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. This policy is mandated by the State of California Title 8, Section 5199, Aerosol Transmissible Diseases Standard.

SETTING

School office, nurse’s office or other student treatment area.

POLICY

A. This plan is administered by the Calaveras County Office of Education, Director of Personnel/Administrative Services.

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 PPE, and determining employee exposures.

C. The following methods are used to prevent exposures to aerosol transmissible diseases/pathogens:
   1. Promptly identify suspect students.
   2. Transfer to an appropriate room within the institution for airborne infectious disease students.
   3. When it is 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 and fresh air exchanges in appropriate treatment rooms are used to manage the environment of students with ATD:
   1. Maintain ventilation systems by inspection and monitoring for exhaust and recirculation filter loading and leakage at least annually.

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 the 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 and/or ATP, Including the School Office, nurse’s office, health office, or treatment room or area.

Source Controls Are Established:
1. Respiratory etiquette is taught to students.
2. Ill students will be separated from students and staff and sent home. Students may wear a surgical mask, if they are able to and should be instructed to cover their cough/sneeze.
3. Students with the same respiratory illness symptoms may be placed together in the same treatment room during times of high census, such as a pandemic.
4. Inform persons entering the facility about our source control practices; visitors are to wash hands, use respiratory etiquette and wear mask when indicated.
5. Schools do not provide names of students suspected/confirmed of having an ATD to employees, other students or non-relatives of the suspected ATD student.

G. Respiratory Protection
1. Respirators are NIOSH approved.
2. Fit testing and respiratory protection procedures will occur in accordance with the Calaveras County Office of 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 can be worn for one shift of work or more often depending on the need. The N95 is not to be worn if it is damaged in any way. As an alternative, elastomeric masks may be used when there is a shortage of N95 masks.

H. Implementation.
1. This program and supporting procedures are generally followed at all times. However, specific implementation requirements identified in this Calaveras County Office of Education ATD Plan are voluntary. If a confirmed episode or epidemic of Aerosol Transmissible Diseases as listed in Section V-Definitions, 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 a voluntary program to a mandatory program. At that time, all procedures will be strictly adhered to according this ATD Plan.

PROCEDURES
A. Confirmed or suspected ATD students are placed in designated appropriate treatment rooms or areas.

B. Students suspected or confirmed as infectious due to an airborne pathogen may wear a surgical mask until an appropriate room is available.

C. Visitors entering the rooms 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 – Principles 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 Personal Protective Equipment, up to and including respirators, gloves, surgical masks, etc.
2. Practice appropriate hand hygiene
3. Maintain social distancing – keeping 6 feet from students suspected or confirmed with an ATD or ATP when possible.
4. Students with communicable airborne diseases who can, may wear a surgical mask during transport and other times when students are out of designated treatment rooms or areas.
5. Employees must wash hands after removal of gloves.
6. Occupational exposures are to be reported to supervisor immediately.
   a. Exposures are investigated promptly, and everyone who may have been exposed is informed.
   b. Do not provide the name of the source student to other employees, students, or parents.
7. Visitors who must enter an appropriate treatment room where suspect or confirmed ATD students waiting to go home, are to wear surgical masks.

E. Employee Surveillance and Post-exposure Follow-up. Calaveras County Office of Education is responsible for new employee and annual employee surveillance and for post-exposure follow-up for airborne pathogens.

F. Medical Services for Employees with Occupational Exposure to ATD
1. Assess exposures; 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. Document the investigation.
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 the 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
2. New employee orientation and annual education of employees.
3. Written materials, including hand-out 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 vaccines, 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 Calaveras
County Office of Education Safety Office. These records are maintained for three years.

3. Employee information is kept confidential. Records are maintained for 30 years past termination, resignation, or retirement.

DEFINITIONS

A. Diseases/Pathogens Requiring Airborne Infection Isolation:
   1. Aerosolizable spore-containing powder or other substance
   2. Avian Influenza (transmissible to humans)
   3. Herpes Zoster (varicella zoster) (shingles), disseminated disease in any person.
   4. Measles (rubella)
   5. Monkeypox
   6. Novel or unknown pathogens
   7. Severe acute respiratory syndrome (SARS)
   8. Smallpox (variola; see vaccinia for management of vaccinated persons)
   9. Tuberculosis (M.Tuberculosis), extrapulmonary draining lesion, pulmonary or laryngeal disease-confirmed, pulmonary or laryngeal disease-suspected
   10. Varicella and any emerging disease determined by public health to have airborne transmission

B. Diseases/Pathogens requiring Droplet Precautions:
   1. Diphtheria/Corynebacterium diphtheriae – pharyngeal
   2. Epiglottitis, due to Haemophilus influenzae type b
   3. Group A Streptococcal (GAS) disease (strep throat, necrotizing fasciitis, impetigo)/Group A streptococcus
   4. Haemophilus influenzae Serotype b (Hib) disease/Haemophilus influenzae serotype b -- Infants and children
   5. Influenza, human (typical seasonal variations)/influenza viruses
   6. Meningitis
   7. Haemophilus influenzae, type b known or suspected
   8. Neisseria meningitidis (meningococcal) known or suspected
   9. Meningococcal disease/Neisseria meningitidis: sepsis, pneumonia (see also meningitis)
   10. Mumps (infectious parotitis)/Mumps virus
   11. Mycoplasmal pneumonia/Mycoplasma pneumoniae
   12. Parvovirus B19 infection (erythema infectiosum, fifth disease)/Parvovirus B19
   13. Pertussis (whooping cough)/Bordetella pertussis
   14. Pharyngitis in infants and young children/Adenovirus, Orthomyxoviridae, Epstein-Barr virus, Herpes simplex virus,
   15. Pneumonia
   16. Adenovirus
   17. Chlamydia pneumoniae
   18. Mycoplasma pneumoniae
   19. Neisseria meningitidis Streptococcus pneumoniae
   20. Pneumonic plague/Yersinia pestis
   21. Rubella virus infection (German measles) (Also see congenital rubella)/Rubella virus

C. Aerosol Transmissible Disease (ATD) or aerosol transmissible pathogen (ATP)—A disease or pathogen for which droplet or airborne precautions are recommended.
D. **Airborne Infection Isolation (AII).** Infection control procedures designed to reduce the risk of transmission of airborne infectious pathogens in health care settings.

E. **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 for which AII is recommended by the CDC or CDPH, as listed in Appendix A, 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.

F. **Case**—(A) A person who has been diagnosed by a health care provider who is lawfully authorized to diagnose, using clinical judgment or laboratory evidence, to have a particular disease or condition; or (B) A person who is considered a case of a disease or condition that satisfies the most recent communicable disease surveillance case definitions established by the CDC

G. **Droplet Precautions.** Infection control procedures as described in Guideline for Isolation Precautions designed to reduce the risk of transmission of infectious agents through contact of the or the mucous membranes of the nose or mouth of a susceptible person with large-particle droplets (larger than 5 \( \mu m \) in size) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism

H. **Exposure Incident**—An event in which an employee has been exposed to an individual who is a case or suspected case of a reportable ATD, the exposure occurred without the benefit of applicable exposure controls required by this section, and it reasonably appears from the circumstances of the exposure that transmission of disease is sufficiently likely to require medical evaluation.

I. **High Hazard Procedures**—Procedures performed on a person who is a case or suspected case of an aerosol transmissible disease or on a specimen suspected of containing an ATP-L (Aerosol transmissible pathogen – laboratory) in which the potential for being exposed to aerosol transmissible pathogens is increased due to the reasonably anticipated generation of aerosolized pathogens. Such procedures include, but are not limited to, suctioning (except closed circuit suctioning), sputum induction, bronchoscopy, aerosolized administration of pentamidine or other medications, and pulmonary function testing. High Hazard Procedures also include, but are not limited to, autopsy, clinical, surgical and laboratory procedures that may aerosolize pathogens.

J. **Latent TB Infection (LTBI)**—Infection with *M. tuberculosis* in which bacteria are present in the body, but are inactive. Persons who have LTBI but who do not have TB disease are asymptomatic, do not feel sick and cannot spread TB to other persons. They typically react positively to TB tests.
K. **Local Health Officer.** The health officer for the local jurisdiction responsible for receiving and/or sending reports of communicable diseases as defined in Title 17, CCR. Note: Title 17, Section 2500 requires that reports be made to the local health officer for the jurisdiction where the patient resides.

L. **M. Tuberculosis**—Mycobacterium Tuberculosis - The scientific name of the group of bacteria that causes tuberculosis.

M. **Negative Pressure**—The relative air pressure difference between two areas. The pressure in a containment room or area that is under negative pressure is lower than adjacent areas, which keeps air from flowing out of the containment facility and into adjacent rooms or areas.

N. **Novel or Unknown ATP**—A pathogen capable of causing serious human disease meeting the following criteria:
   1. There is credible evidence that the pathogen is transmissible to humans by aerosols; and
   2. 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.

O. **Occupational Exposure**—Exposure from work activity or working conditions that is reasonably anticipated to create an elevated risk of contracting any disease caused by ATPs or ATP-Ls (Aerosol transmissible pathogen -- laboratory) if protective measures are not in place.

P. **Personal protective equipment (PPE)** - specialized clothing or equipment worn for protection against a hazard PPE includes equipment such as, but not limited to, gloves, facial protection, gowns/aprons, shoe covers, lab coats, eye protection, foot protection, respiratory protection and hearing protection.

Q. **Physician or other licensed healthcare professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by this section.

R. **Public Health Guidelines.** In regard to tuberculosis, applicable guidelines published by the CTCA and or CDPH. In regards to vaccine preventable diseases, the Centers for Disease Control and Prevention publication, “Epidemiology and Prevention of Vaccine –Preventable Diseases”. In regard to any other disease or condition, recommendations made by the CDPH or the local health officer pursuant to authority
granted under the Health and Safety Code and/or Title 17, California Code of Regulations.

S. **Reportable Aerosol Transmissible Disease (RATD)**--An aerosol transmissible disease or condition which a health care provider is required to report to the local health officer, in accordance with Title 17 CCR, Chapter 4, and for which the CDC or the CDPH recommend droplet precautions or All.

T. **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.

U. **Respiratory Hygiene/Cough Etiquette in Health Care Settings**--Respiratory Hygiene/Cough Etiquette in Health Care Settings, CDC, November 4, 2004, which is hereby incorporated by reference for the sole purpose of establishing requirements for source control procedures.

V. **Respiratory Protection Program** refers to the Calaveras County Office of Education’s Respiratory Protection Program that is compliant with 29 CFR 1910.134 and CCR Title 8 Section 5144 and 5147.

W. **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.

X. **Standard Precautions**--apply to 1) all toxic chemical aerosols or droplets; 2) all bodily fluids, secretions, and excretions, except sweat, regardless of whether or not they contain visible blood; 3) non-intact skin; and 4) mucous membranes. Standard Precautions are designed to reduce the risk of inhalation and transmission of microorganisms from both recognized and unrecognized sources of toxins and infection.

Y. **Surge**--A rapid expansion beyond normal services to meet the increased demand for qualified personnel, medical care, equipment, and public health services in the event of an epidemic, public health emergency, or disaster.

Z. **Susceptible Person**--A person who is at risk of acquiring an infection due to a lack of immunity as determined by a PLHCP in accordance with applicable public health guidelines.

AA. **TB Conversion**--A change from negative to positive as indicated by TB test results, based upon current CDC or CDPH guidelines for interpretation of the TB test.

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

CC. **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 section IV. A or B.
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.