RANCHO LOS AMIGOS NATIONAL REHABILITATION CENTER

Infection Prevention and Control

SUBJECT: OUTBREAK INVESTIGATION

Policy No:	**IC105**
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PURPOSE
To control and prevent further disease; to identify factors that contributed to the outbreak; and to develop and implement measures to prevent similar outbreaks in the future.

DEFINITION
An outbreak is defined as an incidence of disease in excess of normal expectancy in a given area or population group.

RESPONSIBILITY
Authority and responsibility for an outbreak investigation management shall be the responsibility of the Hospital Infection Prevention and Control Committee Chairperson or his/her designee.

CONTENT
To establish the appropriate controls that prevent further disease transmission, it is necessary to address each of the following:

- Verify a common diagnosis and identify the potentially responsible agent.
- Confirm that an outbreak (or at least an increased number of cases) exists.
- Provide guidelines to the direct care providers to facilitate early identification of potential new cases and recommend alternate therapies for treatment.
- Describe cases in terms of time, place, and person
- Identify source and mode of transmission.
- Identify susceptible population.
- Implement control measures.

DOCUMENTATION
Data will be compiled in an organized manner and collated as necessary to facilitate analysis of data, initiation of a plan of action, and completion of a report. A data collection sheet should be designed as soon as possible to facilitate appropriate and consistent information relevant to the time, place, persons, contributing factors, agent, and any other detail deemed important. The final report will be filed with the first month of occurrence worksheets as well as with the Hospital Infection Prevention and Control Committee minutes and reports.

COMMUNICATION
As soon as an outbreak is presumed likely, notify the chairperson of the Hospital Infection Prevention and Control Committee, Administration, and the Managers and Chiefs of the departments and services affected. Certain infections and diseases may need to be reported to public health authorities. If possible, set up a group meeting and continue to meet frequently as the outbreak progresses.

DEFINITIONS

- Point source – a common source
- Contact – from one person to another
- Sequential – cases listed in order of occurrence (can be either by exposure or by clinical disease)
- Cluster – a group of cases with at least one common denominator

BASIC INFORMATION NEEDED FOR ALL OUTBREAK INVESTIGATION

- Name, age, race, sex
- Hospital number
- Location of patient
- Signs/symptoms
- Specimen collected based on signs/symptoms
- Date of onset of illness
- Location at time of onset of illness
- Diagnosis
- Any use of medical devices associated with signs/symptoms
- Agents identified or presumed

PROCEDURE

When an outbreak is considered likely, make sure that whatever needs to be done to establish a diagnosis is being done, and that the suspected cases included in the initial count have some specified signs and symptoms in common. See attachment A, Outbreak Investigation Flow Chart.

1. Confirm all reported information by review of the medical record, laboratory tests, or patient evaluation.
2. Assemble and organize all available information for analysis.
3. Identify specific additional data needed to form a hypothesis.
4. Create a database form
5. Begin to collect data and continue to do so until the outbreak is resolved or aborted.
6. Reassemble and organize all available information for analysis
7. Seek additional cases and continue to pursue this until the outbreak is resolved or aborted. Be sure to promote increased reporting by anyone in the associated departments and services.
8. Form a hypothesis.
9. Set up preliminary controls based on signs and symptoms, presumptive diagnosis, presumed mode of transmission, and location within the facility.
10. Estimate the scope and/or magnitude of the problem.
11. Continue data collection with frequent reevaluation of the hypothesis and control measures in place.
12. Characterize the cases and make logical conclusions into new and/or additional hypotheses that may change as the outbreak progresses.
13. Keep accurate records.

14. Initiate educational programs in the affected departments and/or services.
15. Continue to monitor well after the resolution of outbreak and specific outbreak controls have been discontinued.
16. Summarize the problem and make recommendations for long-term measures.

ADDITIONAL DATA THAT MAY BE IMPORTANT

- Surgical procedures done – when, where, and by whom
- Invasive procedures done – when, where, and by whom
- Health care workers associated with a defined aspect of care
- Underlying medical problems

FINAL REPORT OF AN EPIDEMIOLOGICAL INVESTIGATION

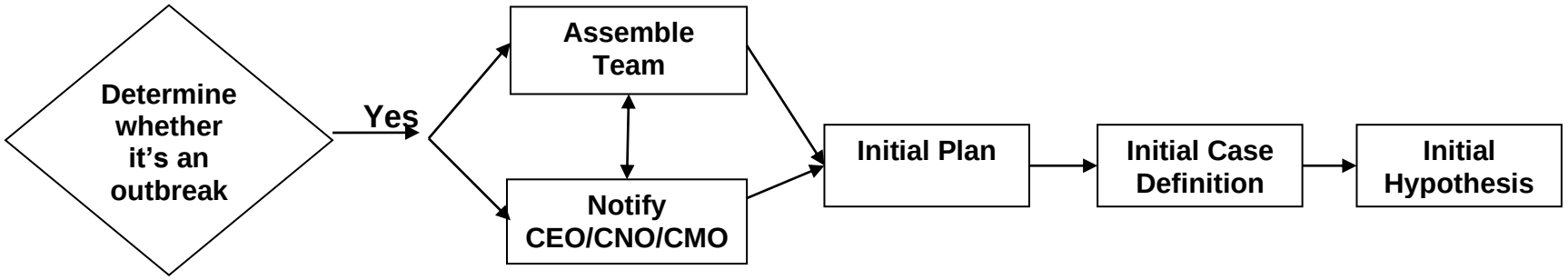
1. Introduction – Describe the circumstances leading to the initiation of the investigation.
2. Background – Describe the setting.
3. Investigation – Describe the reasons, methods, and conclusions.
4. Results – Include evidence that points to probable source.
5. Analysis – Present data analysis and indicate who performed the analysis.
6. Control measures – Describe those used, those discontinued, and those that are to continue.
7. Recommendations – For future control of the situation.
8. Other – Describe any other important outcome

Reference:

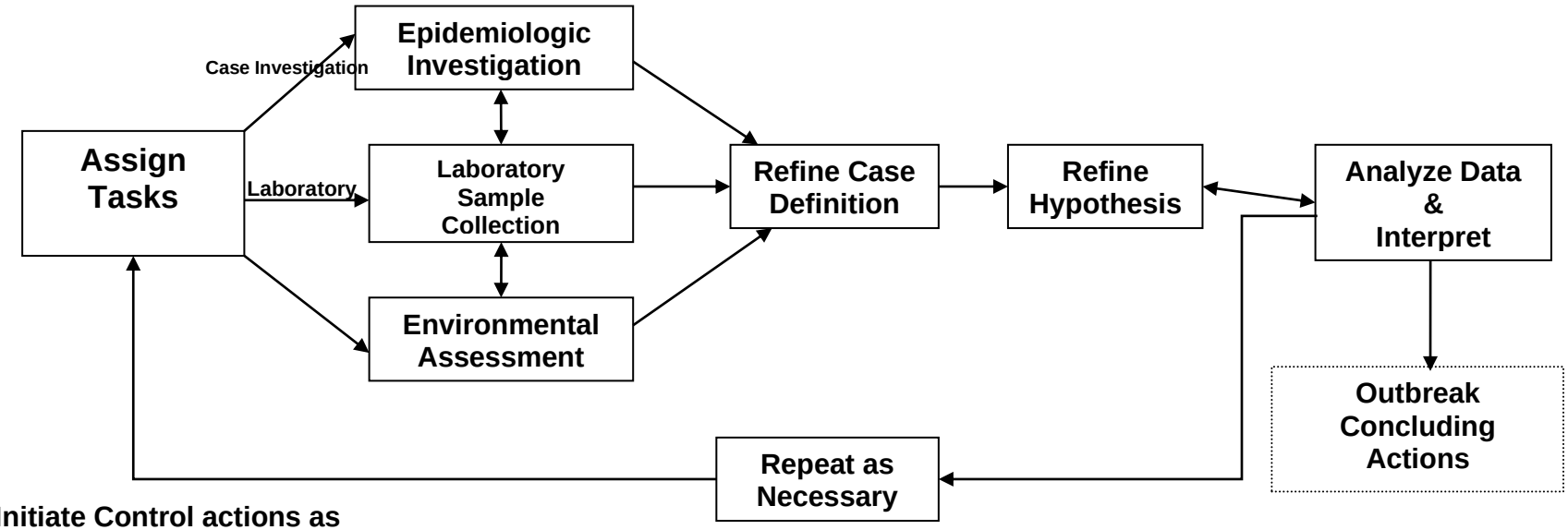
Grimes, M.J. (2003). *Infection control management* : Forms, checklists & guidelines. NY: Aspen.

OUTBREAK INVESTIGATION FLOW CHART

STEP 1: Confirm Outbreak



STEP 2: Hypothesis Testing and Analytic Investigation*



***Initiate Control actions as**

Source: http://www.michigan.gov/documents/MDA_FIRSt_Module_03_OutbreakInvestigation_60066_7.pdf