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DOMESTIC MEDICAL WASTE DISPOSAL

The Health and Emergency Medical Services Committee recommends the adoption of the recommendation contained in the following report, May 20 2004, from the Commissioner of Health Services with the following additional recommendation:

2. That Health Services Department staff develop a protocol to share with hospitals within York Region and other appropriate agencies for patient education purposes regarding the disposal of radioactive biomedical waste.

1. RECOMMENDATION

It is recommended that:

1. Health and Emergency Medical Services Committee and Regional Council receive this report for information purposes.

2. PURPOSE

This report responds to a request for a report regarding the disposal of medical waste from private residences in York Region by the Health and Emergency Medical Services Committee on March 4, 2004.

3. BACKGROUND

On March 25, 2004, Regional Council adopted Report No. 3 of the Health and Emergency Medical Services Committee on March 4, 2004, which requested Health Services Department staff to prepare a report regarding the disposal of domestic medical waste from private residences. Further to that request, the Health Services Department consulted with the Transportation and Works Department, who is responsible for waste management, in the preparation of this report. Further inquiries regarding disposal of wastes should be referred to the Transportation and Works Department.

4. ANALYSIS

4.1 General

With increasing numbers of medical treatments and procedures being provided in private residences, a greater volume of biomedical waste can potentially be generated. Biomedical waste can be roughly divided into two categories:

- Sharps (e.g., needles, syringes with needles attached, lancets, etc).

- Other biomedical wastes (e.g., gauze and wipes to cleanse wounds, incontinence diapers and pads, etc.).

Biomedical waste can carry and potentially transmit infectious diseases. Sharps waste is particularly dangerous because it not only has the potential to carry the agent of an infectious disease, but can also facilitate the means by which it can be transmitted through a cut or puncture wound of the skin.

The main risk to human health from biomedical waste is from the potential exposure to bloodborne infections from the improper disposal of sharps. Waste contaminated with highly infectious pathogens such as Hepatitis B poses the greatest theoretical risk, although risk for transmission also exists for other bloodborne pathogens such as Hepatitis C and HIV. Hepatitis B is of concern because it can remain infectious on environmental surfaces for at least seven days. Occupations with a higher level of exposure to municipal refuse, such as garbage collection and waste treatment, have a higher level of risk. While there is extensive documentation of the theoretical risks associated with biomedical waste, a search of the relevant medical literature did not identify any cases of bloodborne infectious diseases in the community acquired from exposure to biomedical waste.

4.2 Sharps

There have been several programs and education campaigns developed since the early 1980s to educate the public about the dangers of biomedical sharps waste and to provide proper containers and facilities for safe disposal. Used needles may be brought to health care facilities, needle exchanges, pharmacies and to The Region's three household hazardous waste depots for disposal. Patients who use needles are educated in their proper disposal.

4.3 Other Biomedical Wastes

4.3.1 Non-Sharps Biomedical Waste

Non-sharps household biomedical waste, if properly handled and bagged as per the recommendations of the Health Care Health and Safety Association of Ontario, may be put out for regular household garbage collection. The Association's recommendations are to place non-sharps household biomedical waste in plastic bags, and securely close the bags with a hard twist tie. However, local municipalities may have solid waste collection by-laws that may make it illegal for residents to place non-sharps biomedical waste at the curb for collection even if it is bagged in the proper manner. Residents should contact their local municipality to determine whether such a prohibition exists and the options available in the local municipality to dispose of this waste.

4.3.2 Community Care Access Centre (CCAC) Supported Therapies

While everyone has the potential to dispose of biomedical waste such as used band aids at home, certain patients who are supported at home will regularly generate a substantial volume of biomedical waste material. These patients include those who need treatments

involving intravenous therapy or injections, in-home chemotherapy and in-home peritoneal dialysis. Many of these patients are supported in their therapies by the CCAC.

The CCAC reports that dressings from wound care can be bagged according to its procedures and placed in the general household garbage. For treatments involving intravenous therapy or injections, the CCAC provides the appropriate sharps disposal containers which are picked up from the patient's home by a licensed biomedical waste disposal company, on contract with the CCAC. Where in-home chemotherapy or peritoneal dialysis is involved, the CCAC provides the appropriate containers for all wastes generated and these are also picked up by a biomedical waste disposal company from the patient's home.

4.3.3 Radioactive Biomedical Waste

In rare cases, domestic biomedical waste may contain radioactive materials. Evidence does not support a direct risk to human health since this type of radiation is low level and decays in a matter of days. The collection of this type of waste has added costs to The Region's waste management program and will be addressed by the Transportation and Works Department in a separate report to the Solid Waste Management Committee.

4.4 Provincial Legislation

Waste management in Ontario is governed by Part V of the *Environmental Protection Act* (EPA) and the regulations thereto including Regulation 347. Biomedical waste is defined in Regulation 347 as "pathological waste". The regulations must be followed in the management of garbage from hospitals, medical offices, clinics, dental offices and veterinarian offices. Thus, many local municipal solid waste by-laws identify pathological waste from these locations as "non-collectible" meaning that other special, private contractor pick-ups must be arranged by the medical establishment.

However, section 26 of Part V of the EPA in general terms excludes domestic waste disposed on a person's own property from the applications of the EPA. However, in the absence of provincial legislation governing disposal of domestic waste, local municipalities may have by-laws or policies that restrict the inclusion of biomedical waste for collection and disposal.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

6. LOCAL MUNICIPAL IMPACT

By-laws for Georgina, Markham, Newmarket and Richmond Hill indicate that biomedical wastes, as defined in their respective by-laws, are not collected from any source, be it a private residence or a medical establishment. However, by-laws for Aurora, East Gwillimbury, King and Vaughan indicate that biomedical wastes are not

collected from medical establishments, and make no reference to biomedical wastes generated at residences.

There are no particular health risks associated with any municipality with respect to the collection of biomedical waste, except as has been described in this report.

7. CONCLUSION

Biomedical waste generated from home care assisted by the CCAC is disposed of by licensed disposal contractors. Sharps waste in all cases should be properly disposed of and programs and facilities exist to promote this. Recommendations of the Health Care Health and Safety Association of Ontario state that biomedical waste generated at home can be safely disposed of through the regular business practices of municipal garbage collection programs. In fact, Regional Solid Waste Management has been able to manage this issue, without incident, for many years as part of regular operating practices.

The Senior Management Group has reviewed this report.