**Outbreak Investigation**

**Policy and Procedure**

**Outbreak Investigation Policy**

**Policy**

It is the policy of this facility to recognize and contain infectious disease outbreaks and outbreak measures will be instituted whenever there is evidence of an outbreak as outlined below.

The Infection Preventionist, or designee, will conduct the outbreak investigation and has the authority to implement outbreak measures to control possible transmission. These actions will be carried out in coordination with the Medical Director, administration, and medical staff as well as state and local health agencies. In the absence of the Infection Preventionist, the Director of Nursing or the Assistant Director of Nursing or designee will conduct the investigation.

Appropriate notifications to the Medical Director, Administrator, all departments, attending physicians, state and local agencies, and resident representatives will take place as soon as possible after the outbreak has been identified.

Outbreak monitoring and reporting will continue until the outbreak has resolved. The facility will send all appropriate reports to state and local health department agencies in accordance with State requirements.

Control measures may include one confirmed resident, unit isolation or quarantine measures for the entire facility.

An interdisciplinary evaluation of the outbreak will be completed, and recommendations for preventive measures will be presented at the quarterly Quality Assurance Committee meeting.

**Definitions**

**Outbreak:** “the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time.31 If a condition is rare or has serious health implications, an outbreak may involve only one case. While a single case of a rare infectious condition or one that has serious health implications may or may not constitute an outbreak, facilities should not wait for the definition of an outbreak to act.”1

**CDC Example for Influenza:** “If one laboratory-confirmed influenza positive case is identified along with other cases of acute respiratory illness in a unit of a long-term care facility, an influenza outbreak might be occurring” and “When 2 cases of laboratory-confirmed influenza are identified within 72 hours of each other in residents on the same unit, outbreak control measures should be implemented as soon as possible.”2

For any given circumstance, the facility Medical Director, DON, and Infection Preventionist, and/or State Guidelines will determine if an “outbreak” exists.

\*\*Please check with your State specific definitions of what will constitute an outbreak.

## **Overview**

## Outbreak of the disease can occur in the facility or in the community.

1. Outbreaks can cause significant morbidity and in some cases mortality, therefore, prompt identification through a good monitoring and surveillance system and prevention strategies will be essential.

**Goals of Outbreak Investigation and Management**

1. Prompt identification that an outbreak exists.
2. To implement prompt resident placement, transmission-based precautions, and personal protective equipment (PPE) in order to prevent the spread of the outbreak.
3. To provide timely, appropriate monitoring of ill residents.
4. To prevent transmission of infection to residents, staff, visitors, and family members.
5. To provide and report to facility employees, medical and administrative staff, residents, resident representatives, and state/local agencies with accurate, organized, and objective information.
6. To prevent future outbreaks of similar illness.

## I. Preparation-ongoing basis: Part of routine education of staff should include a description of what an “outbreak” is, their role in an outbreak and methods of prevention such as:

* 1. Hand hygiene.
	2. Placing residents in the appropriate transmission-based precautions and using indicated personal protective equipment as directed during an event.
	3. Remaining home if they are ill.
	4. Identification and reporting symptoms of infectious diseases, diarrheal illness, or respiratory illness to the Infection Preventionist or Nurse Manager promptly.
	5. Education on the importance of the annual influenza vaccination for both residents and employees.
	6. Description on what interventions or measures that may be implemented during an outbreak such as transmission-based precautions or quarantine.
	7. The need to monitor and maintain line lists of symptomatic residents, as well as a separate line list for symptomatic staff, and staff restrictions if they are ill, the possible need for more specimen collection, more frequent vital signs, and Intake and Output measurement.
	8. The need for nursing staff to monitor for clusters of infection and to report suspected clusters of infection to the Infection Preventionist or their manager.

## **Monitoring/Surveillance**

* 1. Routine daily monitoring of resident condition with cares for signs and symptoms of infection will be done by the frontline staff with cares.
	2. Surveillance, logging, and mapping by the Infection Preventionist or member of the Infection Control team to determine any trends for action and for future analysis.
	3. Ongoing surveillance will identify any new or unusual organism(s).
	4. A system for the Infection Preventionist to monitor outbreaks in the community (i.e., schools, daycares, hospitals, other healthcare facilities) and communicate with public health agencies for pertinent information regarding infections or outbreaks identified in the community or any other significant findings.

## **Identification/Recognition**

* 1. When symptoms are identified among residents and/or staff, that could potentially indicate an outbreak, the Infection Preventionist or designee will:
		1. Place resident in appropriate transmission-based precautions if indicated.
		2. Develop a case definition (“set of uniform criteria”3) to identify other similar cases. Identify symptoms, site(s), pathogen(s), the pattern of the syndrome, and affected population (e.g., all residents and staff who ate at the community fish fry on Friday have acute diarrhea).
			1. Identify unit
			2. Resident symptoms
			3. Timeframe
		3. Verify the diagnosis/symptoms with appropriate testing.
		4. Confirm the outbreak.
			1. Compare the rate of the potential outbreak to the usual rate of infection for the facility.
		5. Notify and involve appropriate departments, personnel (e.g., administration, nursing, employee health), Medical Director and local/state public health, as necessary.
		6. Identify additional cases. (Ongoing, real-time monitoring of residents and/or staff for signs and symptoms).
		7. The Infection Preventionist or designee will review lab data.
		8. The Infection Preventionist or designee will review details of signs/symptoms of infection for employee call in’s.
		9. Develop a line listing of cases with signs/symptoms, date, details of illness.
			1. Residents
			2. Employees
		10. The Infection Preventionist and QAA committee will evaluate the data gathered to attempt to identify the source and connection between cases. This may help determine control measures to focus on.
		11. Determine the potential organism associated, source, and a possible method of transmission.

## **Contain, Control and Prevent More Cases**

* 1. Controls measures to take will be determined by the type of illness and a possible method of communication.
	2. If the organism is identified, determine if prophylaxis may be appropriate for exposed individuals who are asymptomatic and ordered by a physician.
	3. Assess and identify exposed residents.
	4. Other measures may include transmission-based precautions for symptomatic residents, discontinuing group activities, discontinue group dining, cohort residents, consistent staff assignment, limiting or restricting visitors, and using personal protective equipment such as masks, gowns, gloves, etc. as indicated.
	5. Post signs as needed with instructions for prevention.
		1. Entrance
			1. Visitor restriction (if applicable)
			2. Hand Hygiene
			3. Respiratory Hygiene and Cough Etiquette
			4. Personal Protective Equipment
	6. Supplies at entrance for prevention.
		1. Alcohol-Based Hand Rub (ABHR)
		2. Masks
		3. Tissues
		4. Waste Receptacle
	7. Investigate potential cause of outbreak.

### Educate Staff, Residents, and Visitors

* 1. Provide education to all staff about the existence of an outbreak, their responsibilities, potential risk for them, and methods to prevent transmission.
	2. Provide education for residents, resident representatives, and visitors.
		1. Hand Hygiene
		2. Personal Protective Equipment
		3. Respiratory Hygiene and Cough Etiquette
		4. Standard and Transmission-based Precautions
		5. Visitor limitation/restriction if indicated
		6. Specifics regarding the outbreak/pathogen
	3. Reinforce and monitor compliance with hand hygiene and compliance with identified control measures.

### Enforce Compliance

* 1. It is the responsibility of all employees to comply with facility infection prevention and control policies and procedures:
		1. Hand Hygiene
		2. Standard and Transmission-based Precautions
		3. PPE
		4. Respiratory Hygiene and Cough Etiquette
		5. Equipment and Environment
			1. Disinfection and appropriate product use
		6. Any additional policies, procedures, or protocols for any novel pathogen
	2. The Infection Preventionist, Supervisors and managers will be accountable for assuring staff, resident, and visitor compliance.
	3. If non-compliance is identified through process surveillance, further actions may be taken by the Infection Preventionist or administration.
1. **Notify State and Local Health Officials**
	1. As required by State Law, Public Health Codes or Ordinances, report reportable diseases, illnesses, and new or unusual infections to public health agencies as soon as possible.
	2. Report measures the facility has taken to prevent further spread within the facility and to (or from) the community.
	3. Seek assistance from public health if needed.

### Continue to Monitor

### Identify any new signs, symptoms and/or cases.

### Determine if there are additional lab results or new information that would assist to identify common causes.

### Re-evaluate and Modify

### The Infection Preventionist and facility leadership will identify any additional necessary modifications, or any measures as needed, for example:

### Possible closure of a unit or the facility to new admissions or transfers out (except in a medical emergency)

* + 1. Temporary cease group activities and dining

### Consistent staffing on units

### Visitor limitation or restriction

### Identification of essential and non-essential staff

### Resolve

### When there have been no new cases for at least 72 hours (or as indicated based upon outbreak pathogen), discuss with the Medical Director and Public Health to determine if the outbreak resolved.

### Quarantine and any other restrictive control measures may be lifted.

### Any resident who is still symptomatic or infectious may need to remain on transmission-based precautions.

* 1. Symptomatic staff will not return to work until symptom free based upon incubation period or current guidance related to the pathogen for example:
		1. Number of hours/days symptom free
		2. Number of hours/days with no fever without the use of any fever-reducing medications

### Report resolution to appropriate public health agencies.

### Analyze Data and Plan for the Future

* 1. The Infection Preventionist will compile data gathered during the outbreak and examine for possible improvement opportunities in identification and management of the disease.
	2. The Infection Preventionist will develop a written report of the outbreak details. The report will identify possible strategies that could be implemented to prevent future outbreaks or improve the process.

### Report

### The Infection Preventionist will outline the report to the Quality Assurance Committee and determine actions to take that may assist prevent or control future outbreaks.

### Develop a plan to implement process improvement activities.

### Report the findings to all department managers and employees. Feedback is a critical factor in staff satisfaction and performance improvement.

***(\*\*Note: Include any State specific regulations regarding responding to and reporting outbreaks - here)***

**References and Resources**

 Centers for Medicare and Medicaid Services (CMS) State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf>

2Centers for Disease Control and Prevention. Interim Guidance for Influenza Outbreak Management in Long-Term Care and Post-Acute Care Facilities. November 17, 2020. <https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

3 Centers for Disease Control and Prevention (CDC) National Notifiable Diseases Surveillance System (NNDSS). Surveillance Case Definitions for Current and Historical Conditions: <https://ndc.services.cdc.gov/>