NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES

Pete Ricketts, Governor

RESPIRATORY DISEASE OUTBREAK RESPONSE PROTOCOL

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SCOPE AND BACKGROUND

This resource serves to outline NE DHHS roles and responsibilities in the event of a respiratory outbreak, to guide local health departments (LHDs) in the investigation and mitigation of respiratory outbreaks, to support information exchange between NE DHHS, LHDs, and all Nebraskan public, and to rapidly guide informed action during a potential and actual respiratory outbreak.

Background information – respiratory infections

Respiratory infections can be spread via airborne or droplet transmission, which allows them to be easily spread in locations where people are in close proximity such as schools, health care facilities, and other congregate living settings. Due to their rapid spread, it is crucial to catch outbreaks early for mitigation efforts to be most successful in reducing burden of disease. Proper prevention techniques are key to stopping outbreaks of respiratory infections. In this guide, there are many guidelines developed with reference to a single respiratory infection, such as influenza – some are referenced in the appendices. It is important to note that these guidelines are good practices to use and model during any respiratory infection outbreak. This guide uses acronyms that may be unfamiliar, please see APPENDIX A: List of acronyms.

RESPIRATORY DISEASE OUTBREAK – GUIDELINES

The purpose of investigating a respiratory outbreak

- Identify any respiratory disease that can be prevented by public health measures
- Confirm the etiology of the respiratory pathogen, so that specific treatment and control measures can be initiated
- Install control measures to reduce transmission and prevent additional cases within an ongoing outbreak

When to investigate

Timeliness to identify the respiratory pathogen and the presence of an outbreak is important, but urgency must be managed with an effective outbreak response and to determine if an investigation is needed. Several principles and questions should guide the decision to investigate a respiratory outbreak:

1. Setting:
    a. Is the outbreak occurring in a setting with a high-risk population, e.g. very young, very old, or people with high-risk comorbidities?
    b. Are there unique setting features that would increase transmission of disease, e.g. lack of ventilation, winter months?
2. An unusually high number of ill persons
    a. Greater than 10% absenteeism in childcare or school settings for three or more days is considered unusual.
3. Severity:
    a. Are cases showing unusual or severe symptoms?
    b. Are cases being hospitalized? Are cases dying?
        i. Three or more hospitalizations related to respiratory illness in a group setting
        ii. Two or more deaths related to respiratory illness in a group setting

4. Timing
    a. Are cases occurring during the summer months or unusual timing for seasonal respiratory diseases?

Initiating the Outbreak Investigation

LHDs will often be the first contact for a potential respiratory outbreak. When LHDs receive calls of concern, the Outbreak Report REDCap survey for potential respiratory outbreaks should be used and be easily accessible to ensure all information is collected during that call. Basic information should include:

- Location/setting of the outbreak
- Number of ill cases and susceptible cases (if known)
- Illness onset date(s) of case(s)
- Date(s) of case(s) exposure at outbreak setting
    - Where the case was
    - Who were they around
    - Last date of exposure
- Infectious disease etiology suspected
    - Symptoms case(s) are displaying
- Date the outbreak was reported to the LHD
- Investigator's contact information.

For more details regarding investigating a potential respiratory outbreak, please see the CDC URDO, https://www.cdc.gov/urdo/index.html, page or contact NE DHHS for further assistance.

Differential for respiratory pathogens

While prevention for respiratory illness is common for many different pathogens, the symptoms and signs can vary considerably. **Please see APPENDIX H for a listing of characteristics to differentiate respiratory pathogens with outbreak potential.** Early detection of the respiratory pathogen causing the outbreak can lead to specific interventions tailored for that pathogen. Proper and timely specimen collection and laboratory detection will confirm a specific pathogen.

Acute respiratory illness (ARI)

ARI is defined as an illness with two or more of the following signs or symptoms: fever, cough, runny nose, nasal congestion, or sore throat. ARI is a broad definition for respiratory illness, which is used early in the outbreak investigation to capture all cases.

Outbreaks vs clusters:

Clusters and outbreaks are both increases in cases by a specific place and time, but in clusters, prior data collection is not available or possible for cases by that specific place or time. According to the CDC, clusters are "An aggregation of cases of a disease or other health-related condition, particularly cancer and birth defects, which are closely grouped in time and place. The number of cases may or may not exceed the expected number; frequently the expected number is not known." An outbreak is a cluster with prior data to support that the number of cases have exceeded prior case numbers.

Definitions of respiratory outbreaks by NE DHHS Regulation:

A respiratory infection outbreak can be defined as one laboratory-confirmed positive case along with other cases of respiratory infection in a unit of long-term care or another facility, or an increase above the normal rate of ARI within 72 hours. Outbreaks are required to be reported immediately under 173 NAC 1 1-004.01B (page 5) - "Clusters, Outbreaks or Unusual Events, Including Possible Bioterroristic Attacks: Clusters, Outbreaks, or epidemics of any health problem, infectious of other, including food poisoning, healthcare-associated outbreaks or clusters, influenza, or possible bioterroristic attack; increased disease incidence beyond expectation; unexplained deaths possibly due to unidentified infectious causes; and any unusual disease of manifestations of illness must be reported immediately."

Information required for ordering/reporting a laboratory test by 173 NAC NE DHHS Regulation 1-003.02A

Laboratories are required to report most respiratory diseases immediately or within seven days. Public health surveillance for respiratory disease relies on thoroughly completed information to determine the presence of a respiratory outbreak. NAC 173 1-003.02A outlines the required information for electronic laboratory reporting, which provides timely information for outbreak response. Required information includes:

- Patient first and last name
- Patient address, city, and zip code
- Patient date of birth
- Patient gender
- Date of specimen collection
- Specimen source
- Ordered test
- Submitting provider's name
- Submitting provider's address and telephone number
- Pregnancy status, if available and if applicable
- Race
- Ethnicity as Hispanic or Non-Hispanic

Electronic laboratory reporting (ELR) became a public health priority several years ago and has made reporting conditions easier and more efficient than ever. By improved timeliness and the reduction of errors from manually entered data, ELR has changed the way Nebraska reports diseases for the better. Laboratory results are reported to the Nebraska Electronic Disease Surveillance System (NEDSS), which is a web-based application, used by state and local public health staff for disease and other reportable conditions surveillance and case management. For more information about ELR and how to enroll a laboratory, please visit Electronic Lab Reporting (ELR).

PREVENTION AND CONTROL MEASURES FOR RESPIRATORY OUTBREAKS

While there are many respiratory pathogens that cause infection, infection control and prevention standards can generally apply to any respiratory outbreak.

- Reinforce good hand hygiene among all people entering and exiting the facility

    - Respiratory etiquette poster
- Reinforce respiratory etiquette guidelines
    - Cover cough and sneeze with tissue or elbow
    - Dispose of tissue
    - Apply alcohol-based hand sanitizer to all surfaces of hands until it is dry unless hands are visibly soiled, then wash hands for 20 seconds with warm water and soap
- Use posters near bathrooms and main corridors
- Provide alcohol-based hand sanitizer, masks, tissues, and trash receptacles at entry points to the facility, and ensure they are stocked regularly
- Emphasize the importance of early detection of illnesses spread person-to-person and reducing the contact between ill persons and others
- Promote practicing good personal hygiene, avoiding symptomatic persons during outbreaks, and not working or going to school when ill with a respiratory disease. Cases may return to work or activities 24 hours after fever resolves while off antipyretic (fever-reducing) medications (e.g., ibuprofen, acetaminophen)
- Make sure that anyone who may be supervising ill children knows not to give aspirin to children with influenza or other acute respiratory viral illnesses
- Reinforce the importance of wearing facemasks in reducing disease transmission during a suspected or known respiratory outbreak, especially in high-risk settings (i.e. long-term care facilities) and in suspected persons who were exposed to a case (if quarantine is not applicable/feasible)
- Separate the well and the sick, as much as possible
- Restrict workers that are ill from duty, and provide clear instructions for when it is safe to return to the workplace
- Implement sick leave policies that are non-punitive, flexible, and consistent with public health policies

For more information about how to assess your own facility's outbreak prevention methods and guide improvements, please refer to HAI resources for healthcare professionals. You can also refer to the following tools from CDC for hospitals, long-term care facilities, or outpatient settings. For updated infection prevention and control measures for COVID-19 in all healthcare settings, please visit: Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic.

Communication:

Understated yet critical to an effective prevention and control response in outbreaks, communication within the facility is vital. A Cochrane review regarding global healthcare workers in hospital and community settings for novel respiratory outbreaks, e.g. COVID-19, and SARS, provided evidence-based communication strategies for assuring proper infection control and prevention guidelines. These guidelines may create assurance and compliance for the infection control program for any facility:

- Keep prevention guidelines short and specific.
    - Provide clear, simple preventions: Do this – "Wash hands for 20 seconds after sneezing in elbow or tissue"
    - Provide clear, simple prohibitions: Don't do this – "Do not come to work if you have fever, cough, and sneezing"

        - Rather relay this information as such: “Please stay home from work if you are currently sick (i.e. have a fever or persistent cough) to prevent others from becoming sick”
- Ensure your prevention guidelines reflect local, state, national, and global standards to avoid discrepancies. Conflicting guidelines can lead to applying no prevention measures and poor compliance.
    - Local (Nebraska LHD list)
    - State (NE DHHS)
    - National (CDC)
    - Global (WHO)
- Plan to train all employees, staff, and visitors about your facility's prevention procedures in the moment and for the future event of a respiratory outbreak.
    - For example, if masks are recommended, ensure greeters are providing and teaching proper mask usage for all visitors.
    - For community facilities, build regular education for teaching respiratory hygiene and infection control – non-healthcare facilities play a significant role in stopping respiratory infections with good hygiene and public health measures. For information about respiratory hygiene, please visit Respiratory Hygiene/Cough Etiquette
- Promote responsibility and praise that all staff and visitors play a significant role in preventing the spread of respiratory diseases.
- Assure that management and leadership teams are supportive of employees and visitors for extra time or effort required to adhere to prevention measures.

Control measures and noncompliance:

NAC 173 1-007 NE DHHS regulation recommends public health control measures found in the Control of Communicable Disease Manual, which provide pathogen-specific prevention and control measures once the pathogen is known. Healthcare providers responsible for a case or suspected case may make reasonable efforts to require isolation, quarantine, or other public health interventions. In the event of non-compliance by a case or suspected case, healthcare providers must provide relevant contact information to the LHD or NE DHHS.

ROLES AND RESPONSIBILITIES DURING AN OUTBREAK/CONTACT INFORMATION

Office of Epidemiology
P.O. Box 95026
Lincoln, Nebraska 68509-5026
Office: 402-471-2937
dhhs.epi@nebraska.gov

The NE DHHS Office of Epidemiology is authorized by statute to investigate threats to public health caused by food, infection, or chemical agents that affect persons in Nebraska and is responsible for conducting such activities and mitigating threats to the health of the population.

Referencing Neb. Rev. Stat. 71-502, NE DHHS has the authority to "all matters…proper and reasonable general rules and regulations…as will best serve to promote communicable disease control throughout the state" and "prevent the introduction or spread of disease."

The Office of Epidemiology, in coordination with the LHD, is involved in all activities related to a respiratory disease outbreak. These activities include but are not limited to:

- Identify cases
- Detect clusters/outbreaks of disease
- Coordinate human specimen collection and testing
- Plan epidemiological investigations/studies
- Collect and analyze data using statistical tools
- Create summary reports.

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Robin Williams, MPH	Epidemiology Respiratory Disease Surveillance Coordinator	Office: 402-471-0935 Cell: 402-417-5858	robin.m.williams@nebraska.gov
Derek Julian, MPH	Epidemiology Respiratory Disease Surveillance Coordinator	Office: 402-471-1376 Cell: 531-530-7091	derek.julian@nebraska.gov

Nebraska Public Health Laboratory
985900 Nebraska Medical Center
Omaha, Nebraska 68198-5900
Office: 402-559-9444
Emergency Pager: 402-888-5588
nphl@unmc.edu

The Nebraska Public Health Laboratory (NPHL) provides laboratory testing of human specimens for outbreak investigations. **Any outbreak specimen sent to the NPHL for testing at public health expense must be coordinated with NE DHHS**. Please see APPENDIX F: Resources regarding Laboratories for specimen collection, shipping, and needed specimen information.

In the event of a suspected viral respiratory outbreak, there is evidence that 3 specimens for an outbreak using nucleic acid amplification tests, or NAATs, is sufficient to detect influenza and other respiratory viruses with a 95 % accuracy. Consult with public health before obtaining specimens as the prime authority, but

reducing the number of specimens when possible can save time and resources for the facility and lead to more timely prevention and control.

Specific activities include:

- Test all human specimens as requested by the Office of Epidemiology or LHD for the presence of respiratory pathogens
- Coordinate the transfer of organisms of interest from other laboratories for follow-up laboratory analysis
- Perform nucleic acid detection via PCR as dictated by what the standard is for a particular specimen
- Report results of testing to the Office of Epidemiology, the CDC, and The National Respiratory and Enteric Virus Surveillance System (NREVSS)
- Provide consultation in the collection and shipping of specimens for testing

Name	Designation	Contact number	Email
Peter C. Iwen, PhD, D(ABMM)	Director	Office: 402-559-7774	piwen@unmc.edu
Emily McCutchen, MS	Laboratory Supervisor	Office: 402-559-9691	emily.mccutchen@unmc.edu

Local Health Departments

https://dhhs.ne.gov/Pages/Local-Health-Departments.aspx

Nebraska's local health departments (LHDs) are authorized by statute to investigate threats to public health caused by food, infection, or chemical agents that affect persons within their jurisdiction and are responsible for conducting such activities and mitigating threats to the health of the population.

In the event of a potential respiratory outbreak, it is the LHD's responsibility to notify the Office of Epidemiology about the outbreak and complete the Outbreak Report Form and line list. The LHD will then coordinate with the Office of Epidemiology and NPHL to collect specimens to be sent to NPHL for testing if required. The LHD will continue to follow up on the outbreak and will provide guidance and prevention measures as they see fit.

Local Health Departments, in coordination with the Office of Epidemiology, are involved in all activities related to a respiratory infection outbreak. These activities include but are not limited to:

- Identify cases within jurisdiction
- Detect clusters/outbreaks of disease within jurisdiction
- Coordinate human specimen collection and testing
- Provide guidance to help mitigate outbreak

Infection Control Assessment and Promotion Program (ICAP)
Office: 402-552-2881
NebraskaICAP@nebraskamed.com

Nebraska's Infection Control Assessment and Promotion Program (ICAP) is supported by the Nebraska DHHS Hospital-Associated Infections program via a CDC grant. This program is used to offer infection control assessments and recommendations for many different diseases across the board.

In the event of a suspected respiratory outbreak, ICAP is used to provide resources to facilities, such as hospitals, to help with infection control and prevention. Every year, ICAP collects data from the Office of Epidemiology to analyze the infection control gaps to update their guidance and methods to better suit Nebraska.

Specific activities include:

- Conducting infection control assessments and recommendations
- Collecting and analyzing data from the Office of Epidemiology
- Updating ICAP resources and guidance to fill infection control gaps

Outbreak reporting information

Reports of an outbreak in healthcare and community facilities should be made to the LHD or NE DHHS. The local health departments and their contact information are listed on the NE DHHS website (LHDs).

Outbreaks with respiratory diseases within 173 NAC 1-004.01 NE DHHS regulation require immediate reporting when known.

Respiratory disease lab results needing reporting to NE DHHS immediately per 173 NAC NE DHHS regulation 1-004.01:

- Coronavirus disease 2019 (COVID-19) (SARS-CoV-2) – positive (with both PCR and antigen tests) and negative results (only with PCR test or if sending via ELR)
- Influenza due to novel or pandemic strains (including highly pathogenic avian influenza virus)
- Middle-East Respiratory Syndrome (MERS) virus
- Monkeypox virus infection
- Severe Acute Respiratory Syndrome (SARS-associated-1 coronavirus)

Respiratory disease lab results needing reporting to NE DHHS within seven days per 173 NAC NE DHHS regulation 1-004.02:

173 NAC 1-004.02 requires reporting within seven days of detection and diagnosis:

- Adenovirus infection*
- *Chlamydia pneumoniae**
- Human metapneumovirus (HMPV)*
- Human parainfluenza virus (HPIV)*
- Human rhinovirus/enterovirus*
- Influenza, pediatric (less than 20 years old) death*
- Influenza, all positive and negative test results*
- Influenza, rapid test summary*

- *Mycobacterium tuberculosis*
- *Mycoplasma pneumonia**
- Non-SARS associated coronavirus*
- Respiratory syncytial virus (RSV) infection, all positive and negative test results*

(*applies only to laboratories performing electronic laboratory reporting as specified in 173 NAC 1-005.02C)

The LHD is responsible for ensuring that all documentation of the outbreak is completed and reported to the NE DHHS - Division of Public Health - Office of Epidemiology in a timely manner. The manner of reporting may vary by facility or institution designation.

The Office of Epidemiology will notify the LHD immediately if notification of an outbreak within their jurisdiction is received. If the magnitude and complexity of the outbreak suggests that the LHD is capable of adequately addressing the situation, the Office of Epidemiology will delegate responsibility for conducting the investigation to the LHD. The Office of Epidemiology will be available as needed to help in surge capacity or a consultation role.

When is an outbreak over:

Surveillance will continue by remaining alert for and reporting any new cases, or previous cases that were missed which could be related to the outbreak. This includes documenting and maintaining a line list of all cases in the facility and including it with the report to the LHD. In general, when no new cases are identified for two incubation periods for the causative respiratory pathogen for the outbreak, this is a good signal that the outbreak may be over. Incubation periods can be found for many respiratory outbreak pathogens in Appendix H or the Control of Communicable Diseases Manual.

FACILITY DESIGNATION

- Healthcare Facilities
    - Long-Term Care Facilities
    - Assisted Living Facilities
    - Hospitals
- Community Facilities
    - Congregate settings – do not reside overnight
        - Daycares
        - Schools
        - Day camps
    - Non-healthcare facilities – reside overnight
        - Jails and prisons
        - Group Homes
        - University dormitories
        - Homeless shelters
        - Drug rehabilitation centers

- Overnight camps

Facility classification and definitions:

This facility classification system practically considers the difference in prevention and control measures required by facility type. This facility list is not exhaustive and specific guidance for a facility or closely resembling facility should lead to consultation with LHDs or NE DHHS for prevention guidelines. In a healthcare facility, several clinical personnel will have institutional procedures established for disease prevention and control, which provides familiarity and potential experience in responding to a respiratory outbreak. Community facilities, however, may have less experience and fewer protocols to respond to an outbreak. Community facilities should seek consultation more readily through their LHD and NE DHHS for guidance. By facility type, prevention measures can be widely and generally applicable for any respiratory outbreak. Additionally, some facilities have different reporting requirements, where relevant reporting forms are included in the facility description.

HEALTHCARE FACILITIES

Any staff that assists with the management of the facility or medical care of residents should ensure that they follow standard precautions like washing hands before and after potential contact with body fluids and wearing gloves. When interacting with an individual with signs and symptoms of a respiratory infection staff should ensure that they take further precautions (e.g. wear a gown or mask) to avoid the potential spread of infection. When appropriate, residents with signs and symptoms consistent with respiratory infection can be asked to wear a mask when in close contact with other residents. Visual education aids such as the 'Cover your Cough Campaign' can also be used.

LONG-TERM CARE FACILITY (LTCF):

LTFCs include skilled nursing facilities, nursing facilities, and intermediate care facilities. A skilled nursing facility provides skilled nursing care, rehabilitation, or other related services to those who reside at the facility.

Nursing facilities are those where nursing care and other related services are provided to those who reside at the facility. An intermediate care facility is one where shelter, food, and nursing care or related services are provided to residents, which do not require a hospital or skilled nursing level of care.

Outbreaks in these facilities should be reported directly by phone call to the LHD or NE DHHS or by utilization of the Outbreak Reporting Form, which should be filled out to completion and sent to the LHD. For outbreaks specific to COVID-19, facilities should also report to the National Healthcare Safety Network (NHSN) Long-Term Care Facilities Covid-19 module.

Information regarding early prevention and containment of outbreaks in LTCFs can be found in Appendix B.

ASSISTED LIVING FACILITY (ALF):

ALFs are facilities that provide residential and support services and are approved as a Medicaid provider for those eligible for the 'Aged and Disabled Medical Waiver.' (An overview of which can be found here).

As with LTCF outbreaks (as defined earlier), ALF outbreaks should be reported directly by phone call to the LHD or NE DHHS or by utilization of the Outbreak Reporting Form, which should be filled out to completion and sent to the LHD.

Information regarding early prevention and containment of outbreaks in AFIs can be found in Appendix B.

HOSPITALS:

175 NAC 9-001 NE DHHS regulation describes a hospital as "a health care facility where diagnosis, treatment, medical care, obstetrical care, nursing care or related services are provided on an outpatient basis or on an inpatient basis for a period of more than 24 consecutive hours to persons who have an illness, injury or deformity or to aged or infirm persons requiring or receiving convalescent care." This designation includes those facilities that provide space for a general acute hospital, rehabilitation hospital, long-term care hospital, critical access hospital, or mental hospital. Additional resources can be found in Appendix C.

COMMUNITY FACILITIES

DAYCARES:

NE DHHS is empowered by The Child Care Licensing Act to establish "standards for the physical well-being, safety and protection of children in programs" and that "care and treatment are consistent with the children's physical well-being, safety, and protection." In the event of a respiratory outbreak, notification of parents by the licensed daycare should be completed on the same day as the illness. The LHD is the health authority and should be consulted for outbreak and prevention measures.

SCHOOLS:

173 NAC 3-003 NE DHHS regulation requires that all children showing signs or symptoms of a contagious, or infectious disease be sent home as soon as safely possible. Children should not be allowed to return to school until the student no longer shows any signs of acute illness, or until they have been fever-free for 24 hours without the use of fever-lowering medication. Teachers are instructed to review signs and symptoms of communicable disease, including fever, flushed face, headache, aches in muscles and joints, unexplained tiredness or listlessness, nasal congestion, and sore throat. The minimum isolation and control methods for confirmed disease cases can be found in 173 NAC 3 attachment 1.

173 NAC 3-004 NE DHHS regulation requires the proper school authority, school board, or board of education, to be notified when a child is sent home due to a suspected contagious or infectious disease. When a school nurse identifies a case or suspected case of a disease that is required to be reported (in this instance a reportable respiratory infection), they must report the case to the LHD. For more information on preventing outbreaks in schools, administrators and teachers can reference the CDC's Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools, Cleaning and Disinfecting Schools in Flu Season, or Healthy Schools, Healthy People. It is important to recognize that many of the actions used to reduce spread of flu will also help slow the spread of other respiratory illnesses. More resources about preventing the spread of influenza in schools in Nebraska can be found on Flu Information for Schools.

When a respiratory outbreak is identified, any school in Nebraska can request infection control guidance and free consultations on infection control related issues from Nebraska's Infection Control Assessment and Promotion Program (ICAP). For more information about ICAP and how to contact them, please visit the

Nebraska ICAP website. More information about reporting and control respiratory outbreaks in schools can be found in Appendix D.

We encourage schools to take part in our School Absenteeism Surveillance program to help us track disease-related absences and to add to our important statewide respiratory surveillance. Schools will complete a weekly survey that captures the number of absences, the number of schools/classrooms closed, and the reasons for absences. If your school is not currently enrolled in this surveillance program, please contact your local health department for steps on getting enrolled. For more information about our School Absenteeism Surveillance program, please contact your local health department.

NON-HEALTHCARE FACILITIES:

Community facilities such as prisons and shelters often provide lodging in tight quarters, which unfortunately promotes the spread of respiratory infections. Care should be taken to ensure that any outbreaks in these facilities are quickly recognized and controlled to stop the spread. In college campuses, adenovirus-associated illness has been responsible for missed class time and the spread of illness in generally healthy individuals, highlighting that even low-risk groups within congregate settings can lead to respiratory outbreaks with healthy, educational, and economic costs on college campuses.

Information regarding early prevention and containment of outbreaks in residential institutions can be found in Appendix E

DATA COLLECTION

The initial diagnosis of respiratory infections is dependent on the collection and analysis of a specimen from the individual with the suspected infection. Acceptable specimens include, but are not limited to; nasal swab, throat swab, nasopharyngeal swab, nasopharyngeal aspirate, and nasal wash. The instructions for collection and shipment of samples can be found in Appendix F. All specimen collections should be ordered through the Nebraska Public Health Laboratory System (NULirt).

Once a respiratory infection is confirmed by a laboratory, an investigation can establish case relationship to an outbreak, others that may have been exposed to the infection, and potential environmental risk factors.

ANALYSIS

Following the epidemiological investigation, a summary report of the outbreak response should be written. The summary should include the following:

- Investigation methods
- Dates of outbreak (first case-last case)
- Total number of cases involved (confirmed, probable, or suspect)
- Demographic profile
- Symptom profile
- Tests performed on specimens
- Vaccination status and vaccination rate (if applicable)
- Epidemic curve
- Total attack rate
- Actions taken to prevent and control further spread

It is important to keep this information up to date as more cases are identified. Creating a line listing in spreadsheet software works well. For guidance, please contact NE DHHS for current surveillance guidelines.

SHARING INFORMATION

Currently, state and national influenza data are compiled each week and published in a Weekly Flu Report.

National, regional, and state-level influenza laboratory data and ILI data are updated by the CDC weekly on FluView Interactive. For global surveillance of influenza, the WHO organization manages the GISRS to monitor international influenza patterns.

The National Respiratory and Enteric Virus Surveillance System (NREVSS) is another CDC surveillance system focused on monitoring the time and geography of respiratory illnesses including influenza, RSV, coronavirus, human metapneumovirus, respiratory adenovirus, human parainfluenza virus, rhinovirus, and respiratory enterovirus. To learn more about NREVSS and look at collected data please click here.

The National Adenovirus Type Reporting System (NATRS) is a surveillance system focused on collecting data about the types of human adenoviruses in the United States. Contributing laboratories around the country report information to the CDC on a quarterly basis to help determine trends in human adenovirus circulation and achieve faster recognition and documentation of outbreaks. To learn more about the National Adenovirus Type Reporting System click here.

OPTIONAL ADDITIONAL SUPPORT DURING LARGE OUTBREAK

Individuals within each LHD with the required skills for outbreak investigations can assist with the respiratory illness outbreak investigation.

For contact information for NE LHDs, click here Local Health Departments

Office of Epidemiology staff who can assist during a respiratory infection outbreak investigation:

Name	Contact information	Department
Robin Williams, MPH	robin.m.williams@nebraska.gov	Office of Epidemiology
Derek Julian, MPH	derek.julian@nebraska.gov	Office of Epidemiology
Alison Keyser-Metobo, MPH	alison.keysermetobo@nebraska.gov	Office of Epidemiology

RESOURCES

Administrative staff: Includes a person who would help make calls, answer calls from concerned members of the community, enter data into the database, copy paperwork, and other administrative duties as needed.

Contact information:
Contact name: Sheila Ehrlich
Phone: 402-471-2937
Fax: 402-471-3601
Email: dhhs.epi@nebraska.gov

Legal Counsel: Legal counsel would be responsible for preparing and reviewing public health orders. This person would recommend revisions in the agency procedures and control measures, ensure confidentiality of health data, and address other legal issues as needed.

Contact information:
Public Health Legal Inquiries
Email: dhhs.procurement@nebraska.gov

MEDIA RESPONSE PROTOCOL

In the event of a respiratory infection outbreak, the Office of Epidemiology will work with the NE DHHS Public Information Officer (PIO) to deliver critical information to the public, public health partners, and media stakeholders. The Office of Epidemiology will notify the PIO of the outbreak. When multiple agencies are involved in the investigation, the public information officers/communications officers will work collaboratively to disseminate the information.

Depending on the scope of the outbreak, communications may need to refer to the Crisis and Emergency Risk Communication Plan. CDC risk communication principles – be first, be right, and be credible – should guide any communication strategy in emergency outbreaks. The plan also aims to establish orderly and clear procedures

for communicating official, accurate, and understandable information in a timely manner to various audiences with respect for their customs and special needs.

Public information officer: Name	Designation	Contact number	Email
Jeff Powell	Marketing & Communications Specialist	Office: 402.471.6223	jeff.powell@nebraska.gov

APPENDIX A: LIST OF ACRONYMS AND ABBREVIATIONS

- ALF – Assisted living facility
- ART – Acute respiratory infection
- CDC – Centers for Disease Control and Prevention
- COVID-19 – Coronavirus disease 2019 (Causative virus: SARS-CoV-2)
- GISRS – Global Influenza Surveillance and Response System
- HMPV - Human metapneumovirus
- HPIV - Human parainfluenza virus
- IC – Infection control
- ICAP – Nebraska Infection Control Assessment and Promotion program
- ILI – Influenza-like illness
- LHD – Local health department
- LTCF – Long-term care facility
- NAAT – Nucleic acid amplification test (also known as polymerase chain reaction or PCR test)
- NAC – Nebraska Administrative Code
- NE DHHS – Nebraska Department of Health and Human Services
- Neb. Rev. Stat. – Nebraska Revised Statute
- NPHL – Nebraska Public Health Laboratory
- NREVSS – National Respiratory and Enteric Virus Surveillance System
- RSV – Respiratory syncytial virus
- SARS – Severe Acute Respiratory Syndrome (Causative virus: SARS-CoV-1)
- WHO – World Health Organization

APPENDIX B: RESOURCES FOR LONG-TERM CARE FACILITIES (LTCF) AND ASSISTED LIVING FACILITIES (ALF)

This page is a collection of resources produced by trusted sources regarding preventing and managing outbreaks in LTCF or ALF. On the pages that follow you will find resources put together by the Nebraska Department of Health and Human Services specifically for Nebraska facilities.

For more information on preventing and managing outbreaks in LTCF, visit Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities. It is important to note that practices aimed at managing influenza outbreaks apply to the management of many other respiratory infections as well.

The Nebraska Infection Control and Assessment Program (ICAP) provides Nebraska-based infection control expertise, guidelines, and consultations for evidence-based practices in healthcare facilities. The CDC also provides further prevention resources for LTCF including influenza vaccination information and strategies to overcome vaccination barriers, visit Prevention Tools.

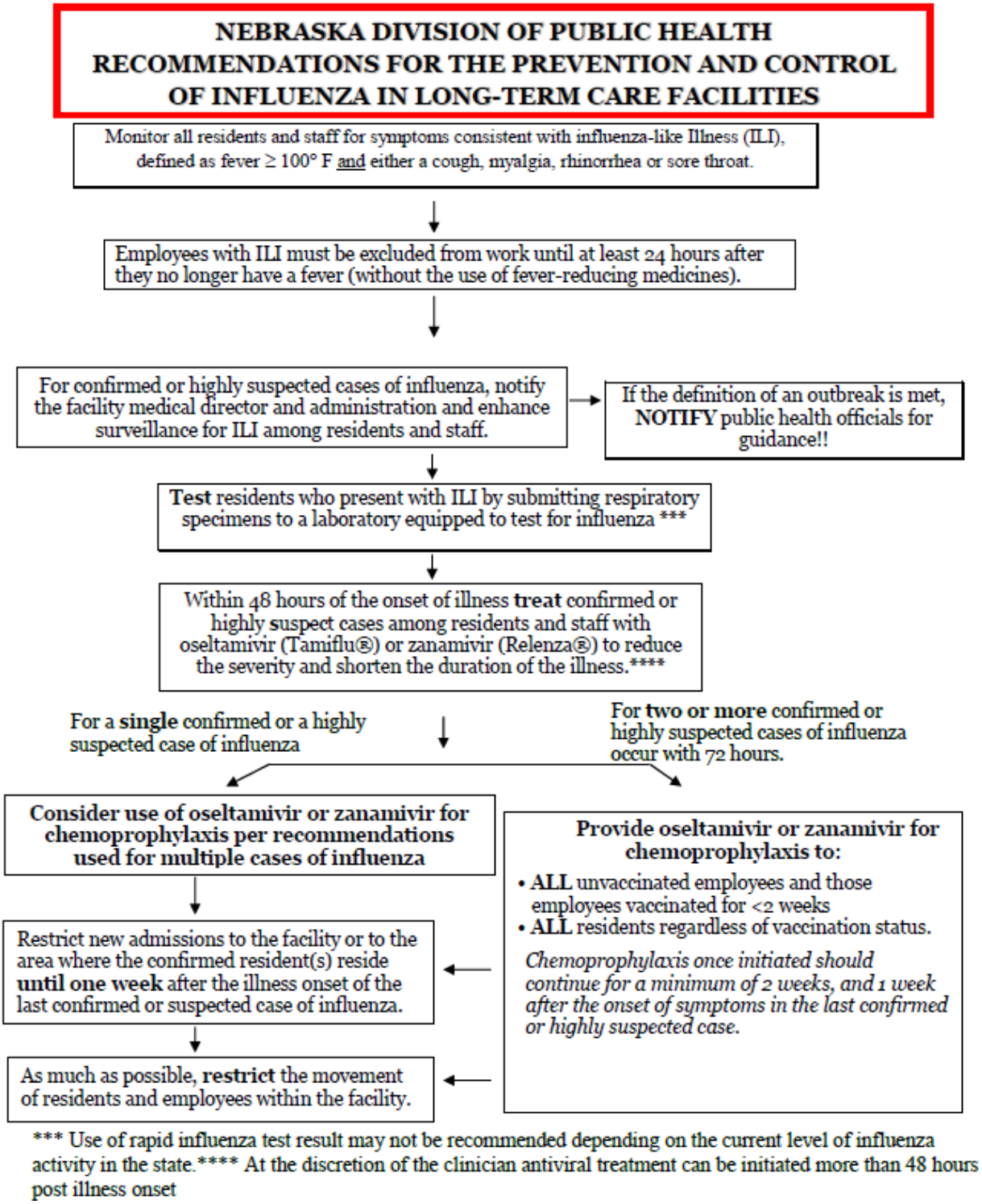
The Infectious Disease Society of America (IDSA) releases annual Clinical Practice Guidelines regarding institutional outbreak management for the seasonal flu that can be found here.

Older Adults are at an increased risk of acquiring a severe RSV infection. The CDC has put together an informational flyer that can be used to raise awareness of RSV and preventative measures. Find it here.

Report an outbreak to the Local Public Health Department using the Outbreak Report REDCap survey or the Outbreak Report Form.

Visit your local health department website to find any region-specific recommendations or guidelines.

Specific information for COVID-19 in a Long-Term Care Facility: COVID-19 tools for long-term care facilities includes a wealth of resources, including how to notify about the outbreak, conduct testing, and visitation, prevention methods for the vaccinated and unvaccinated, setting up isolation zones, and additional control measures.



For updated guidance from the CDC on prevention and control of influenza in long-term care facilities, please visit Guidance for Influenza Outbreak Management in Long-Term Care and Post-Acute Care Facilities.

Quick and Easy Guidance Document for Notifying DHHS of a Suspected Respiratory Outbreak

1. LHDs will often be the first contact for a potential respiratory outbreak. When LHDs receive calls of concern, the Outbreak Report Form for potential respiratory outbreaks should be used and be easily accessible to ensure all information is collected during that call. Basic information should include:
   - Location/setting of the outbreak
   - Number of ill cases and susceptible cases (if known)
   - Illness onset date(s) of case(s)
   - Date(s) of case(s) exposure at outbreak setting
     - Where the case was
     - Who were they around
     - Last date of exposure
   - Infectious disease etiology suspected
     - Symptoms case(s) are displaying
   - Date the outbreak was reported to the LHD
   - Investigator's contact information.

2. Notify the Office of Epidemiology at DHHS about the outbreak and complete the Outbreak Report REDCap survey or the Outbreak Report Form
   Office of Epidemiology
   P.O. Box 95026
   Lincoln, Nebraska 68509-5026
   Office: 402-471-2937
   dhhs.epi@nebraska.gov

3. Make sure specimens are collected for testing
   - Up to 3 specimens will be approved for testing at NPHL per outbreak
     - Follow NPHL respiratory specimen shipping instructions for outbreaks.
     - Specimen collection guidance is located here
   - Contact DHHS to coordinate with NPHL (nphl@unmc.edu; 402-559-9444) for a courier to pick up the specimens and take them to NPHL for testing.

4. Make sure prevention and control measures for respiratory outbreaks are being followed:
   - Reinforce good hand and personal hygiene among all people entering and exiting the facility
   - Reinforce respiratory etiquette guidelines (Cover cough and sneeze, apply hand sanitizer, use of facemasks, etc.)
   - Emphasize the importance of early detection of illnesses spread person-to-person and reducing the contact between ill persons and others
   - Restrict workers that are ill from duty, and provide clear instructions for when it is safe to return to the workplace

For more information about what to do during a respiratory disease outbreak, please contact the Office of Epidemiology or refer to the Respiratory Disease Outbreak Response Protocol

INSTITUTIONAL OUTBREAK CONTROL

When Is There Sufficient Evidence of an Influenza Outbreak in a Long-term Care Facility or Hospital to Trigger Implementation of Control Measures Among Exposed Residents or Patients and Healthcare Personnel to Prevent Additional Cases of Influenza?

Recommendations

- Active surveillance for additional cases should be implemented as soon as possible when one healthcare-associated laboratory-confirmed influenza case is identified in a hospital or one case of laboratory-confirmed influenza is identified in a long-term care facility.
- Outbreak control measures should be implemented as soon as possible, including antiviral chemoprophylaxis of residents/patients, and active surveillance for new cases, when 2 cases of healthcare-associated laboratory-confirmed influenza are identified within 72 hours of each other in residents or patients of the same ward or unit.
- Implementation of outbreak control measures can be considered as soon as possible if one or more residents or patients have suspected healthcare-associated influenza and results of influenza molecular testing are not available on the day of specimen collection.

Which Residents/Patients Should Be Considered to Have Influenza and Be Treated With Antivirals During an Influenza Outbreak in a Long-term Care Facility or Hospital?

Recommendations

- When an influenza outbreak has been identified in a long-term care facility or hospital, influenza testing should be done for any resident/patient with one or more acute respiratory symptoms, with or without fever, or any of the following without respiratory symptoms: temperature elevation or reduction, or behavioral change.
- Empiric antiviral treatment should be administered as soon as possible to any resident or patient with suspected influenza during an influenza outbreak without waiting for the results of influenza diagnostic testing.

To Control an Influenza Outbreak in a Long-term Care Facility or Hospital, Should Antiviral Chemoprophylaxis Be Administered to Exposed Residents/Patients?

Recommendation

- Antiviral chemoprophylaxis should be administered as soon as possible to all exposed residents or patients who do not have suspected or laboratory-confirmed influenza regardless of influenza

vaccination history, in addition to implementation of all other recommended influenza outbreak control measures, when an influenza outbreak has been identified in a long-term care facility or hospital.

During an Influenza Outbreak at a Long-term Care Facility, Should Antiviral Chemoprophylaxis Be Administered to Residents Only in Affected Units or to All Residents in the Facility?

Recommendation

- Antiviral chemoprophylaxis should be administered to residents in outbreak-affected units, in addition to implementing active daily surveillance for new influenza cases throughout the facility.

Which Healthcare Personnel Should Receive Antiviral Chemoprophylaxis During an Institutional Outbreak?

Recommendations

- Clinicians can consider antiviral chemoprophylaxis for unvaccinated staff, including those for whom chemoprophylaxis may be indicated based upon underlying conditions of the staff or their household members for the duration of the outbreak.
- Clinicians can consider antiviral chemoprophylaxis for staff who receive inactivated influenza vaccine during an institutional influenza outbreak for 14 days post-vaccination.
- Clinicians can consider antiviral chemoprophylaxis for staff regardless of influenza vaccination status to reduce the risk of short staffing in facilities and wards where clinical staff are limited and to reduce staff reluctance to care for patients with suspected influenza.

How Long Should Antiviral Chemoprophylaxis Be Given to Residents During an Influenza Outbreak in a Long-term Care Facility?

Recommendation

- Clinicians should administer antiviral chemoprophylaxis for 14 days and continue for at least 7 days after the onset of symptoms in the last case identified during an institutional influenza outbreak.

Respiratory Disease Outbreak in an LTCF Checklist

☐ Have specimens from at least 3 residents with acute respiratory illness (ARI) been tested for a respiratory infection?

☐ Is this an early or late season outbreak detected by Rapid Antigen test that should be confirmed by PCR at NPHL?

☐ Have prevention and control measures been implemented?

- Isolate symptomatic residents to their room or cohort them to an affected unit or wing for 5-7 days after illness onset, or 24 hours after resolution of fever
    - Immunocompromised residents are recommended to be isolated for 7 days or longer after illness onset
    - Cohort residents based on their confirmed infection. Residents with confirmed SARS-CoV-2 should have their own cohort separate from residents with confirmed influenza
- Inform staff of outbreak and implement infection control precautions
    - Standard precautions (hand hygiene; use of gloves, gown, mask, eye protection, or face shield, depending on anticipated exposure)

      PLUS

    - Droplet precautions (surgical masks/face masks should be worn upon entry to the resident's room and during resident care)
- Restrict all staff movement
    - Don't allow staff to work in both affected and unaffected areas
    - Don't allow staff to work in two different affected units
- Exclude symptomatic staff until 24 hours after they no longer have a fever (without fever-reducing medications)
- Encourage vaccination for all unvaccinated residents and healthcare personnel
- Limit new admissions or house new residents in unaffected areas
- Notify visitors of the outbreak and exclude visitors with ARI symptoms
    - Post-signage at front desk that the facility is experiencing a respiratory outbreak
- Implement daily active surveillance for new respiratory illness among residents, healthcare personnel, and visitors
    - Test any resident with respiratory symptoms
- All residents with confirmed or suspected influenza should begin antiviral treatment immediately without waiting for test results
- Once an influenza outbreak is confirmed, all eligible residents who are not already symptomatic should begin anti-viral chemoprophylaxis
    - If multiple units are affected chemoprophylaxis of the entire facility is recommended (regardless of vaccination status) and should be continued for at least two weeks and until one week after the onset of the last case
    - Chemoprophylaxis may be considered for all staff

    - Monitoring for symptoms and early treatment may also be considered as an alternative to chemoprophylaxis for employees who have occupational exposures

- Properly manage residents with SARS-CoV-2 infection
    - Review the National Institute of Health (NIH) guidelines for treating COVID-19

☐ Ask Director of Nursing or reporter if they need the CDC Guidance for Influenza Outbreak Management in Long-Term Care Facilities or Guidance for Long-Term Care Facilities when SARS-CoV-2 and Influenza viruses are Co-circulating

☐ Complete the Outbreak Report REDCap survey or fax/email the outbreak report form to DHHS, 402-471-3601/ dhhs.epi@nebraska.gov

NEBRASKA
Good Life. Great Mission.
DEPT. OF HEALTH AND HUMAN SERVICES

Pete Ricketts, Governor

To: Administrator or Director of Nursing at LTCF

From: Robin Williams, MPH
Respiratory Epidemiology Surveillance Coordinator

Thank you for reporting the influenza outbreak in your facility as required in Title 173 Reporting and Control of Communicable diseases. Once an outbreak has been identified, outbreak prevention and control measures should be implemented immediately. These measures include:

- Daily active surveillance among ill residents, health care personnel, and visitors to the facility.
- Implement standard and droplet precautions for all residents with suspected or confirmed influenza.
- Administer influenza antiviral treatment and chemoprophylaxis to residents and health care personnel according to current recommendations. For the 2022-2023 influenza season the recommendation is that **all LTCF residents who have confirmed or suspected influenza should receive antiviral treatment immediately. Antiviral chemoprophylaxis should be administered to residents on outbreak-affected units, in addition to implementing active daily surveillance for new influenza cases throughout the facility.**

Additional measures can be considered to reduce transmission of influenza among residents and health care personnel and they are included in this document: *Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities.*

You may contact me during business hours at 402-471-2937 for any questions you might have. Please sign below confirming you have received the guidance document and understand the recommendation for antiviral chemoprophylaxis.

_____

I have received the *Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities* and understand the recommendation for antiviral chemoprophylaxis.

Date: _____ Signature: _____

Facility Name: _____

REPORTING FORM FOR OUTBREAKS OF SUSPECTED OR CONFIRMED INFLUENZA AND OTHER RESPIRATORY DISEASE IN LONG-TERM CARE FACILITIES

General Information **Today's Date** _____/_____/_____

Primary Contact person for epidemiologic investigation _____

Telephone _____ Local Health Department _____

Email _____

Outbreak Information

Geographic Information

Facility Name _____

City _____ County _____

Dates

Date first case became ill ____/_____/_____Date last case became ill _____/_____/_____

Date local health department was notified _____/_____/_____

Date state health department was notified _____/_____/_____

Case Information

Total number of residents in the facility _____ Number of residents ill _____

Total number of staff employed by the facility _____ Number of staff ill _____

Number of residents vaccinated (normal dose) _____ Number of residents vaccinated (high dose) _____

Number of staff vaccinated _____

Number of residents treated with antiviral _____ Number of staff treated with antiviral _____

Number of residents prophylaxed with antiviral _____ Number of staff prophylaxed with antiviral _____

Illness Characteristics

Predominant symptoms (circle those that apply) Fever Cough Runny Nose Nasal Congestion Sore Throat Malaise Headache

Other _____

Number of residents admitted to a hospital _____ Number of residents who died _____

Laboratory Information

Number of residents tested for influenza by: _____ Rapid _____ PCR

Number of rapid A positive _____ Number of rapid B positive _____

Number of PCR A positive _____ Number of PCR B positive _____

Number of staff tested for influenza by: _____ Rapid _____ PCR

Number of rapid A positive _____ Number of rapid B positive _____

Number of PCR A positive _____ Number of PCR B positive _____

Prevention and Control Activities

_____

_____

_____

Additional Comments

_____

_____

Please fax or email a copy of this completed form to the Office of Epidemiology, (402) 471-3601 or dhhs.epi@nebraska.gov

Nebraska Department of Health and Human Services Respiraotry Illness Line List Report

	Facility Name:				Total # ill:							Total # who visited provider			
	Contact name:				Total # of residents ill:							Total # visited E.R.			
	Contact phone number:				Total # of residents in facility:							Total # hospitalized:			
	Outbreak Start Date:				Total # of staff ill:							Total # who died:			
	Outbreak End Date:				Total # of staff in facility:										
	Patient Name or Initials	Resident (RS) or Staff (SF)	Room # or Unit	Sex (M/F)	Age	Resulted Test	Test Result (Positive/Negative)	Fever (Y/N)	Cough (Y/N)	Sore Throat (Y/N)	Malaise (Y/N)	Underlying Medical Conditions (Y/N)	Antiviral (Y/N)	First Ill Date	Last Date Ill
1	*Example:* Doe, Jane or J.D.	RS	103	F	4	FLU	Positive	Y	Y	N	Y	Y	N	1/1/2021	1/3/2021
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APPENDIX C: RESOURCES FOR HOSPITALS

This page is a collection of resources produced by trusted sources regarding preventing and managing outbreaks in schools. On the pages that follow you will find resources put together by the Nebraska Department of Health and Human Services specifically for Nebraska schools.

The Healthcare Infection Control Practices Advisory Committee (HICPAC) is a federal advisory committee that provides advice and guidance to the CDC as well as the US Department of Health and Human Services regarding infection control and surveillance strategies for healthcare-associated infections. To view these guidelines visit: Infection Control Guidance for Healthcare Settings

In addition, the CDC provides guidelines and educational resources addressing a variety of healthcare settings and difficulties unique to each. To view this collection visit: Infection Control in Health Care Facilities

The Infectious Disease Society of America releases annual Clinical Practice Guidelines regarding institutional outbreak management for the seasonal flu which can be found here.

The Nebraska Infection Control Assessment and Promotion Program (ICAP) provides Nebraska-based infection control expertise guidelines and consultations for evidence-based practices in healthcare facilities.

The CDC's Guidelines for Preventing Healthcare-Associated Pneumonia can be applied to many different respiratory infections as pneumonia can be associated with several different respiratory illnesses.

Because different viruses are resistant to certain cleaners, it is important that proper disinfection and sterilization protocols are followed in Healthcare Facilities. The CDC has Recommendations for Disinfection and Sterilization in Healthcare Facilities that aim to reduce the rates of healthcare-associated infections

The CDC has compiled guidelines on Respiratory Hygiene in Healthcare Settings to prevent the transmission of all respiratory infections in healthcare settings.

Because of the elevated importance of hand hygiene in the healthcare setting, CDC has a bank of resources including visual alerts, information cards, and other resources that focus on the specific importance of handwashing in healthcare settings for both patients and providers.

For specific information or guidance on COVID-19, please visit Guidance Documents for Healthcare Professionals to access all the guidance documents published by CDC for healthcare professionals and COVID-19.

APPENDIX D: RESOURCES FOR SCHOOLS

This page is a collection of resources produced by trusted sources regarding preventing and managing outbreaks in schools. On the pages that follow you will find resources put together by the Nebraska Department of Health and Human Services specifically for Nebraska schools.

Guidance Document for Notifying DHHS of a Suspected Influenza Outbreak in Schools

1) Notify the Office of Epidemiology (contact info at bottom of document) with the following information:
   - Name of the facility/school
   - First date of onset of symptoms
   - Symptoms
   - Number of people showing symptoms
   - Total number of residents/students **and** staff in the facility/school
   - Any special event that occurred previous to illness onset
2) Make sure specimens are collected for testing
   a. Up to 5 specimens will be approved for testing at NPHL per outbreak
      i. Follow NPHL respiratory specimen shipping instructions for outbreaks.
      ii. NPHL influenza testing information: http://www.nphl.org/testing_results.cfm?testlink=51
      iii. To submit an influenza specimen to NPHL for testing at public health expense, specimens must be ordered in NULIRT (https://nulirt.nebraskamed.com/login). For individuals who need access to become users of NUlirt, please visit: http://www.nphl.org/phlip.cfm for instructions on how to obtain credentials to become a user of the NUlirt system.
      iv. Specimen collection guidance is located here
   b. We will coordinate with NPHL (nphl@unmc.edu; 402-559-9444) for a courier to pick up the specimens and take to NPHL for testing.
3) Please use the influenza outbreak guidelines to distribute information/guidance to facilities and schools. Make sure proper recommendations have been given.

   CDC guidelines can be found here:
   - Guidance for Influenza Outbreak Management in Long-Term Care Facilities
   - Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools
4) In the investigation and disease resources section of NEDSS (https://dhhs-nedss2.ne.gov/homepageLinks.html) is an Outbreak Report survey or the Outbreak Report Form and Line List. Please fill out either the survey or the form, but if you fill out the form please fax to 402-471-3601

Office of Epidemiology
P.O. Box 95026,
Lincoln, Nebraska 68509-5026
Office: 402-471-2937
dhhs.epi@nebraska.gov

Robin M. Williams, MPH
Respiratory Disease Surveillance Coordinator
Office: 402-471-0935
Cell: 402-417-5858
robin.m.williams@nebraska.gov

Guidance for Identifying, Reporting, Prevention, and Control of Suspected Influenza Outbreaks in Child Care Facilities

Purpose

These guidelines are intended to aid child care facilities in the identification, reporting, prevention, and control of suspected influenza-like illness (ILI) and/or influenza outbreaks.

Reporting Suspected Influenza/ILI Outbreaks

Monitoring for absenteeism, parent reports of influenza, or ILI can help in identifying potential outbreaks. ILI defined as a fever (≥100ºF [37.8ºC], oral or equivalent) AND cough and/or sore throat (without a known cause other than influenza).

Immediately notify the regional health department when:

- 10% or more of the total child care facility enrollment absent on a given day for reasons not otherwise specified (e.g., a facility with 50 children would contact public health when at least 5 children are absent for reasons not attributed to vacation, inclement weather, etc).

OR

- 2 influenza-like illnesses are reported in one week with at least one being laboratory confirmed (i.e. report that an individual tested positive for influenza by a lab test such as a rapid influenza test, culture, real-time PCR, DFA, or IFA).

Contact information for local public health departments can be found at: www.dhhs.ne.gov/lhd

What to Report

Provide the following information to the local public health department:

- Size of child care facility (e.g., number of children enrolled and number of staff employed)
- Criteria which prompted reporting of suspected outbreak (e.g., 10% or more absent for reasons not otherwise specified or 2 influenza-like illnesses reported in one week with at least one being laboratory confirmed).
- Reported symptoms and testing information, if available
- Report all ill cases (e.g., children and staff) utilizing a line list (provided by regional health department personnel) at the following time intervals: initial, weekly, or as deemed appropriate.

Recommended Prevention and Control Measures

Vaccination[1]

- The CDC recommends that everyone 6 months and older receive a flu shot every flu season. This is one of the most important prevention measures that can be taken to defend against influenza infection.

Implement Good Hygiene Etiquette[2][3]

- Ensure staff members are trained on appropriate hand hygiene practices.
- Post signage to remind staff of proper handwashing procedures.
- Sinks suitable for children should be readily available and staff should assist children with handwashing and teaching children proper procedures.
- Staff should wash hands after each diaper change.
- Staff should wash each child's hands after each diaper change.
- Cover your nose and mouth with a tissue or your upper sleeve (if tissue is not available) when you cough or sneeze.[4]
- Place tissue in a trash receptacle after use.
- Wash hands with soap and water or alcohol-based hand sanitizer after coughing or sneezing.

Limit Contact with Others When Sick

- Avoid close contact (i.e. within 6 feet) with ill persons.
- Stay home when experiencing influenza or ILI until free from fever for 24 hours without the use of fever-reducing medicine.
- Ensure staff or students with influenza or ILI are appropriately excluded from child care. Follow the guidance outlined in the School and Childcare Exclusion List.
- Ensure procedures are in place to monitor reports of illness in children and staff.
- Health checks should be conducted with children as they arrive at the facility each day; a running log of this information (e.g. history of illness) should be maintained.

---

[1] CDC. Children, the Flu, and the Flu Vaccine. http://www.cdc.gov/flu/protect/children.htm

[2] CDC. Handwashing: Clean Hands Save Lives. https://www.cdc.gov/handwashing/

[3] SCDHEC. "Wash Hands" Video. https://www.youtube.com/watch?v=8iFEvkbaFh4

[4] CDC. Cover Your Cough. https://www.cdc.gov/flu/protect/covercough.htm

[5] CDC. How to Clean and Disinfect Schools to Help Slow the Spread of Flu. https://www.cdc.gov/flu/school/cleaning.htm

- Routine cleaning and disinfecting using an EPA-registered disinfectant can aid in removing or killing influenza viruses on surfaces. Follow your facility's policies for cleaning and disinfecting. In particular, ensure that frequently touched surfaces such as door knobs, tables, tables, toys, diaper changing areas, handrails, etc. are routinely cleaned.

Specific information for COVID-19 in the childcare facility

- COVID-19 guidelines for childcare facilities website includes a wealth of resources, including parental guidance in the childcare facility, maintaining clean environments, current, childcare-specific precautions, and even resiliency and mental health support.

Resources

For additional information, visit the CDC website on Information for Schools and Childcare Providers. https://www.cdc.gov/flu/school

APPENDIX E: RESOURCES FOR RESIDENTIAL INSTITUTIONS

The Health Care for the Homeless Network and the King County Public Health Department have developed comprehensive Pandemic Influenza Guidance for Homeless Shelters and Homeless Service Providers. While the title references pandemic influenza, many of the protocols, checklists, and recommendations are relevant to seasonal flu and general respiratory infections in addition to pandemic influenza. Additionally, RSV has been documented with higher odds among homeless shelters.

Residential Institutions working with people experiencing homelessness can use this flyer, created by the Health Care for the Homeless Network and King County Public Health, to educate volunteers and employees about proper management and prevention techniques during respiratory infection outbreaks.

Extracted from The Health Care for the Homeless Network's publication *The Health Care of Homeless Persons,* is a chapter dedicated to discussing Influenza and special considerations for homeless populations.

Correctional Facilities should refer to the Federal Bureau of Prisons' Seasonal Influenza Clinical Practice Guidelines for information on preventing and managing outbreaks.

Specific information for COVID-19 in residential institutions

COVID-19 guidelines for residential institutions website includes a wealth of resources, including how to prepare or update emergency operation plans, communicate to staff and residents, guidance on communal rooms, and what to do when there's a suspected or confirmed case of COVID-19

APPENDIX F: RESOURCES REGARDING LABORATORIES

For information regarding proper specimen collections refer to: Nebraska Public Health Laboratory Specimen Collection Guidelines

For information about specific influenza specimen guidelines refer to: Influenza Surveillance Specimen Collection and Transport Requirements

All specimens should be reported to the Nebraska Public Health Laboratory system or NUlirt. To submit a specimen to NPHL for testing at public health expense, specimens must be ordered in NUlirt (https://nulirt.nebraskamed.com/login). For individuals who need access to become users of NUlirt, please visit: http://www.nphl.org/phlip.cfm for instructions on how to obtain credentials to become a user of the NUlirt system.

For all specimens intended to be tested with a Respiratory Pathogen Panel, an NPHL Test Request Form must be submitted.

APPENDIX G: PREVENTION RECOMMENDATIONS

Infection prevention is a necessary step to decrease the rate and severity of outbreaks in the community. Despite the respiratory pathogen type, an essential set of preventions and infection control procedures apply effectively to any respiratory outbreak:

One method of prevention is to post visual alerts at the entrance to facilities to alert those entering to the presence of an infection in the facility. Visual alerts can also be used to help individuals practice good respiratory hygiene and cough etiquette. The 'Cover Your Cough Campaign' is one visual educational resource that can be used. The CDC also has a Digital Media Toolkit with printable visual alerts, social media content, and ready to share newsletter articles to help spread information about respiratory hygiene and prevention.

The CDC launched a national campaign to encourage proper handwashing hygiene complete with printable resources and social media graphics as well as informative videos and data graphs. To learn more and implement these resources, you can find the toolkit here.

During an outbreak, attempt to separate those showing symptoms consistent with respiratory infection from those who are symptom-free. If separation is not possible ensure that infected individuals wear a mask. In health care facilities, remind personnel to observe droplet precautions when interacting with patients who show signs and symptoms consistent with respiratory infection. If staff become symptomatic separate them from patients until they are symptom free.

APPENDIX H: HOW TO DIFFERENTIATE RESPIRATORY OUTBREAKS BY RISK FACTORS, SYMPTOMS, AND OTHER OUTBREAK CHARACTERISTICS.

In the event of a respiratory outbreak with an unknown pathogen, confirming the pathogen and disease is critical to timely and tailored intervention. Characteristics of respiratory pathogens can be classified based on incubation period, signs and symptoms, and history of outbreak potential by person, place, and time. These sheets can be found on the CDC website and can help you to differentiate various respiratory pathogens prior to laboratory confirmation. These sheets are classified by person and epidemiology characteristics, clinical information, and at-risk groups.