
In 1988, the Congress of the United States enacted the Medical Waste Tracking Act in response to public pressure brought about by several incidents purportedly involving regulated medical waste (RMW) washing-up along the coasts of three Northeast states. It was further alleged that this waste had entered New York City harbor as a result of illegal disposal activities of one or more waste haulers. It would later be established that very little of the waste contained what would be defined as RMW components, and that the materials had entered the harbor through the New York City storm drainage system rather than through the unlawful actions of waste transporters. However, these facts did not prevent the legislatures of a majority of states from promulgating their own laws and regulations to control the generation, processing, treatment and disposal of RMW. Although the federal statute “sunset” in 1991, most states and several federal agencies maintain some form of regulatory oversight over the waste generated through the delivery of health care and research involving potential human infectious agents.

While several studies over the last 10 years have demonstrated that there are occupational risks associated with RMW, there has not been, to the guest editor’s knowledge, a single report documenting the acquisition of an infectious disease among the public related to RMW. Most of the investigations which have been published in the literature have found that the general public’s health would not likely be adversely affected by RMW generated by health care facilities.

However, the public perceives RMW as a real and direct health threat. The numerous reports in the popular press of physical injuries (generally needlesticks) caused by RMW, especially when they occur in such public locations as parks and playgrounds, magnify the threat posed by RMW in the collective mind of the public. In addition, the public’s fears have been further heightened by the perception that RMW is generated by health care facilities treating patients for those exotic, emerging infectious diseases described in Time, Newsweek, and similar publications. Whenever the public’s perception of any issue, in this instance, the health threats posed by RMW, clashes with the results of scientific investigations of the same issue, perception invariably wins.

The myriad of state, federal and even international RMW regulations and the public’s perception of RMW as a threat to its health and safety has resulted in the development of a billion dollar industry in the United States. Manufacturers of autoclaves and alternative treatment technologies, RMW haulers, commercial treatment centers and landfill operators are a few of the components of this rapidly evolving industry. As biosafety professionals, we must be cognizant of the public’s perception of RMW, the claims made by the industry, the regulatory demands of state and federal agencies and be capable of weighing these factors against the reality that RMW is a low risk—high consequence hazard. To assist the Association’s members, I have assembled four articles in this issue which discuss distinctly different aspects of the RMW issue, i.e., the threat posed by accidental needlesticks, development of effective and low cost RMW treatment procedures for non-industrialized countries, an investigation of a tuberculosis outbreak at a commercial medical waste treatment site and the republication of a chapter from Anthology of Biosafety II: Facility Design Considerations, which describes medical and infectious waste management in industrialized countries. I trust that these reports will allow you to better understand the problems associated with RMW so as to appropriately manage the RMW generated in your institutions.

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