



SAN MATEO COUNTY
AEROSOL TRANSMISSIBLE DISEASES
EXPOSURE CONTROL PLAN

(Formerly the San Mateo County TB Exposure Control Program)

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INTRODUCTION AND PURPOSE

The Aerosol Transmissible Diseases Control Plan has been developed to provide guidance to San Mateo County departments and employees to minimize the risk of occupationally acquired aerosol transmissible disease, including Tuberculosis (TB). This Plan meets the California Occupational Safety and Health Administration (Cal/OSHA) requirement (Title 8, CCR, Section 5199) to develop a plan to prevent the spread of aerosol transmissible diseases (ATD) within County operations.

Aerosol transmissible disease means an epidemiologically significant disease that is transmitted via droplet or airborne route. A list of these diseases is included in **Appendix A**. When a person coughs, sneezes or speaks, particles that may contain viable aerosol transmissible pathogens are expelled from the respiratory tract of the infected person. Droplets are larger particles that fall out of the air rather quickly. The smaller particles are carried in normal air currents and can remain airborne for prolonged periods of time (hours) until they are removed by building ventilation. Transmission occurs when a susceptible person inhales these particles containing viable pathogens. Anyone who breathes in air containing these pathogens is at risk of acquiring infection. Various County departments provide services for a population who are at high risk for aerosol transmissible diseases.

This Plan focuses on source control, control of the environment, safe work practices and the use of respiratory protective devices when needed.

Included in the plan are:

- A comprehensive infection prevention program to prevent transmission of all infectious agents among employees, patients, clients, and inmates.
- An on-going employee medical surveillance program
- An employee training program

All County employees are responsible for complying with this plan. Employees are strongly encouraged to comply with the TB screening and medical surveillance program, including the recommended vaccinations. Participation in the TB screening is voluntary for all employees other than those identified to be working in at-risk classifications (**APPENDIX B**), high-risk facilities (**APPENDIX C**), or in positions where compliance is determined to be mandatory.

SCOPE

This Plan applies to all San Mateo County departments which have personnel who may be exposed to individuals with aerosol transmissible diseases or where procedures may be utilized which would result in the spread of airway secretions in the air. It is inclusive of all full-time, part-time and extra-help employees who have been identified as being at higher risk for exposure or disease than the general employee population. It also applies to contractors and others who are physically present and may be exposed.

Each affected department is responsible for developing its own specific Aerosol Transmissible Diseases Exposure Control Plan based on the pertinent job tasks and hazards identified in their department's operations.

This Plan also requires that:

1. Source control measures be implemented
2. Procedures for identification and isolating suspected cases be implemented
3. Procedures for exposure incidents be implemented
4. Procedures for communication with employees and affected personnel regarding exposure incidents be implemented
5. Procedures be developed for those employees designated to provide services during surge events

A list of affected County Departments covered under this Plan and the classifications of affected employees within those departments can be found in **APPENDIX B**.

ACKNOWLEDGEMENTS

This Plan was first developed through the efforts of a Countywide Tuberculosis Exposure Control Program Committee formed of members from County departments and labor organizations. The current version of this plan would not be possible without the input from Dr. Scott Morrow, San Mateo County Health Officer, Elaine Simmons, OHN, with Risk Management, and the Countywide Safety Committee.

RESPONSIBILITIES

Department Heads

Department Heads are responsible for complying with the County's ATD Exposure Control Plan and providing a safe and healthy work environment for affected employees in the department.

Department Heads are responsible for:

- Developing a written department-specific ATD Exposure Control Plan when employees are identified at high-risk for exposure to Aerosol Transmissible Diseases.
- Ensuring that affected staff have received training in the department's exposure control plan and the County's ATD Exposure Control Plan.
- Providing initial and re-training every year on the anniversary date of the initial training and include employees in review of plan for effectiveness of the program in their respective areas.
- Documenting employee training in LMS.
- Developing and implementing written procedures for screening and referral of cases (and suspected cases) of ATD to appropriate facilities (I.E. hospitals, clinics, correctional institutions, etc.) within appropriate time frames.
- Implementing and maintaining effective written procedures to communicate with employees and any other affected personnel regarding the suspected or diagnosed infectious disease status of referred patients.
- Making available to all employees recommended vaccinations and medical surveillance as required by this Plan.
- Reporting potential exposures to Risk Management for follow-up as needed, and to ensure that appropriate control measures are in place after an exposure incident so as to prevent further potential transmission.
- Provide adequate personal protective equipment to minimize exposure in normal operations and also in foreseeable emergencies and surge situations.
- Testing isolation rooms on an annual basis, per Cal/OSHA regulatory requirement.
- Developing and maintaining department Pandemic Plans.

Risk Management

Risk Management is responsible for:

- Updating the County of San Mateo Aerosol Transmissible Diseases Exposure Control Plan as changes occur.
- Administering the TB screening and required vaccinations, except for the TB screening of San Mateo Medical Center (SMMC). The SMMC is responsible for administering an internal TB Screening Program for designated staff.
- Administering the medical surveillance and vaccination program for employees.
- Ensuring post-exposure follow-ups with the County's Occupational Health provider.
- Maintaining required medical records.
- Assisting departments with the development of written ATD Exposure Control Plans.

Public Works

Public Works will be responsible for:

- Providing maintenance to the structural and mobile engineering controls that are instituted to provide protective airflow in County-owned buildings.
- Maintaining and changing ventilation system filters according to manufacturers' recommendations.
- In leased buildings, the building owner shall be responsible for the proper maintenance of the engineering controls and the custodial services. Public Works will act as consultants in questionable situations (e.g., the building owner is not cooperative, employees are complaining or concerned, etc.) to assist the County in assuring compliance, such as correct air flow requirements.

Purchasing

The Purchasing Division of the County Manager's Office will be responsible for:

- Procuring supplies needed to support this Plan.

The County's Occupational Health Care Provider

Kaiser Occupational Health, will be responsible for:

- Notifying Public Health and Risk Management of any positive TB cases or aerosol exposures.
- Providing medical follow-up after an exposure.
- Maintaining required medical records.
- Communicating with employees' primary medical providers.

Employees

Employees are responsible for:

- Becoming familiar with the contents of the department's ATD exposure control plan.
- Utilizing safe and healthful work practices.
- Reporting potential exposure incidents.
- Complying with the procedures and work practices learned through training.
- Compliance with medical surveillance and follow-up procedures.
- Compliance with vaccination program.

DEFINITIONS

1. Aerosol Transmissible Disease (ATD), or pathogen, means an epidemiologically significant disease or pathogen that is transmitted via droplet or airborne route and for which droplet or airborne precautions are required. [See Appendix A]
2. Airborne Infection Isolation (AII) means infection control procedures that are designed to reduce the transmission of airborne infectious pathogens. Airborne infection isolation procedures apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route.
3. Airborne Infection Isolation Room or Area (AIIR) means a room, area, booth, tent or other enclosure that is maintained at negative pressure to adjacent areas in order to control the spread of aerosolized M. Tuberculosis or other airborne infectious pathogens, and that meets the requirements of title 24, Part 4, for Isolation Rooms.
4. 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 it is transmissible through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing novel or unknown pathogens.
5. Bacille Calmette-Guerin Vaccine (BCG) is a vaccine for TB disease. BCG is used in many countries with a high prevalence of TB to prevent TB, however, it is not generally recommended for use in the U.S. because of the variable effectiveness.
6. Cal/OSHA means the California Division of Occupational Safety and Health that protects workers and the public from safety hazards.
7. CDC means the United States Centers for Disease Control and Prevention.
8. CDPH means the California Department of Public Health and its predecessor, the Department of Health Services (CDHS).
9. Confirmed Case means an individual who meets the definition of a confirmed case of an ATD under diagnostic criteria accepted by the CDC, CDHS or the infection control physician or other licensed health care professional.
10. Droplet Precautions means infection control procedures designed to reduce the risk of transmission of infectious agents through contact of the conjunctivae or mucous membranes of the nose or mouth of a susceptible person with large-particle droplets containing

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microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism.

11. Exposure Incident means an event in which an employee or other personnel has had an exposure to an individual with a diagnosed reportable disease or condition for which droplet precautions or airborne infection isolation is recommended.
12. High Hazard Procedures means procedures performed on an individual with a suspected or confirmed aerosol transmissible disease in which the potential for being exposed to aerosol transmissible pathogens is increased due to the reasonably anticipated generation of aerosolized pathogen.
13. Latent Tuberculosis Infection (LTBI) means a condition in which living *M. Tuberculosis* bacilli are present in the body without producing clinically active disease. Although the infected individual has a positive TB test, they may have no symptoms related to the infection and are not capable of transmitting the disease.
14. LMS means the Learning Management System, a centralized County system for maintaining training records.
15. Local Health Officer means the health officer for the local jurisdiction responsible for receiving reports of communicable diseases, as defined in Title 17 of the California Code of Regulations.
16. *M. Tuberculosis* means *Mycobacterium Tuberculosis*, the scientific name of the bacillus that causes tuberculosis.
17. Negative Pressure means the relative air pressure difference between two areas. A room that is under negative pressure has lower pressure than adjacent areas, which keeps air from flowing out of the room into adjacent rooms or areas.
18. NIOSH means the National Institute for Occupational Safety and Health. It is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness.
19. Novel or Unknown ATP means a disease or agent that meets at least one of the following criteria, i.e.: (1) it is a newly recognized pathogen, (2) it is a newly recognized variant of an existing pathogen for which there is reason to believe that the variant differs significantly in virulence or transmissibility, (3) it is a pathogen that has been recently introduced into the human population, or (4) it is an unknown pathogen; and, in addition, meets all of the following criteria: (a) it is capable of causing serious human disease, (b) there is credible evidence that it is transmissible to humans by aerosols, and (c) there is insufficient evidence to rule out transmission of the pathogen by the airborne route.

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20. Occupational Exposure means reasonably anticipated exposure to a source of ATD under conditions that, without protective measures, create a significant risk that the exposed employee or other personnel will contract the disease caused by the ATD.
21. Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope or practice (i.e., license, registration or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some of or all of the health care services required by this section.
22. Referral means the directing or transferring of a possible ATD case to another facility, service or operation for the purpose of transport, diagnosis, treatment, isolation, housing or care.
23. Significant Exposure means an exposure to a source of ATD in which the circumstances of the exposure make the transmission of a disease sufficiently likely the employee will require further evaluation by a PLHCP.
24. Source Control means 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.
25. Surge means a rapid expansion beyond normal services to meet the increased demand for qualified personnel, medical care, public health professionals, and all other employees required to continue continuity of operations in the event of large-scale public health emergencies or disasters, such as in a pandemic or earthquake.
26. Surge plan means the plan that each department must prepare to operationally function during a surge event. Surge plans deal with both increased demand for services and significant loss of staff able to work.
27. Suspected Case means 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. (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 and published in the Morbidity and Mortality Weekly Report (MMWR) or its supplements as applied to a particular disease or condition listed in Appendix A.
28. TB Conversion means a change from negative to positive as indicated by TB test results, and based upon current Centers for Disease Control and Prevention or CDHS guidelines.
29. Test for Tuberculosis Infection (TB Test) means an interferon gamma release assay (IGRAs), a blood assay for M. Tuberculosis. For the purpose of this Plan, it is limited to Quantiferon TB Gold In Tube. As newer tests come on the market, the Local Health Officer will review them for acceptability.

ADMINISTRATIVE CONTROL/SAFE WORK PRACTICES

Specific work practices are required to be used by employees to reduce the risk of potential exposure to aerosol transmissible diseases. County facilities that have been identified as high-risk (**APPENDIX C**) are required to develop written source control and work practice control procedures. These procedures shall include methods to inform individuals entering the facility or otherwise in close contact with employees of the source control practices.

These work practices may include:

1. Adhering to Universal Precautions, which assumes that every person is potentially infected with a pathogen that could be transmitted by airborne, droplet or contact transmission. Universal Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection.
2. Hand washing with an antimicrobial or non-antimicrobial soap and water alcohol-based hand rub, or antiseptic hand wash. Hand hygiene should be performed frequently, including before and after patient/client/inmate contact, and before putting on and upon removal of personal protective equipment, including gloves.
3. Wearing personal protective equipment such as gloves, gown, facemasks and respirators when providing care to patients/clients/inmates.
4. Using cleaners and water to pre-clean surfaces prior to applying a registered-EPA disinfectant to frequently touched surfaces.
5. Screening and triage of symptomatic patients and implementation of respiratory hygiene and cough etiquette. Symptomatic patients are to be transferred to an All room or area within 5 hours of identification.
6. Conduct high hazard procedures in airborne isolation rooms, booths or tents. When this is not feasible, wear appropriate personal protective equipment.
7. Communicate information about patients with suspected, probable or confirmed aerosol infections to appropriate personnel before transfer to other departments or facilities. Have the patient wear a facemask if possible.
8. Encourage and provide vaccinations, especially seasonal influenza, to all healthcare workers.
9. Providing conveniently located masks, tissues and alcohol-based hand rubs for waiting areas and patient evaluation areas.
10. Posting signs requesting that persons with respiratory illness refrain from visiting the facility.

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11. Law enforcement personnel transporting suspected ATD patients will use source controls, barriers and air handling systems where feasible.
12. Decontamination and cleaning of transport vehicles will be done according to recommended standard cleaning and disinfection procedures (Refer to section on Cleaning Procedures).
13. Review annually infection prevention controls with employees, especially in areas that are at high-risk.

CLEANING AND DISINFECTION OF WORK AREAS, VEHICLES AND EQUIPMENT

Routine cleaning and disinfection practices play a significant role in minimizing the spread of ATD infection. Reducing the number of virus particles on surface areas can reduce the chances of hand transfer of viruses. County facilities should develop procedures and guidelines for cleaning and maintaining furniture, equipment, work surfaces and transport vehicles.

The following are general guidelines and may need to be modified or additional procedures may be needed as recommended by the Centers for Disease Control and Prevention:

1. Routine cleaning with soap or detergent and water to remove soil and organic matter, followed by the proper use of disinfectants are the basic components of effective environmental management of ATD viruses.
2. All disinfectants marketed in the U.S. are required to be registered by the U.S. Environmental Protection Agency (EPA). These products must be used in accordance with their label instructions. Following label instructions is necessary to achieve adequate efficacy and to avoid unreasonable adverse effects.
3. Special attention should be given to frequently touched surfaces, such as door handles, equipment control panels, and patient/client/inmate care areas of vehicles.
4. Non-sterile disposable gloves should be worn while cleaning. Eye protection such as goggles or face shield may be required if splashing is expected.
5. Routine cleaning methods should be employed for County vehicles with special attention in certain areas such as non-patient/client/inmate care areas of the vehicle (e.g. the driver's compartment that may become indirectly contaminated, such as by touching the steering wheel with a contaminated glove).
6. Non-porous surfaces in vehicles that are not frequently touched can be cleaned with detergent and water. Avoid large-surface cleaning methods that produce mists or aerosols or disperse dust. Ensure the surface is kept wet with disinfectant for the full contact time specified by the manufacturer and then wipe the application of cleaning and/or disinfectant solution.
7. Large spills of bodily fluids should be first managed by removing visible organic matter with absorbent materials and then discarded in a leak-proof, properly labeled container. The spill should then be cleaned and then disinfected.
8. Place contaminated reusable patient/client/inmate care devices and equipment in biohazard bags clearly marked for disinfection or sterilization as appropriate.

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9. After cleaning, remove and dispose of gloves as instructed in a leak-proof bag or waste container.
10. Immediately clean hands with soap and water, or an alcohol-based hand gel. Avoid touching the face with gloved or unwashed hands.

ENGINEERING CONTROLS

Engineering controls will be considered before relying on personal protective equipment to prevent exposure to aerosol transmissible diseases. The use of engineering controls will be assessed and utilized in areas defined as high-risk, per Cal/OSHA. These areas include, and may not be limited to, the San Mateo Medical Center and Clinics, Burlingame Long Term Care Center, Youth Services Center, Camp Glenwood, Canyon Oaks youth Center, Maguire and Women’s Correctional Facilities. See **APPENDIX C**.

Engineering controls may include:

- Local exhaust ventilation to capture aerosolized pathogens at its source.
- General exhaust ventilation to create a negative pressure environment.
- Air purification via portable HEPA filters to extract droplet nuclei containing infectious aerosol pathogens.
- Booths or tents for high-risk procedures.

Appropriate maintenance of engineering controls must be done to prevent transmission of ATDs. Ventilation systems and fresh air exchanges in Airborne Infection Isolation Rooms or areas are controls that are used to manage the environment of patients/clients/inmates with ATDs and include:

1. During high-risk occupancy, an isolation room will maintain an air rate of at least 12 air changes per hour.
2. Ventilation systems will be maintained by inspection and monitoring for exhaust and recirculation filter loading and leakage at least annually.
3. Air from airborne isolation rooms and areas connected via plenums or other shared air spaces are exhausted directly outside, away from intake vents and people.
4. Negative pressure rooms are to be used for patients with suspected or known airborne transmissible diseases. Negative pressure is visually demonstrated by smoke trails or other devices that show air is moving into the room instead of out of the room. Doors and windows of airborne isolation rooms are kept closed while in use except when doors are opened for entering and exiting.
5. Smoke testing and documentation should be done daily when a room is actively used as an isolation room.
6. Proper pressurization will be checked and documented daily when a room is occupied by a patient/inmate who requires airborne infection isolation.

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7. When a suspected case vacates an isolation room or area, the room shall be ventilated for a removal efficiency of 99% before permitting employees to enter without respiratory protection.
8. Records will be kept for five years on all isolation room's engineering controls and measurements, including smoke testing.
9. In leased buildings, the building owner shall be responsible for the proper maintenance of the engineering controls and custodial services. Public Works will act as consultants in questionable situations (e.g. the building owner is not cooperative, employees are concerned) to assist the County in assuring compliance, such as correct air flow requirements.

RESPIRATORY PROTECTION

All County departments that have employees whose occupational exposure is based on entering work settings to perform tasks that put them at risk for exposure to ATDs must include these job classifications and duties in their department ATD Exposure Control Plan. Departments must also implement and maintain an effective written Respiratory Protection Program.

Respiratory protection procedures will be required in all high-risk work areas, such as:

- An isolation room in which a confirmed or suspected infectious ATD patient/inmate is housed or a facility where an airborne infectious disease suspect or confirmed case is known to be present.
- An enclosed transport vehicle in which a suspect or confirmed case is being transported. Respiratory personal protective equipment (PPE), such as a N95 rated respirator, will be provided and used by suspect individuals being transported.
- In direct contact and close proximity of a patient undergoing high-risk procedures. Respiratory protection is not required in the exterior areas during such procedures if the patient is located within an enclosed room or booth.
- All isolation rooms in the hospital, clinics and long term care facility, and correctional facilities.
- During decontamination procedures after the person has left the isolation room or area.
- In an area during the performance of aerosol generating procedures on patients and/or cadavers that are suspected of, or confirmed as, being infected with airborne infectious pathogens.
- For employees who are repairing or maintaining air systems or equipment that may be anticipated to contain or generate aerosolized pathogens.

Where respirators are required, they will be NIOSH approved N95 or higher (HEPA). A power air purifying respirator (PAPR) with a high efficiency particulate aerosol (HEPA) cartridge or full face elastomeric respirator with an N, P or R 100 cartridge shall be provided to employees who conduct, or are present, during high-hazard procedures on ATD suspect or confirmed cases.

Initial and Annual Medical Evaluations and Fit Testing must be done in accordance with Title 8, Section 5144 (e) Respiratory Protection. Please refer to the County's **Respiratory Protection Program** for further information on these requirements.

If an N95 is used in the care of a patient with an ATD infection, it must be disposed of after use. If using a powered air-purifying respirator, it is to be cleaned and maintained according to the manufacturer's recommendations.

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During surges, measures should be implemented to conserve respirator supplies to an extent that is reasonably possible, including re-donning of used respirators. All required departments under this Plan should prepare for conservation measures and take advantage of opportunities to use a wide variety of NIOSH certified respirators and obtain respirators through a variety of suppliers.

EMPLOYEE MEDICAL SURVEILLANCE

All employees in identified at-risk positions (**APPENDIX B**) shall be provided with medical surveillance for tuberculosis and other aerosol transmissible pathogens.

Required Vaccinations

All employees in identified at-risk positions will be provided the MMR, Varicella, Tetanus, Diphtheria, and Pertussis (TDAP), and seasonal flu vaccines as required by this Plan. Identified employees who do not wish to receive TDAP or seasonal flu vaccinations must sign a declination form.

All new employees, as of September, 2010, in identified at-risk positions are required to provide documentation of immunity (I.E. positive titers) to Measles, Mumps and Rubella (MMR) and Varicella (Chicken Pox). Documentation may be provided or the screening may be completed during the Pre-Placement physical examination process. NOTE: All current employees hired prior to September, 2010, and who are in identified at-risk positions are required to provide documentation of immunity or must obtain the required screening and/or vaccination(s) to continue their current assignment.

Any new vaccines that may become required under the Aerosol Transmissible Diseases Standard shall be made available to employees within 120 days of the issuance of new CDC guidelines and will be included in the County's ATD Exposure Control Plan.

TB Screening Requirements

All new employees in identified at-risk positions must have an approved TB test as defined in the definition section.

Any current employees in identified at-risk positions and who have had a prior positive TB test will be required to have an approved TB test as defined in the definition section.

All employees in at-risk positions will be tested for TB at least every two years.

Employees identified as ***high-risk*** for TB exposure are in covered classifications who work in the Hospital and Clinic facilities, Burlingame Long Term Care, and Public Health's Tuberculosis Control Program. These employees will be tested annually.

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The following procedures will be followed for employees who are at-risk of exposure to TB:

- 1 to 2 year TB screening will be administered and interpreted in accordance with current U.S. Public Health Services recommendations and will be recorded in the employee health record at the County's Occupational Health Clinic (Kaiser Occupational Health).
- If an employee chooses to have the TB screening performed by his/her personal physician, they must have an approved TB test as defined in the definition section.
- Employees who provide written documentation of a previously positive reaction must still have an approved TB test as defined in the definition section.
- For those requiring chest x-rays, if the chest x-ray shows evidence of old or new TB, employment shall be deferred until such time as clearance is obtained from the County's Occupational Health Physician.
- If an annual TB screening is reported as positive, and the prior screening results have been negative, then a chest x-ray will be performed and follow-up treatment will be provided through an infectious disease practitioner, according to the U.S. Public Health Services guidelines.
- Employees with a history of a positive TB screening should complete a TB evaluation and questionnaire form during their scheduled TB screening.
- Employees with active pulmonary or laryngeal tuberculosis will be excluded from work until documentation has been provided from the treating physician that the staff member is determined to be no longer infectious. Employees must return to work with the above documentation from the County's Occupational Health Care Provider (Kaiser Occupational Health). An evaluation by the Occupational Health Physician and clearance from the Public Health Department will be required prior to returning to work.

EXPOSURE INCIDENT PROTOCOL AND COMMUNICATION PROCEDURES

If a potentially significant exposure incident is suspected, it must be immediately reported to the Public Health Department. Public Health will then assist in conducting a formal investigation to help determine which employees had a significant exposure to the infected individual. The consultation will be documented in writing and shall include the names of employees who were included in the analysis.

The Department Head or designee, upon notification from Public Health, will be responsible for notifying staff members who were potentially exposed. Employees having significant exposure will be notified within 48 hours. Other employees will be notified, within 24 hours of the diagnosis, of the date, time and nature of the exposure and any other information that is necessary will be provided to other employers to evaluate the potential exposure of his or her employees.

POST-EXPOSURE FOLLOW-UP TREATMENT

Post-exposure follow-up treatment for employees who have been significantly exposed to an aerosol transmissible disease will consist of the following:

- Appropriate vaccination and prophylaxis treatment for TB or other ATD pathogen, as recommended by the CDC.
- For exposure to active TB, a TB screening test is to be administered within seven days from the date of the notification of the exposure incident on all personnel who have been identified to be potentially exposed. If the initial test is negative, a second test will be administered 8-10 weeks post-exposure to determine if an infection has occurred.
- A chest x-ray, clinical evaluation, and counseling of personnel with TB conversion, post-exposure, and completion of an exposure incident questionnaire by personnel with a previously documented positive TB skin test. Clinical evaluation will not be required unless symptoms suggestive of TB occur.

NOTE: Employees who have previous positive TB tests or who have been exposed to MTB will be evaluated with a chest x-ray at the discretion of the occupational physician with consultation from the Local Health Officer.

Medical evaluations shall be offered to employees in the following circumstances:

- When an employee is found to have a positive TB test.
- When an employee has an annual or two year approved TB test convert from negative to positive.

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- Following an exposure incident to any other transmissible aerosol pathogen.

If an employee feels that he/she has been exposed to TB or tests positive for TB and feels that the positive result is from a work-related exposure, or from exposure to any other aerosol transmissible pathogen, that employee must report the exposure immediately to his/her supervisor and complete a County of San Mateo Workers' Compensation claim form. The employee may go to the County's Occupational Health Clinic (Kaiser Occupational Health) for referral to an infectious disease physician.

A medical evaluation will be performed by the County's Occupational Health Clinic (Kaiser Occupational Health), and will include, but is not limited to, the following:

- A medical history evaluation.
- All medical tests deemed necessary, including approved TB testing and a baseline chest x-ray if indicated.
- Informing employees with medical conditions that may place them at higher risk of developing TB or infection from exposure to other aerosol transmissible pathogens.
- Recommendations and provisions for follow-up treatment when indicated.
- Referral to an infectious disease physician for recent TB conversion will include treatment and follow-up monitoring.

A physician from Kaiser Occupational Health, or an appropriate physician, shall provide the employee with a copy of the Doctor's First Report of Work Injury (DFR), which will include the diagnosis, any need for further treatment or evaluation, and the employee's ability to return to work. If the employee is not able to return to work or perform assigned duties, the medical opinion will state when this is possible and what work limitation or restrictions apply. A copy of this written report will be made available to the employee within 15 working days of the completion of the evaluation. All other findings or diagnosis shall remain confidential and shall not be included in the written report.

All occupationally related employee TB test conversions and exposures to any other aerosol transmissible pathogen will be handled as Workers' Compensation claims and all County procedures pertaining to the processing of Workers' Compensation claims will be followed. Any questions concerning this can be referred to the Workers' Compensation Manager at 363-4610 or the Risk Manager at 363-4387.

Public Health will provide technical assistance for identifying, testing and surveillance of infectious aerosol transmissible diseases for employees. Kaiser Occupational Health will be responsible for complying with the Public Health Department infectious disease reporting requirements.

EMPLOYEE TRAINING

All identified employees under this Plan will participate in a training program at no cost to them and during working hours. Training shall be provided at the time of initial assignment and at least every two years thereafter. Material appropriate in content and vocabulary to the educational level, literacy and language of the employee shall be used. Training will be individualized to the department and or division and will be documented in LMS.

The training program shall contain, at a minimum, the following elements:

- An explanation of the appropriate methods for recognizing tasks and other activities that may expose the employee to ATDs.
- An explanation of the basis for selection of personal protective equipment, its uses and limitations and the types, proper use, location, removal handling, cleaning, decontamination and disposal of the items of personal protective equipment employees will use.
- Information on the employer's surge plan as it pertains to the duties employees will perform.
- An explanation of this exposure control plan, including the employer's and employee's responsibility under this exposure control plan and the means by which an employee can obtain a copy of the written plan.
- Job titles and work tasks in their departments that are at-risk for occupational exposure to ATDs.
- The basic concepts of transmission and symptoms of aerosol transmissible diseases, including the differences between TB infection and active TB disease, and how to minimize infection risk factors. Information on available vaccines and the benefits of being vaccinated.
- Use and limitations of methods to prevent exposure, including the hierarchy of infection control measures focusing on source control, safe work practice habits and situations with increased risk of exposure to aerosol transmissible diseases, engineering controls and personal protective equipment. Site-specific control measures will be provided as needed.
- TB screening and chemoprophylaxis, including the significance of a positive result, the requirement for participating in the process, the principles of drug therapy, the difficulty of treating drug-resistant TB, and the role of incomplete medical treatment in the development of drug-resistant TB.
- Information regarding appropriate actions to take in the event of an emergency or exposure incident.
- Information on available vaccines and that they will be offered free of charge.

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- An explanation of the basis for selection of personal equipment in accordance with Section 5144 for those people whose assignments include use of respirators.
- An opportunity for interactive questions and answers with the person conducting the training session.

The person conducting the training shall be knowledgeable in the subject matter covered in the training program as it relates to the workplace. Training, or a portion of the training, may be made available online but must include department specific information.

DOCUMENTATION AND RECORDKEEPING

Medical Records

The County's Occupational Health Clinic (Kaiser Occupational Health) will maintain accurate health records for all County employees.

Medical Records will include:

1. The individual's name
2. The individual's TB test status, dates and results of testing
3. The individual's medical information concerning tuberculosis, or any other aerosol transmissible disease, and a record of all current vaccinations, titers and approved TB tests.
4. A copy of all relevant information related to any exposure incident.

NOTE: Medical records will be maintained for at least the duration of employment or assignment, plus 30 years, in accordance with applicable regulations. Risk Management will receive copies of information regarding any exposure incident. Risk Management only has access to employee medical information as it pertains to Occupational Health related medical surveillance.

All medical records are kept confidential and are not disclosed or reported without the employee's expressed written consent to any person within or outside the workplace, except as required by law. Employees may obtain a copy of their medical record through the County's Occupational Medical Provider.

Training Records

Departments will maintain all ATD Exposure Control Plan training records in the County's centralized database, LMS.

Training records will include the following information:

- Dates of training sessions.
- Course outline, content or summary of training sessions.
- Names and qualifications of instructors; and names and job categories of persons attending the training.

Additional Records

- Risk Management will maintain medical surveillance records of employees as well as post-exposure records, including copies of the Employee Claim Form, the Supervisor's Report, and the Employer's First Report of Work Injury and proof of medical follow-up as required by the ATD plan.
- Public Health, if involved, will maintain records pertaining to the contact investigation.
- Records of the unavailability of vaccines, isolation rooms and decisions not to transfer patients to another facility shall also be maintained for three years.

Departments will maintain other records of implementation of the ATD plan, such as the annual review, the person conducting the review, the date the review was conducted and completed, employees involved and a summary of the conclusions.

PANDEMIC PLANNING FOR DEPARTMENTS

Each Department Head is responsible for developing and maintaining their department pandemic plans.

A pandemic is a sustained crisis that will require planning for limited resources such as staff, medical supplies and equipment and all County facilities that fall under this Plan must anticipate and address these issues in their individual plans.

Although a pandemic will be a nationwide event, it will be experienced on a community level. Emphasis on procurement and distribution practices, isolation and sterilization procedures, and business continuity are more important for pandemic infection control than decontamination. Since a pandemic is a widespread event, less federal and local support is available at the individual facility level.

In the event of a pandemic, Pandemic Plans must be activated to implement surge capacity plans, identify and isolate potential patients, implement infection control practices and ensure rapid and frequent communication within and between healthcare facilities, state health departments and the federal government. Due to the uncertainty of the nature of pandemics, plans must be flexible with integrated processes for reviewing current recommendations and updating the plan accordingly.

APPENDIX A: List of Aerosol Transmissible Diseases

Title 8, CCR, Section 5199, Appendix D: Aerosol Transmissible Laboratory Pathogens

This list of agents includes those pathogens for which the CDC (ref. HICPAC, BMBL) specifically recommends aerosol control and/or Biosafety Level 3.

1. Adenovirus (HICPAC)
2. Arboviruses (production quantities or concentrations* of arboviruses for which CDC recommends Biosafety Level 2, e.g. dengue virus, western equine encephalomyelitis, eastern equine encephalomyelitis)
3. Arboviruses (potentially infectious clinical materials, cultures, infected animals, and infected arthropods involving arboviruses for which CDC recommends Biosafety Level 3 or higher, e.g. Japanese encephalitis, West Nile virus, Yellow Fever)
4. Arenaviruses (production quantities or concentrations of arenaviruses for which CDC recommends Biosafety Level 2, e.g. Tamiami virus)
5. Arenaviruses (potentially infectious clinical materials, cultures, infected animals, and infected arthropods involving arenaviruses for which CDC recommends Biosafety Level 3 or higher, e.g. Flexal virus)
6. Bacillus anthracis (high potential for aerosol generation, or production quantities or concentrations)
7. Bordetella pertussis (aerosol generation, or production quantities or concentrations)
8. Brucella abortus, B. canis, B. melitensis, B. suis (cultures, experimental animal studies)
9. Burkholderia (Pseudomonas) mallei (high potential for aerosol or droplet generation, production quantities or concentrations)
10. Chlamydia psittaci, C. pneumoniae, C. trachomatis (high potential for aerosol or droplet production, production quantities or concentrations)
11. Clostridium botulinum (high potential for aerosol or droplet generation, production quantities of toxin)
12. Coccidioides immitis (sporulating cultures, processing environmental materials known or likely to contain infectious arthroconidia)
13. Corynebacterium diphtheriae (HICPAC)

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14. *Coxiella burnetii* (inoculation, incubation, and harvesting of embryonate eggs or cell cultures; experimentally infected rodents, necropsy of infected animals, handling infected tissues)
15. Eastern equine encephalomyelitis virus (production quantities or concentrations, infection of newly hatched chickens)
16. Filoviruses
17. *Francisella tularensis* (cultures, experimental animal studies)
18. *Haemophilus influenzae*, type b (HICPAC)
19. Hantaviruses (serum or tissue from potentially infected rodents, tissue from potentially infected non-rodent species, high potential for aerosol production, inoculation of permissive animal species, culture, handling concentrated virus, production quantities)
20. Hendra, Hendra-like viruses
21. Herpes simplex viruses 1 and 2 (HICPAC)
22. Herpesvirus simiae (consider for any material suspected to contain virus, mandatory for any material known to contain virus, propagation for diagnosis, cultures)
23. *Histoplasma capsulatum* (cultures, processing environmental materials known or likely to contain infectious conidia)
24. Influenza virus - 1918 strain, noncontemporary human strains (H2N2), highly pathogenic avian strains (H5N1) - Human, avian (HICPAC)
25. *Legionella pneumophila*, other *Legionella*-like agents (aerosol generation, or production quantities or concentrations)
26. Lymphocytic choriomeningitis virus (field isolates and clinical materials from human cases, infected transplantable tumors, infected hamsters, high potential for aerosol production, production quantities or concentrations)
27. Measles virus (HICPAC)
28. Monkeypox virus
29. Mumps virus (HICPAC)
30. *Mycobacteria bovis*, *M. tuberculosis* (cultures, experimental animal studies with infected nonhuman primates)
31. *Mycoplasma pneumoniae* (HICPAC)

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32. *Neisseria gonorrhoeae* (consider for aerosol or droplet generation, or production quantities or concentrations)
33. *Neisseria meningitidis* (high potential for aerosol or droplet generation, or production quantities or concentrations)
34. Parvovirus B19 (HICPAC)
35. Poliovirus (cultures and potentially infectious materials of wild-type polioviruses)
36. Prions - human, bovine spongiform encephalopathy (cultures, experimentally infected transgenic mice that produce human prions or nonhuman primates)
37. Rabies virus (high potential for aerosol or droplet generation, or production quantities or concentrations)
38. *Rickettsia prowazekii*, *R. typhi*, *R. tsutsugamushi*, Spotted Fever Group (propagation, inoculation, incubation, and harvesting of embryonate eggs or cell cultures, experimental animal studies)
39. Retroviral vectors (human retroviruses, xenotropic infectious clones)
40. Rubella virus (HICPAC)
41. SARS-associated Coronavirus
42. Simian immunodeficiency virus (cultures, concentrated virus, potential for aerosol or droplet generation, or production quantities or concentrations)
43. *Streptococcus*, group A (HICPAC)
44. Varicella zoster virus (HICPAC)
45. Vesicular stomatitis virus (tissues or virulent isolates from infected livestock)
46. Western equine encephalitis virus (production quantities or concentrations, infection of newly hatched chickens)
47. *Yersinia pestis* (antibiotic resistant strains, high potential for aerosol or droplet generation, or production quantities or concentrations)
48. 'Production quantities or concentrations' are defined in the CDC's publication, "Biosafety in Microbiological and Biomedical Laboratories" or BMBL.

APPENDIX B: Covered Classifications

The following job classifications may involve exposure procedures or other job related tasks that involve inherent potential for exposure to an ATD pathogen. This is a general list and as Departments develop their plans they may need to add or exclude job classifications that are on this list. Departments can contact Risk Management for assistance.

HEALTH SYSTEM

I. AGING AND ADULT SERVICES

Community Worker

Nurse

Nurse Practitioner

Occupational Therapist

Physical Therapist

Physician Assistant

Physician

Psychiatrist

Program Counselor

Social Worker

II. BEHAVIORAL HEALTH AND RECOVERY SERVICES

Community Worker

Mental Health Counselor

Nurse

Nurse Practitioner

Physician

Psychiatrist

Psychiatric Resident

Physician Assistant

Residential Counselor

Social Worker

Transportation Officer

III. ENVIRONMENTAL HEALTH

Environmental Health Program Supervisor

Environmental Health Specialist

Environmental Health Technician

Hazardous Materials Specialist

IV. FAMILY HEALTH SERVICES

Community Worker

Nurse

Nurse Practitioner

Occupational Therapist

Physical Therapist

Physician

Physician Assistant

Program Counselor

Psychiatrist

Psychologist

Social Worker

V. PUBLIC HEALTH

Communicable Disease Investigator

Community Worker

Epidemiologist

Physician

Physical Therapist

Public Health Lab Technician

Public Health Microbiologist

Public Health Nutritionist

Public Health Nurse

Social Worker

VI. SAN MATEO MEDICAL CENTER

Clinical Services Manager

Clinical Laboratory Scientist

Community Worker

Crisis Team Technician

Custodian

Cytology Technologist

Dental Assistant

Dental Hygienist

Dentist

Dietitian

Electrograph Technician

Food Service Worker

Imaging Specialist

Laboratory Assistant

Medical Services Assistant

Medical Laboratory Technician

Nurse

Nurse Practitioner

Occupational Therapist

Operating Room Technician

Orthopedic Technician

Patient Services Assistant

Pharmacist

Pharmacy Technician

Physician

Physician Assistant

Physical Therapist

Psychiatric Resident

Psychiatric Technician

Psychiatrist

Physical Therapist

Radiologic Technologist

Respiratory Therapist

Social Worker

Therapy Assistant

Utility Worker

Vocational Nurse

CORONER'S OFFICE

Deputy Coroner

Deputy Coroner Investigator

Forensic Autopsy Technician

Physician

DISTRICT ATTORNEY'S OFFICE

District Attorney Inspector

HUMAN SERVICES AGENCY

Community Worker

Program Counselor

Social Worker

Transportation Officer

LIBRARY

Volunteer

PROBATION

Community Worker

Group Supervisor

Nurse

Social Worker

Transportation Officer

Utility Worker

SHERIFF'S OFFICE

Captain

Correctional Officer

Deputy Sheriff

Forensic Specialist

ID Technician

Legal Office Specialist

Lieutenant

Sergeant

Storekeeper

Transportation Officer

Utility Worker

APPENDIX C: High-Risk County Facilities

1. San Mateo Medical Center
2. Clinics
3. Burlingame Long Term Care
4. Morgue
5. Public Health Lab
6. Maguire Correctional Facility
7. Women's Correctional Facility
8. Men's and Women's Transitional Facilities
9. Youth Services Center – Juvenile Institution
10. Camp Glenwood (Boys' Camp)
11. Canyon Oaks Youth Center