



TITLE: Outbreak Management

MANUAL: INFECTION PREVENTION AND CONTROL

SECTION: N/A

APPROVED BY: CHIEF NURSING EXECUTIVE

POLICY

An outbreak is an increase in the number of cases of healthcare associated infections/colonization above the number normally occurring in a particular health care setting over a defined period of time. An outbreak may also be identified as a result of an unusual, new disease, or new set of symptoms noted in a particular patient/resident/staff population group. All health care facilities must have methods in place to identify the occurrence of clusters or outbreaks of infectious diseases. At NSHN this is accomplished by:

- Reviewing the organizational surveillance data of Hospital Acquired Infections (HAIs) in order to identify increases in cases
- Reviewing and investigating any reports received from staff related to any clusters or potential outbreaks
- Reviewing microbiology reports in a timely manner to identify unusual clusters or a greater than usual incidence of certain species or strains of microorganisms

This policy will provide a mechanism for investigation, communication, control, containment and documentation of an outbreak at North Shore Health Network.

SUPPORTIVE DATA

All health care facilities should have an administrative policy for dealing with infectious disease outbreaks, including the authority to relocate patients/residents, cohort patients/residents and staff, confine patients/residents to their rooms, restrict admissions and transfers, restrict visitors, obtain cultures and administer relevant prophylaxis or treatment.

Early recognition of unusual clusters of illness with timely intervention will prevent outbreaks or limit the spread of infections once an outbreak has been identified. Interrupting the transmission of disease using targeted control measures will decrease the impact on patients/residents' health, patient care and cost.

Infectious disease outbreaks may occur year-round and in different settings including acute care sites and long-term care facilities. Effective outbreak management requires a multidisciplinary approach and involves individuals with different responsibilities.

ROLES AND RESPONSIBILITIES

The Responsible Authority or his/her Delegate is responsible for implementing and maintaining this policy/procedure/protocol. Workers, Managers, and specific Departments may also have roles and/or responsibilities outlined in this document.

I. Workers:

- Notify the Infection Control Professional (ICP) or unit manager of any noted **increase** in similar symptoms amongst staff, patients/residents occurring within the same setting and period of time.

- Notify the ICP or unit manager of any noted **increase** in organisms or unusual antibiotic resistance patterns in microbiology results
- Do not wait for confirmed laboratory result; initiate the appropriate Additional Precautions with any resident/patient with symptoms that may result in the transmission of an infectious disease.
- Manage and maintain patient line lists by completing the required information as requested by the ICP or unit manager.

II. Managers

- Reinforce the importance of:
 - Hand Hygiene
 - cleaning of shared patient equipment between uses
 - the correct usage of PPE and donning/doffing procedures
 - early initiation and maintenance of Additional Precautions
- Provide outbreak status updates and act as resource for staff
- Participate as Outbreak Management team member

III. Infection Control Professional (ICP) with the Assistance of Unit Manager and Staff

- Gather preliminary data to:
 - a) Determine if a potential outbreak exists
 - b) Confirm the diagnosis of reported cases
 - c) Determine means of transmission
 - d) Conduct chart reviews as necessary
 - e) Conduct a retrospective review to identify other cases
 - f) Develop and maintain a line list of cases and epidemic curve
 - g) Develop a preliminary case definition
 - h) Perform a literature review to assist with any aspects of outbreak investigation, management and control which are challenging or unfamiliar
- Liaise with Algoma Public Health (APH)
- Coordinate OMT and arrange regular meetings during outbreak
- Act as a resource for staff
- Track specimens requested, received and results.
- Prepare outbreak report and distribute to the IPACC and Senior Management Team

IV. Ad Hoc OMT

- Attend meetings as scheduled by the chair .
- Assist and support the ICP and affected unit's Manager in:
 - Developing a case definition
 - Developing a presumptive hypothesis as to cause of outbreak
 - Identifying affected patients/patient population
 - Reviewing clinical and laboratory findings
 - Determining collection and tabulation of data
 - Coordinating collection and processing of specimens
 - Instituting and reinforcing infection control measures
 - Determining further meeting dates
 - Recording actions taken

- Preparing hospital (in-house) information and communicating findings and recommendations frequently.

V. Director of Environmental Services

- Increase cleaning hours as required
- Enhance level of cleaning and disinfecting as required
- Participate as Outbreak Management team member

VI. Chief Nursing Executive or Delegate

- Public communication and disclosure to the LHIN
- Participate as Outbreak Management team member

PROTOCOLS

Outbreak management will include strategies to meet the following goals:

- To control and prevent further dissemination
- To identify factors that contributed to the outbreak
- To analyze those contributing factors and recommend preventative measures
- To facilitate clear communication

PROCEDURES

1. The ICP will investigate all reports of unusual types or numbers of patients or staff with signs of infection/illness.
1. The ICP will investigate any increase in baseline surveillance data and microbiology reports
2. The ICP will notify the Infection Prevention and Control Committee (IPACC) and Algoma Public Health's (APH) Environmental Health Program of findings suggestive of a suspected outbreak.
3. The IPACC shall convene an ad hoc Outbreak Management Team (OMT), consisting of members appropriate to the facility. This group will confer with external expertise, if required, which may be obtained from regional infection control networks, academic health sciences centers and linkages with other facilities. They will also advise the Senior Management team of a potential or actual outbreak.

Members and department participants will include, as appropriate:

- ICP
- Unit Manager
- Chief Nursing Executive
- Director of Environmental Services
- APH representative
- Pharmacy
- Laboratory
- Human Resources
- Nurse Practitioner
- Infection Control Committee Physician
- Communications Management

4. The OMT in conjunction with APH will review all findings and decide on the initial course of action. If an outbreak is confirmed, it will be declared and APH will provide an outbreak number. An Outbreak number is to be added to any laboratory specimens to identify that the specimen is part of an outbreak.

NOTE: In the event of a disagreement between the institution and the APH, the MOH has the authority to determine if an outbreak of a communicable disease exists, for purposes of exercising statutory powers under the *Health Protection and Promotion Act*. Once an outbreak is declared, it is reported to the Ministry of Health and Long-Term Care through the integrated Public Health Information System (aphids).

5. The OMT will begin by establishing the following action plans:
 - Facilitate clear communication to staff, physicians, students, patients, volunteers, families and visitors
 - Delegate responsibilities appropriately based on the specific disease outbreak guidelines
 - Obtain or plan for needed resources (i.e., staff, supplies, enhanced cleaning and disinfecting, medications etc.)
 - Determine education requirements and delivery
 - Review potential unit closure, visitor restrictions, procedure cancellations etc.
 - Determine meeting frequency
6. As information is gathered and further meetings are held the ICP in conjunction with the OMT must:
 - Attempt to identify the index case
 - Formulate tentative hypotheses of root cause
 - Evaluate patient characteristics (e.g. underlying diagnosis or treatment, epidemiological links)
 - Continue strict surveillance of affected area to identify new and ongoing transmission
 - Evaluate on-going control measures, their efficacy and make changes if necessary
 - Manage epidemiological data
 - Observe and review potentially implicated patient care activities
 - Determine when heightened control measures can be terminated and when investigation can end
 - Provide recommendations for preventative measure
 - Review final outbreak report prior to dissemination to the SMT

INFORMATION MANAGEMENT

- I. External References
 - Ontario Agency For Health Protection and Promotion. Provincial Infectious Diseases Advisory Committee. Best Practices for Infection Prevention and Control Programs in All Health Care Settings, 3rd edition. Toronto, ON: Queen’s Printer for Ontario; May 2012.
 - Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for surveillance of health care-associated infections in patient and resident populations. 3 rd ed. Toronto, ON: Queen’s Printer for Ontario; 2014
 - Sault Area Hospital (SAH), Infection Prevention and Control Committee. OUTBREAK IDENTIFICATION AND RESPONSE Policy. May 2022