

Updated 3/10/20

Section H1
Aerosol Transmissible Disease

Prevention Program

Purpose

This section outlines the identification of safe work practices to minimize the incidence of occupationally acquired diseases that are transmissible through aerosols in the school setting. The ATD Standard was written by Cal/OSHA (Title 8, Section 5199 Aerosol Transmissible Diseases (ATD) Standard) as a direct result of the experiences involving Severe Acute Respiratory Syndrome (SARS), Avian Influenza, and the Novel Influenza H1N1.

Scope

This policy applies to all County of Santa Barbara Schools faculty, staff, hosted visitors, students, participating guests, and volunteers working at locations where EH&S has management control of specific biohazards. The following job classifications may have occupational exposure to ATD at the county of Santa Barbara Schools:

- A. Teachers and teacher aides
- B. Nurses or other licensed health care professionals working at the Student Health Services Center involved in diagnosis, triage, direct patient care and treatment
- C. Clerical workers/classified employees
- D. Facilities management custodial employees

Definitions

Aerosol Transmissible Disease (ATD) or Aerosol Transmissible Pathogen (ATP): A disease or pathogen for which droplet or airborne precautions are required, as listed in Appendix A of the standard.

Airborne Infectious Disease (AirID): Either: (1) An aerosol transmissible disease transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the disease agent, or (2) The disease process caused by a novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that the pathogen is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.

Airborne Infectious Pathogen (AirIP): Either: (1) An aerosol transmissible pathogen transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or

dust particles containing the infectious agent, or (2) A novel or unknown pathogen for which there is no evidence to rule out with reasonable certainty the possibility that it is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the novel or unknown pathogen.

Exposure Control Plan: A plan to protect employees from aerosol transmissible pathogens by reducing occupational exposure and providing appropriate treatment and counseling for employees potentially exposed to these pathogens.

Exposure incident: An event in which all of the following have occurred: (1) An employee has been exposed to an individual who is a case or suspected case of a reportable ATD, or to a work area or to equipment that is reasonably expected to contain ATPs associated with a reportable ATD; and (2) The exposure occurred without the benefit of applicable exposure controls required by this section, and (3) It reasonably appears from the circumstances of the exposure that transmission of disease is sufficiently likely to require medical evaluation.

M. tuberculosis: *Mycobacterium tuberculosis* complex, which includes *M. tuberculosis*, *M. bovis*, *M. africanum*, and *M. microti*. *M. tuberculosis* is the scientific name of the group of bacteria that cause tuberculosis.

Novel or unknown ATP: A pathogen capable of causing serious human disease meeting the following criteria:

There is credible evidence that the pathogen is transmissible to humans by aerosols; and

- (1) The disease agent is:
 - (a) A newly recognized pathogen, or
 - (b) A newly recognized variant of a known pathogen and there is reason to believe that the variant differs significantly from the known pathogen in virulence or transmissibility, or
 - (c) A recognized pathogen that has been recently introduced into the human population, or
 - (d) A not yet identified pathogen.

Note: Variants of the human influenza virus that typically occur from season to season are not considered novel or unknown ATPs if they do not differ significantly in virulence or transmissibility from existing seasonal variants. Pandemic influenza strains that have not been fully characterized are novel pathogens.

Respirator: A device which has met the requirements of 42 CFR Part 84, has been designed to protect the wearer from inhalation of harmful atmospheres, and has been approved by NIOSH for the purpose for which it is used.

Source control measures: The use of procedures, engineering controls, and other devices or materials to minimize the spread of airborne particles and droplets from an individual who has or exhibits signs or symptoms of having an ATD, such as persistent coughing.

Suspected case: Either of the following:

- (1) A person whom a health care provider believes, after weighing signs, symptoms, and/or laboratory evidence, to probably have a particular disease or condition listed in Appendix A of the standard.
- (2) A person who is considered a probable case, or an epidemiologically-linked case, or who has supportive laboratory findings under the most recent communicable disease surveillance case definition established by CDC.

Tuberculosis (TB): A disease caused by *M. tuberculosis*.

Policy

- A. This plan is administered by the Santa Barbara County Schools Self Insured program for Employees (SIPE) Safety Office.
- B. The plan is evaluated and updated to include methods for controlling/preventing respiratory pathogen transmission, i.e., new engineering and work practice controls, new cleaning and decontamination procedures, changes in isolation procedures, use of Personal Protective Equipment (PPE), and determining employee exposures.
- C. The following methods are used to prevent exposures to aerosol transmissible diseases/pathogens (ATDs/ATPs)
 1. Promptly identify suspect students.
 2. Transfer to an appropriate room within the institution for airborne infectious disease students.
 3. When not feasible to provide airborne isolation rooms for a novel disease, provide other effective control measures, i.e., PPE, hand hygiene, social distancing (keeping 6 feet from suspected or diagnosed ATD students).
- D. Apply appropriate isolation precautions.
- E. Maintain appropriate engineering controls. To prevent transmission, i.e., ventilation systems on fresh air exchanges in appropriated treatment rooms are used to manage the environment of students with ATD.
- F. Implement appropriate work practices to prevent transmission:
 1. Food is not allowed in appropriate treatment rooms or areas.

2. Respiratory etiquette is practiced by employees.
3. Using personal protective equipment to protect employees from other pathogens spread by airborne/droplet route of transmission, i.e. Influenza.
4. Wash hands before and after student contact.
5. Identify and review annually the work locations at higher risk for exposure to ATD/ATP, including school offices, classrooms, nurse's office, health office, or treatment room/area.
6. Maintain routine cleaning.

G. Respiratory protection

1. Respirators used, such as filtering facepieces must be NIOSH approved and have a minimum rating of N95.
2. Fit-testing and respiratory protection procedures will occur in accordance with the Santa Barbara County education's Respiratory Protection Program.
3. N95 respirators will be reused when there is a lack of available inventory, i.e., pandemic or epidemic. The N95 respirator can be worn for one shift of work or more often depending on the need. The N95 respirator should be inspected prior to use, and not used if it is damaged in any way. If there is a shortage of N95 Respirators, and elastomeric mask may be used.

H. Implementation

1. This program and supporting procedures are generally followed at all times; however, specific implementation requirements identified in SIPE's ATD plan are voluntary. If a confirmed episode or epidemic of ATD is declared by either the County Department of Public Health, the Centers for Disease Control, or the California Department of Education, this plan will be converted from voluntary to mandatory, and thus, all procedures will be strictly adhered to according to this ATD Plan.

Procedures

- A. Confirmed or suspected ATD students are placed in designated appropriate treatment rooms/areas.
- B. Students suspected or confirmed as infectious due to airborne pathogen may wear a surgical mask until an appropriate room is available.
- C. Visitors entering the rooms/areas housing ATD students will wear a surgical mask or equivalent during the visit. If able, the student may wear a surgical mask.
- D. Work Practice Controls: Principals and supervisors are responsible for enforcing employee work practice controls. The following work practice controls are implemented to prevent exposure to airborne pathogens.

Employees taking care of students with suspected or confirmed airborne diseases must:

1. Wear appropriate PPE, up to and including respirators, gloves, surgical masks, etc.
 2. Practice appropriate hand hygiene.
 3. Maintain social distancing (keep 6 feet from students suspected or confirmed with an ATD/ATP when possible).
 4. Students with communicable airborne diseases may wear a surgical mask during transport and other times when students are out of designated treatment rooms/areas.
 5. Employees must wash their hands after removal of gloves.
 6. Occupational exposures are to be reported to supervisors immediately.
 7. Visitors who must enter an appropriate treatment room/area where suspect or confirmed ATD students are waiting to go home are to wear surgical masks.
- E. Employee surveillance and post-exposure follow-up. School districts are responsible for new employee and annual employee surveillance as well as post exposure follow-up for airborne pathogens.
- F. Medical services for employees with occupational exposure to ATD:
1. Assess exposure: TB skin tests are provided every 4 years according to Ed. Code and more frequently in accordance with applicable public health guidelines or if the public health officer recommends more frequent testing.
 2. Employees with TB test conversions are referred to a health care provider knowledgeable about TB for evaluation
 3. Diagnostic tests and treatment options are provided to the employee.
 4. Investigate the circumstances of occupational exposures to any ATD and document the investigation/findings.
 5. Vaccinations shall be made available to all employees with occupational exposures unless the employee has already received the vaccine or it is determined the employee has immunity, or the vaccine is contraindicated for medical reasons.
 6. Individual providing vaccine or determining immunity provides information to the employer (name, date, dose, immunity, any restrictions on employee's exposure, if additional vaccine is required, and date/dose it should be provided).
 7. If vaccine is not available, employer documents unavailability of the vaccine and checks on availability every 60 days.
- G. Training
1. New employee orientation and annual education of employees.
 2. Written materials, including handout or brochure about ATD is provided to employees during the New Employee Orientation classes and annual

education classes. The topics include transmission, symptoms, incidence, risk group categories, and exposure prevention strategies.

H. Recordkeeping

1. Employees skin test results are recorded by Human Resources department.
2. New employee and annual education of employees is recorded by the district Human Resources department. These records are maintained for three years.
3. Employee information is kept confidential. Records are maintained for 30 years past termination, resignation, or retirement.

Information and External References

- Cal/OSHA Aerosol Transmissible Diseases Regulation
<http://www.dir.ca.gov/title8/5199.html>
- Appendix D: Aerosol Transmissible Pathogens – Laboratory List
<http://www.dir.ca.gov/title8/5199d.html>
- Cal/OSHA Respiratory Protection Program Regulation
<http://www.dir.ca.gov/title8/5144.html>
- California’s Local Health Officers
<http://www.cdph.ca.gov/programs/cclho/Documents/CCLHOHealthOfficerDirectory.pdf>
- CDC Biosafety in Microbiological and Biomedical Laboratories, 5th Edition
<http://www.cdc.gov/biosafety/publications/bmb15/>
- Centers for Disease Control’s Respiratory Hygiene/Cough Etiquette Guidelines
<http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>
- Immunization Information from the California Department of Public Health
<http://www.cdph.ca.gov/programs/immunize/Pages/HealthProfessionals.aspx>

Appendix A – Aerosol Transmissible Diseases/Pathogens (Mandatory)

This appendix contains a list of diseases and pathogens which are to be considered aerosol transmissible pathogens or diseases for the purpose of Section 5199. Employers are required to provide the protections required by Section 5199 according to whether the disease or pathogen requires airborne infection isolation or droplet precautions as indicated by the two lists below.

Diseases/Pathogens Requiring Airborne Infection Isolation

Aerosolizable spore-containing powder or other substance that is capable of causing serious human disease, e.g. Anthrax/*Bacillus anthracis*
Avian influenza/Avian influenza A viruses (strains capable of causing serious disease in humans)
Varicella disease (chickenpox, shingles)/Varicella zoster and Herpes zoster viruses, disseminated disease in any patient. Localized disease in immunocompromised patient until disseminated infection ruled out
Measles (rubeola)/Measles virus
Monkeypox/Monkeypox virus
Novel or unknown pathogens
Severe acute respiratory syndrome (SARS)
Smallpox (variola)/Variola virus
Tuberculosis (TB)/*Mycobacterium tuberculosis* -- Extrapulmonary, draining lesion; Pulmonary or laryngeal disease, confirmed; Pulmonary or laryngeal disease, suspected
Any other disease for which public health guidelines recommend airborne infection isolation

Diseases/Pathogens Requiring Droplet Precautions

Diphtheria pharyngeal
Epiglottitis, due to *Haemophilus influenzae* type b
Haemophilus influenzae Serotype b (Hib) disease/*Haemophilus influenzae* serotype b -- Infants and children
Influenza, human (typical seasonal variations)/influenza viruses
Meningitis
Haemophilus influenzae, type b known or suspected
Neisseria meningitidis (meningococcal) known or suspected
Meningococcal disease sepsis, pneumonia (see also meningitis)
Mumps (infectious parotitis)/Mumps virus
Mycoplasmal pneumonia
Parvovirus B19 infection (erythema infectiosum)
Pertussis (whooping cough)
Pharyngitis in infants and young children/Adenovirus, Orthomyxoviridae, Epstein-Barr virus, Herpes simplex virus,
Pneumonia
Adenovirus
Haemophilus influenzae Serotype b, infants and children
Meningococcal
Mycoplasma, primary atypical
Streptococcus Group A
Pneumonic plague/*Yersinia pestis*
Rubella virus infection (German measles)/Rubella virus
Severe acute respiratory syndrome (SARS)
Streptococcal disease (group A streptococcus)
Skin, wound or burn, Major
Pharyngitis in infants and young children
Pneumonia
Scarlet fever in infants and young children
Serious invasive disease

Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, Crimean-Congo fever viruses (airborne infection isolation and respirator use may be required for aerosol-generating procedures)
Any other disease for which public health guidelines recommend droplet precautions