



Fire Chiefs' Association of Broward County

Standard Operating Guidelines

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Subject: Infectious Disease – Prevention and Immunization Practices

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I. Purpose:

Each employer shall identify “at risk” workers based on job descriptions. (OSHA CFR 1910.1030)

II. Definition(s):

Risk Levels:

At-risk Workers. Emergency medical and public safety workers are at risk for exposure to blood, body fluids, feces and/or respiratory secretions.

Low-risk Workers. These workers are identified through job descriptions as having job tasks that are low or not “At-risk” to exposure to blood, body fluids, feces and/or respiratory secretions. For these workers timely postexposure prophylaxis rather than preexposure vaccination may be considered.

Special Risk Workers. Periodic evaluation of job description may be done as indicated to evaluate certain tasks that may be considered at a higher level.

History of Immunity. Workers who are “at risk” for exposure to and possible transmission of vaccine preventable diseases should have on record of employment all immunizations currently recommended by the US Public Health Service. A medical evaluation that includes childhood immunity or immunization history for Measles, Mumps, Rubella, Tetanus, Diphtheria, Polio, Pertussis (Whooping cough) and Varicella zoster (chicken pox) should be obtained and recorded for these workers. This program should be completed at the time of hire or as part of a catch-up program. (CDC MMWR November 25, 2011/60(RR07); 1-45). (NFPA 1581; 2010 ed., 4.5.2.1).

III. Infection Control Programs:

Infection Control Officer. Employers shall identify a Designated Infection Control Officer.

Education. Workers shall have Bloodborne/Airborne Pathogen Training.

Immunization Programs. Employers with vaccination programs shall offer vaccine product information and declination statements as determined by CDC and OSHA regulation. Employers shall make vaccines available to workers who initially decline and later decides to accept the vaccines within 10 days.

Medical Records and Test Maintenance. All workers' medical records, immunization records and baseline testing shall be maintained according to applicable laws governing medical confidentiality. (29 CFR 1910.1030(h)).

Needle-Stick Prevention Programs. Employers shall provide needleless systems (where applicable). Needleless systems means a device that does not use needles for: (1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps. (OSHA 29 CFR 1910.1030(e) (2)).

Hepatitis Vaccination Programs. All “At-Risk” workers shall have made available to them at employment (within 10 days) of initial assignment the Hepatitis vaccine and education, unless the worker has documentation of the following: completed vaccination series, record of immunity (positive titer), or medical contraindications. (29 CFR 1910.1030(f) (2)). Hepatitis A vaccination is strongly recommended and may be offered if specific local conditions dictate. (NFPA 1581; 2010 ed., 4.5.2.1).

Influenza Vaccination Programs. “At-Risk” Workers are considered to be at significant risk for acquiring or transmitting influenza (the common Flu). Influenza vaccine should be made available to workers from October through February annually. (CDC MMWR November 25, 2011/60(RR07);1-45) (NFPA 1581).

Tdap Vaccination Programs. “At-Risk” Workers are considered to be at significant risk for acquiring or transmitting tetanus toxoid, diphtheria toxoid and acellular pertussis. Tdap vaccines should be made available to workers from October through February annually. . (CDC MMWR November 25, 2011/60(RR07);1-45).

Periodic Titer Screening for Immunizations. Routine periodic post vaccination screening is not recommended after initial titer level has been determined. Booster doses are not currently recommended. If the US Public Health Service recommends a routine booster dose(s) at a future date, such booster dose(s) shall be made available. (29 CFR 1910.1030(f) (1) (ii)).

IV. Baseline and Annual Screening:

Baseline Screening. Baseline screening for TB, Hepatitis A, B and C is indicated for presumptive laws requirements. Meningitis is also covered in the presumptive law but does not require a baseline screening. (FS 112.181 6(a) (b)). (Florida Pension Statue for police and firefighters only)

TB Screening. A tuberculin skin test (PPD) or Quantiferon-TB (CPT 84480) Test shall be performed for all “at-risk” annually. Workers who have previously tested negative and now test positive shall have a baseline chest x-ray and one follow-up a year later. All new positive TB test results shall have prophylactic treatment offered. (CDC MMWR 1994:43(RR13) or for Quantiferon MMWR 2003: January 31 (RR02; 15-18).

V. Postexposure Management

- **Provide personal first aid.**
- **Remove contaminated clothing**
- **Secure area to prevent further contamination.**
- **Wash the area well with soap and water or personal protective solution.**
- **Notify Supervisor**
- **Assess the level of exposure (Significant or non-significant)**

Notification and Relief of Duty. The worker’s supervisor should be notified if a worker experiences an occupational exposure involving potentially infectious material. The supervisor should determine if the worker needs to be relieved of duty.

Assess the level of Exposure. An Occupational exposure is the “exposure to another person’s body fluids or airborne fluids. There are two types of occupational exposures, non-significant and significant.

Non-Significant Exposure. Non-Significant exposures are occupational exposures that have little to no risk of transmission of diseases known at this time. All Non-Significant exposures need to be documented on the “Infectious Disease Exposure Report Form”, so at a later date should said

occupation exposure be reported by the CDC as having an increased risk, the exposure was documented.

Significant Exposure. Significant Exposures have increased risk of transmission and acquiring of disease(s). All Significant exposures need documentation and medical follow-up.

Assessing Exposures to Blood or Body Fluids. A significant bloodborne or body fluid exposure

Body Fluids:

- Blood, Serum, and all fluids visibly contaminated with blood
- Pleural, amniotic, peritoneal, synovial, and cerebrospinal fluids
- Uterine/vaginal secretions, semen, feces and urine
- Saliva

Action or Injury:

- Percutaneous (through the skin injuries such as, needlestick, laceration, abrasion, bites, etc.)
- Mucous membranes (e.g. eyes, nose, mouth)
- Nonintact skin (e.g. cut, chapped or abraded skin). Consider the larger the area and/or the longer the material is in contact, the more difficult it is to verify that all relevant skin area is intact. Also, an increased risk if within 2 hours of shaving skin and scabs <24 hours, if skin is still open.

Assess the Exposure to droplets or airborne exposure. A significant airborne exposure is considered a combination of a source exhibiting signs/symptoms of suspected airborne illness and an incident that would place the worker at risk of droplet or airborne exposure.

Source: Any aerosolized exhalations containing droplets, sputum, lung secretions or saliva either by the source coughing, spitting, breathing or by any airway management action by the worker such as suctioning or intubating AND the worker was not wearing appropriate respiratory protection (HEPA mask, eye protection).

Actions by worker that have increased risk of airborne disease spread include; unprotected mouth-to-mouth CPR, and airway management.

VI. Reporting, Medical Attention, Consent and Testing:

Report the Exposure. The worker or supervisor should begin filling out an Infectious Disease Exposure Form” and submit it to the Designated Infection Control Officer

Transport. A Significantly exposed worker should be transported to a designated facility within 2 hours for evaluation, testing and treatment options (preferably a facility that offers rapid HIV testing if the material was blood or body fluids). The worker and the source patient should be transported to the same medical facility.

Triage. The worker should be rapidly triaged as soon as possible. The worker should present to the medical facility an Infectious Disease Exposure reporting Form and an Employer Information Sheet that contains specific information about the employer, the employees Designated Infection Control Officer, the employers worker compensation policy, and employers medical providers information for follow-up care.

Consent and Counseling.

Counseling shall be provided to and consent obtained from both source of the exposure and the exposed worker (29 CFR 1910.1030(f) (3)). The Worker’s Compensation carrier will incur cost of testing for source and worker.

Informed Consent. Source and exposed worker consent to physician authorizing testing. The source will not incur any cost of said testing.

No Consent. (e.g. source is unconscious or denies consent) If consent cannot be obtained from the source of the exposure and blood sample is available, the facility can conduct testing without consent and the attending physician documents the need in the medical record of the worker.

Note: Florida's Omnibus AIDS Act provides for a court order for the source to comply and have testing completed. In this case, prophylaxis treatment may not be completed in a timely manner, medical protocol provides for an "unknown source" category.

Postexposure Testing for Blood and Body Fluids. The facility should perform an Acute Hepatitis Panel (CPT 80074), Rapid HIV and RPR (Syphilis) tests. Testing may be added as per attending physician request.

Postexposure Testing for droplets or airborne exposure. Focus on airborne droplet exposure is focused on alerting the medical facility that a significant exposure has occurred. Testing is administered by the facility targeting a myriad of airborne diseases. If TB exposure is suspected a tuberculin skin test (PPD) or Quantiferon (CPT 84480) following the exposure should be performed on source and exposed worker. Do not perform tuberculin skin test (PPD) on an exposed worker who has been tested within the previous 12 weeks, or has a history of positive skin test reaction.

Hospital Notification. If no exposure was reported to the medical facility, and the medical facility determined through testing that an increased risk of disease transmission may have occurred, shall notify the agency of such event within 48 hours after determination. (F.S. Ryan White Act)

Discharge. The Infectious Disease Exposure Reporting form should be complete with a discharge summary that includes a description of all diagnostic tests performed on the worker. A copy of the form is routed to the Designated Infection Control Officer and a copy is provided to the worker.

Postexposure Medical Follow-Up. The employer is responsible to provide or make available postexposure monitoring as directed by the medical provider. Follow-up testing from blood and body fluid exposures will be performed after the initial, at week six, week twelve and week twenty-six after the exposure. Testing after one year maybe indicated for high-risk significant exposures.

Infectious Disease Reference Sheet 2014

AIRBORNE DROPLET	Transmission	Prevention	Post Exposure	Follow Up
Tuberculosis (TB)	Droplets: coughing, sneezing, intubation, suctioning, mouth to mouth resuscitation.	Annual PPD or Quantiferon. Wear HEPA / N-95 masks.	Source=PPD, or Quantiferon Employee= PPD unless PPD tested within prior 12 weeks or previously PPD reactive or Quantiferon.	PPD at week 12 post exposure. If new positive: CRX and Rx with Isoniazid (INH) for 9 months.
Meningitis bacterial/viral	Droplets: coughing, sneezing, intubation, suctioning.	Wear HEPA mask.	Antibiotics: Cipro, Rocephin, Rifampin.	Seek medical care if symptoms of meningitis develop: fever, stiff neck, severe headaches.
Influenza	Close contact, droplets: coughing, sneezing, intubation, suctioning.	Annual Flu Vaccine. Hepa mask	Treatment: analgesics, Rimantadine, Tamiflu, Relenza.	As determined by medical professional.
Varicella Zoster (Chicken Pox)	Close contact, droplets: coughing, sneezing, intubation, suctioning. Also direct contact with vesicle fluid.	Vaccine=1 shot (Varivax). HEPA mask. BSI	Treatment: Varicella Zoster Immune Globulin (VZIG) within 96 hours of exposure.	As determined by medical professional.
BLOODBORNE	Transmission	Prevention	Post Exposure	Follow Up
HIV	Percutaneous, Mucous Membranes, and Non Intact Skin,	OSHA BBP, BSI. No Vaccine.	See PEP Flow Chart.	Periodic screening: 6, 12, 26 weeks after exposure.
Syphilis	Percutaneous, Mucous Membranes, and Non Intact Skin,	OSHA BBP, BSI No Vaccine.	Source=RPR, Employee=RPR. RX Penicillin.	Repeat test at 3 and 6 months, if positive refer for FTA
HBV	Percutaneous, Mucous Membranes, and Non Intact Skin,	Vaccine=3 shot series. Titer and reimmunize if necessary. OSHA BBP, BSI	Source=Acute Hep panel. Employee=Acute Hep panel. If source positive, employee not immune: administer immune globulin and consider vaccine series at this time.	If unvaccinated, periodic screening: 6, 12, 26 weeks after exposure. If positive titer no further TX is needed.
HCV	Percutaneous, Mucous Membranes, and Non Intact Skin,	No Vaccine. OSHA BBP, BSI	Source=Acute Hep Panel. Employee=Acute Hep Panel.	Periodic screening: 6, 12 and 26 weeks after exposure. If source positive, consider employee qualitative HCV RNA & ALT testing 6 weeks post exposure. If employee becomes HCV RNA positive, treat as determined by medical professional.

Infectious Disease Reference Sheet 2014

OTHER	Transmission	Prevention	Post Exposure	Follow Up
HAV	Fecal/Oral. Also, has blood to blood precautions.	Vaccine = 2 shot series. OSHA BBP, BSI. Caution of food /water cleanliness.	Source=Acute Hep Panel. Employee=Acute Hep Panel. If source positive, employee not-immune: administer immune globulin and consider HAV vaccine.	Periodic screening: 12 weeks after exposure or if symptoms occur. If positive titer no further TX is needed.
Tetanus	Soiled object causing open wound.	Vaccine good for 10 years.	If no vaccine, administer at this time.	Seek medical care if symptoms of tetanus develop: lockjaw, rigid muscles.
Lyme Disease	Tick-borne: tick attached 24 hours.	Avoid tick infested areas. Vaccine=3 shot series for prone areas.	Antibiotics: Amoxicillin, Doxycycline	As determined by medical professional.
Methicillin-Resistant Staphylococcus Aureus (MRSA)	Direct contact: Skin, open sores, vesicles, mucous membranes, bedding/clothing, nursing homes	BSI	Clean, disinfect. Alcohol based antibacterial hand cleaners. If illness presents seek medical attention.	As determined by medical professional.
Scabies	Direct contact: mite infested areas, bedding/clothing, nursing homes	Avoid infested areas.	Lindane or Kwell applied to the whole body overnight.	Close supervision of treatment including bathing.
Rabies	Virus laden saliva of infected animal: animal bites.	Avoid animal bites.	Wash affected areas. Administer rabies anti-serum injection and first dose of rabies vaccine. Contact animal control, monitor animal for presence of infection.	Continue to treat employee with vaccine series.

HEPA masks	A personal protective device worn on the face to remove particles equal to and greater than 0.3 microns (which essentially includes all bacteria, spores and viruses).
PPD	A method of assessing whether someone has become infected with M. tuberculosis complex. The test involves measurement of a subject's immune response to an injection of tuberculin purified protein derivative (PPD) manufactured from killed Mycobacterium tuberculosis bacilli. Also referred to as tuberculin skin tests or PPD tests.
Vesicle fluid	The serum from the blister formed during a varicella zoster infection.
VZIG	Varicella Zoster Immune Globulin.
Qualitative HCV-RNA.	Blood test to detect the presence of Hepatitis C virus.
ALT	Blood test to measure a liver-specific enzyme which indicates liver cell death or inflammation.
OSHA BBP	Occupational Safety and Health Adm. Blood Borne Pathogen Precautions.
BSI	Body Substance Isolation
Standard Precautions	Precautions that should be utilized on all patient contact
QuantiFERON-TB Gold In-Tube test (QFT)/ TSpot	Is a highly-specific controlled blood test for use as an aid to the diagnosis of infection with bacteria responsible for TB and provides results showing an individual's T-cell response to highly specific antigens from the TB bacterium.