

8.1 Bioterrorism Agents

Introduction

Bioterrorism involves the purposeful use of disease agents to cause illness in a population. Such events can be the result of domestic as well as international threats. Any number of agents can be used for bioterrorism but some have been identified as more likely including: Anthrax, Brucellosis, Plague, Tularemia, Smallpox, Viral Hemorrhagic Fevers. This section covers disease of importance that is not identified elsewhere and pose a risk for bioterrorism. Common routes of bioterrorism include food or water poisoning or the use of aerosolized agents. The most recent example of bioterrorism in North America was the 2001 attack on various American targets using anthrax powder.

A bioterrorism event can be detected by a number of methods. First responders or MOHs may determine if an event or illness represents a credible public health risk and whether it may be suspicious.

In 2002 the Government of Newfoundland and Labrador created the Bioterrorism Response Handbook. This manual details actions needed to address real or potential bioterrorism threats.

Surveillance and prompt response to events that are suggestive of bio-terrorism will allow for implementation of measures that will prevent further illness. Case follow-up and contact tracing will also further reduce the effects of such an event on the population. A rapid response will prevent further spread of the offending agent. Some of the clues that may result in a level of suspicion include:

- unusual number of ill persons with the same disease or syndrome
- unusual number of cases of unexplained diseases or deaths
- unusual illness in a population
- unusual, genetically - engineered, or antiquated strains of an agent or antibiotic resistance strain of an organism

For more detailed information on the diseases related to federal response to bioterrorism please see the Public Health Agency of Canada website:

<http://www.phac-aspc.gc.ca/ep-mu/bioem-eng.php>

Bioterrorism Response

If an incident has been identified as highly suspicious by police and explosive chemical and radiological threats have been ruled out, the first responder along with the Medical Officer of Health (MOH) or the designate for that region shall proceed as outlined in the Newfoundland and Labrador Bioterrorism Response Handbook. Prior to sampling or collection of a suspicious package for biological analysis, chemical and radiological contamination must be ruled out. The police will be responsible for securing the area of a suspected threat with direction from the MOH depending on the agent or bacteria involved. Once any individual incident is contained the public health response follows normal policies or procedures, with updates being provided to the police.

Some of the diseases related to bioterrorism include:

- Smallpox
- Viral Hemorrhagic Fevers
 - Ebola - Marburg
 - Dengue
 - Lassa
 - Crimean Congo – Rift Valley

Many of these are diseases rarely seen in the population and will not be detailed elsewhere in this manual.

Other disease of significance to bioterrorism, but which are detailed elsewhere include:

- Anthrax
- Brucellosis
- Plague
- Tularemia