
1 1997 ANA House of Delegates

Subject: Reduction of Health Care Production of Toxic Pollution
Introduced By: Elizabeth Carney, RN, MSN, OCN, ANP, President Vermont Nurses Association

Executive Summary : The following report urges the House of Delegates to: support the definition of regulated medical waste as developed by the Association of Operating Room Nurses; lobby for medical waste incinerator dioxin emissions to be less than 2ng TEQ/dcsm; promote alternatives to products made of PVC; support mercury free health care delivery and facilities; support non-incineration methods of medical waste disposal; and, educate nurses and other health care personnel about their issues.

Action: The 1997 ANA House of Delegates agreed that ANA:

1. Endorse the position statement on regulated medical waste as published by the Association of Operating Room Nurses (Attachment A).
2. Collaborate with other organizations to develop federal and state standards for:
 - ❖ Dioxin emissions from medical waste incinerators
 - ❖ PVC product alternatives
 - ❖ Mercury-free health care facilities
 - ❖ Non-incineration methods of medical waste disposal
3. Educate registered nurses and other health care personnel about medical waste issues.

Report:

The process of providing health care produces an enormous amount of waste. "U.S. hospitals alone are responsible for over 6600 tons of waste per day, 1% of all the waste generated in America." (Shaner, 1996). Regulated medical waste, can be divided in six categories: sharps, cultures and stocks of infectious wastes, animal waste, selected isolation waste, pathological waste, and human blood, blood products, and body fluids. The categories of regulated wastes are defined in the AORN document "Regulated Medical Waste Definition and Treatment: A Collaborative Document" (1997) which is reprinted in Attachment A.

In efforts to protect the public, most medical waste is incinerated, releasing significant toxins into the environment. The United States Environmental Protection Agency has identified medical waste incinerators as a major contributor of dioxin to the environment. Dioxin is a potent human carcinogen.

In the health care setting, dioxin is released whenever medical waste is indiscriminately burned, for example, plastic products containing PVC. The EPA is adopting standards for the

emission of dioxin from medical waste incinerators. Presently more than two thirds of medical waste incinerators use NO pollution control. The level being considered for medical waste incinerators, between 2.3 and 15.0 ng TEQ dscm, compares to 0.2 ng allowed in hazardous waste incinerators. The dioxin emission level from medical waste incinerators should be no greater than 0.2 ng; the desirable dioxin emission levels would be less than 0.2ng. (EWG, 1997).

Living within two miles of medical waste incinerators are:

- ❖ 5.6 million children;
- ❖ 1.5 percent of people of color; 7 percent of whites; and
- ❖ 14 percent of Americans who live below the poverty line.

(EWG, 1997)

Not all potentially infectious waste need to be incinerated. Regulated medical waste can be disinfected by heat, chemical treatments, or radiation. Only pathological waste may require incineration; however, in many states it can also be buried. Hospitals and other health care facilities need to segregate their waste appropriately to reduce the amount of regulated medical waste, which requires special treatment. Health care facilities must treat waste safely with alternative technologies.

In addition to dioxin, mercury should also be treated as hazardous waste. Mercury is a heavy metal, which readily moves from a solid to liquid to a gaseous state. Mercury found in instruments and medical products, has long been known as a neurotoxin. (Agency for Toxic Substances and Diseases Registry, 1994). Up to 80% of inhaled mercury is absorbed in the bloodstream and can cause poisoning and respiratory problems (Shaner, 1996). The ideal solution would be a mercury free workplace. Substitutes exist and should be used whenever feasible.

References:

Agency for Toxic Substances and Diseases Registry. (May, 1994). Toxicological Profile for Mercury. Washington, D.C.: Author.

American Public Health Association. (November, 1996). Resolution: Prevention of dioxin generation from PVC plastic use by health care facilities. Washington, DC: Author.

Association of Operating Room Nurses (1997). Regulated medical waste definition and treatment: A collaborative document. Standards, Recommended Practices, and Guidelines, 33-38. Denver, CO: Association of Operating Room Nurses, Inc.

Environmental Working Group. (1997). First do no harm: Reducing the medical waste threat to public health and the environment. Washington, DC: Author.

Shaner, H. (1996). Pollution prevention for nurses: Minimizing the adverse environmental impact of health care delivery. Vermont Registered Nurse, 62(4), 1-2, 8-9.

Past House Action(s):
1995 Indoor Air Quality Report