



The Cal/OSHA Aerosol Transmissible Disease Regulation

Deborah Gold, dgold@dir.ca.gov

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www.dir.ca.gov/dosh

“Every Employer shall furnish employment and a place of employment that is safe and healthful for the employees therein.”

California Labor Code Section 6400

The Cal/OSHA Program

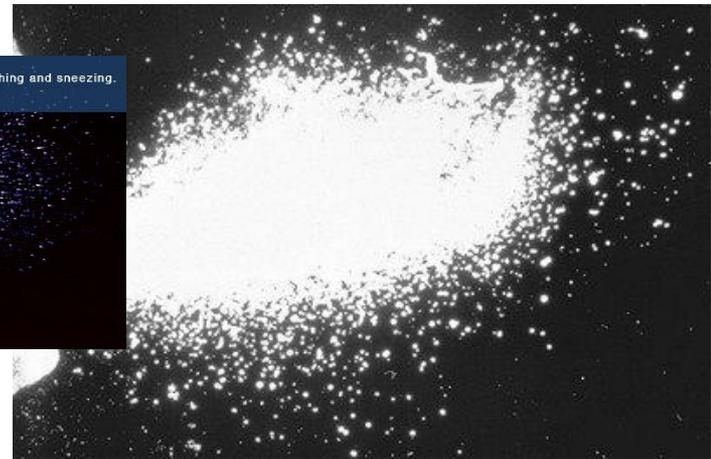
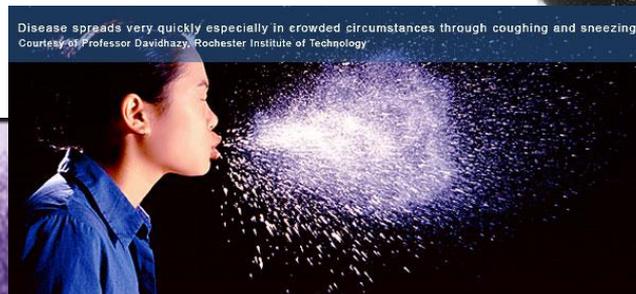
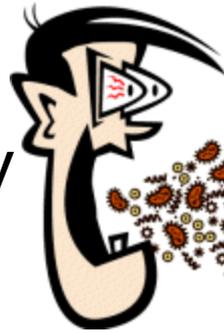
- **Enforcement**
- **Public Safety Programs**
- **Consultation**
- **Standards Board**
- **Appeals Board**

Why do we need a standard?

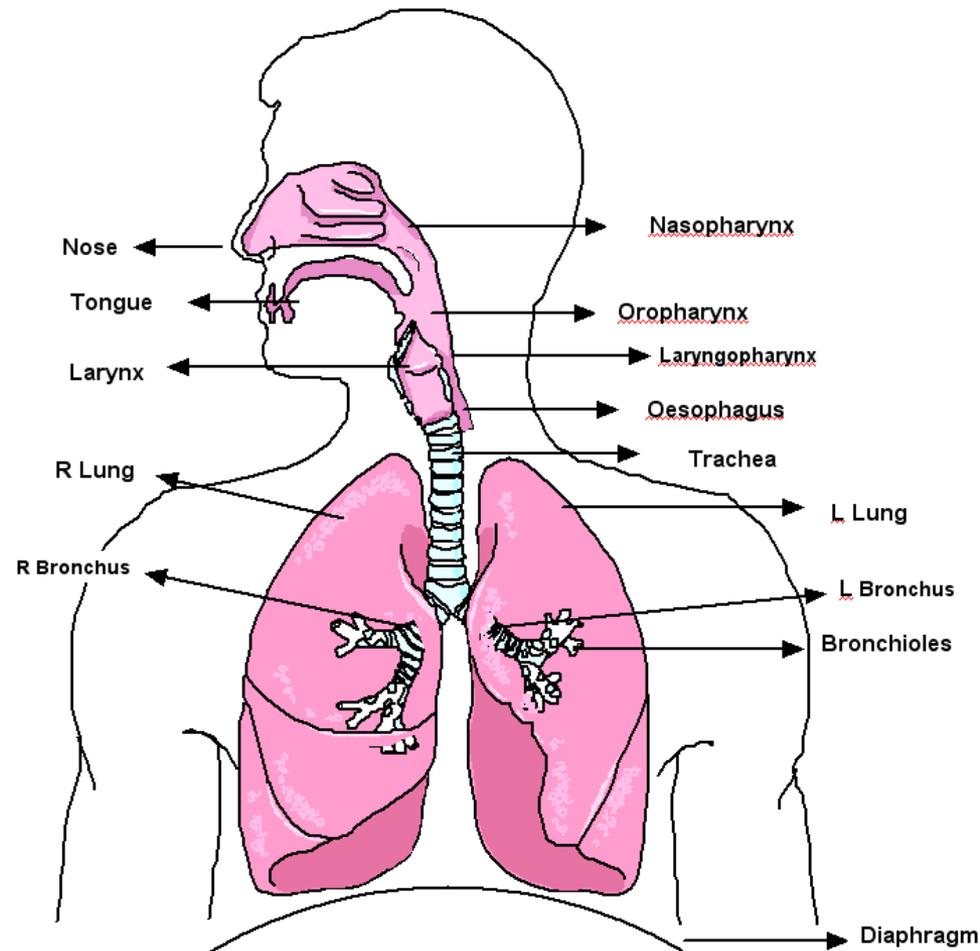
- TB is a continuing problem in California, with one of the highest incidence rates in the U.S.
- Experience with SARS
- Pandemic flu and emerging diseases
- Periodic outbreaks of other ATDs
- Exposures in labs
- Exposures to zoonotics – hantavirus, bovine TB, avian flu

What is an Aerosol Transmissible Disease?

- A disease
- That is transmitted by aerosols (A gaseous suspension of fine solid or liquid particles)



Disease Agents Act at Different Places in the Respiratory Tract



OSHA vs. Other Public Health

OSHA

- Mission is to protect individual workers
- Medical surveillance for the protection of the employee
- regulatory enforcement mechanism
- Risk at work is often more concentrated than risks to the general public
- Employees jobs require them to take risks to protect others.

Public Health

- Mission is to protect the overall public's health
- Medical surveillance to protect the public
- Usually relies on guidelines, and enforces through licensing
- Develops risk reduction measures for the general public, don't always focus on specific occupational risks to individual workers

Work settings covered by the ATD Standard

- Applies in health care, such as:
 - Hospitals
 - Long Term Health Care Facilities
 - Primary Care
 - Emergency Medical
- Applies in other high risk environments
 - Corrections
 - Homeless shelters
 - Drug treatment programs
 - First receiver
 - Laboratories

Which employees are covered: “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 ATPs-L if protective measures are not in place.
- “Elevated” means higher than what is considered ordinary for employees having direct contact with the general public outside of the facilities, service categories and operations listed in subsection (a)(1).

Occupational Exposure (cont)

- In each included work setting covered by the standard, it is presumed that some employees have occupational exposure. For a particular employee it depends on tasks, activities, environment.
- Includes having contact with, or being within exposure range of cases or suspected cases of ATD
- Employers must ID employees with occupational exposure in order to take protective measures.

Examples of Occupational Exposure

- Intake or triage of patients
- Providing care to influenza patients
- Testing people for TB
- Taking a throat swab for strep
- Cleaning patient rooms
- Transporting patients



What Diseases are Covered?

- Applies to diseases classified by HICPAC* as either droplet or airborne
 - Novel or unknown pathogens considered airborne
 - Only “reportable diseases” under Title 17 require exposure investigation
 - Seasonal influenza vaccine is required for everyone covered by the standard

*Health Care Infection Control Practices Advisory Committee to the CDC

What do ATDs have in common?

- Initial symptoms and signs are often not specific
 - E.g. TB initially presenting as “pneumonia”
- Many pose significant risks, particularly to health care workers – e.g. TB
- There is often an airborne route, even for diseases classified as droplet
- Cough etiquette (respiratory hygiene) may reduce the spread of disease, particularly in the period prior to initiation of appropriate treatment.

Droplet vs. Airborne

- Infection control guidelines distinguish between diseases primarily spread by:
 - larger droplets (near field) >5 microns (droplet precautions)
 - Small droplets, droplet nuclei, dusts containing the pathogen (airborne isolation)
- Droplets come in many sizes, and droplets up to 100 microns can be inhaled
- There is evidence for an “airborne route” for many diseases
 - E.g Roy CJ, Milton DK NEJM 350;17 April 22, 2004

Airborne Infectious Diseases

- Airborne spore release (e.g. anthrax) until decon
 - Chickenpox (Varicella)
 - Avian influenza capable of causing serious human disease
 - Herpes zoster (varicella-zoster, disseminated disease, per CDC)
 - Measles (rubeola)
 - Monkeypox
 - SARS (Severe Acute Respiratory Syndrome)
 - Smallpox
 - Tuberculosis
- Cal/OSHA added:**
- Novel or Unknown pathogen
 - Any other disease or pathogen for which CDPH or local health officer recommends airborne infection isolation (AII)

Some Droplet diseases

- Diphtheria
- Influenza
- Meningococcal disease
- Mumps
- Mycoplasma pneumonia
- Pertussis
- Plague (pneumonic)
- Rubella
- SARS
- Viral hemorrhagic fevers
- Any other disease or pathogen for which CDPH or LHO recommends droplet

“One example was the debate during SARS over whether SARS was transmitted by large droplets or through airborne particles. The point is not who was right and who was wrong in this debate. When it comes to worker safety in hospitals, we should not be driven by the scientific dogma of yesterday or even the scientific dogma of today. We should be driven by the precautionary principle that reasonable steps to reduce risk should not await scientific certainty.” SARS

Commission Final Report, Volume 3, p. 1157

Types of employers

- 4 types of employers
 - Referring: don't provide care beyond initial to cases and suspected cases of AII, and don't do high hazard procedures on ATD patients
 - Full standard: hospitals and others that are not referring
 - Laboratories
 - Conditionally exempt – dentists and outpatient medical specialty practices that don't treat ATDs and have screening procedures



An isolation room

Is My Facility a “Referring Employer?”

- **Screen** persons for airborne infectious diseases (AirID).
- **Refer** any person identified as a case or suspected case of and Airborne Infectious Disease.
- **Not intend to provide further medical services** to **AirID** cases and suspected cases beyond first aid, initial treatment or screening and referral (no high hazard procedures on ATD cases)
 - Exception for novel pathogens – may maintain in facility if not feasible to provide All
- **Not provide transport, housing, or airborne infection isolation** to any person identified as an **AirID** case or suspected case,
 - Exceptions: may provide non-medical transport in the course of a referral
 - May provide housing and isolation if All not feasible for novel pathogens

Most Primary Care Operations and Long Term Health Care Facilities are probably “referring employers.”

It is up to your facility to determine what services you can provide safely to patients and adopt appropriate precautions. Higher levels of care, may place you under the full scope of the standard.

Referring Employers

(subsection c)

- Source control, including early identification, cover cough, separation
- Screening procedures for airborne infectious diseases (AirIDs)
 - Medical
 - Non-medical (App. F)
- Have a system for timely referral (transfer) including getting information back
- Train employees
- Respirators for:
 - AirID cases not referred
 - AirID cases during initial treatment who are not using source control, unless respirator use not feasible

Referring Employers

(subsection c)

- Have a system for exposure incidents, including precautionary removal, and TB surveillance
- Provide additional CDC recommended vaccines to HCWs (effective 9/1/10)
- Provide seasonal flu vaccine to all employees with occupational exposure
- Record keeping

Source Control

- Cough Etiquette
- Separation
- Means of informing people entering facility of source control measures



Medical Services

(subsection c, f, h)

- Vaccination, prophylaxis
- TB surveillance (annual)
- Exposure Incidents – Reportable ATD
 - Evaluation of exposure scenario
 - Communication to employees and other employers
 - Post-exposure medical evaluation
 - Follow CDC/CDPH/LHO guidelines
 - EE to be sent to alternate provider if chooses not to be seen in-house

Vaccination

- Employer must provide, may be declined by employee in writing (App. C)
- Seasonal flu vaccine for all with occupational exposure by the standard
- Susceptible health care workers (App. E)
 - Mumps, measles, rubella
 - Varicella zoster
 - Tetanus, diphtheria, and acellular pertussis

What is an exposure incident

- What determines the likelihood of transmission of disease?
 - Distance
 - Time
 - Infectivity of the source
 - Superspreaders
 - Susceptibility of the host
- TB contact tracing typically limited by time and distance

Precautionary Removal

- As a result of follow-up for TB conversion
- As a result of follow-up for an exposure incident for a reportable ATD
- Employee is otherwise able to work
- Physician or Local Health Officer recommends removal for infection control
- Employer must maintain employee's pay and other benefits during period of removal
- PRP ends at end of potential infectious period or if employee becomes sick

Training

(subsection i)

- Initial and annual
- Additional when new control measures, tasks or procedures are introduced
- Appropriate in content and vocabulary to educational level, literacy and language
- Interactive Q&A, if computer-based, provide Q&A within 24 hours
- Must be specific to workplace

Communication

- Employee/employer with patient or client
 - Source control, symptom screen, referral
- Employer with employees
 - Training on procedures
 - Exposure incidents/precautionary removal
 - Employee involvement review of plan
- Employer with medical provider
 - Exposure incidents, respirator use
- Employer with other employers
- Employer/med provider with local health officer
- Employer with local emergency plan



Source: Francis J. Curry National TB Center

Recordkeeping

Confidential medical records

- May be combined with BBP records
- Name/identifier
- Required vaccine status
- Written opinions from PLHCP
- Results of TB assessments
- Info provided to PLHCP from exposure incident
- Maintained for 30 years + duration of employment (Section 3204)
- Not disclosed without ee's written consent or as required by law

Recordkeeping

- Training (maintain for 3 years)
- Implementation of ATD or Biosafety Plan
 - Annual plan review (3 years)
 - Exposure incidents (30 years, Section 3203)
 - Unavailability of vaccine, All rooms (3 years)
 - Decision not to transfer patient for medical reasons:
 - In patient record
 - Summary without patient ID maintained by Plan administrator for use in Plan review (3 years)

Recordkeeping

- Inspection, testing, maintenance of ventilation systems and other non-disposable engineering controls (5 years)
- Respiratory Protection Program
 - In accordance with 5144
 - If using exception, maintain screening record (Appendix G) for two years.
- Training, plan, records of implementation (other than individually identified medical records) available to employees and reps per 3204
- Medical records to employee, person with ee's consent, local health officer and to DOSH and NIOSH per 3204
- All other records available to DOSH, NIOSH and local health officer

coughing up blood
WEAKNESS
Weight Loss
POSITIVE SKIN TEST
Night Sweats
CHILLS
MALAISE
FEVER
Loss of Appetite
Chest Pains
THINK TB!
HEMOPTYSIS
ANOREXIA
Exposure to Tuberculosis
fatigue
difficult breathing
cough
Significant Skin Test
failure to thrive
Abnormal X-Ray
Shortness of Breath

Recognize positive signs and symptoms of tuberculosis.
Early diagnosis and treatment reduces spread.
Contact your Health Department or Physician for more information.



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service



Find Cal/OSHA on the Web

- ATD regulation
www.dir.ca.gov/title8/5199.html
- Advisory committee webpage:
 - http://www.dir.ca.gov/dosh/DoshReg/advisory_committee.html
- Cal/OSHA regulations:
 - <http://www.dir.ca.gov/samples/search/query.htm>