



## HOMES AND SENIORS SERVICES

### **POLICY & PROCEDURE NUMBER: 5.3**

**DEPARTMENT:** *Infection Control*

**SUBJECT:** *Outbreak Management – General*

**APPROVAL DATE:** April 2004

**REVISION DATE:** March 2016

**REVIEW DATE:** March 2017

**REVISION DATE:** November 2018

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**INTRODUCTION:** An outbreak is the occurrence of more cases of a particular infection than is normally expected, the occurrence of an unusual organism, or the occurrence of unusual antibiotic resistance patterns. Generally, 2 or more cases of a specific infection that develop within 24 hours (or longer depending on the case definition) on 1 or more units constitute an outbreak scenario.

**PURPOSE:** To control and prevent further disease, provide guidelines for the investigation of a suspected outbreak, identify factors that contribute to the outbreak, and to analyse those contributing factors and recommend preventative measures.

**PROCEDURE:** A number of elements of outbreak investigation often occur simultaneously and the importance and sequence may vary with the particular problem.

1. Establish the existence of an outbreak
  - Verify the diagnosis and identify the infectious agent
  - Institute control measures based on a tentative hypothesis or the likely reservoir source(s), and mode of transmission of the disease. Identify available resources (equipment, personnel, and laboratory supplies)
  - A specific, written definition characterizing the cases occurring should be developed. The case definition is a standard set of criteria for deciding whether an individual should be classified as having the infection that is under investigation. A case definition includes clinical criteria and restrictions by time place and person
  - The case definition should be used to identify causes and compare rates with the normal incidence
  - Prevailing practices related to the outbreak should be documented. Appropriate laboratory specimens should be collected to identify the causative agent
2. Communication regarding the outbreak should be established with the Southwestern Health Unit, the MOHLTC, MOL, Medical Director, Staff, residents, families, volunteers and outside agencies are required.
3. Identify additional cases
  - Cases should be identified that may have occurred prior to the outbreak being identified or that may continue to occur



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4. Describe the outbreak according to time, place, and person
  - Provide line listings to public health unit so that an epidemic curve can be plotted for the period of the outbreak and an attempt made to determine source
  - Any geographic clustering may help to identify the source or population at risk should be reported to the public health unit. Characteristics of cases that help to identify the population at risk should be reported to public health unit
  - Attack rates should be calculated
  
5. Develop a hypothesis
  - Based on the above findings, postulate the causes for the outbreak, i.e. a reservoir of the organism, method of spread. Review the literature about a similar outbreak
  - Review control measures put in place initially, and ensure they are appropriate to the hypothesis. The effect of the intervention should be recorded.
  
6. Test the hypothesis
  - Take measures to test the hypothesis i.e. collect samples for culture of a material/equipment epidemiologically linked to the outbreak. Whether or not these are conducted depends on the severity of the problem and the personnel/resources available
  
7. Refine and finalize the hypothesis
  - Evaluation of control measures should determine the need to correct or implement any measure, which may prevent a future outbreak
  - Evaluation of the success with which the facility managed the outbreak should determine the need to adjust the contingency plan
  - A final written report of the management and outcome of the outbreak should be forwarded to the appropriate individuals