

Respiratory Outbreaks Overview

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Handbook
section VIII

What is a Respiratory Outbreak?

- o Outbreak
 - o A sudden increase in of AFRI cases over the normal back ground rate in a given time period.
- o Helps to break it down by setting

Handbook
page VI.4

AFRI: Fever + at least one of the following: rhinorrhea or nasal congestion, sore throat, cough

Hospital / Clinic Outbreaks

- o A sudden increase in cases over the normal background rate
- o 3 or more HAI of AFRI or ILI among patients or healthcare workers on the same unit within 72 hours
- o 1 or more HAI of confirmed influenza

Influenza HAI: not present or incubating upon admission

LTC Outbreaks

- o A sudden increase in cases over the normal background rate
- o 3 or more of AFRI or ILI among residents or healthcare workers who are in close proximity with each other (e.g. same area of the facility) within 72 hours
- o 2 or more cases of AFRI or ILI among residents when there is at least 1 confirmed influenza case in the facility

School / Childcare Outbreaks

- o A sudden increase in cases over the normal background rate
- o 5 or more cases of AFRI in one week among students or staff in an epidemiologically linked group
 - o Single class
 - o Sports team
 - o After-school program

What are Common Causes?

- | | |
|-------------------------------|-----------------------------------|
| o Influenza | o <i>Mycoplasma pneumoniae</i> |
| o Respiratory syncytial virus | o <i>Bordetella pertussis</i> |
| o parainfluenza virus | o <i>Legionella</i> |
| o adenovirus | o <i>Streptococcus pneumoniae</i> |
| o human metapneumovirus | o <i>Chlamydomphila pneumonia</i> |
| o Enterovirus | |
| o Rhinovirus | |

Outbreaks reported to the DSHS EIDDP Infectious Respiratory and Invasive Disease Team

How Many Outbreaks Occur?

Category	2010	2011	2012 YTD
Flu and ILI	3	12	6
Unknown respiratory	4	4	3
Legionella	1	0	4
Meningococcal	4	0	1
Other	1	2	3
Setting			
School / childcare	2	1	3
LTC / hospital	2	14	7
Correctional	3	1	1
Community	6	0	5
Other	0	2	1
Total	13	18	17

Responding to an Outbreak!

- o Receive the report
- o Assess the situation
- o Conduct the investigation
- o Expand the investigation (if needed)
- o Communicate findings



Handbook page VII.6

Receiving the Report

- o Get some basic information
 - o Who, what, when, where
- o Review general infection control measures

Caller:

“We have had an unusual number of people diagnosed with pneumonia recently”

“We are using our panflu response plan”

Handbook page VII.8, 21

Assess the Situation

- o Does this sound like an outbreak?
- o Can the health department stop the outbreak or help prevent future ones?

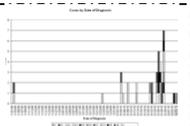
0 cases last year; 12 in one month.

“We need assistance determining the cause and stopping the spread”

Handbook page VII.3, 4

Conduct the Investigation

- o Send out notifications
- o Use tools:
 - o Case definitions
 - o Linelists
 - o Epicurves
- o Look for cases
- o Review / recommend testing
- o Identify risk factors
- o Refine control measures



Ruled out flu, *legionella*
Culprit: *C. pneumoniae*
Relax flu restrictions

Handbook page VII.10-20

Expand the Investigation

- o How much time and resources are needed?
 - o Need help?
- o How many jurisdictions are involved?

How wide spread is it?

Site visit

Case and cohort interviews

Extensive testing

Communicate the Findings

- o Recommendations to facility
- o Internal reports
- o Epi-X
- o Presentations and publications
- o Outbreak report

Lots of paperwork!

- Site team letter
- CDC report
- DSHS report
- Draft publication

Respiratory Ruses

- o Can't it all be ILI?
- o Fever in the elderly
- o Outbreaks in immunized populations
- o Don't forget the staff (or the staph)



Reporting Outbreaks

- o Required to be reported to you
- o Heads up call (ASAF)
- o PHEP outbreak tracking form (monthly)
- o Final report (as completed)

Available Resources

- o DSHS Flu Handbook
 - o www.dshs.state.tx.us/idcu/disease/influenza/Texas-Influenza-Surveillance-Handbook/
- o CDC URDO website
 - o <http://emergency.cdc.gov/urdo/>
- o Field Epidemiology (3rd Ed)
 - o Editor: Gregg

Questions? Epidemiologists

