution of drinking, surface and groundwater. Treatment of medical wastes with disinfectants

may release dangerous chemical substances to the environment. That is why discharge of sewage from hospitals like feces and urine should be disinfected before disposal in the sewage system, with chemicals, biological fluids or a combination of both.

It is important for health care establishments to comply with sanitation standards imposed by law such as proper waste segregation to help minimize the risk of diseases and pollution to public health and the environment.

Primarily at risk in the current global pandemic are the frontliners because of their immediate exposure to disease and infection.

Actually, hospitals in the Philippines are obliged to comply with proper waste management, i.e. waste segregation, storage, collection and transport, treatment and final disposal. There are also guidelines for liquid waste management.

### **Medical waste vis-à-vis Covid-19 pandemic**

As early as Jan. 21, 2020, the Department of Health issued guidelines on preparedness and response to Covid-19 which emphasized that waste management and decontamination procedures must ensure that all materials used are disposed of appropriately. Disinfection of work areas and

decontamination of possible spills of blood or infectious body fluids should follow validated procedures with chlorine-based solutions.

On March 26, 2020, the Environmental Management Bureau of the Department of Environment and Natural Resources (DENR) issued a memorandum to all EMB regional directors to use thermal treatment by incineration as a mode of disposal. The memorandum allows incineration for all Covid-19-related health care wastes collected during the period of enhanced community quarantine.

However, the 1991 Clean Air Act (Republic Act 8749) states, “Incineration, defined as the burning of municipal, bio-medical and hazardous wastes, which process emits poisonous and toxic fumes, is hereby prohibited” (Sec. 20). The reason behind the prohibition is because incineration creates the most toxic chemicals known to science — dioxins and furans — which remain in the environment for decades to hundreds of years. The two chemicals are linked to various types of cancer, reproductive disorders, birth defects, suppression of the immune system and other health problems.

Be that as it may, the DENR issued an advisory allowing the use of incinerators and crematoria for health care or medical wastes. Immediately, the NGO EcoWaste Coalition called on the DENR to revoke the advisory.

Obviously, the Philippines does not have the capacity to continuously monitor emissions of dioxins and furans. That means it is unlikely that emission limits for dioxins and furans will be enforced even without a pandemic.

On April 2, 2020, the DoH issued a department memorandum which says, among others, that all health facilities, community quarantine centers and temporary treatment and monitoring facilities must conform to the rules and regulations mandated by the EMB (DENR), to wit: 1) infectious wastes generated must be stored temporarily in designated locations, away from patients and public spaces; and 2) treated infectious wastes can be disposed of in a sanitary landfill but must not be mixed with municipal waste or non-hazardous wastes. Separate waste routes for transporting hazardous and non-hazardous wastes should be planned and used.

Of much relevance is the 1991 Local Government Code (RA 7160) which specifically provides that the Sangguniang Bayan and the Sangguniang Panlungsod shall regulate activities relative to the use of land, buildings and structure in order to promote the general welfare; and shall likewise regulate the disposal of clinical and other wastes from hospitals, clinics and other similar establishments (Secs 447,457).

In the corpus of Philippine environmental laws, the following are the other statutes relevant to medical waste: Sanitation Code (Presidential Decree 856); Toxic Substances and Hazardous and Nuclear Waste Management Act (RA 6969); Ecological Solid Waste Management Act (RA 9003); Clean Water Act (RA 7295); and the Hospital Licensure Act (RA 4226).

A commitment to environmental protection requires strict adherence to various environmental legislation so that the right of the people to a healthy environment can be actively pursued.

### **Conclusion**

A saying people quote nowadays runs “A calamity is an opportunity.” Along the same vein, there are those who say the Covid-19 pandemic is a “once in a generation chance to set things straight.” So, why not set out simply and clearly how to effectively dispose of medical waste in an environmentally sound manner?

But really, in actual practice, where does our medical waste go?

<https://www.manilatimes.net/2020/11/28/opinion/columnists/medical-waste-where-does-it-go/802164/>