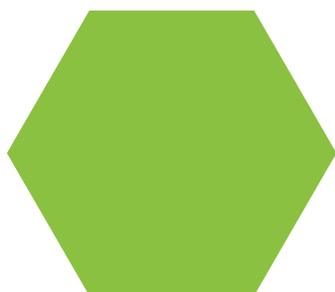
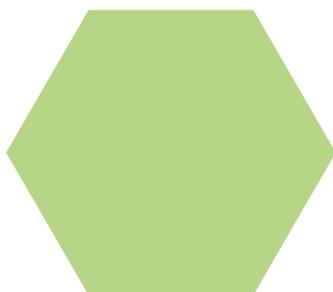
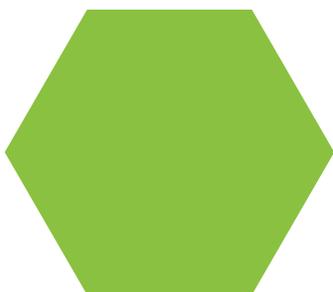
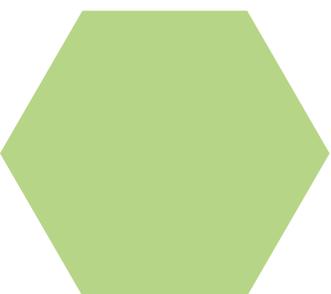




Infectious Diseases and Circumstances Relevant to Notification of Emergency Response Employees: Implementation of Sec. 2695 of the Ryan White HIV/AIDS Treatment Extension Act of 2009

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Suggested Citation

NIOSH [2020]. Infectious diseases and circumstances relevant to notification of emergency response employees: implementation of Sec. 2695 of the Ryan White HIV/AIDS Treatment Extension Act of 2009. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2020-119, <https://doi.org/10.26616/NIOSH PUB2020119>.

DHHS (NIOSH) Publication No. 2020-119

DOI: <https://doi.org/10.26616/NIOSH PUB2020119>

March 2020

Preface

NIOSH originally published this document, *Implementation of Section 2695 (42 U.S.C. 300ff-131) Public Law 111-87: Infectious Diseases and Circumstances Relevant to Notification Requirements*, in a Federal Register notice on November 2, 2011 (see 76 Fed Reg 67736). It has two purposes: (1) to identify those potentially life-threatening infectious diseases to which emergency response employees (EREs) may be exposed in responding to emergencies, and (2) describe the steps that medical facilities should follow to notify EREs to allow for the timely diagnosis and post-exposure medical treatment of those exposures.

Medical facilities may notify EREs about potential exposures without violating the Health Insurance Portability and Accountability Act (HIPAA) of 1996 (Pub. L. No. 104-191). Pursuant to HIPAA, if a law requires the disclosure of individually identifiable health information, a covered entity (such as a medical facility) may comply with such statute provided that the disclosure complies with and is limited to the relevant requirements of such law.

Under Section 2695, if the determination is that an ERE has been exposed, the medical facility must provide the name of the infectious disease involved and the date on which the victim of the emergency was transported by ERE to the facility. Other than this information, Section 2695 does not authorize medical facilities to disclose identifying information with respect to either a victim of an emergency or an ERE. Thus, a medical facility would not violate HIPAA by complying with this requirement of the PHS Act.

The list of potentially life-threatening infectious disease to which EREs may be exposed and accompanying guidelines are republished here from the original 2011 Federal Register notice. This document includes the following updates:

- addition of COVID-19, the disease caused by the virus SARS-CoV-2
- addition of “emergency response employee” definition
- renumbering of footnotes
- confirmation and correction of web links
- removal of list of Select Agents from footnote 15

Implementation of Section 2695 (42 U.S.C. 300ff–131) Public Law 111–87: Infectious Diseases and Circumstances Relevant to Notification Requirements

The Ryan White HIV/AIDS Treatment Extension Act of 2009¹ (Pub. L. 111–87) amended the Public Health Service Act (PHS Act, 42 U.S.C. § 201–300ii) and addresses notification procedures and requirements for medical facilities and state public health officers and their designated officers regarding exposure of emergency response employees (EREs) to potentially life-threatening infectious diseases.² (See Title XXVI, Part G of the PHS Act, codified as amended at 42 U.S.C. §§ 300ff–131 to 300ff–140). This document sets forth the final list of diseases to which these provisions apply; final guidelines describing circumstances under which exposure to listed diseases may occur, and final guidelines for determining whether an exposure to the listed diseases has occurred, as required by the Act. The final list of diseases and guidelines incorporate comments received by CDC on a draft list and guidelines (75 Fed. Reg. 77642, December 13, 2010).

Contents

Part I. List of Potentially Life-Threatening Infectious Diseases to Which Emergency Response Employees May Be Exposed.

Part II. Guidelines Describing the Circumstances in Which Emergency Response Employees May Be Exposed to Such Diseases.

Part III. Guidelines Describing the Manner in Which Medical Facilities Should Make Determinations for Purposes of Section 2695B(d) [42 U.S.C. § 300ff–133(d)].

Definitions

The following definitions are used in the list of diseases and guidelines:

Aerosol means tiny particles or droplets suspended in air. These range in diameter from about 0.001 to 100 μm .³

Aerosolized transmission means person-to-person transmission of an infectious agent through the air by an aerosol. See “aerosolized airborne transmission” and “aerosolized droplet transmission.”

Aerosolized airborne transmission means person-to-person transmission of an infectious agent by an aerosol of small particles able to remain airborne for long periods of time. These are able to transmit diseases on air currents over long distances, to cause prolonged airspace contamination, and to be inhaled into the trachea and lung.⁴

Aerosolized droplet transmission means person-to-person transmission of an infectious agent by large particles only able to remain airborne for short periods of time. These generally transmit diseases through the air over short distances (approximately 6 feet), do not cause prolonged airspace contamination, and are too large to be inhaled into the trachea and lung.⁵

Contact or body fluid transmission means person-to-person transmission of an infectious agent through direct or indirect contact with an infected person’s blood or other body fluids.⁶

Emergency response employee (ERE) means firefighters, law enforcement officers, paramedics, emergency medical technicians, funeral service practitioners, and other individuals (including employees of legally organized and recognized volunteer organizations, without regard to whether such employees receive nominal compensation) who, in the course of professional duties, respond to emergencies in the geographic area involved.

Exposed means to be in circumstances in which there is recognized risk for transmission of an infectious agent from a human source to an ERE⁷ or, in the case of a Select Agent, from a surface or environment contaminated by the agent to an ERE.

Potentially life-threatening infectious disease means an infectious disease to which EREs may be exposed and that has reasonable potential to cause death or fetal mortality in either healthy EREs or in EREs who are able to work but take medications or are living with conditions that might impair host defense mechanisms.

Part I. List of Potentially Life-Threatening Infectious Diseases to Which Emergency Response Employees May Be Exposed

The *List of Potentially Life-Threatening Infectious Diseases to Which Emergency Response Employees May Be Exposed* is divided into four sections: Diseases routinely transmitted by contact or body fluid exposures, those routinely transmitted through aerosolized airborne means, those routinely transmitted through aerosolized droplet means, and those caused by agents potentially used for bioterrorism or biological warfare. Diseases often have multiple transmission pathways. However, for purposes of this classification, diseases routinely transmitted via the aerosol airborne or aerosol droplet routes are so classified, even if other routes, such as contact transmission, also occur. CDC will continue to monitor the scientific literature on these and other infectious diseases. In the event that CDC determines that a newly emerged infectious disease fits criteria for inclusion in the list of potentially life-threatening infectious diseases required by the Ryan White HIV/AIDS Treatment Extension Act of 2009, CDC will amend the list and add the disease.

A. Potentially Life-Threatening Infectious Diseases: Routinely Transmitted by Contact or Body Fluid Exposures

- Anthrax, cutaneous (*Bacillus anthracis*)
- Hepatitis B (HBV)
- Hepatitis C (HCV)
- Human immunodeficiency virus (HIV)
- Rabies (Rabies virus)
- Vaccinia (Vaccinia virus)
- Viral hemorrhagic fevers (Lassa, Marburg, Ebola, Crimean-Congo, and other viruses yet to be identified)⁸

B. Potentially Life-Threatening Infectious Diseases: Routinely Transmitted Through Aerosolized Airborne Means

These diseases are included within “those infectious diseases on the list that are routinely transmitted through airborne or aerosolized means.”⁹

- Measles (Rubeola virus)
- Tuberculosis (*Mycobacterium tuberculosis*)—infectious pulmonary or laryngeal disease; or extrapulmonary (draining lesion)
- Varicella disease (*Varicella zoster virus*)—chickenpox, disseminated zoster

C. Potentially Life-Threatening Infectious Diseases: Routinely Transmitted Through Aerosolized Droplet Means

These diseases are included within “those infectious diseases on the list that are routinely transmitted through airborne or aerosolized means.”¹⁰

- Diphtheria (*Corynebacterium diphtheriae*)
- Novel influenza A viruses as defined by the Council of State and Territorial Epidemiologists (CSTE)¹¹
- Meningococcal disease (*Neisseria meningitidis*)
- Mumps (Mumps virus)
- Pertussis (*Bordetella pertussis*)
- Plague, pneumonic (*Yersinia pestis*)
- Rubella (German measles; Rubella virus)
- SARS-CoV
- COVID-19 (the disease caused by SARS-CoV-2)

D. Potentially Life-Threatening Infectious Diseases Caused by Agents Potentially Used for Bioterrorism or Biological Warfare

These diseases include those caused by any transmissible agent included in the HHS Select Agents List.¹² Many are not routinely transmitted human to human but may be transmitted via exposure to contaminated environments. (See the special note in Part II.C for further explanation.) The HHS Select Agents List is updated regularly and can be found on the National Select Agent Registry Web site: <http://www.selectagents.gov/>.

Part II. Guidelines Describing the Circumstances in Which Emergency Response Employees May Be Exposed to Such Diseases

A. Exposure to Diseases Routinely Transmitted Through Contact or Body Fluid Exposures

Contact transmission is divided into two subgroups: Direct and indirect. Direct transmission occurs when microorganisms are transferred from an infected person to another person without a contaminated intermediate object or person. Indirect transmission involves the transfer of an infectious agent through a contaminated intermediate object or person.

Contact with blood and other body fluids may transmit the bloodborne pathogens HIV, HBV, and HCV. When EREs have contact circumstances in which differentiation between fluid types is difficult, if not impossible, all body fluids are considered potentially hazardous. In the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard, an exposure incident is defined as a “specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee’s duties.”¹³

Occupational exposure to cutaneous anthrax would include exposure of an ERE’s nonintact skin or mucous membrane to drainage from a cutaneous anthrax lesion; percutaneous injuries with sharp instruments potentially contaminated with lesion drainage should also be considered exposures. Contact with blood or other bodily fluids is not thought to pose a significant risk for anthrax transmission. Occupational exposure to rabies would include exposure of an ERE’s wound, nonintact skin, or mucous membrane to saliva, nerve tissue, or cerebral spinal fluid from an infected individual. Percutaneous injuries with contaminated sharp instruments should be considered exposures because of potential contact with infected nervous tissue. Intact skin contact with infectious materials or contact only with blood, urine, or feces is not thought to pose a significant risk for rabies transmission. Occupational exposures of concern to vaccinia would include contact of mucous membranes (eyes, nose, mouth, etc.) or non-intact skin with drainage from a vaccinia vaccination site or other mucopurulent lesion caused by vaccinia infection.

B. Exposure to Diseases Routinely Transmitted Through Airborne or Aerosolized Means

Occupational exposure to pathogens routinely transmitted through aerosolized airborne transmission may occur when an ERE shares air space with a contagious individual who has an infectious disease caused by these pathogens. Such an individual can expel small droplets into the air through activities such as coughing, sneezing and talking. After water evaporates from the airborne droplets, the dried out remnants can remain airborne as droplet nuclei. Occupational exposure to pathogens routinely transmitted through aerosolized droplet transmission may occur when an ERE comes within about 6 feet of a contagious individual who has an infectious disease caused by these pathogens and who creates large respiratory droplets through activities such as sneezing, coughing, and talking.

C. Special Note on Exposure to Diseases Transmitted by Agents Potentially Used for Bioterrorism or Biological Warfare

The Select Agents list¹⁴ maintained by HHS, lists biological agents and toxins that have the potential to pose a severe threat to human health and that may be used for or adapted for bioterrorist attacks. There are special reporting requirements for Select Agents, as detailed in 42 CFR part 73. Those agents included on the HHS Select Agents List that are routinely transmitted person to person and for which natural transmission remains a significant concern are categorized in the “List of Potentially Life-Threatening Infectious Diseases to Which Emergency Response Employees May be Exposed,” Part I above, according to their modes of transmission. The remaining agents on the Select Agent List would not typically exhibit human-to-human transmission or be considered contemporary contagious threats. However, in the setting of potential intentional modification to artificially increase transmissibility and/or lethality (“weaponization”) and deployment as bio-weapons (potentially in quantities far greater than would naturally be encountered), atypical pathways of transmission may occur. In this case, EREs may be exposed by entering contaminated environments to care for victims and by exposure to contaminated individuals from those environments.

Part III. Guidelines Describing the Manner in Which Medical Facilities Should Make Determinations for Purposes of Section 2695B(d) [42 U.S.C. § 300ff–133(d)]

Section 2695B(d) [42 U.S.C. § 300ff–133(d)] specifies that medical facilities must respond to appropriate requests by making determinations about whether EREs have been exposed to infectious diseases included on the list issued pursuant to sec. 2695(a)(1) [42 U.S.C. § 300ff–131(a)(1)]. A medical facility has access to two types of information related to a potential exposure incident to use in making a determination. First, the request submitted to the medical facility contains a “statement of the facts collected” about the ERE’s potential exposure incident.¹⁵ Information about infectious disease transmission provided in relevant CDC guidance documents¹⁶ or in current medical literature should be considered in assessing whether there is a realistic possibility that the exposure incident described in the statement of the facts could potentially transmit an infectious disease included on the list issued pursuant to sec. 2695(a)(1) [42 U.S.C. § 300ff–131(a)(1)].

Second, the medical facility possesses medical information about the victim of an emergency transported and/or treated by the ERE. This is the medical information that the medical facility would normally obtain according to its usual standards of care to diagnose or treat the victim, since the Act does not require special testing in response to a request for a determination. As stated in sec. 2695G(b) [42 U.S.C. § 300ff–138(b)], “this part may not, with respect to victims of emergencies, be construed to authorize or require a medical facility to test any such victim for any infectious disease.”

Information about the potential exposure incident and medical information about the victim should be used in the following manner to make one of the four possible determinations as required by sec. 2695B(d) [42 U.S.C. §300ff–133(d)]:

(1) The ERE involved has been exposed to an infectious disease included on the list:

—Facts provided in the request document a realistic possibility that an exposure incident occurred with potential for transmitting a listed infectious disease from the victim of an emergency to the involved ERE; and

—The medical facility possesses sufficient medical information allowing it to determine that the victim of an emergency treated and/or transported by the involved ERE had a listed infectious disease that was possibly contagious at the time of the potential exposure incident.

(2) The ERE involved has not been exposed to an infectious disease included on the list:

—Facts provided in the request rule out a realistic possibility that an exposure incident occurred with potential for transmitting a listed infectious disease from the victim of an emergency to the involved ERE; or

—The medical facility possesses sufficient medical information allowing it to determine that the victim of an emergency treated and/or transported by the involved ERE did not have a listed infectious disease that was possibly contagious at the time of the potential exposure incident.

(3) The medical facility possesses no information on whether the victim involved has an infectious disease included on the list:

—The medical facility lacks sufficient medical information allowing it to determine whether the victim of an emergency treated and/or transported by the involved ERE had, or did not have, a listed infectious disease at the time of the potential exposure incident.

—If the medical facility subsequently acquires sufficient medical information allowing it to determine that the victim of an emergency treated and/or transported by the involved ERE had a listed infectious disease that was possibly contagious at the time of the potential exposure incident, then it should revise its determination to reflect the new information.

(4) The facts submitted in the request are insufficient to make the determination about whether the ERE was exposed to an infectious disease included on the list:

—Facts provided in the request insufficiently document the exposure incident, making it impossible to determine if there was a realistic possibility that an exposure incident occurred with potential for transmitting an infectious disease included on the list issued pursuant to Section 2695(a)(1) [42 U.S.C. § 300ff–131(a)(1)] from the victim of an emergency to the involved ERE.

Footnotes

¹The Ryan White Act (Pub. L. 111–87) amended the Public Health Service Act (PHS Act, 42 U.S.C. § 201–300ii), including the addition of a Part G to Title XXVI.

²See Title XXVI, Part G of the PHS Act, codified as amended at 42 U.S.C. §§ 300ff–131 to 300ff–140.

³Baron P. Generation and Behavior of Airborne Particles (Aerosols). PowerPoint Presentation. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Division of Applied Technology. http://www.cdc.gov/niosh/topics/aerosols/pdfs/Aerosol_101.pdf. Accessed January 15, 2019. Baron PA, Willeke K, eds. Aerosol measurement: Principles, Techniques, and Applications. Second edition. New York: John Wiley & Sons, Inc. 2001.

⁴Baron P. Generation and Behavior of Airborne Particles (Aerosols). PowerPoint Presentation. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Division of Applied Technology. http://www.cdc.gov/niosh/topics/aerosols/pdfs/Aerosol_101.pdf. Accessed January 15, 2019. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>. Accessed January 15, 2019.

⁵Baron P. Generation and Behavior of Airborne Particles (Aerosols). PowerPoint Presentation. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Division of Applied Technology. http://www.cdc.gov/niosh/topics/aerosols/pdfs/Aerosol_101.pdf. Accessed January 15, 2019. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>. Access January 15, 2019

⁶Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>. Accessed January 15, 2019.

⁷Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>. Accessed January 15, 2019.

⁸For most viral hemorrhagic fevers (VHFs), routine transmission is limited to transmission from a zoonotic reservoir or direct contact with an infected person (e.g. Ebola virus, Marburg virus) or through arthropod-borne transmission (Rift Valley fever, Crimean-Congo hemorrhagic fever). For a small number of VHF viruses, transmission may occur through droplet transmission (e.g. Nipah virus), however prolonged close contact is likely necessary. Aerosol transmission does not occur in natural (non-laboratory) settings.

⁹Section 2695(b) [42 U.S.C. § 300ff–131(b)].

¹⁰Section 2695(b) [42 U.S.C. § 300ff–131(b)].

¹¹Council of State and Territorial Epidemiologists, Position Statement Number 13–ID–14. Available at <https://www.cste.org/page/PositionStatements>. Accessed March 25, 2020.

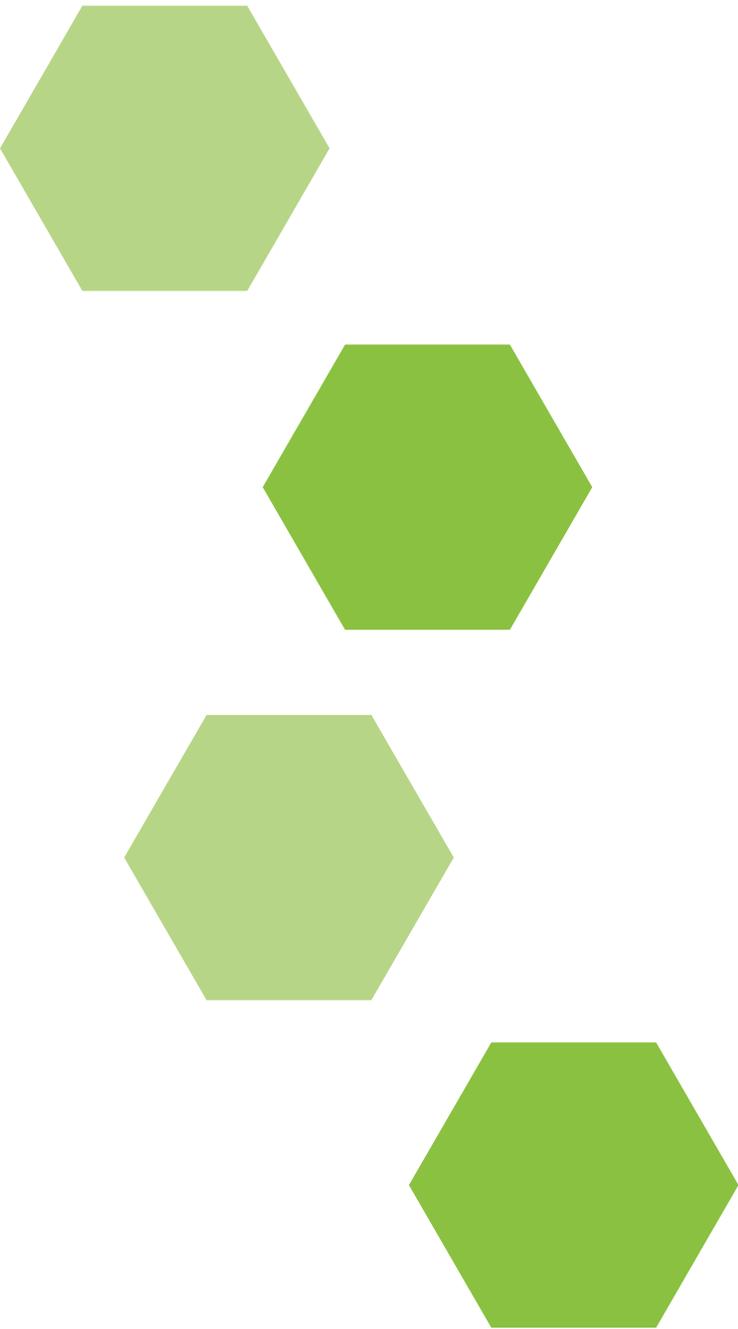
¹²42 C.F.R. §§ 73.3, 73.4.

¹³29 C.F.R. § 1910.1030.

¹⁴Notwithstanding any notification procedures specified here, all reporting requirements that are required under 42 C.F.R. part 73 remain applicable. The HHS Select Agents list is updated regularly and can be found on the National Select Agent Registry website: <http://www.selectagents.gov>. Accessed March 25, 2020.

¹⁵Section 2695B [42 U.S.C. § 300ff–133].

¹⁶For example: Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. CDC. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis. MMWR 2005;54 (No. RR–9):1–17.



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