



TEXAS
Health and Human
Services

Texas Department of State
Health Services

PUBLIC HEALTH REGION 1 EPIDEMIOLOGY INFECTION CONTROL NURSE VISITS/GUIDANCE BINDER

DSHS Northwest Texas

Public Health Region 1 Serving You



Infection Control Nurse Visits/Guidance Binder

Goal of this Visit/ Packet:

As a clinician, you are a first line of defense against diseases that threaten public health in Region 1. The goal of providing infection prevention and control guidance is to nurture a working relationship between you and your facility and the Texas Department of State Health Services (DSHS) Public Health Region 1 (PHR 1). The Epidemiology Response Team (ERT) hopes to provide information to assist with issues you face now or may face in the future.

Objectives of this Visit/ Packet:

1. Provide contact information for Public Health Region 1 Epidemiology staff, as well as other departments including Tuberculosis, STD/HIV, and Zoonosis
2. Provide clinicians with reference materials:
 - 2025 Notifiable Conditions List and Poster
 - Notifiable Conditions Reporting Form and STD/HIV Reporting Form
 - Updates to Reporting Respiratory Outbreaks Including COVID-19
 - Information on Infectious Diseases Including HAIs/MDROs, Respiratory Viruses, Vaccine Preventable Diseases, and Foodborne/Waterborne Illnesses
 - Infection Prevention and Control Infographics
3. Collect information for contacting key personnel at your facility, including 24/7 emergency contact telephone/pager numbers.

Your commitment to protecting the Public's Health is appreciated!

Epidemiology Response Team, Public Health Region 1
6302 Iola Avenue
Lubbock, Texas 79424
DSHS PHR 1 Epidemiology 24/7 Phone: 806-778-7391
Email: PHR1.EpiReporting@dshs.texas.gov

Useful Links

Texas DSHS PHR 1 Epidemiology and Surveillance <https://www.dshs.texas.gov/regional-local-health-operations/texas-public-health-region-1/public-health-region-1/public-health-region-1-18>
CDC Project Firstline Infection Control Training <https://www.cdc.gov/project-firstline/>
CDC Infection Control Guidance for Healthcare Professionals about Coronavirus (COVID-19) <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>
CDC Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2 <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html>
Texas DSHS Measles Outbreak In Texas <https://www.dshs.texas.gov/measles>
Texas DSHS Measles Information for Health Care Providers <https://www.dshs.texas.gov/measles/information-health-care-providers>
Texas DSHS Reported Diseases Annual Reports <https://www.dshs.texas.gov/idps-home/infectious-disease-data-statistics/texas-annual-reports>



DSHS PHR I Epidemiology Staff

Lead Epidemiologist III

Name: Cindy A. Hernandez

Office: (806) 783-6494

Cell: (806) 787-5418

Email: CynthiaA.Hernandez@dshs.Texas.gov

Epidemiologist I

Name: Elena Rodriguez

Office: (806) 783-6461

Cell: (806) 681-8327

Email: Elena.Rodriguez@dshs.Texas.gov

Epidemiologist II

Name: Sadia Almas

Office: (806) 783-6448

Cell: (806) 787-5947

Email: Sadia.Almas@dshs.Texas.gov

Public Health & Prevention Specialist II

Name: Chantenysa Bertrand

Office: (806) 783-6430

Cell: (806) 787-5439

Email: Chantenysa.Bertrand@dshs.Texas.gov

Epidemiologist II

Name: Vacant

Office:

Email:

Preparedness and Response Manager

Name: Kevin McClaran

Office: (806) 783-6463

Email: Kevin.McClaran@dshs.Texas.gov

HAI Epidemiologist III

Name: Samantha N. Curtis

Cell: (512) 496-7463

Email: SamanthaN.Curtis@dshs.Texas.gov

Questions about Reportable Conditions?

Email us at PHR1.EpiReporting@dshs.Texas.gov or send fax to [806-783-6466](tel:806-783-6466)

For more information, visit dshs.texas.gov/idcu

Public Health Region 1

Contact Information for STD/HIV, TB Elimination, & Zoonosis Staff

Physical/Mailing Address: 6302 Iola Avenue, Lubbock, TX 79424

Program

Contact Information

Epidemiology

24/7 Reporting Phone: (806) 778-7391

Fax: (806) 783-6466

Email: PHR1.EpiReporting@dshs.texas.gov

STD/HIV

Point Of Contact: Irene Rodriguez

Phone: (806) 783-6437

Fax: (806) 783-6408

TB Elimination

Point Of Contact: Dezni Taylor

Phone: (806) 783-6420

Fax: (806) 783-6497

Email: dezni.taylor@dshs.texas.gov OR

melanie.lee@dshs.texas.gov

Zoonosis

Point Of Contact: Christi Olszewski

Phone: (806) 783-6484

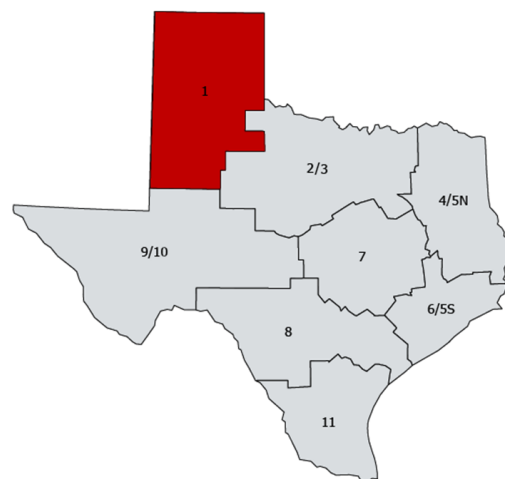
Fax: (806) 783-6466

Email: PHR1Zoonosis@dshs.texas.gov

OR

Point Of Contact: Tonya Finch

Phone: (806) 477-1104



DSHS Northwest Texas

Public Health Region 1 Serving You



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Texas Department of State
Health Services

dshs.texas.gov/region1

Important message about HIPAA Privacy Standards to providers and entities that submit protected health information to the Texas Department of State Health Services

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) privacy regulations implemented standards for how information that identifies a patient can be used and disclosed. (Title 45, Code of Federal Regulations (CFR), Parts 160 and 164) The regulations apply to "covered entities" including health-care plans, health-care clearinghouses, and health-care providers. These privacy standards go into effect on April 14, 2003.

The regulations were amended in August 2002 deleting the requirement to obtain an individual's consent for the use and disclosure of private health information for treatment, payment and health care operations. (45 CFR §164.506).

You can continue to submit information you currently submit to DSHS under one or more of the following exceptions in the HIPAA Privacy Standards:

- **USE AND DISCLOSURE REQUIRED BY LAW:**

Section 164.512(a) allows covered entities to use and disclose private health information if the use or disclosure is required by law. For example, DSHS rules require certain diseases, injuries and conditions to be reported to DSHS. Under the "required by law" exception you can continue to comply with these mandatory reporting rules.

- **USE AND DISCLOSURE FOR PUBLIC HEALTH ACTIVITIES:**

Section 164.512(b) permits covered entities to release private health information to a public health authority that is authorized by law to collect and receive information for preventing and controlling disease, injury, or disability. This information includes reporting of; disease, injury, vital statistics like births, deaths, marriages, divorces, etc., public health investigations, and public health interventions. Under this exception you are authorized to release information to DSHS, or other public health authorities. Disclosure can be initiated by either the public health authority or by you, if it is for one of the above reasons.

- **USE AND DISCLOSURE FOR HEALTH OVERSIGHT ACTIVITIES:**

Section 164.512(d) permits covered entities to disclose private health information to a health oversight agency for oversight activities including audits, civil, administrative or criminal investigations, inspections, licensure or disciplinary actions, or other activities necessary for the oversight of the health-care system, government benefit programs, compliance with governmental regulation or compliance with civil rights laws.

- **USE AND DISCLOSURE FOR LAW ENFORCEMENT PURPOSES:**

Section 164.512(f) permits disclosure of private health information to a law enforcement officer for certain law enforcement purposes.

- **USE AND DISCLOSURE TO AVERT A SERIOUS THREAT TO HEALTH OR SAFETY:**

Section 164.512(j) permits disclosure of private health information if a covered entity in good faith believes the disclosure is necessary to prevent or lessen a serious and imminent threat to the health or safety of a person or the public. The disclosure must be made to a person who is reasonably able to prevent or lessen the threat, or for identification and apprehension of an individual.

THIS NOTICE IS YOUR AUTHORIZATION UNDER THE ABOVE EXCEPTIONS TO CONTINUE TO REPORT THE INFORMATION YOU CURRENTLY REPORT TO DSHS AND OTHER PUBLIC HEALTH, LAW ENFORCEMENT, AND REGULATORY AUTHORITIES.

Please send questions via Email to: [HIPAA Privacy Officer](#).

Texas Health Safety Code

Sec. 81.061. INVESTIGATION.

(a) The department shall investigate the causes and effects of communicable disease and methods of prevention.

(b) The department may require special investigations of specified cases of disease to evaluate the status in this state of epidemic, endemic, or sporadic diseases. Each health authority shall provide information on request according to the department's written instructions.

(c) The department may investigate the existence of communicable disease in the state to determine the nature and extent of the disease and potential effects on the health of individuals and to formulate and evaluate the control measures used to protect the public health. A person shall provide records and other information to the department on request according to the department's written instructions.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989.

Amended by:

Acts 2017, 85th Leg., R.S., Ch. 1087 (H.B. 3576), Sec. 3, eff. September 1, 2017.

Texas Administrative Code

Title 25 - HEALTH SERVICES

Part 1 - DEPARTMENT OF STATE HEALTH SERVICES

Chapter 97 - COMMUNICABLE DISEASES

Subchapter A - CONTROL OF COMMUNICABLE DISEASES

Section 97.10 - Confidential Nature of Case Reporting and
Records

(a) All individual morbidity case reports received by the health authority or the Department of State Health Services (department) are confidential records and not public records.

(b) To implement disease control measures authorized in these sections, it may be necessary for the health authority or the department to investigate public or private health records including patient medical records pertinent to the notifiable condition. On request, a person shall provide the department with records, data, and other information according to the written instruction of the department. The health authority and the department shall keep this information confidential.

(c) The department may use information obtained from reports or health records for statistical and epidemiological studies which may be public information as long as the information does not permit the identification of an individual.

Texas Notifiable Conditions - 2025

Report all Confirmed and Suspected cases

24/7 Number for Immediately Reportable – 1-800-705-8868



Unless noted by*, report to your local or regional health department using number above or find contact information at <http://www.dshs.texas.gov/idcu/investigation/conditions/contacts/>



A – L	When to Report	L – Y	When to Report
*Acquired immune deficiency syndrome (AIDS) ¹	Within 1 week	Legionellosis ²	Within 1 week
Amebic meningitis and encephalitis ²	Within 1 week	Leishmaniasis ²	Within 1 week
Anaplasmosis ²	Within 1 week	Listeriosis ^{2, 3}	Within 1 week
Anthrax ^{2, 3, 4}	Call Immediately	Lyme disease ²	Within 1 week
Arboviral infections ^{2, 5, 6}	Within 1 week	Malaria ²	Within 1 week
*Asbestosis ⁷	Within 1 week	Measles (rubeola) ²	Call Immediately
Ascariasis ²	Within 1 week	Melioidosis ^{2, 4}	Call Immediately
Babesiosis ^{2, 6}	Within 1 week	Meningococcal infection, invasive (<i>Neisseria meningitidis</i>) ^{2, 3}	Call Immediately
Botulism (adult and infant) ^{2, 3, 4, 8}	Call Immediately ⁸	Mumps ²	Within 1 work day
Brucellosis ^{2, 3, 4}	Within 1 work day	Paragonimiasis ²	Within 1 week
Campylobacteriosis ²	Within 1 week	Pertussis ²	Within 1 work day
*Cancer ⁹	See rules ⁹	*Pesticide poisoning, acute occupational ¹⁰	Within 1 week
Candida auris ^{2, 3}	Within 1 work day	Plague (<i>Yersinia pestis</i>) ^{2, 3, 4}	Call Immediately
Carbapenem-resistant Enterobacterales (CRE) ^{2, 11}	Within 1 work day	Poliomyelitis, acute paralytic ²	Call Immediately
Chagas disease ^{2, 6}	Within 1 week	Poliovirus infection, non-paralytic ²	Within 1 work day
*Chancroid ¹	Within 1 week	Prion diseases, such as Creutzfeldt-Jakob disease (CJD) ^{2, 12}	Within 1 week
*Chickenpox (varicella) ¹³	Within 1 week	Q fever ²	Within 1 work day
* <i>Chlamydia trachomatis</i> infection ¹	Within 1 week	Rabies, human ²	Call Immediately
*Contaminated sharps injury ¹⁴	Within 1 month	Rubella (including congenital) ²	Within 1 work day
* Controlled substance overdose ¹⁵	Report Immediately	Salmonellosis, including typhoid fever ^{2, 3}	Within 1 week
Coronavirus, novel ^{2, 16}	Call Immediately	Shiga toxin-producing <i>Escherichia coli</i> ^{2, 3}	Within 1 week
<i>Cronobacter</i> spp. in infants, invasive ²	Within 1 week	Shigellosis ²	Within 1 week
Cryptosporidiosis ²	Within 1 week	Smallpox ^{2, 4}	Call Immediately
Cyclosporiasis ²	Within 1 week	*Spinal cord injury ¹⁷	Within 10 work days
Cysticercosis ²	Within 1 week	Spotted fever rickettsiosis ²	Within 1 week
Diphtheria ^{2, 3}	Call Immediately	Streptococcal disease (<i>S. pneumo</i>), invasive ^{2, 3}	Within 1 week
*Drowning/near drowning ¹⁷	Within 10 work days	Syphilis – primary and secondary stages ^{1, 18}	Within 1 work day
Echinococcosis ²	Within 1 week	*Syphilis – all other stages including congenital syphilis ^{1, 18}	Within 1 week
Ehrlichiosis ²	Within 1 week	<i>Taenia solium</i> and undifferentiated <i>Taenia</i> infection ²	Within 1 week
Fascioliasis ²	Within 1 week	Tetanus ²	Within 1 week
*Gonorrhea ¹	Within 1 week	Tick-borne relapsing fever (TBRF) ²	Within 1 week
<i>Haemophilus influenzae</i> , invasive ^{2, 3}	Within 1 week	*Traumatic brain injury ¹⁷	Within 10 work days
Hansen's disease (leprosy) ¹⁹	Within 1 week	Trichinosis ²	Within 1 week
Hantavirus infection ²	Within 1 week	Trichuriasis ²	Within 1 week
Hemolytic uremic syndrome (HUS) ²	Within 1 week	Tuberculosis (<i>Mycobacterium tuberculosis</i> complex) ^{3, 20}	Within 1 work day
Hepatitis A ²	Within 1 work day	Tuberculosis infection ²¹	Within 1 week
Hepatitis B, C, and E (acute) ²	Within 1 week	Tularemia ^{2, 3, 4}	Call Immediately
Hepatitis B infection identified prenatally or at delivery (mother) ²	Within 1 week	Typhus ²	Within 1 week
Hepatitis B, perinatal (HBsAg+ < 24 months old) (child) ²	Within 1 work day	Vancomycin-intermediate <i>Staph aureus</i> (VISA) ^{2, 3}	Call Immediately
Hookworm (ancylostomiasis) ²	Within 1 week	Vancomycin-resistant <i>Staph aureus</i> (VRSA) ^{2, 3}	Call Immediately
* Human immunodeficiency virus (HIV), acute infection ^{1, 22}	Within 1 work day	Vibrio infection, including cholera ^{2, 3}	Within 1 work day
*Human immunodeficiency virus (HIV), non-acute infection ^{1, 22}	Within 1 week	Viral hemorrhagic fever (including Ebola) ^{2, 4}	Call Immediately
Influenza-associated pediatric mortality ²	Within 1 work day	Yellow fever ²	Call Immediately
Influenza, novel ²	Call Immediately	Yersiniosis ²	Within 1 week
* Lead, child blood, any level & adult blood, any level ²³	Call/Fax Immediately		

In addition to specified reportable conditions, **any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means available.** ²⁴ This includes any case of a select agent. ⁴

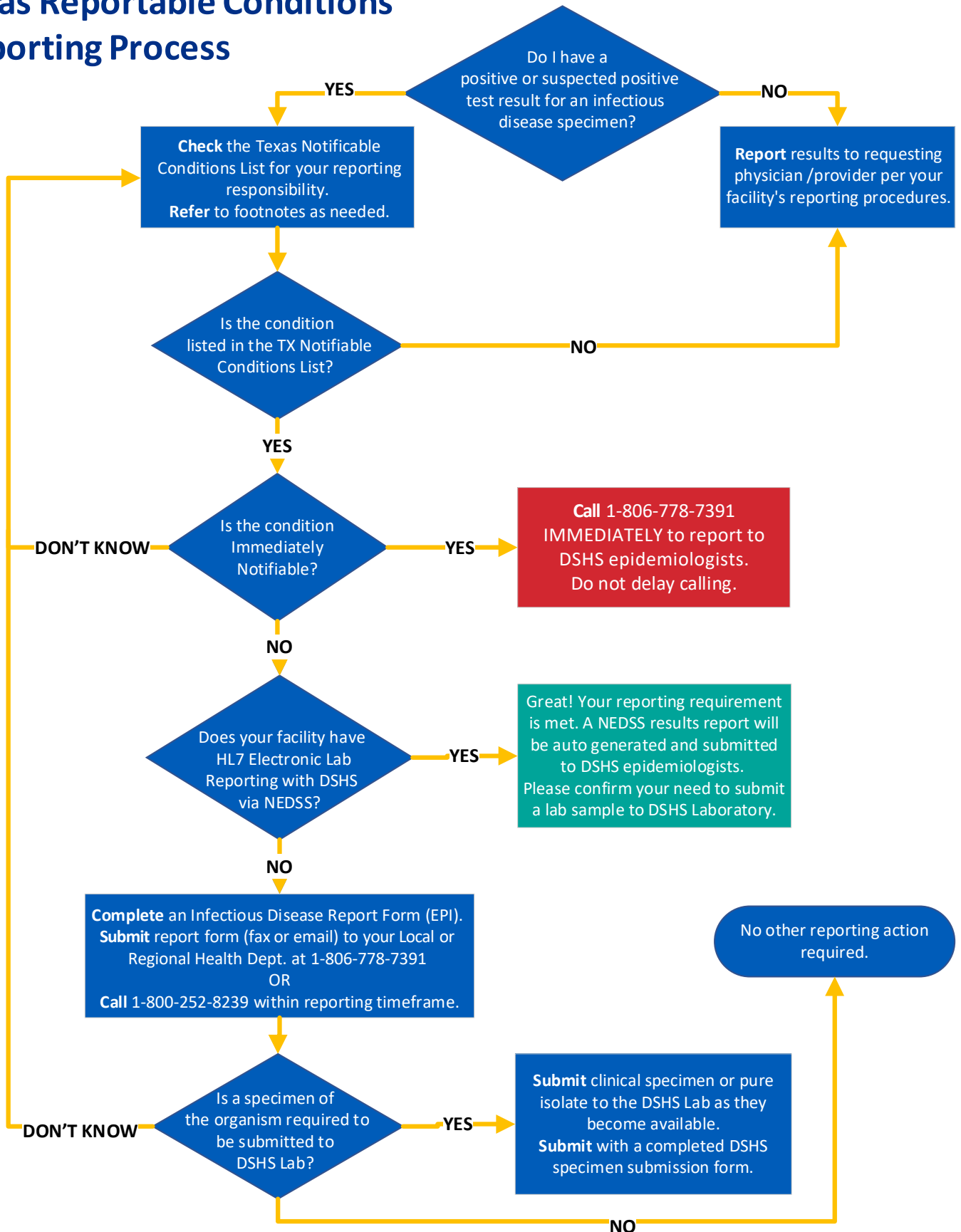
See select agent list at <https://www.selectagents.gov/selectagentsandtoxinslist.html>

*See condition-specific footnotes for reporting contact information

Texas Notifiable Conditions Footnotes - 2025

- ¹ Please refer to specific rules and regulations for HIV/STD reporting and who to report to at: <http://www.dshs.texas.gov/hivstd/healthcare/reporting.shtm>.
- ² Reporting forms are available at <http://www.dshs.texas.gov/idcu/investigation/forms/> and investigation forms at <http://www.dshs.texas.gov/idcu/investigation/>. Call as indicated for immediately reportable conditions.
- ³ Lab samples of the following must be sent to the Department of State Health Services, Laboratory Services Section, 1100 West 49th Street, Austin, Texas 78756-3199 or other public health laboratory as designated by the Department of State Health Services: anthrax (*Bacillus anthracis*; also requested - *Bacillus cereus* isolates that may contain anthrax toxin genes from patients with severe disease or death); botulism, adult and infant (*Clostridium botulinum*); brucellosis (*Brucella* species); *Candida auris*; diphtheria (*Corynebacteria diphtheriae* from any site); all *Haemophilus influenzae*, invasive, in children under five years old (*Haemophilus influenzae* from normally sterile sites); listeriosis (*Listeria monocytogenes*); meningococcal infection, invasive (*Neisseria meningitidis* from normally sterile sites or purpuric lesions); plague (*Yersinia pestis*); salmonellosis, including typhoid fever (*Salmonella* species; also requested - specimens positive for *Salmonella* by culture-independent diagnostic testing (CIDT) methods); Shiga toxin-producing *Escherichia coli* infection (*E. coli* O157:H7, isolates or specimens from cases where Shiga toxin activity is demonstrated); *Staphylococcus aureus* with a vancomycin minimum inhibition concentration (MIC) greater than 2 micrograms per milliliter (µg/mL); all *Streptococcus pneumoniae*, invasive, in children under five years old (*Streptococcus pneumoniae* from normally sterile sites); tuberculosis (*Mycobacterium tuberculosis* complex); tularemia (*Francisella tularensis*); vibriosis (*Vibrio* species; also requested - specimens positive for *Vibrio* by culture-independent diagnostic testing (CIDT) methods); and any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern may require submission of cultures or specimens. Pure cultures (or specimens) should be submitted as they become available accompanied by a current department Specimen Submission Form. See the [Texas Administrative Code \(TAC\) Chapter 97](#): §97.3(a)(4), §97.4(a)(6), and §97.5(a)(2)(C). Call 512-776-7598 for specimen submission information.
- ⁴ Please secure [Select Agent isolates](#) and specimens in accordance with the guidance in the [Select Agent Regulation](#), and immediately initiate a consultation with public health regarding need for further testing or sequencing. Notify any transfer facilities of any test results of high consequence/interest.
- ⁵ Arboviral infections including, but not limited to, those caused by California serogroup viruses, chikungunya virus, dengue virus, Eastern equine encephalitis (EEE) virus, St. Louis encephalitis (SLE) virus, Western equine encephalitis (WEE) virus, West Nile (WN) virus, and Zika virus.
- ⁶ All blood collection centers should report all donors with reactive tests for West Nile virus, Zika virus, *Babesia* species, and *Trypanosoma cruzi* (Chagas disease) to the DSHS Zoonosis Control Branch. If your center uses a screening assay under an IND protocol, please include results of follow-up testing as well. To report, send a secure email to WNV@dshs.texas.gov or fax the report to 512-776-7454. Providing the following: Collection Agency; Unique BUI #; Test Name, Collection Date; Last Name, First Name, Donor Phone Number, Donor Address, Date of Birth, Age, Sex, Race, and Hispanic Ethnicity (Y/N). If your location has a city or county health department, DSHS recommends that you also share this same information with them.
- ⁷ For asbestos reporting information see <http://www.dshs.texas.gov/epitox/Asbestosis-and-Silicosis-Surveillance/>.
- ⁸ Report suspected botulism immediately by phone to 888-963-7111.
- ⁹ For more information on cancer reporting rules and requirements go to <http://www.dshs.texas.gov/tcr/reporting.shtm>.
- ¹⁰ For pesticide reporting information see <https://www.dshs.texas.gov/sites/default/files/epitox/pestrptfrm.pdf>.
- ¹¹ *Escherichia coli* or *Klebsiella* species that are resistant to at least one carbapenem antibiotic or produce a carbapenemase.
- ¹² For purposes of surveillance and notification, Prion diseases, such as Creutzfeldt-Jakob disease (CJD) includes sporadic CJD (sCJD), and also includes sporadic fatal insomnia (sFI), Variably Protease-Sensitive Prionopathy (VPSPr), any genetic CJD (gCJD) or familial CJD (fCJD), fatal familial insomnia (FFI), Gerstmann-Sträussler-Scheinker syndrome (GSS), iatrogenic CJD (iCJD), Kuru, variant CJD (vCJD), and any novel prion disease affecting humans.
- ¹³ Call your [local health department](#) for a copy of the Varicella Reporting Form with their fax number. The [Varicella \(Chickenpox\) Reporting Form](#) should be used instead of an Epi-1 or Epi-2 morbidity report.
- ¹⁴ Applicable for governmental entities. Not applicable to private facilities. ([TAC §96.201](#)) Initial reporting forms for Contaminated Sharps at http://www.dshs.texas.gov/idcu/health/infection_control/bloodborne_pathogens/reporting/.
- ¹⁵ To report a Controlled Substance Overdose, go to <https://odreport.dshs.texas.gov/>.
- ¹⁶ Novel coronavirus causing severe acute respiratory disease includes Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Call immediately for SARS, MERS, or any other novel coronavirus cases. Coronavirus Disease 2019 (COVID-19) is no longer considered a novel coronavirus and as of March 1, 2024 is no longer a notifiable disease condition in Texas.
- ¹⁷ Please refer to specific rules and regulations for injury reporting and who to report to at <http://www.dshs.texas.gov/injury/rules.shtm>.
- ¹⁸ Laboratories should report syphilis test results within 3 work days of the testing outcome.
- ¹⁹ Reporting forms are available at <https://www.dshs.texas.gov/idcu/disease/hansens/forms.shtm>.
- ²⁰ Reportable tuberculosis disease includes the following: suspected tuberculosis disease pending final laboratory results; positive nucleic acid amplification tests; clinically or laboratory-confirmed tuberculosis disease; and all *Mycobacterium tuberculosis* (*M. tb*) complex including *M. tuberculosis*, *M. bovis*, *M. africanum*, *M. canettii*, *M. microti*, *M. caprae*, and *M. pinnipedii*. See rules and reporting information at <http://www.dshs.texas.gov/idcu/disease/tb/reporting/>.
- ²¹ TB infection is determined by a positive result from an FDA-approved Interferon-Gamma Release Assay (IGRA) test such as T-Spot® TB or QuantiFERON® - TB GOLD In-Tube Test or a tuberculin skin test, and a normal chest radiograph with no presenting symptoms of TB disease. See rules and reporting information at <http://www.dshs.texas.gov/idcu/disease/tb/reporting/>. Please report skin test results in millimeters.
- ²² Any person suspected of having HIV should be reported, including HIV exposed infants.
- ²³ For lead reporting information see <http://www.dshs.texas.gov/lead/Reporting-Laws-Administrative-Code.aspx>.
- ²⁴ For more information on Mpox reporting requirements go to <https://www.dshs.texas.gov/monkeypox/monkeypox-information-public-health>.

Texas Reportable Conditions Reporting Process



Required TX Notifiable Specimens for Submission to DSHS Laboratory

Required Isolates or Clinical Specimens	Submission Form	Reporting/Specimen Submission and Submission Form Tips
<i>Bacillus anthracis</i> isolates	G-27A	Call Immediately: 1-806-778-7391 Must be shipped as Category A. - Select <i>Bacillus anthracis</i> in Section 5 of G-27A.
<i>Bacillus cereus</i> isolates that may contain anthrax toxin genes from patients with severe disease or death	G-27A	Call Immediately: 1-806-778-7391 - Select "Bacillus cereus suspected of containing anthrax genes" in Section 5 of G-27A.
<i>Clostridium botulinum</i> isolates	G-27A	Call Immediately: 1-806-705-7391 Must be shipped as Category A. - Select appropriate boxes in Sections 3 and 4 of G-27A.
<i>Brucella</i> species isolates	G-27A	Notify DSHS Within 1 Workday. Must be shipped as Category A. - Select <i>Brucella</i> spp. in Section 5 of G-27A.
<i>Candida auris</i> isolates	G-2E	Notify DSHS Within 1 Workday. - Select "Isolates" in Section 4, Box 1 - Select "Candida Identification by MALDI" in Section 4, Box 1.
<i>Corynebacterium diphtheriae</i> isolates	G-2B	Call Immediately: 1-806-778-7391 - Indicate in Section 2 that specimen is associated with an outbreak or for surveillance, per epidemiologist guidance. - Select <i>Corynebacterium diphtheriae</i> in Section 4.1 of G-2B.
<i>Francisella tularensis</i> isolates	G-27A	Call Immediately: 1-806-778-7391 Must be shipped as Category A. - Select <i>Francisella tularensis</i> in Section 5 of G-27A.
<i>Haemophilus influenzae</i> isolates (invasive) from normally sterile sites in children younger than 5 years old	G-2B	- Submit invasive specimens from normally sterile sites in children younger than 5 years only. (e.g., blood or CSF) - Indicate in Section 2 that specimen is associated with an outbreak or is for surveillance. - Select <i>Haemophilus influenzae</i> in Section 4.1 of G-2B.
<i>Listeria monocytogenes</i> isolates	G-2B	- Indicate in Section 2 of G-2B that specimen is associated with an outbreak/for surveillance. - Select <i>Listeria</i> in Section 9 of G-2B.
<i>Mycobacterium tuberculosis</i> complex, isolates of all complex members	G-MYCO	Notify DSHS Within 1 Workday. Must be submitted as Category A. - Check the "MTB Genotyping Only/for Compliance" option in Section 5 of G-MYCO.
<i>Neisseria meningitidis</i> isolates from normally sterile sites or purpuric lesions	G-2B	Call Immediately: 1-806-778-7391 - Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select <i>Neisseria meningitidis</i> in Section 4.1 of G-2B.
<i>Salmonella</i> species isolates, including <i>Salmonella</i> positive specimens (by C1DT)	G-2B	- Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select <i>Salmonella</i> in Section 4.1 of G-2B.
Shiga toxin-producing <i>Escherichia coli</i> (All <i>E. coli</i> O157:H7 isolates and any <i>E. coli</i> isolates/specimens that demonstrate Shiga toxin activity)	G-2B	Must be shipped as Category A. - Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select "Shiga toxin-producing <i>Escherichia coli</i>" in Section 4.1.
<i>Staphylococcus aureus</i> with a vancomycin MIC greater than 2µg/mL (VISA and VRSA)	G-2B	- Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select <i>Staphylococcus aureus</i> in Section 4.1 of G-2B.
<i>Streptococcus pneumoniae</i> isolates from normally sterile sites in children younger than 5 years old	G-2B	- Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select <i>Streptococcus pneumoniae</i> in Section 4.1 of G-2B.
<i>Vibrio</i> species isolates; also submit <i>Vibrio</i> C1DT positive specimens.	G-2B	Notify DSHS Within 1 Workday. - Indicate in Section 2 of G-2B that specimen is associated with an outbreak or is for surveillance. - Select <i>Vibrio</i> sp. or <i>Vibrio cholera</i> in Section 4.1 of G-2B.
<i>Yersinia pestis</i> isolates	G-27A	Call Immediately: 1-800-778-7391 Must be shipped as Category A. - Select <i>Yersinia pestis</i> in Section 5 of G-27A.

Be Kind, Report on Time

Call Us When



You suspect a patient has a notifiable condition that requires immediate reporting.



You see a cluster of patients sharing similar symptoms or suspect a common exposure source.



You see unusual signs or symptoms that you don't normally see or can't identify.



phr1.EpiReporting@dshs.texas.gov



DSHS PHR 1 Epidemiology Main:
806-744-3577



DSHS Epidemiology Division 24/7:
806-778-7391

Point your camera
here to learn
more about
reporting.



For Office Use Only:

Epidemiologist: _____ County: _____ Onset Date: _____ Report Date: _____



TEXAS DEPARTMENT OF STATE HEALTH SERVICES
PHR 1 Epidemiology and Surveillance

Notifiable Conditions Reporting Form

Version 03-27-19

Please **complete** all spaces as appropriate:

Notifiable Condition: _____

Patient Information

Patient Name: _____ D.O. B. _____ Age _____

Sex: _____ Race: _____ Ethnicity: _____ Hispanic _____ Not Hispanic _____

Address: _____

Street Address City State Zip County

Phone# _____ Alternate Phone# _____

Pregnancy Status: yes/no if yes, how many weeks: _____ Delivery Date: _____

Hepatitis ONLY: (Circle Type) HAV HBV HCV ☐ Acute ☐ Chronic Dx Date: _____
SGOT/AST: _____ Collection Date: _____ SGPT/ALT: _____ Collection Date: _____

Reporting Institute Information

Reported by: _____

Contact Person: _____ Phone # _____

Address: _____

Street Address City State Zip County

Lab Used: _____

Specimen Type: _____ Date of Collection: _____ Lab Report Date: _____

Patient Treatment Information

Reporting Physician: _____ Phone # _____

Date of Treatment: _____ Treatment Given: _____

Admitted? Y N If yes, admit date: _____ Discharge date: _____

Alternative Contact Information

Name: _____ Phone: _____ Relationship to Patient _____

Address: _____

Street Address City State Zip County

Please fax a copy of pertinent lab reports and this form for all notifiable conditions to:

Texas Department of State Health Services
Epidemiology and Surveillance
6302 Iola Avenue Lubbock, TX 79424
Email: PHR1.EpiReporting@dshs.texas.gov
Telephone: (806) 783-6461 Facsimile: (806) 783-6466



Texas Department of State Health Services

HIV/STD Reporting Form

Patient Information:

Name: _____ DOB: ____/____/____ Age: ____ SS# ____-____-____
Sex: ____ Race: ____ Ethnicity: ____ Marital Status: ____ Ph#: _____
Pregnancy Status: Yes / No, If yes how many weeks? _____ PID: Yes / No

Address: _____
Street City State Zip

Reportable Condition 1: _____ Date Collected: ____/____/____
Reportable Condition 2: _____ Date Collected: ____/____/____

Treatment Information:

Date of Treatment: ____/____/____ Treatment Given: _____

Partner Information:

Name: _____ DOB: ____/____/____ SS# ____-____-____
Sex: ____ Race: ____ Ethnicity: ____ Marital Status: ____ Ph#: _____
Pregnancy Status: Yes / No, If yes how many weeks? _____ PID: Yes / No
Address: _____
Street City State Zip

Date of Treatment: ____/____/____ Treatment Given: _____

Reporting Facility:

Reported By (Facility): _____
Contact Person: _____ Phone #: _____
Address: _____
Street City State Zip

Reference Lab (if used): _____

*****Please Attach Copy of Lab Report with HIV/STD Report Form and Mail or FAX to:*****

Texas Department of State Health Services
Attn: HIV/STD Division
6302 Iola
Lubbock, Texas 79424
Fax # (806) 783 - 6408
If any questions, please call (806)783-6437

Form:F50-13029



Quick Guide for Specimen Submission to the DSHS Laboratory

Become a submitter & request forms

Before you can submit specimens to the DSHS Laboratory, you must contact the laboratory to get a submitter number. Then you can request the submission forms you require.



***To request to become a submitter or to request forms contact Lab Reporting:
512.776.7578 or
LabInfo@dshs.texas.gov***

Follow the instructions on submission forms

Each submission form has instructions that should be carefully followed to prevent specimen rejection or testing delays. At least two patient-specific identifiers must appear on both the specimen (or card) and the associated submission form, and the 2 identifiers must completely match.

Check specimen acceptability and shipping requirements

It is very important to properly collect the right specimen type for the test.

It is also critical to properly pack and ship the specimen according to IATA and UPS, and DOT regulations.

The submitter should also pay particular attention to keeping the specimen at the correct temperature throughout shipping.



***For information on specimen acceptability criteria and shipping contact Specimen Receiving:
512.776.2385 or 512.776.6697***

The DSHS laboratory website contains information for specimen collection and shipping:

https://dshs.texas.gov/lab/mrs_specimens.shtm
https://dshs.texas.gov/lab/MRS_shipping.shtm



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Do's and Don'ts for Specimen Submission to DSHS Laboratory

DO

- Ensure 2 patient-specific identifiers are clearly visible on both the specimen and the submission form
- Check the label on the specimen to ensure that the 2 patient identifiers completely match with the submission form
- Follow all instructions on submission forms
- Use 1 form per specimen
- Package urine specimens in individual bags
- Ensure specimens are packed to maintain the appropriate conditions

DON'T

- Don't use labels that cut off the full patient identifier; 2 patient identifiers on the specimen should match completely match the submission form.
- Don't use the same submission form for 2 different specimens even if they were collected from the same patient
- Don't ship temperature-sensitive specimens after Thursday

DSHS Laboratory Shipping Address



DSHS Laboratory
Services Section
1100 West 49th St.
Laboratory Services
Section Austin, TX, 78756



Keep it cold: Ship with sufficient cold packs to arrive cold

Keep it frozen: Ship with sufficient dry ice to arrive frozen, still on dry ice



Contact the DSHS Laboratory

Lab Hours: 8AM to 5PM Monday – Friday

Lab Reporting: 512.776.7578

Specimen Receiving: 512.776.2385

Microbiology Branch: 512.776.7599 or Lab.Microbiology@dshs.texas.gov



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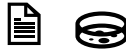
CAP# 3024401

CLIA #45D0660644

Questions? LabInfo@dshs.texas.gov

Specimen Acquisition: (512) 776-7598

Remember 1-1



1 FORM = 1 SAMPLE

Please complete a separate form
for each specimen submitted

SPECIMEN BARCODE

This Space for DSHS Laboratory Use Only

G-2A Specimen Submission Form

SECTION 1. SUBMITTER				SECTION 8. ORDERING PHYSICIAN				
** REQUIRED	Submitter/TPI Number **		Submitter Name**		** REQUIRED			
	NPI Number **		Address **		Physician's NPI Number**		Physician's Name**	
	City **		State **	Zip Code **				
	Phone Number **		Fax **	Contact Name and/or Email Address				
SECTION 2. PATIENT								
NOTE: Patient name on specimen MUST match name on this form exactly. Name mismatches will be rejected. e.g., Partial name on specimen label but full name is provided on form. Specimen container must have two (2) unique identifiers that match this form exactly. e.g., DOB, Unique ID#.								
** REQUIRED	Last Name **		First Name **		MI			
	Address **			Phone Number				
	City **		State **	Zip Code **		Pregnant? ☐ Yes ☐ No ☐ Unknown		
	DOB (mm/dd/yyyy) **		Sex**		Ethnicity: ☐ Hispanic ☐ Non-Hispanic ☐ Unknown			
	Race: ☐ White ☐ Black or African American ☐ American Indian / Native Alaskan ☐ Asian ☐ Other		Diagnosis / Symptoms ☐ Risk ☐ Inpatient ☐ Outpatient		† Indicates fields of epidemiological interest. If sample/test is for an epidemiology investigation, complete relevant fields.			
Date of Onset ☐		☐ Outbreak Association ☐ Surveillance ☐		Country of Origin / Bi-National ID ☐		† Indicate the diagnosis code that would help in processing, coding, and billing of this specimen.		
ICD Diagnosis Code † (1)		ICD Diagnosis Code † (2)		ICD Diagnosis Code † (3)				
SECTION 3. SPECIMEN								
** REQUIRED	Date of Collection (mm/dd/yyyy) **		Time of Collection **		Collected by:			
	Unique Identification Number ** e.g., MRN / Alien # / Accession ID		Comments or Additional ID: e.g., CDC ID, Previous DSHS Specimen Lab Number					
	Specimen Source or Type (Select One Only) **							
	☐ Blood ☐ CSF ☐ Serum ☐ Plasma ☐ Other: _____							
	REQUIRED for cold shipments, if stored in an appliance prior to shipping.							
Indicate REMOVAL from:		DATE (mm/dd/yyyy)		NOTE: DO NOT FREEZE Serum Separator Tube (SST) collectors (i.e. Gold Top tubes)				
☐ FREEZER		TIME (hh:mm)		☐ AM ☐ PM				
☐ REFRIGERATOR								
SECTION 4. HIV/STD TESTING								
☐ HIV Screen		☐ HIV RNA, NAT Only		Justification Required: ☐ Monitoring Treatment (Plasma) ☐ Assessing Perinatal Exposure		☐ PrEP Testing Algorithm ☐ Resolve Conflicting Results ☐ Other:		
☐ Syphilis Screen		☐ Syphilis RPR Only		Justification Required: ☐ Treatment Follow-up (must be same method as baseline RPR) ☐ Confirmation of positive POC test results		☐ Other:		
		☐ Syphilis Confirmation by TP-PA: Justification Required:		☐ Confirmation of positive POC test results		☐ Other:		
SECTION 5. HEPATITIS TESTING		SECTION 6. SEROLOGICAL REFERENCE TESTING			SECTION 7. CDC REFERENCE TESTS			
☐ Hepatitis A, IgM ☐ Hepatitis A, Total Antibody ☐ Hepatitis B Core, IgM ☐ Hepatitis B Core, Total Antibody ☐ Hepatitis B Surface Antibody ☐ Hepatitis B Surface Antigen ☐ Hepatitis C Antibody ☐ Hepatitis C RNA, Quantitative NAAT Only Justification Required: ☐ Monitoring Treatment ☐ Acute Exposure ☐ Perinatal Exposure (2-18 months)		☐ Brucella, Total Antibody ☐ Chagas IgG ☐ Hantavirus IgM & IgG ☐ Measles IgM ☐ Measles IgG ☐ Mumps IgG			☐ Rocky Mountain Spotted Fever & Typhus Fever Panel IgG ☐ Rubella IgG ☐ Schistosoma IgG ☐ Strongyloides IgG			
					To avoid delay of specimen processing, you must provide patient history by attaching it to this form or documenting patient history on the back of this page.			
					☐ Chagas Disease ☐ Cysticercosis ☐ Echinococcosis ☐ Fascioliasis ☐ HTLV-1 ☐ Leptospirosis ☐ Paragonimiasis ☐ VRDL (CSF Only) ☐ Other:			
FOR DSHS LABORATORY USE ONLY:				Specimen Received: ☐ Room Temp. ☐ Cold ☐ Frozen				



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Texas Department of State
Health Services

CAP# 3024401

CLIA #45D0660644

Questions? LabInfo@dshs.texas.gov

Specimen Acquisition: (512) 776-7598

Remember 1-1



1 FORM = 1 SAMPLE

Please complete a separate form
for each specimen submitted

SPECIMEN BARCODE

This Space for DSHS Laboratory Use Only

G-2V Specimen Submission Form

SECTION 1. SUBMITTER			
** REQUIRED	Submitter/TPI Number **		Submitter Name**
	NPI Number **		Address **
	City **	State **	Zip Code **
	Phone Number **	Fax **	Contact Name and/or Email Address

SECTION 2. PATIENT			
NOTE: Patient name on specimen MUST match name on this form exactly . Name mismatches will be rejected. e.g., Partial name on specimen label but full name is provided on form. Specimen container must have two (2) unique identifiers that match this form exactly. e.g., DOB, Unique ID#.			
** REQUIRED	Last Name **		First Name **
	Address **		Phone Number
	City **	State **	Zip Code **
	DOB (mm/dd/yyyy) **	Sex**	Ethnicity: ☐ Hispanic ☐ Non-Hispanic ☐ Unknown
	Race: ☐ White ☐ American Indian / Native Alaskan ☐ Asian ☐ Black or African American ☐ Native Hawaiian / Pacific Islander ☐ Other		
Diagnosis / Symptoms ⊖		Risk	REQUIRED** ☐ Inpatient ☐ Outpatient
Date of Onset ⊖		☐ Outbreak Association ⊖ ☐ Surveillance ⊖	Country of Origin / Bi-National ID ⊖
ICD Diagnosis Code † (1)		ICD Diagnosis Code † (2)	ICD Diagnosis Code † (3)

SECTION 3. SPECIMEN			
NOTE: If the 'Date of Collection' field is not completed, the specimen will be rejected			
** REQUIRED	Date of Collection (mm/dd/yyyy) **		Time of Collection **
	Unique Identification Number ** e.g., MRN / Alien # / Accession ID		Comments or Additional ID: e.g., Case ID, Previous DSHS Specimen Lab Number
	Specimen Source or Type (Select Only)		
	☐ Blood ☐ Nasal/Oropharyngeal Swab (combined) ☐ Sputum: ☐ Induced ☐ Natural		
	☐ Bronchoalveolar Lavage ☐ Serum: ☐ Throat Swab		

SECTION 4. VIROLOGY			
☐ Influenza surveillance (Influenza A/B) Vaccine Received: ☐ Yes ☐ No Date Vaccine Received: _____ Travel History (if known): _____		☐ COVID-19 (SARS-CoV-2) PCR Vaccine Received: ☐ Yes ☐ No Date Vaccine Received: _____ Travel History (if known): _____	
☐ Measles PCR Vaccine Received: ☐ Yes ☐ No Date Vaccine Received: _____ Travel History (if known): _____		☐ Other: _____	
☐ Mumps PCR Vaccine Received: ☐ Yes ☐ No Date Vaccine Received: _____ Travel History (if known): _____		NOTE: By checking the Influenza Surveillance or COVID-19 PCR test request box, submitters authorize DSHS to test for Influenza and/or COVID as resources allow.	

FOR DSHS USE ONLY	
DSHS Staff Notes:	
FOR DSHS LABORATORY USE ONLY	
Specimen Received: ☐ Room Temp. ☐ Cold ☐ Frozen	

SECTION 5. ORDERING PHYSICIAN	
** REQUIRED	
Physician's NPI Number**	Physician's Name**

SECTION 6. PAYOR SOURCE	
1. Reflex testing will be performed when necessary and the appropriate party will be billed.	
2. If the patient does not meet program eligibility requirements for the test requested and no third-party payor will cover the testing, the submitter will be billed.	
3. Medicare generally does not pay for screening tests. Please refer to applicable Third-party payor guidelines for instructions regarding covered tests, benefit limitations, medical necessity determinations and Advanced Beneficiary Notice (ABN) requirements.	
4. If Medicaid or Medicare is indicated, the Medicaid/Medicare number is required. Please enter it in the space provided.	
5. If private insurance is indicated, the required billing information below designated with an asterisk (*).	
6. Check only one box below to indicate whether we should bill the submitter: Medicaid, Medicare, private insurance, or DSHS Program.	

** REQUIRED	☐ Medicaid (2)	☐ Medicare (8)
	Medicaid/Medicare #:	
	☐ Submitter (3)	☐ Private Insurance* (4)
	☐ BIDS (1720)	☐ Zoonosis (1620)

Immunizations (1609)		
HMO / Managed Care / Insurance Company Name *		
Address *		
City *	State *	Zip Code *
Responsible Party / Subscriber *		
Insurance Phone Number *	Insurance ID Number *	
Group Name	Group Number	

Signature of Patient or Responsible Party	
"I hereby authorize the release of information related to the services described here and hereby assign any benefits to which I am entitled to the Texas Department of State Health Services, Public Health Laboratory Division."	
Signature *	Date *

SECTION 7. ARBOVIRUSES / ZOONOTIC	
☐ Zika, Dengue, and/or Chikungunya	
☐ Arbovirus IgM (West Nile, St. Louis Encephalitis) ▲	
☐ Rickettsia PCR	
☐ Other:	
NOTE: DSHS may test for Zika, Dengue, Chikungunya, West Nile (WN), St. Louis Encephalitis (SLE) and/or other emerging arboviruses, as needed. Serology, PCR, or both will be performed at DSHS and the testing methodology and specific viruses analyzed will be based on clinical symptoms and current epidemiological testing criteria. Testing may initially be performed to identify a specific suspected virus or viruses. Reflex testing may be ordered based on initial results and/or approval of additional testing. In some instances, specimens may also be forwarded to CDC for further testing.	

▲ REQUIRED for Section 7, Arbovirus IgM Testing – If specimen is stored in an appliance prior to shipping, indicate REMOVAL from:	
☐ FREEZER	☐ REFRIGERATOR
DATE (mm/dd/yyyy)	TIME (hh:mm)
	☐ AM ☐ PM

FOR DSHS USE ONLY			
Testing Criteria: ☐ Met ☐ Not Met			
PCR:	Serology:	Initials	Date
☐ C	☐ C		
☐ D	☐ D		
☐ Z	☐ Z		
☐ Other: _____			

GETTING A LAB SUBMITTER ID AND SUBMISSION FORMS

The procedure for getting a DSHS lab submitter ID is the same for healthcare providers/facilities and for health departments. Any entity that may need to submit a specimen to the DSHS Laboratory will need to have a submitter ID.

How to get a DSHS submitter ID

- Complete the Submitter Identification (ID) Number Request Form found at: [Submitter ID Request February 2022](#).
- Fax the completed form to Lab Reporting at 512-776-7533 or email it to LabInfo@dshs.texas.gov.
- If you are not sure if your agency has a submitter ID number, call DSHS Lab Reporting at 512-776-7578 (toll free at 1-888-963-7111 X 7578) to find out.

How to get electronic copies of your DSHS submission forms

- Contact Lab Reporting to request electronic copies of the forms by calling 512-776-7578 (toll free at 1-888-963-7111 X 7578) or emailing LabInfo@dshs.texas.gov.
- A list of forms used by the DSHS lab is available at: [Laboratory Testing Services Manual - Forms and Laboratory Fee Schedule | Texas DSHS](#)
- Please note that new forms are usually distributed each September. Each fall, you should check that you have the most current form.

Most frequently used DSHS submission forms

- G-2A: Used for submitting serology specimens
- G-2B: Used for submitting bacteriology and parasitology specimens (also includes some molecular tests for bacterial and viral diseases)
- G-2E: Used for submitting MDRO isolates to the ARLN
- G-2V: Used for submitting virology specimens
- G-23: Used for submitting food samples
- G-27A: Used for submitting emergency preparedness specimens, including *Clostridium botulinum* and Ebola

HOW TO ORDER SPECIMEN COLLECTION SUPPLIES

The following specimen collection kits are available to be ordered:

- Influenza/Influenza-like illness
- Pertussis (PCR)
- Mumps/Measles/Rubella

Influenza/Influenza-like illness

- These supplies should be used for collecting specimens from someone suspected of having influenza. These supplies may also be used for collecting specimens from someone suspected of infection with parainfluenza virus, rhinovirus/enterovirus, respiratory syncytial virus, adenovirus, or human metapneumovirus.
- The provided supplies include:
 - Commercially prepared viral transport media (VTM)
 - Nasopharyngeal (NP) swab

- Plastic cylindrical tube with black screw cap (secondary container)
- The following supplies are optional and can be included if requested:
 - Specimen shipping boxes (cold boxes)
 - Cold packs
 - DSHS Influenza Laboratory Surveillance Protocol
- Influenza collection supplies should be ordered by contacting the EAIDU Flu Team by email at flutexas@dshs.texas.gov. An order form will be provided upon request.
- Note: Regional Influenza Surveillance Coordinators can assist with ordering supplies.

Pertussis (PCR)

- These supplies should be used for collecting specimens from someone suspected of having pertussis.
- The provided supplies include:
 - Nasopharyngeal (NP) swab (may be a urethral swab which can be used as an NP swab)
 - Medium plastic bag
 - G-2B laboratory submission form
 - Collection information sheet
 - Face mask
- The following supplies are optional and can be included if requested:
 - Specimen shipping boxes (cold boxes)
 - Cold packs
- Collection supplies should be ordered by contacting the EAIDU VPD Team at 512-776- 7676.

Notes:

- Pertussis testing only in outbreak situations or by request.
- No media is used for specimens submitted for pertussis PCR at DSHS.
- Pertussis testing is not provided free of charge. Contact EAIDU for approval for DSHS payment.

Mumps/Measles/Rubella

- These supplies should be used for collecting viral specimens from someone suspected of having mumps, measles or rubella.
- The provided supplies include:
 - DSHS or commercially prepared viral transport media (VTM)
 - Throat or nasopharyngeal (NP) swab
 - Mumps (buccal) testing uses a throat swab
 - A throat swab is preferred over an NP swab for rubella and measles but an NP swab is acceptable
 - Plastic tube with screw cap (secondary container)
 - Instruction sheet
- The following supplies are optional and can be included if requested:
 - Specimen shipping boxes (cold boxes)
 - Cold packs
- Collection supplies should be ordered by contacting the EAIDU VPD Team at 512-776- 7676.
- Serology kits can be sent from DSHS, but only under specific circumstances.

STEPS TO SHIP SPECIMENS

Make sure to review the disease-specific specimen submission guidance in each disease section. The disease-specific guidance covers which form to use, temperature requirements for storage and shipping, timeframes for submission and specimen types that are acceptable for submission. The following steps are basic and apply to most specimens submitted to the DSHS laboratory.

More detailed information is available at:

http://www.dshs.texas.gov/lab/mrs_shipping.shtm.

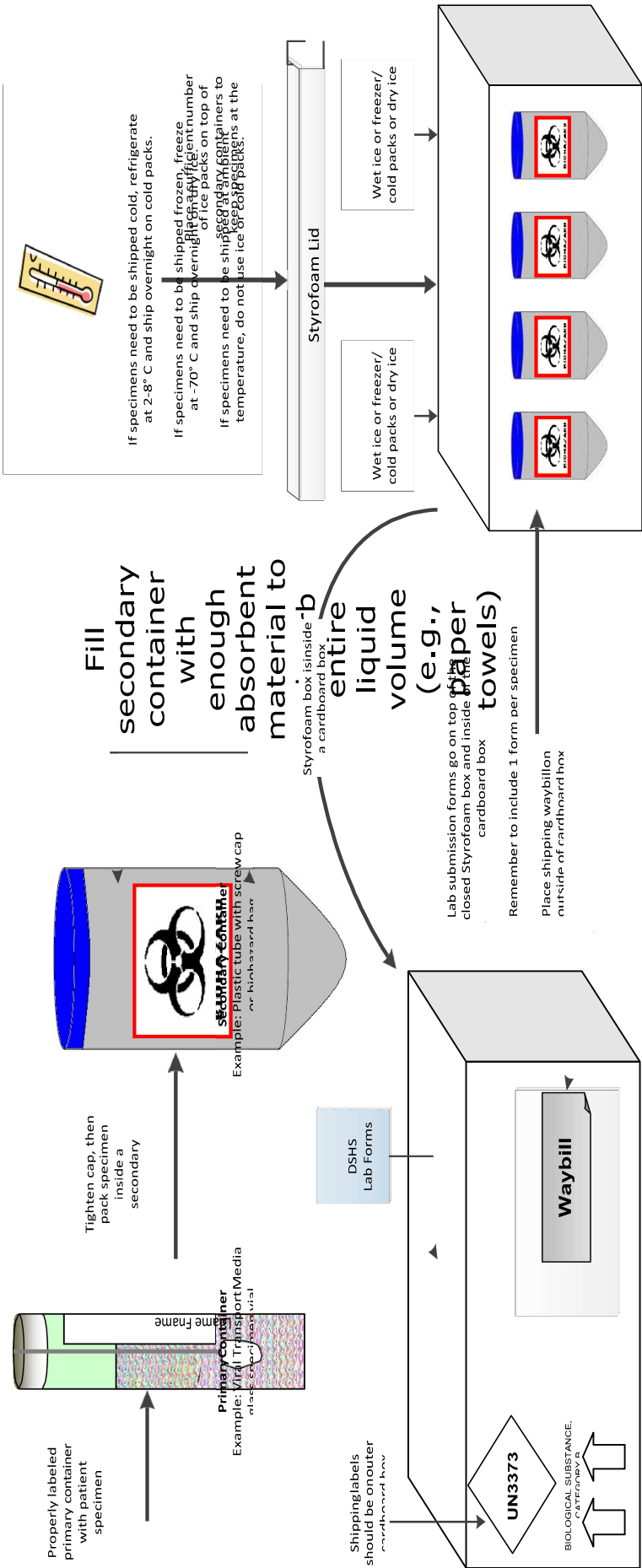
Basic Steps to Ship Specimens

- Verify that the correct transport media was used for the specimen/pathogen you want tested.
 - Verify the transport media is not expired.
 - Check the disease-specific guidance for approved transport media.
- Verify that all specimens are labeled correctly.
 - All specimens require at least two identifiers on the specimen tube/container such as patient name and date of birth.
 - Multiple specimen types from the same person may also require the tube to be labeled with the specimen type or time of collection.
- Verify that one specimen submission form is completed for each specimen submitted.
 - If 5 specimens are collected from the same person then complete 5 forms.
 - Make sure that the forms are completely filled out. Specimens could be rejected if key information is missing such as date of collection.
 - Make sure that the information on the form exactly matches the information on the specimen.
- Verify whether the specimens need to be shipped at room temperature, cold or frozen.
 - Check the disease-specific guidance for approved transport temperatures.
 - If a specimen needs to be cold upon arrival at the DSHS Laboratory, make sure that a sufficient amount of wet ice or cold packs is included especially during the summer.
 - If a specimen needs to be frozen upon arrival at the DSHS Laboratory, make sure dry ice is used. Use as much as will fit but no more than 5 pounds. Blocks are better than pellets. Check with the shipping company to verify dry ice limits.
- Specimens should be triple contained.
 - The primary container is typically the tube or bottle in which the specimen is placed (e.g., the VTM tube for influenza specimens). It must be leak proof. It must also be labeled with patient identifiers (name and date of birth).
 - The secondary container may be a larger plastic tube with a screw cap or even a zipper storage bag. The secondary container should be filled with absorbent material (e.g., paper towels or absorbent pads) to fully absorb the contents of the primary container if it leaks. The secondary container should

- have a biohazard sticker on it and must be leak proof.
 - The tertiary container is the shipping box which must be clearly labeled for shipping biological substances.
- Specimens should be shipped according to International Air Transport Association (IATA) standards.
 - Most specimens that a health department will ship are considered Category B (infectious substance that does not meet criteria for Category A) and will need the following on the outside of the shipping box:
 - UN 3373/Category B Biological Substances label
 - Directional arrows labels
 - Submitter's address and contact person's information
 - Shipping address and contact person's information
 - Dry ice label (if applicable)
 - Isolates (pure cultures) or specimens from patients suspected of having an exotic, newly emerging or extremely rare pathogen may be classified as Category A agents. Check with the DSHS Laboratory directly for shipping Category A agents.
- Most specimens should be shipped overnight to arrive at DSHS Monday through Friday.
 - Do not ship a specimen to arrive on Saturday, Sunday or a Federal holiday.
 - If testing outside of normal business hours is needed, approval from EAIDU or the DSHS lab must be obtained before the specimen is shipped.
- Notify EAIDU and/or the DSHS lab when specimens for these diseases are being shipped:
 - Acute Flaccid Myelitis (AFM)
 - Botulism
 - Coronavirus, Novel (MERS)
 - Diphtheria
 - Ebola, Marburg or other VHF
 - Gastroenteritis outbreaks
 - Influenza, Novel/variant
 - Measles
 - Mumps
 - Polio
 - Rubella
 - Varicella
 - VISA/VRSA
 - Other rare pathogens
- See next page for Example Packing Diagram for Category B Specimens

EXAMPLE PACKAGING DIAGRAM FOR CATEGORY B SPECIMENS

Example Packaging Diagram for Category B Specimens



Cardboard Shipping Box

Styrofoam Box

PREFERRED SPECIMEN SUMMARY TABLE

Table Notes:

- This table includes only the preferred specimen. Additional specimens may also be acceptable. Check the disease-specific sections for additional acceptable specimens and the appropriate media, transport temperature and timeframe for those specimens.
- The timeframe for receipt by the lab is for the preferred specimen shipped as recommended. Some specimens may be received after the recommended time period if **shipped on different media or shipped frozen. Refer to the disease-specific sections** to see if that is possible.

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Acute Flaccid Myelitis (AFM)	DSHS will forward specimen to CDC. Do not ship directly to CDC.	Yes	CSF, Serum, Whole Blood, and Stool	Depends on specimen Type	Depends on specimen Type	Depends on specimen type	G-2V	Call EAIDU VPD team at 512-776-7676 See AFM section for additional details
Amebiasis	Outbreaks or by request only	Yes	Raw stool	PVA & Formalin	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See amebiasis section for additional details

Ascariasis	Yes	Yes – Stool	Raw stool or Adult Worm	Raw Stool - PVA & Formalin Adult Worm - Formalin or Ethanol	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See ascariasis section for additional details
Botulism	Isolate required by law	No	Raw stool (> 10g) (and serum or wound, if appropriate)	None	Cold		G-27A	Require epi approval before submitting g. See botulism section for additional details

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Campylobacteriosis	Outbreaks or by request only	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	See campylobacteriosis section for additional details
Candida auris	Yes	Only for surveillance studies directed by DSHS EAIDG	Isolate	Sabouraud Dextrose agar slants	Ambient	As soon as possible	G-2E	Notifiable Condition as of 1/5/2021
Carbapenem-resistant <i>Enterobacteriales</i> (CRE) and Pseudomonas aeruginosa (CRPA)	No	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2E	Lab confirmation is not necessary; however, submission is appreciate.
Cryptosporidiosis	Outbreaks or by request only	Yes	Raw stool	PVA & Formalin	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See cryptosporidiosis section for additional details

Appendix C: DSHS Laboratory Resources

Cyclosporiasis	Yes	Yes	Raw stool	PVA, Formalin, & Cary Blair	Ambient	Not specified; within expiration date of PVA, Formalin, & Cary Blair vials	G-2B	See cyclosporiasis section for additional details
Diphtheria	Isolate required by law	Yes	Swab beneath membrane or isolate	Amies or Stuart's transport or Loeffler's Slant	2 – 25°C	Within 48 hours of collection	G-2B	Call EAIDU VPD team at 512-776-7676

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Ebola	DSHS/LRN Pre-approval required.	No	Blood	Two plastic EDTA purple tops with ≥ 4 ml	Cold	Send by courier for over-night or more rapid delivery	G-27A	Testing must be approved by EAIDU and CDC prior to shipping. Call 512-221-6852
Fascioliasis	Yes	Yes	Raw stool	PVA & Formalin	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See fascioliasis section for additional details
<i>Haemophilus Influenzae</i> , invasive disease	Isolate required by law on patients under 5 years Old	No	Isolate	Chocolate agar slant	Ambient temp	Within 48 hours of subculture	G-2B	Isolates from sterile sites only
HAV	No	N/A	N/A	N/A	N/A	N/A	N/A	Widely available commercially
HBV	No	N/A	N/A	N/A	N/A	N/A	N/A	Widely available commercially

HCV	No	N/A	N/A	N/A	N/A	N/A	N/A	Widely available commercially
Hookworm	Yes	Yes – Stool	Raw stool or Adult Worm	Raw Stool - PVA & Formalin Adult Worm - Formalin or Ethanol	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See hookworm (ancylostomiasis) section for additional details

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Influenza	Specimens of interest or surveillance specimens only	Yes	NP swab	Viral Transport Media approved for influenza Viruses	Cold	Within 72 hours of Collection	G-2V	See Flu Lab Surveillance Protocol for list of specimens of interest, additional specimens acceptable, and for specimens >72 hours after collection
Legionellosis	Outbreaks or by request only	No	Isolate	BCYE slant	Ambient	Not specified; within expiration date of media	G-2B	See Legionellosis section for other acceptable specimen types
Listeriosis	Isolate required by law	No	Isolate	Non-glucose containing agar slants	Ambient	Not specified; within expiration date of media	G-2B	See Listeriosis section for additional details

Appendix C: DSHS Laboratory Resources

Measles - PCR	Yes	Yes	Pharyngeal swab (throat swab is preferred)	Viral Transport Media	Cold	Within 48 hours of collection	G-2V	See measles section for additional acceptable specimens and for specimens > 48 after collection
Measles - Serology	Yes	No	Spun down serum	Red or tiger top tube	Cold	Within 48 hours of collection	G-2A	
Meningitis/ Encephalitis, Amebic	Testing done by CDC	No	Multiple	Varies	Varies	Varies	Call 512-776-7560	See amebic meningitis section for details

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Meningococcal (Neisseria meningitidis)	Isolate required by law	No	Isolate	Blood or chocolate agar	Ambient temp	Not specified; within expiration date of media	G-2B	Isolates from sterile sites or purpuric lesions required to be sent; if isolate not available, EAIDU requests specimen from sterile site for PCR at CDC
Multidrug-resistant Acinetobacter (MDR-A)	No	No	Isolate	Agar Slant	Ambient temp	Not specified; within expiration date of media	G-2E	Lab confirmation is not necessary. Test not performed at DSHS, specimens will be submitted to Regional ARLN for testing.

Appendix C: DSHS Laboratory Resources

Mumps - Serology	No	N/A	N/A	N/A	N/A	N/A	N/A	DSHS no longer offers mumps IgM testing. Commercially available.
Mumps - PCR	If needed	Yes	Buccal swab (use throat swab on cheek)	Viral Transport Media	Cold	Within 48 hours of collection	G-2V	Preferred method of specimen submission
Norovirus	Yes	No	Raw Stool	None	Cold	As soon as possible	G-2B	Only raw stool accepted; do not freeze; See norovirus section for details

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Paragonimiasis	Yes	Yes	Raw stool	PVA & Formalin	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See paragonimiasis section for additional details
Pertussis - PCR	Outbreaks or by request only	Yes	NP swab	Dry tube/no Media	Cold	Within 48 hours of Collection	G-2B	See pertussis section for additional details
Polio	Testing done by CDC	No	Multiple	Varies	Cold	Within 48 hours of Collection	G-2V	Call EAIDU VPD team at 512-776-7676
Rubella PCR	Yes	Yes	Pharyngeal swab (throat swab is preferred)	Viral Transport Media	Cold	Within 48 hours of collection	G-2V	Specimens will be forwarded to CDC or another state public health lab for PCR

Rubella - Serology	No	N/A	N/A	N/A	N/A	N/A	N/A	Specimens may be submitted for IgG testing if not available from a commercial lab. Rubella IgM testing is no longer offered, effective 1/1/21. Commercially available.
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Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Salmonellosis	Isolate required by law	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	Clinical specimen requested, if isolate not available. See Salmonellosis section for additional details
Shiga toxin-producing E. coli	Isolate required by law	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	Clinical specimen requested, if isolate not available. See STEC section for additional details
Shigellosis	Yes	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	See shigellosis section for additional details

Smallpox suspects	DSHS/LRN Pre-approval required	No	Collect all specimens listed by disease stage at https://www.cdc.gov/smallpox/lab-personnel/specimen-collection/specimen-collection-transport.html . Instructions include collection methods and materials for each type of specimen.	Cold	Send by courier for over-night or more rapid delivery	G-27A	Testing must be approved by EAIDU and CDC prior to shipping. Call 512-221-6852
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Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Streptococcus, Group A (S. pyogenes)	Clusters/ outbreaks (if pre-approved) or by request only	No	Isolate	Agar slant	Ambient		G-2B	Commercial testing widely available for initial ID; PFGE testing at DSHS requires pre-approval from EAIDU IRID Team at 512-776-7676
Streptococcus, Group B (S. agalactiae)	Clusters/ outbreaks (if pre-approved) or by request only	No	Isolate	Agar slant	Ambient		G-2B	Commercial testing widely available for initial ID; PFGE testing at DSHS requires pre-approval from EAIDU IRID Team at 512-776-7676

Streptococcus pneumoniae, invasive disease	Isolate required by law on patients under 5 years old	No	Isolate	Agar slant	Ambient	G-2B	Isolates from sterile sites only
Tetanus	No	N/A	N/A	N/A	N/A	N/A	Lab confirmation is not necessary

Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
Trichuriasis	Yes	Yes – Stool	Raw stool or Adult Worm	Raw Stool - PVA & Formalin Adult Worm - Formalin or Ethanol	Ambient	Not specified; within expiration date of PVA & Formalin vials	G-2B	See trichuriasis section for additional details
Varicella PCR	Yes or send directly to CDC	No	Lesion/scab scraping	NO media	Ambient temperature	Within 48 hours of Collection	G-2V form needed only if sending to DSHS to be forwarded to CDC	DSHS will forward the specimen to MN PH lab. Providers can also submit specimens directly to CDC.
Vibriosis	Isolates required by law	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	Clinical specimen requested, if isolate not available See Vibriosis section for additional details

Viral Hemorrhagic Fever (non-Ebola)	Testing done by CDC	No	Multiple	Varies	Varies	Varies	Contact EAIDU	Approval from CDC is required before submitting specimen for testing. Contact EAIDU to arrange for testing.
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Condition / Pathogen	Send specimens to DSHS laboratory	Collection kit available	Preferred specimen	Media	Transport temperature	Time period for receipt	DSHS laboratory form	Note
VISA/VRSA	Yes	No	Isolate	Blood agar or BHI medium	Ambient	Within 48 hours of susceptibility Results	G-2B	Call DSHS regional HAI Epidemiolog ist for the appropriate jurisdiction
Yersiniosis	Outbreaks or by request only	No	Isolate	Agar slant	Ambient	Not specified; within expiration date of media	G-2B	See shigellosis section for additional details

Cold = 2 – 8 °C

Ambient = room temperature

	Measles VIRAL Specimen Collection
Specimen Type	PCR TESTING (<i>PREFERRED</i>) ** Measles Specimens **
Materials 	• Viral transport media (VTM) (preferred) or UTM and tubes • Specimen submission forms (G2V) • Personal protective equipment • Tongue depressors • Polyester fiber tipped swabs - either Dacron or Rayon • NO cotton-tipped or wooden shaft swabs or any that contain calcium alginate
Proper Specimen Collection	• Do not use expired media – be sure to check the expiration date • With mouth open, depress tongue • Swab both tonsillar pillars and posterior oropharynx and avoid touching the tongue, teeth, and gums • Put tip of swab in the VTM, breaking applicator stick • Seal properly • Freeze or refrigerate • Prepare for shipment • Throat swabs are the preferred specimens for DSHS testing • Nasopharyngeal swabs and urine are also acceptable specimens for measles testing <u>Note: urine specimens are sent to the CDC for testing</u>
Specimen Handling	• Transport specimens to the laboratory as soon as possible • Specimens should be placed in a biohazard bag and stored at 4°C (cold) or -70° C (frozen) • Store cold (2°C to 8°C) if they will arrive at the Lab <48 hours after day of collection (DOC). • Store specimens frozen if they will arrive at the Lab >48 hours after DOC. • DO NOT store samples in a standard freezer–this inactivates the virus • DO NOT have repeated freeze thaw cycles–this inactivates the virus
Specimen Shipping	• Do not ship on Fridays or before federal holidays • Specimens stored at 4°C are shipped using cold packs • Specimens stored at -70°C are shipped on dry ice • Complete the G2V form for each specimen with as much information as possible about the patient. All specimens must be labeled with at least two patient specific identifiers; both a primary and a secondary identifier. The identifiers must appear on both the specimen tube and the associated specimen submission form. Specimens that do not meet this criteria will be considered unsatisfactory for testing. https://www.dshs.texas.gov/sites/default/files/LIDS-LAB-Microbio/SpecimenCollectionandShippingGuidance_Measles.pdf • Check the “Measles PCR” box in Section 4 of the G2V • The name on the tube should match the name on the form exactly. • Payor source can be the patient’s insurance or Immunizations. • Ship to the physical address ATTN: Lab Services • Record the shipping tracking number and notify EAIDU that a specimen is being shipped
Additional Information	• Collect as soon as possible after rash onset, preferably within 3 days • Not more than 10-14 days after onset • CDC– Measles PCR Laboratory Testing for Measles

	Measles SERUM Specimen Collection	
Specimen Type	IgM and IgG Antibody Testing ** Measles Specimens **	
Materials	• Red top tubes and serum separator tubes OR gold top OR tiger top tubes • Specimen Submission forms (G2A) • Personal Protective Equipment • Centrifuge	
Proper Specimen Collection	• Do not use expired tubes – be sure to check the expiration date • RED TOP TUBE ○ Collect at least 5mL of blood in red top tube ○ Centrifuge the red top tube ○ Transfer the serum into a serum transport tube • GOLD/TIGER TOP TUBE ○ Collect at least 5mL of blood in gold/tiger top tube ○ Centrifuge the gold/tiger top tube • Seal properly • Refrigerate or freeze (do not freeze serum separator tubes, gold top tubes or whole blood) • Prepare for shipment	
Specimen Handling	• Transport specimens to the laboratory as soon as possible • Specimens should be placed in a biohazard bag and stored at 4°C or -20° C (if using a courier instead of shipping, secure an ice pack to the tube to maintain proper temperature until arriving at Lab) • If specimens are shipped the same day of collection, ship cold at 4°C • If specimens will be stored and shipped after the date of collection, freeze at -20° C • Do not freeze whole blood in red top tube for shipping • Do not freeze serum in gold top or serum separator tube for shipping	
Specimen Shipping	• Do not ship on Fridays or before federal holidays • Do not ship whole blood • Specimens that will arrive at the lab within 48 hours of collection can be stored at 4°C and should be shipped using cold packs • Specimens that will arrive at the lab more than 48 hours after collection should be stored at -20° C and shipped on dry ice • Complete the G2A form for each specimen with as much information as possible about the patient • Check "Rubeola screen" & "Rubeola IgM" in Section 7 of the G2A • The name on the tube should match the name on the form exactly • Payor source can be the patient's insurance or Immunizations. • Ship to the physical address ATTN: Lab Services • Record the shipping tracking number and notify EAIDU that a specimen is being shipped	
Additional Information	• Collect as soon as possible after rash onset, up to 30 days • Patients with an MMR vaccine in the past 6-45 days are not recommended for serology testing. Centers for Disease Control and Prevention– Measles serology Laboratory Testing for Measles	

REVISION HISTORY

January 2021

- Updates made throughout for clarity

December 2022

- Laboratory Procedures

September 2024

- Clarified lab criteria regarding multiple test results
- Updated laboratory testing options
- Updated procedure for vaccine-strain measles cases
- Clarified evidence of immunity for those foreign-born
- Updated Control Measures
- Updated Prophylaxis Guidelines for IG use
- Updated post-exposure prophylaxis and quarantine protocols table

TABLES

Table 2: Measles Serology Results and Interpretation

IgM Result	IgG Result	Previous infection history	Current infection/ vaccination Status	Comments
+	+ or -	Not vaccinated, no history of measles	Wild-type measles	Seroconversion [†] , classic Measles
+	+ or -	Previously vaccinated, primary vaccine failure	Recent 2nd MMR	Seroconversion [†]
-	+	Previously vaccinated, IgG+	Recent 2nd MMR	IgG level may stay same or boost
+	+	Previously vaccinated, IgG+	Wild-type measles	May have few or no symptoms [‡]
+	+	Recently vaccinated	Exposed to wild-type measles	Cannot distinguish if vaccine or wild-type, evaluate on epidemiologic grounds [§]

[†] IgG response depends on timing of specimen collection.

[‡] If so, do not consider contagious unless clinical presentation is consistent with measles.

[§] If IgM negative, helpful to rule out wild-type measles infection.

 Mumps VIRAL Specimen Collection 	
Specimen Type	PCR TESTING ** Mumps Specimens **
Materials 	• Viral transport media (VTM) and tubes • Specimen submission forms (G2V)-one form per specimen • Personal protective equipment • Tongue depressors • Polyester fiber tipped swabs - either Dacron or Rayon • NO cotton tipped or wooden shaft swabs or any that contain calcium alginate
Proper Specimen Collection	• Do not use expired media – be sure to check the expiration date • Massage the outside of the patient's parotid gland for 30 seconds • Swab the area around Stensen's duct • Put tip of swab in the VTM, breaking applicator stick if necessary • Seal properly • Freeze or refrigerate • Prepare for shipment • Cheek (buccal) swabs are the preferred specimens for DSHS testing
Specimen Handling	• Transport specimens to the laboratory as soon as possible • Specimens should be placed in a biohazard bag and stored at 4°C or -70° C • If specimens are shipped the same day of collection, ship at 4°C • If specimens will be stored and shipped after the date of collection, freeze at -70° C. C. Note: If shipped cold, specimens must be received by the laboratory within 48 hours from the time of collection, otherwise freeze and ship on dry ice. • DO NOT store samples in a standard freezer – this inactivates the virus • DO NOT have repeated freeze thaw cycles – this inactivates the virus
Specimen Shipping	• Do not ship on Fridays or before government holidays • Specimens stored at 4°C are shipped using cold packs • Specimens stored at -70° C are shipped on dry ice • Complete the G2V form for each specimen. All specimens must be labeled with at least two patient specific identifiers; both a primary and a secondary identifier. The identifiers must appear on both the specimen tube and the associated specimen submission form. Specimens that do not meet this criteria will be considered unsatisfactory for testing. https://dshs.texas.gov/lab/PDF/MRS/G-2V.pdf • Check "Mumps PCR" in Section 4 of the G2V • The name on the tube should match the name on the form exactly • Ship to the physical address ATTN: Lab Services • Record the shipping tracking number and notify EAIDU that a specimen is being shipped
Additional Information	• Collect as soon as possible after parotitis onset • Preferably within three days • Not more than eight days after onset

 Mumps SERUM Specimen Collection 	
Specimen Type	PCR TESTING ** Mumps Specimens **
Materials 	• Viral transport media (VTM) and tubes • Specimen submission forms (G2V)-one form per specimen • Personal protective equipment • Tongue depressors • Polyester fiber tipped swabs - either Dacron or Rayon • NO cotton tipped or wooden shaft swabs or any that contain calcium alginate
Proper Specimen Collection	• Do not use expired media – be sure to check the expiration date • Massage the outside of the patient's parotid gland for 30 seconds • Swab the area around Stensen's duct • Put tip of swab in the VTM, breaking applicator stick if necessary • Seal properly • Freeze or refrigerate • Prepare for shipment • Cheek (buccal) swabs are the preferred specimens for DSHS testing
Specimen Handling	• Transport specimens to the laboratory as soon as possible • Specimens should be placed in a biohazard bag and stored at 4°C or -70° C • If specimens are shipped the same day of collection, ship at 4°C • If specimens will be stored and shipped after the date of collection, freeze at -70° C. C. Note: If shipped cold, specimens must be received by the laboratory within 48 hours from the time of collection, otherwise freeze and ship on dry ice. • DO NOT store samples in a standard freezer – this inactivates the virus • DO NOT have repeated freeze thaw cycles – this inactivates the virus
Specimen Shipping	• Do not ship on Fridays or before government holidays • Specimens stored at 4°C are shipped using cold packs • Specimens stored at -70° C are shipped on dry ice • Complete the G2V form for each specimen. All specimens must be labeled with at least two patient specific identifiers; both a primary and a secondary identifier. The identifiers must appear on both the specimen tube and the associated specimen submission form. Specimens that do not meet this criteria will be considered unsatisfactory for testing. https://dshs.texas.gov/lab/PDF/MRS/G-2V.pdf • Check "Mumps PCR" in Section 4 of the G2V • The name on the tube should match the name on the form exactly • Ship to the physical address ATTN: Lab Services • Record the shipping tracking number and notify EAIDU that a specimen is being shipped
Additional Information	• Collect as soon as possible after parotitis onset • Preferably within three days • Not more than eight days after onset

TEXAS DSHS ELECTRONIC CASE REPORTING (eCR) ONBOARDING GUIDELINES

Introduction

Texas Department of State Health Services (DSHS) *declared readiness* to accept electronic case reporting **critical access hospitals (CAHs) and eligible hospitals (EHs)** in accordance with the Centers for Medicaid & Medicare Services (CMS) Promoting interoperability Program (PIP) guidance.

DSHS currently requests that CAHs and EHs:

1. **Register with DSHS for eCR,**
2. Fully onboard **into production** with the Association of Public Health Laboratories (APHL) Informatics Messaging Services (AIMS) platform,
3. Complete final onboarding instructions provided by DSHS, and
4. Remain in parallel production (continue to send manual reports to public health as typically done AND send eCRs) until explicitly instructed by DSHS to stop any manual report submissions.

Please reference the DSHS eCR [website](#) for latest updates and see more detailed information on these steps below.

Background

Electronic case reporting (eCR) is the automated, real-time exchange of case report information between electronic health records (EHRs) and Public Health Agencies (PHAs). The eCR process has many mutual benefits to both health care organizations and public health. eCR helps hospitals to fulfill their Texas mandated reporting requirements for **reportable conditions**. Automated, standards-based, and secure transfer of clinical data reduce manual burden on both health care organizations (HCOs) as well as public health. eCR also promotes interoperability and timely reporting of emerging diseases; ultimately improving case detection, surveillance, and disease investigation activities.

This document serves as a guide, providing the process for CAHs or EHs to follow to successfully implement eCR with DSHS. CAHs and EHs are also collectively referred to interchangeably as HCOs throughout this document.

This guidance is intended for use by CAHs and EHs that are seeking to implement electronic case reporting with DSHS. A CAH or EH that successfully onboards for eCR with DSHS will be able to transmit notifications to the Texas National Electronic Disease Surveillance System (NEDSS). Texas NEDSS is the primary statewide infectious disease surveillance system for public health departments across Texas.

Scope

This document provides instruction to eligible EHs and CAHs who are seeking to onboard and submit eCRs to DSHS. It is also intended as a complementary document to any documentation provided by Association for Public Health Laboratories (APHL) and CDC that may provide more detail on transport setup HL7 v3 and CDA messaging. However, this document is **not** intended to be used as a tutorial for Health Level Seven (HL7) messaging or electronic interfaces. The EH or CAH is expected to have a basic understanding of interface concepts, HL7 messaging, and eCR to public health.

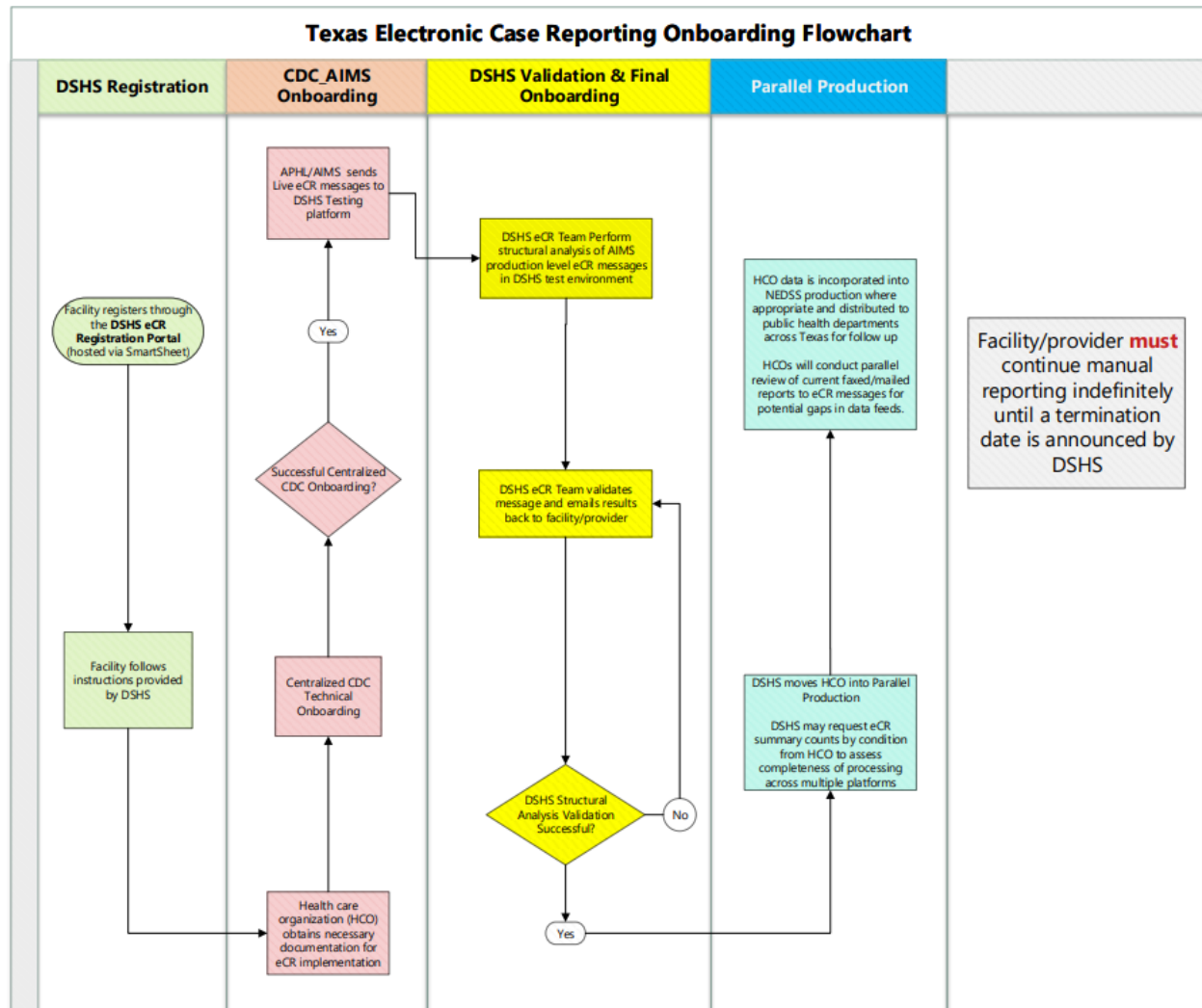
Onboarding via APHL/AIMS

EHs and CAHs must confirm having an EHR system that can produce a conformant message according to the [HL7 Standards Product Brief - HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.1 - US Realm | HL7 International](#).

EHs and CAHs that can produce conformant messages will need to onboard with AIMS. For more information regarding the onboarding process with AIMS, please see

<https://ecr.aimsplatform.org/general/> or e-mail ecr@cdc.gov.

DSHS eCR Onboarding Process



DSHS is conducting onboarding and validation for [Texas notifiable disease conditions](#). HCOs should complete full triggering of all conditions offered through the [Electronic Reporting and Surveillance Distribution \(eRSD\)](#).

PHASE 1: Registration with DSHS

- EHs and CAHs who are ready to initiate eCR should begin by registering with DSHS via the [DSHS eCR registration form](#).
- DSHS staff will provide information on next steps including requesting additional data.
- Documents requested from HCOs include the following:
 - **Facility Lists**- A complete list of facilities where a diagnosis of a notifiable disease condition may occur for which an eICR may be generated through the organization's data feed.
- HCOs may work simultaneously on completing this info while also beginning Phase 2 below.

PHASE 2: CDC/AIMS Onboarding

- Once your EHR/Health IT product is listed as being in general availability on the following webpage: [Getting Started with eCR | CDC](#), please contact eCR@cdc.gov or ecr-info@aimsplatform.org to initiate the eCR onboarding process with AIMS and follow all instructions to push your data to successful production with AIMS.

PHASE 3: DSHS Validation and Onboarding into NEDSS

- Once AIMS onboarding is complete, DSHS will follow up with your organization to complete onboarding with DSHS. DSHS will help guide you through to production of eCR into the Texas NEDSS.
- DSHS will conduct an eICR data review assessing data completeness and data validity.
- If messages are not valid, appropriate technical communication and outreach will occur with EH and CAH or other appropriate entity to convey errors identified.
 - If necessary, DSHS will review any corrected eICR messages for final approval.
- DSHS will push the health care organization's eICR feed into the production environment.

PHASE 4: Parallel Production

- HCOs will be required to continue to send eCR messages through the normal manual means until explicitly notified by DSHS to stop manual reporting. DSHS is coordinating with local and regional health departments to establish initial criteria for manual release.

PHASE 5: Release from Manual Reporting (Criteria still in Development)

- HCOs will be notified by DSHS when initial criteria for manual release are established.
- Please note: Regular review and validation will be conducted to ensure reporting requirements continue to be met.

Electronic Case Reporting (eCR) Frequently Asked Questions

Q: I am ready to begin Electronic Case Reporting (eCR). How do I begin?

A: If your facility is ready to begin eCR, please start by completing the following:

1. Complete the [Registration Form to Submit Electronic Case Reports \(eCR\) to Texas DSHS](#).
2. Contact the CDC AIMS onboarding team at eCR@cdc.gov to learn more about onboarding at CDC.

Q: What constitutes eCR in Texas?

A: eCR is the generation and transmission of initial case reports from an electronic health record (EHR) to public health for review and action. eCR allows health care organizations to report initial cases to DSHS and other local public health entities across Texas for further investigation from their EHR.

Q: Is the Texas Department of State Health Services (DSHS) accepting eCR data to fulfill the CMS Promoting Interoperability Program objectives?

A: Texas (DSHS) declared readiness on September 1st 2023, and is currently accepting eCR messages from organizations seeking to fulfill their CMS Promoting Interoperability public health requirement. For more information, please visit [Public Health Data Interoperability \(cdc.gov\)](#).

Q: Which entities in Texas should submit eCR messages?

A: eCR data is currently being accepted from *Eligible Hospitals (EHs)* and *Critical Access Hospitals (CAHs)*. If you are interested in reporting data to Texas (DSHS), please complete the [Registration Form to Submit Electronic Case Reports \(eCR\) to Texas DSHS](#). If you need to register multiple facilities, please complete the facility bulk registration template and submit through that form during registration.

Q: What notifiable conditions does Texas DSHS accept?

A: Texas Notifiable conditions should be reported according to the [HL7 Standards Product Brief - HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.1 - US Realm | HL7 International](#). Texas can accept all conditions currently published via the Reportable Conditions Knowledge Management System (RCKMS). For reference, a list of [Texas notifiable conditions](#) is also available.

Q: Where do I submit the electronic lab results (ELR) that correspond to the eCR?

A: All facilities conducting testing of notifiable conditions in Texas should already be onboarded and reporting to the Texas National Electronic Disease Surveillance System (NEDSS). Please contact IDI@dshs.texas.gov with any questions regarding reporting ELRs. The DSHS ELR staff will provide data format specifications and will schedule technical assistance as needed.

Q: What HL7 versions can DSHS NEDSS ELR currently receive for eCR?

A: For Promoting Interoperability Program (PIP), the acceptable format for DSHS NEDSS ELR is HL7 v2 and CDA messaging following the respective standards and implementation guides. Texas DSHS understands that vendors are implementing processes for generating the eCR standard. Thus, DSHS is prepared to accept the eCR 1.1 CDA standard. For the eCR, facilities are asked to reference the [HL7 CDA R2 Implementation Guide: Public Health Case Report, Release 2- US Realm the Electronic Initial Case Report \(eICR\)](#).

Q: Do you require the use of standard vocabulary?

A: Yes, we require the use of standard clinical vocabulary and value sets, including but not limited to Logical Observation Identifiers Names and Codes (LOINC), Systematized Nomenclature of Medicine (SNOMED), International Classification of Diseases (ICD)-10 and Unified Code for Unified Measures (UCUM).

Q: What web-based tools are available to assist me in validating my message structure?

A: DSHS eCR team uses on-line eCR message tools to assist in validation. Examples include the [AIMS Validator \(aimsplatform.org\)](#) for testing and validating files.

Q: Are there trigger codes available for eCR?

A: Please check the Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS) for the latest Reportable Conditions Trigger Codes (RCTC) at [Electronic Reporting & Surveillance Distribution \(eRSD\)](#) for the latest published trigger codes.

Q: What transport mechanism is available to send eCR to DSHS NEDSS?

A: Texas DSHS is accepting eCR messages submitted via CDC AIMS platform.

Q: Will new vendor(s) or healthcare organizations need Data Sharing Agreements?

A: See the following:

- There is no Data Usage Agreement (DUA) required for notifiable condition reporting to the Department of State Health Services (DSHS), as this information is required through regulation.
- Chapter 81, Subchapter C of the Texas Health and Safety Code requires reporting on certain notifiable disease conditions to health authorities or to DSHS. Persons required to report under the statute include, physicians, dentists, veterinarians, local school authorities and individuals in charge of clinical or hospital laboratories. Reporting procedures and notifiable conditions are outlined in the Texas Administrative Code, Title 25, Chapter 97. Memorandums are not mandatory under these rules and reporting structure.

Applicability under HIPAA

- The Health Insurance Portability and Accountability Act of 1996's (HIPAA) Privacy Rule authorizes the disclosure of protected health information (PHI) by covered entities- without individual authorization from the patient- to public health authorities such as DSHS for public health purposes including, but not limited to, public health surveillance and investigations.

- The Privacy Rule, at [45 CFR 164.512\(b\)](#), allows covered entities to disclose PHI to public health authorities such as DSHS, when required by state laws. Chapter 81 of the Texas Health and Safety Code is the applicable state statute for this type of reporting.
- Covered entities operating in Texas are expected to comply with applicable mandatory reporting requirements in Texas state law and may rely on HIPPA for additional legal basis for disclosing the required information to DSHS.
- If onboarding via the Association of Public Health Laboratories (APHL) Informatics Messaging Services (AIMS), an appropriate chain of trust must be established with the APHL using the eHealth Exchange, Care quality, or the APHL participation agreement. The AIMS platform operates through Business Associate or equivalent authorities from the clinical care covered entity.



TEXAS
Health and Human
Services

**Texas Department of State
Health Services**

Texas Syndromic Surveillance (TxS2)

Procedure

Data Provider and TxS2 User Registration and Onboarding

Version 9

September 2020

#54-15333

Section 1. Purpose

This procedure defines the specific steps required for Data Providers (for example hospitals) and TxS2 Users (for example hospitals and local health departments) to gain access to the TxS2 system for both sharing electronic health data and accessing data within the system. For Data Providers, the procedure includes steps from registration of intent to submit data through production as well as gaining access to view data. For TxS2 Users, the steps to obtain access to view data are included.

Section 2. Background

Texas Syndromic Surveillance (TxS2) is a statewide syndromic surveillance system built and maintained by the Texas Department of State Health Services (DSHS) for use by Local Health Departments (LHDs), DSHS Public Health Regions (PHRs), DSHS central office, and hospitals for enhanced surveillance of emerging public health conditions or threats. Syndromic surveillance utilizes trend analysis to establish a baseline and then uses algorithms to compare the current data to that baseline and issue alerts when aberrations are detected.

The TxS2 technical infrastructure consists of production and test environments. The TxS2 configuration consists of Data Providers using secure protocols to share individual level data through the Health Services Gateway. Rhapsody® software is used for data ingestion and Texas Data Center Services (DCS) is used for data hosting. Data is stored in a secure database and accessed by Users (LHDs, DSHS PHRs, DSHS central office, and participating hospitals) via the Internet using the analysis software called ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics), developed by the Johns Hopkins University Applied Physics Laboratory.

In 2019, data from the EMS Registry and Poison Control Database were added to TxS2. EMS data is only available to LHD and DSHS users, and the Poison Control data is only available in aggregate to users.

Section 3. Registration Procedures

Sharing electronic health data and accessing data within the TxS2 system requires a fully executed Memorandum of Understanding (MOU) for the entity, and two documents (the TxS2 User Access Agreement and the HHS Acceptable Use Agreement form) for individual Users within an entity.

Below are the specific steps for completing the registration procedure, based on the entity type and its location in Texas (see map of PHRs at <http://www.dshs.texas.gov/regions/state.shtm>). These steps are also summarized as checklists in Appendices A through D.

Data Providers (located outside PHR 2/3 and PHR 6/5S)

Data Providers located outside PHR 2/3 and PHR 6/5S need to sign the DSHS Data Provider MOU and are connected directly to the TxS2 system. Please follow the steps below to complete the registration process (see Appendix A for a checklist).

Data Providers that submitted data to the former TALHO system should follow the steps below. Connections were not automatically transferred off the former TALHO system. Facilities need to follow the steps outlined below and work with DSHS to set up connections to TxS2.

For Data Providers, the steps to register and proceed to production are broken into the following categories:

- Registration of Intent
- Onboarding and Testing (2 parts)
- Production

These categories align with Promoting Interoperability (formerly Meaningful Use) stages of active engagement:

- Completed registration of intent to submit data
- Engaged in onboarding and testing
- Submitting data regularly into the production environment

Registration of Intent

1. The Data Providers register their intent to submit data by completing emailing syndromic.surveillance@dshs.texas.gov and stating interest in connecting to TxS2.
2. The Data Provider completes the Contractor Vendor Information Form and emails the form to syndromic.surveillance@dshs.texas.gov. This form sets up your facility as a vendor with DSHS for the purpose of executing the Memorandum of Understanding (MOU) for data sharing. If the Data Provider already has a vendor number, please include it on the form.
3. Procurement and Contracting Services sends the Data Provider MOU via DocuSign to the signatory and contact identified on the Contractor Vendor Information Form. Please ensure the email addresses for these two people are correct.

4. The Data Provider obtains the authorized signature and returns the signed MOU to Procurement and Contracting Services.
5. DSHS signs the MOU and the fully executed contract is sent to the Data Provider by Procurement and Contracting Services.
6. The Data Provider emails syndromic-surveillance@dshs.texas.gov with list of specific staff members within their organization that should have access to TxS2 for viewing data and alerts.
7. TxS2 Staff emails the forms to each individual identified.
8. The individual TxS2 User completes the forms and emails them to syndromic-surveillance@dshs.texas.gov.
9. DSHS assigns TxS2 User account and notifies the User of their account information and how to access the ESSENCE application.

Onboarding and Testing – Part 2

10. After receipt of a fully executed MOU, DSHS invites the facility to begin testing HL7 messages in preparation for onboarding to TxS2. DSHS Information Technology staff coordinate with Data Provider Information Technology staff to complete Data Provider onboarding and testing, including connection and content setup and verification. (See additional messaging details in the TxS2 Data Provider Onboarding and Messaging Procedure, located under Policies and Procedures on the TxS2 website.)

Production

11. Once all testing is completed, Data Provider submits data to the production environment on a daily basis.

Section 4. Responsibilities

DSHS is responsible for developing and maintaining the TxS2 system in a secure environment, developing and maintaining policies and procedures for TxS2, and for maintaining User access to TxS2.

Individual TxS2 Users are responsible for following DSHS policies and procedures, including the HHS Acceptable Use Policy found in the HHS Acceptable Use Agreement every user must sign, to safeguard the data and to share, access, use, and store the data in a secure, confidential manner in compliance with all applicable federal and state laws governing the protection of health-related information.

Organizations are also responsible for alerting DSHS when a user has left their organization and their credentials must be revoked.

Section 5. Agreement Renewal

The TxS2 MOU is effective on the date of DSHS signature and terminates on the fifth anniversary of the effective date, unless renewed or terminated. The MOU may be extended for one additional five-year term. The MOU is reviewed on an annual basis to determine if there are material changes to the MOU. Specific requirements for amending and extending the MOU are provided in the terms of the MOU.

The User Access Agreement is effective on the date the TxS2 User account is created and must be renewed every 2 years. The User Access Agreement may be terminated at any time by the User's entity or DSHS.

Section 6. Points of Contact

Name	Role	Email
TxS2 Team	General Inquires	syndromic.surveillance@dshs.texas.gov
TxS2 Support	Technical Support	TxS2Support@dshs.texas.gov

Section 7. Revision History

Date	Version	Action	Section
05/04/16	1	New procedure	
07/12/16	2	Separated registration steps by entity type and other minor updates and revisions.	All
01/10/17	3	Updated registration steps for Data Providers located outside PHR 2/3 and PHR 6/5S to be in line with Meaningful Use status. Other minor updates and revisions were completed.	All
04/05/17	4	Minor updates and revisions were completed.	All
11/01/17	5	Minor edits.	All
2/14/19	6	Updating links to register and request access.	All
5/2/19	7	Contacts updated.	Section 3
3/26/20	8	Updated information about TALHO, took out old phone numbers, added information about EMS and Poison, added information about the HHS AUA, and other minor updates, and accessibility compliance.	All

Appendix A. - Data Providers (outside PHR 2/3 and PHR 6/5S)

Below is a checklist of forms/steps to be completed to register Data Providers (located outside PHR 2/3 and PHR 6/5S).

- ☐ Email syndromic-surveillance@dshs.texas.gov that you intend to submit data.
- ☐ Contractor Vendor Information Form
- ☐ DSHS Data Provider MOU
- ☐ Email syndromic-surveillance@dshs.texas.gov with list of specific staff members within your organization that should have access to TxS2 for viewing data and alerts.
- ☐ TxS2 Users – Complete the TxS2 User Access Agreement and the HHS Acceptable Use Agreement.
- ☐ Work with DSHS Information Technology through onboarding and testing.
- ☐ Submit data on a daily basis into the production environment.
- ☐ Notify TxS2 staff when users leave so that TxS2 staff can terminate their access to the system.

Texas Syndromic Surveillance FAQ

What is Syndromic Surveillance? Syndromic Surveillance is surveillance that allows for early detection of abnormal disease patterns. These disease patterns could result in high morbidity and mortality using near real-time data.

How does syndromic surveillance work?



Who is eligible to participate?

Hospitals with emergency departments, free-standing emergency centers and urgent care centers are eligible to submit data.

What type of agreement is required?

Data submitters and Local Health Departments (LHDs) must sign a Memorandum of Understanding (MOU) with Department of State Health Services (DSHS). Individual users must sign a User Access Agreement.

How much does it cost?

Participation is free! The only cost is for the information technology personnel required to make and manage the connection.

How does viewing data work?

Hospitals can view data from within their hospital. LHDs can view data from within their Public Health Region. DSHS staff can view statewide data. All users can view aggregate data.

Is the data in TxS2 confidential?

Yes, data in TxS2 is secure, confidential, and classified as Protected Health Information (PHI.) DSHS stores all data in secure databases accessed only by authorized users.

Syndromic Data in Action

- Infectious disease outbreaks (flu, Zika, Norovirus)
- Mass gatherings (Super Bowl)
- Disasters (Harvey)
- Injuries (drug overdoses, falls)
- Chronic illnesses (Asthma)

What are the technical specifications for TxS2?

DSHS configured TxS2 to support the Public Health Information Network (PHIN) Messaging Guide for Syndromic Surveillance.

How does data get into TxS2? How often is it updated?

The EHR automatically captures and sends the data to TxS2. The expectation is to have hospitals submit data at least once every 24 hours.

How is TxS2 beneficial for data providers?

TxS2 is beneficial for the early detection of abnormal disease patterns within the facility and uses a proprietary algorithm that allows for statewide comparisons.

How is TxS2 beneficial for public health officials?

Public Health officials can use the system for early event detection, situational awareness, and querying the data for syndromes of interest.

How many hospitals submit data to TxS2?

There are more than 250 hospitals submitting data to TxS2, with more added each month.

What data is available in TxS2?

Currently, hospital emergency department (ED) data is the only data source. There are plans to add Poison and Emergency Medical Services (EMS) data by the end of 2019. DSHS will consider other data sources in the future.

How is this related to the Tarrant County system or the Houston Health Department system?

The two systems feed their data into TxS2. Facilities located in PHR 2/3 should submit to Tarrant. Similarly, facilities located in PHR 6/5S should submit to Houston.

Provider Benefits of Using the Texas Immunization Registry (ImmTrac2)

Join more than 32,000 authorized organizations benefiting from using the Texas Immunization Registry (ImmTrac2). The Texas opt-in registry makes a lifetime of Immunization records accessible and secure.



Free, Confidential, and Secure.



Generate helpful reports and resources, such as:

- Ad Hoc Reports that pull information specific to an organization or client.
- Reminder/Recall Report to create reminder letters, cards, and other reminder resource tools.



Provide clients with official immunization history records.



Forecasting future recommended vaccines



Create and manage school and childcare lists.



Receive assistance from our live customer services support team. Monday through Friday, 8-5 p.m., 1-800-348-9158.



Use our improved EMR Data Exchange with its HL7 interface to generate and submit data.



Access to records, 24 hours a day, 7 days a week. Learn more at [ImmTrac.com](https://www.immtrac.com).

The Texas Immunization Registry provides one convenient secure location for immunization records for children and adults.

To learn more, contact our customer support team at **1-800-348-9158** or email: **ImmTrac2@dshs.texas.gov**.



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Stock No. 11-15324
Rev. 03/2020



APIC

Spreading knowledge.
Preventing infection.™

Join APIC-Texas Panhandle

We are seeking active APIC members and non members to join our organizational chapter. The mission of APIC is to advance the science and practice of infection prevention and control. The Texas Panhandle chapter:

- educates healthcare personnel and public health about infectious diseases
- provides the most updated guidance from APIC, CDC, CSTE, WHO, and ACIP
- connect with other frontline members involved in acute care, long term care and outpatient facilities

Texas Panhandle services the South Plains, New Mexico and Oklahoma. Membership to APIC is recommended to join but not required. Our chapter meets monthly online via Zoom and hosts one annual in-person meeting.

For questions about the chapter or to join Texas Panhandle, contact Tiffany Torres ttorres@mylubbock.us or scan the QR code below.



Reporting Respiratory Outbreaks

Reporting Guidance

As of March 2024, Texas no longer requires reporting of most individual COVID-19 cases.

There are some situations in which COVID-19 and other respiratory illnesses are reportable. They include outbreaks or an unusual group expression of the disease.

With the evolving landscape of respiratory surveillance, DSHS recommends the following prioritization to focus resources on areas of highest impact:



Priority 1

Reported COVID-19-associated outbreak(s) and other respiratory illnesses in any population or facility. Includes nursing homes, assisted-living facilities, day cares, correctional facilities, schools, camps, and mass gatherings.



Priority 2

Unusual group expression of COVID-19 and other respiratory illnesses that may be of public health concern per Texas Administrative Code Rule 97.3 should be reported as soon as possible.



phr1.epireporting@dshs.texas.gov



DSHS PHR 1 Epidemiology: 806-783-6448

**Point your camera
here to learn more
about reporting
respiratory outbreaks.**



DSHS Northwest Texas

Public Health Region 1 Serving You



TEXAS
Health and Human
Services

Texas Department of State
Health Services

dshs.texas.gov/region1

Respiratory Virus Guidance Snapshot

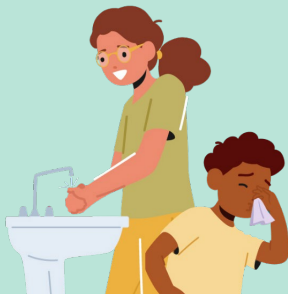
Core prevention strategies

CORE STRATEGIES

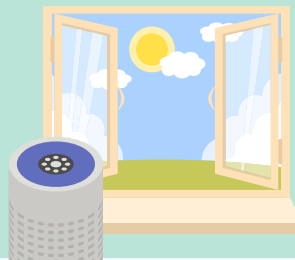
Immunizations



Hygiene



Steps for Cleaner Air



Treatment



Stay Home and Prevent Spread*



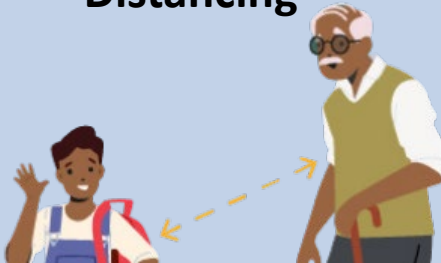
ADDITIONAL STRATEGIES

Additional prevention strategies

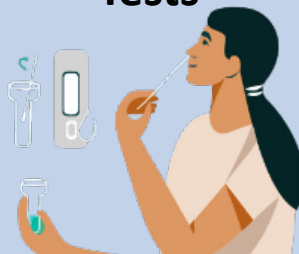
Masks



Distancing



Tests



Layering prevention strategies can be especially helpful when:

- ✓ Respiratory viruses are causing a lot of illness in your community
- ✓ You or those around you have risk factors for severe illness
- ✓ You or those around you were recently exposed, are sick, or are recovering

***Stay home and away from others until, for 24 hours BOTH:**



Your symptoms are getting better



You are fever-free (without meds)



Then take added precaution for the next 5 days

Infection Control for Respiratory Viruses

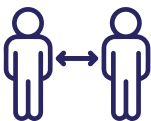
Use the following infection control measures to prevent and slow the spread of respiratory infections in your facility.



Use of well-fitting masks or respirators, that cover a person's mouth and nose, can prevent the spread of germs when people are breathing, talking, sneezing, or coughing.



Encourage everyone in your facility to get recommended vaccinations. Vaccination is a safe and effective strategy for reducing disease spread and staff absenteeism.



Practice physical distancing, particularly in shared spaces such as waiting rooms, and implement screening and triage procedures. Use signs as visual reminders for patients, implement rapid screening, and separate symptomatic patients as soon as possible.



Practice respiratory hygiene and cough etiquette and encourage others to do the same. Provide masks, tissues, and no-touch receptacles for tissue disposal at facility entrances, triage areas, and waiting rooms.



Clean your hands regularly with an alcohol-based hand sanitizer or soap and water. Share key messages and reminders within in your facility by using CDC's [Clean Hands Count](#) resources.



Clean and disinfect regularly. Lobby areas, cafeterias, and waiting rooms are all high-traffic spaces where germs can spread. It's also important to disinfect reusable devices and not reuse disposable items.



Check that the air handling in your facility is functioning as it should. Make sure air vents aren't blocked, and consult with facilities management to ensure the heating, ventilation, and air conditioning, or HVAC, system is working efficiently for proper ventilation.

For more information on infection control recommendations for healthcare settings, visit

<https://bit.ly/3O1UXhM>

www.cdc.gov/ProjectFirstline

**WE HAVE THE POWER
TO STOP INFECTIONS.
TOGETHER.**



Medidas de control de infecciones para virus respiratorios

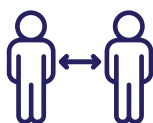
Use las siguientes medidas de control de infecciones para prevenir y desacelerar la propagación de infecciones respiratorias en su centro médico.



El uso de mascarillas o respiradores que se ajusten bien y cubran la boca y la nariz puede prevenir la propagación de microbios cuando las personas respiran, hablan, estornudan o tosen.



Anime a todas las personas en su centro médico a que se pongan las vacunas recomendadas. La vacunación es una estrategia segura y eficaz para reducir la propagación de enfermedades y el ausentismo del personal.



Practique el distanciamiento físico, especialmente en los lugares compartidos, como las salas de espera, e implemente procedimientos de detección y triaje. Use carteles como recordatorios visuales para los pacientes, implemente pruebas rápidas de detección y separe a los pacientes sintomáticos lo antes posible.



Practique la higiene respiratoria y precauciones al toser y anime a los demás a hacer lo mismo. Proporcione mascarillas, pañuelos desechables y recipientes que no se tengan que tocar para desecharlos en las entradas del centro médico, así como en áreas de triaje y salas de espera.



Límpiese las manos regularmente con un desinfectante de manos a base de alcohol o con agua y jabón. Comparta mensajes clave en su centro médico mediante el uso de los recursos de la campaña [Las Manos Limpias Cuentan](https://www.cdc.gov/campaigns/cleanhands/) de los CDC.



Limpie y desinfecte con regularidad. Las áreas de entrada, las cafeterías y las salas de espera son espacios con mucho tránsito de personas donde los microbios se pueden propagar. También es importante desinfectar los dispositivos reutilizables y no volver a usar los artículos desechables.



Verifique que el sistema de circulación de aire en su centro médico esté funcionando adecuadamente. Asegúrese de que las rejillas de ventilación no estén obstruidas y consulte con la gerencia del centro médico para cerciorarse de que el sistema de calefacción, ventilación y aire acondicionado (HVAC) esté funcionando de forma eficiente para que haya una ventilación adecuada.

Para obtener más información sobre las recomendaciones de control de infecciones en entornos de atención médica, consulte

<https://bit.ly/3O1UXhM>



COVID-19

Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

Updated Mar. 18, 2024

Summary of Recent Changes

Updates as of September 23, 2022



- In most circumstances, asymptomatic HCP with higher-risk exposures **do not** require work restriction.
- Updated recommendations for testing frequency to detect potential for variants with shorter incubation periods and to address the risk for false negative antigen tests in people without symptoms.

[Previous updates](#)

Key Points

- In general, asymptomatic HCP who have had a higher-risk exposure do not require work restriction, regardless of vaccination status, if they do not develop symptoms or test positive for SARS-CoV-2.

Background

This interim guidance is intended to assist with the following:

1. Determining the duration of restriction from the workplace for HCP with SARS-CoV-2 infection.
2. Assessment of risk and application of workplace restrictions for asymptomatic HCP with exposure to SARS-CoV-2.

Guidance addressing recommended infection prevention and control practices including use of source control by HCP is available in [Infection Control: Severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\)](#)

Employers should be aware that other local, territorial, tribal, state, and federal requirements may apply, including those promulgated by the Occupational Safety and Health Administration (OSHA).

Evaluating Healthcare Personnel with Symptoms of SARS-CoV-2 Infection

HCP with even mild symptoms of COVID-19 should be prioritized for viral testing with nucleic acid or antigen detection assays.

When testing a person with symptoms of COVID-19, negative results from at least one viral test indicate that the person most likely does not have an active SARS-CoV-2 infection at the time the sample was collected.

- If using NAAT (molecular), a single negative test is sufficient in most circumstances. If a higher level of clinical suspicion for SARS-CoV-2 infection exists, consider maintaining work restrictions and confirming with a second negative NAAT.
- If using an antigen test, a negative result should be confirmed by either a negative NAAT (molecular) or second negative antigen test taken 48 hours after the first negative test.

For HCP who were initially suspected of having COVID-19 but, following evaluation, another diagnosis is suspected or confirmed, return-to-work decisions should be based on their other suspected or confirmed diagnoses.

Return to Work Criteria for HCP with SARS-CoV-2 Infection

The following are criteria to determine when HCP with SARS-CoV-2 infection could return to work and are influenced by severity of symptoms and presence of immunocompromising conditions. After returning to work, HCP should self-monitor for symptoms and seek re-evaluation from occupational health if symptoms recur or worsen. If symptoms recur (e.g., rebound) these HCP should be restricted from work and follow recommended practices to prevent transmission to others (e.g., use of well-fitting source control) until they again meet the healthcare criteria below to return to work unless an alternative diagnosis is identified.

HCP with [mild to moderate illness](#) who are *not* [moderately to severely immunocompromised](#) could return to work after the following criteria have been met:

- At least 7 days have passed *since symptoms first appeared* if a negative viral test* is obtained within 48 hours prior to returning to work (or 10 days if testing is not performed or if a positive test at day 5-7), **and**
- At least 24 hours have passed *since last fever* without the use of fever-reducing medications, **and**
- Symptoms (e.g., cough, shortness of breath) have improved.

*Either a NAAT (molecular) or antigen test may be used. If using an antigen test, HCP should have a negative test obtained on day 5 and again 48 hours later

HCP who were asymptomatic throughout their infection and are *not* [moderately to severely immunocompromised](#) could return to work after the following criteria have been met:

- At least 7 days have passed since the date of their first positive viral test if a negative viral test* is obtained within 48 hours prior to returning to work (or 10 days if testing is not performed or if a positive test at day 5-7).

*Either a NAAT (molecular) or antigen test may be used. If using an antigen test, HCP should have a negative test obtained on day 5 and again 48 hours later

HCP with **severe to critical illness** who are **not moderately to severely immunocompromised** could return to work after the following criteria have been met:

- At least 10 days and up to 20 days have passed *since symptoms first appeared*, **and**
- At least 24 hours have passed *since last fever* without the use of fever-reducing medications, **and**
- Symptoms (e.g., cough, shortness of breath) have improved.
- The test-based strategy as described below for moderately to severely immunocompromised HCP can be used to inform the duration of work restriction.

The exact criteria that determine which HCP will shed replication-competent virus for longer periods are not known. Disease severity factors and the presence of immunocompromising conditions should be considered when determining the appropriate duration for specific HCP. For a summary of the literature, refer to [Preventing Spread of Respiratory Viruses When You're Sick](#).

HCP who are **moderately to severely immunocompromised** may produce replication-competent virus beyond 20 days after symptom onset or, for those who were asymptomatic throughout their infection, the date of their first positive viral test.

- Use of a test-based strategy (as described below) and consultation with an infectious disease specialist or other expert and an occupational health specialist is recommended to determine when these HCP may return to work.

Test-based strategy

HCP who are symptomatic could return to work after the following criteria are met:

- Resolution of fever without the use of fever-reducing medications, **and**
- Improvement in symptoms (e.g., cough, shortness of breath), **and**
- Results are negative from at least two consecutive respiratory specimens collected 48 hours apart (total of two negative specimens) tested using an antigen test or NAAT.

HCP who are not symptomatic could return to work after the following criteria are met:

- Results are negative from at least two consecutive respiratory specimens collected 48 hours apart (total of two negative specimens) tested using an antigen test or NAAT.

Return to Work Criteria for HCP Who Were Exposed to Individuals with Confirmed SARS-CoV-2 Infection

Exposures that might require testing and/or restriction from work can occur both while at work and in the community. Higher-risk exposures generally involve exposure of HCP's eyes, nose, or mouth to material potentially containing SARS-CoV-2, particularly if these HCP were present in the room for an [aerosol-generating procedure](#).

Other exposures not classified as higher-risk, including having body contact with the patient (e.g., rolling the patient) without gown or gloves, may impart some risk for transmission, particularly if hand hygiene is not performed and HCP then touch their eyes, nose, or mouth. When classifying potential exposures, specific factors associated with these exposures (e.g., quality of ventilation, use of PPE and source control) should be evaluated on a case-by-case basis. These factors might raise or lower the level of risk; interventions, including restriction from work, can be adjusted based on the estimated risk for transmission.

For the purposes of this guidance, higher-risk exposures are classified as HCP who had prolonged¹ close contact² with a patient, visitor, or HCP with confirmed SARS-CoV-2 infection³ and:

- HCP was not wearing a respirator (or if wearing a facemask, the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask)⁴
- HCP was not wearing eye protection if the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask
- HCP was not wearing all recommended PPE (i.e., gown, gloves, eye protection, respirator) while present in the room for an aerosol-generating procedure

Following a higher-risk exposure, HCP should:

- Have a series of three viral tests for SARS-CoV-2 infection.
 - Testing is recommended immediately (but not earlier than 24 hours after the exposure) and, if negative, again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test. This will typically be at day 1 (where day of exposure is day 0), day 3, and day 5.
 - Due to challenges in interpreting the result, testing is generally not recommended for asymptomatic people who have recovered from SARS-CoV-2 infection in the prior 30 days. Testing should be considered for those who have recovered in the prior 31-90 days; however, an antigen test instead of NAAT is recommended. This is because some people may remain NAAT positive but not be infectious during this period.
- Follow all [recommended infection prevention and control practices](#), including wearing well-fitting source control, monitoring themselves for fever or [symptoms consistent with COVID-19](#), and not reporting to work when ill or if testing positive for SARS-CoV-2 infection.
- Any HCP who develop fever or [symptoms consistent with COVID-19](#) should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.

Work restriction is not necessary for most asymptomatic HCP following a higher-risk exposure, regardless of vaccination status. Examples of when work restriction may be considered include:

- HCP is unable to be tested or wear source control as recommended for the 10 days following their exposure;
- HCP is moderately to severely immunocompromised;
- HCP cares for or works on a unit with patients who are moderately to severely immunocompromised;
- HCP works on a unit experiencing ongoing SARS-CoV-2 transmission that is not controlled with initial interventions;

If work restriction is recommended, HCP could return to work after either of the following time periods:

- HCP can return to work after day 7 following the exposure (day 0) if they do not develop symptoms and all viral testing as described for asymptomatic HCP following a higher-risk exposure is negative.
- If viral testing is not performed, HCP can return to work after day 10 following the exposure (day 0) if they do not develop symptoms.

In addition to above:

- HCP should follow all [recommended infection prevention and control practices](#), including wearing well-fitting source control, monitoring themselves for fever or [symptoms consistent with COVID-19](#), and not reporting to work when ill or if testing positive for SARS-CoV-2 infection.
- Any HCP who develop fever or [symptoms consistent with COVID-19](#) should immediately contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.

HCP with travel or community exposures should consult their occupational health program for guidance on need for work restrictions. In general, HCP who have had prolonged close contact with someone with SARS-CoV-2 in the community (e.g., household contacts) should be managed as described for higher-risk occupational exposures above.

Footnotes:

1. For this guidance an exposure of 15 minutes or more is considered prolonged. This could refer to a single 15-minute exposure to one infected individual or several briefer exposures to one or more infected individuals adding up to at least 15 minutes during a 24-hour period. However, the presence of extenuating factors (e.g., exposure in a confined space, performance of aerosol-generating procedure) could warrant more aggressive actions even if the cumulative duration is less than 15 minutes. For example, **any duration** should be considered prolonged if the exposure occurred during performance of an [aerosol generating procedure](#).
2. For this guidance it is defined as: a) being within 6 feet of a person with confirmed SARS-CoV-2 infection or b) having unprotected direct contact with infectious secretions or excretions of the person with confirmed SARS-CoV-2 infection. Distances of more than 6 feet might also be of concern, particularly when exposures occur over long periods of time in indoor areas with poor ventilation.
3. Determining the time period when the patient, visitor, or HCP with confirmed SARS-CoV-2 infection could have been infectious:
 - a. For individuals with confirmed COVID-19 who developed symptoms, consider the exposure window to be 2 days before symptom onset through the time period when the individual meets [criteria for discontinuation of Transmission-Based Precautions](#)
 - b. For individuals with confirmed SARS-CoV-2 infection who never developed symptoms, determining the infectious period can be challenging. In these situations, collecting information about when the asymptomatic individual with SARS-CoV-2 infection may have been exposed could help inform the period when they were infectious.
 - i. If the date of exposure cannot be determined, although the infectious period could be longer, it is reasonable to use a starting point of 2 days prior to the positive test through the time period when the individual meets criteria for discontinuation of Transmission-Based Precautions for contact tracing.
4. While respirators confer a higher level of protection than facemasks and are recommended when caring for patients with SARS-CoV-2 infection, facemasks still confer some level of protection to HCP, which was factored into this risk assessment if the patient was also wearing a cloth mask or facemask

Definitions:

Healthcare Personnel (HCP): HCP refers to all paid and unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials, including body substances (e.g., blood, tissue, and specific body fluids); contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air. HCP include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, home healthcare personnel, physicians, technicians, therapists, phlebotomists, pharmacists, dental healthcare personnel, students and trainees, contractual staff not employed by the healthcare facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel). For this guidance, HCP does not include clinical laboratory personnel.

Immunocompromised: For the purposes of this guidance, moderate to severely immunocompromising conditions include, but might not be limited to, those defined in the [Interim Clinical Considerations for Use of COVID-19 Vaccines](#).

- Other factors, such as end-stage renal disease, may pose a much lower degree of immunocompromise and not clearly affect decisions about need for work restriction if the HCP had close contact with someone with SARS-CoV-2 infection. However, people in this category should still consider continuing to practice physical distancing and use of source control while in a healthcare facility, even if they have received all COVID-19 vaccine doses, including booster dose, as recommended by [CDC](#).
- Ultimately, the degree of immunocompromise for the HCP is determined by the treating provider, and preventive actions are tailored to each individual and situation.

SARS-CoV-2 Illness Severity Criteria (adapted from the NIH COVID-19 Treatment Guidelines)

The studies used to inform this guidance did not clearly define “severe” or “critical” illness. This guidance has taken a conservative approach to define these categories. Although not developed to inform decisions about duration of Transmission-Based Precautions, the definitions in the [National Institutes of Health \(NIH\) COVID-19 Treatment Guidelines](#)  are one option for defining severity of illness categories. The highest level of illness severity experienced by the patient at any point in their clinical course should be used when determining the duration of Transmission-Based Precautions.

Mild Illness: Individuals who have any of the various signs and symptoms of COVID-19 (e.g., fever, cough, sore throat, malaise, headache, muscle pain) without shortness of breath, dyspnea, or abnormal chest imaging.

Moderate Illness: Individuals who have evidence of lower respiratory disease, by clinical assessment or imaging, and a saturation of oxygen (SpO2) $\geq 94\%$ on room air at sea level.

Severe Illness: Individuals who have respiratory frequency >30 breaths per minute, SpO2 $<94\%$ on room air at sea level (or, for patients with chronic hypoxemia, a decrease from baseline of $>3\%$), ratio of arterial partial pressure of oxygen to fraction of inspired oxygen (PaO2/FiO2) <300 mmHg, or lung infiltrates $>50\%$.

Critical Illness: Individuals who have respiratory failure, septic shock, and/or multiple organ dysfunction.

In pediatric patients, radiographic abnormalities are common and, for the most part, should not be used as the sole criteria to define COVID-19 illness category. Normal values for respiratory rate also vary with age in children; thus, hypoxia should be the primary criterion to define severe illness, especially in younger children.

Fever: For the purpose of this guidance, fever is defined as subjective fever (feeling feverish) or a measured temperature of 100.0°F (37.8°C) or higher. Note that fever may be intermittent or may not be present in some people, such as those who are elderly, immunocompromised, or taking certain fever-reducing medications (e.g., nonsteroidal anti-inflammatory drugs [NSAIDs]).

Facemask: OSHA defines facemasks as “a surgical, medical procedure, dental, or isolation mask that is FDA-cleared, authorized by an FDA EUA, or offered or distributed as described in an FDA enforcement policy. Facemasks may also be referred to as ‘medical procedure masks’.” Facemasks should be used according to product labeling and local, state, and federal requirements. FDA-cleared surgical masks are designed to protect against splashes and sprays and are prioritized for use when such exposures are anticipated, including surgical procedures. Other facemasks, such as some procedure masks, which are typically used for isolation purposes, may not provide protection against splashes and sprays.

Respirator: A respirator is a personal protective device that is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer’s risk of inhaling hazardous airborne particles (including dust particles and infectious agents), gases, or vapors. Respirators are certified by CDC/NIOSH, including those intended for use in healthcare.

Cloth mask: Textile (cloth) covers that are intended primarily for source control in the community. **They are not personal protective equipment (PPE) appropriate for use by healthcare personnel.** Guidance on design, use, and maintenance of cloth masks is available.

More Information

[Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 \(COVID-19\) Pandemic](#)

[Strategies to Mitigate Healthcare Personnel Staffing Shortages](#)

Summary of Changes

As of December 23, 2021

Due to concerns about increased transmissibility of the SARS-CoV-2 Omicron variant, this guidance is being updated to enhance protection for healthcare personnel (HCP), patients, and visitors, and to address concerns about potential impacts on the healthcare system given a surge of SARS-CoV-2 infections. These updates will be refined as additional information becomes available to inform recommended actions.

- Ensure that SARS-CoV-2 testing is performed with a test that is [capable of detecting](#)  SARS-CoV-2, even with currently circulating variants in the United States.
- Updated recommendations regarding when HCP with SARS-CoV-2 infection could return to work
- The definition of higher-risk exposure was updated to include use of a facemask (instead of a respirator) by HCP if the infected patient is not also wearing a facemask or cloth mask.
- Added options that would allow asymptomatic HCP with a higher-risk exposure who have not received all COVID-19 vaccine doses, including booster dose, as recommended by [CDC](#) to return to work prior to the previously recommended 14-day post-exposure period of work restriction, assuming they do not develop symptoms or test positive for SARS-CoV-2.

As of September 10, 2021

The interim guidance was updated to:

- Combine information from previously posted CDC guidance addressing when healthcare personnel (HCP) with SARS-CoV-2 infection could return to work and risk assessment and work restriction for HCP with higher-risk exposure to SARS-CoV-2
- Clarify the recommended intervals for testing asymptomatic HCP with a higher-risk exposure.

As of March 10, 2021

- Clarified that asymptomatic HCP who are fully vaccinated and have a higher-risk exposure as described in this guidance do not need to be restricted from work; [possible exceptions and additional information is available](#).

As of February 16, 2021:

- Clarified that work restriction of asymptomatic HCP with a higher-risk exposure who have recovered from SARS-CoV-2 infection in the prior 3 months might not be necessary. [Additional information about this scenario is available](#).
- Clarified that work restriction of fully vaccinated HCP with a higher-risk exposure continues to be recommended. [Additional information is available](#).

Updates as of Dec 14, 2020:

- Include a link to the Interim Guidance on Testing Healthcare Personnel for SARS-CoV-2, which provides guidance on testing potentially exposed healthcare personnel.
- Clarify that, in general, healthcare personnel with travel or community-associated exposures where quarantine is recommended should be excluded from work for 14 days after their last exposure.

Use Personal Protective Equipment (PPE) When Caring for Patients with Confirmed or Suspected COVID-19

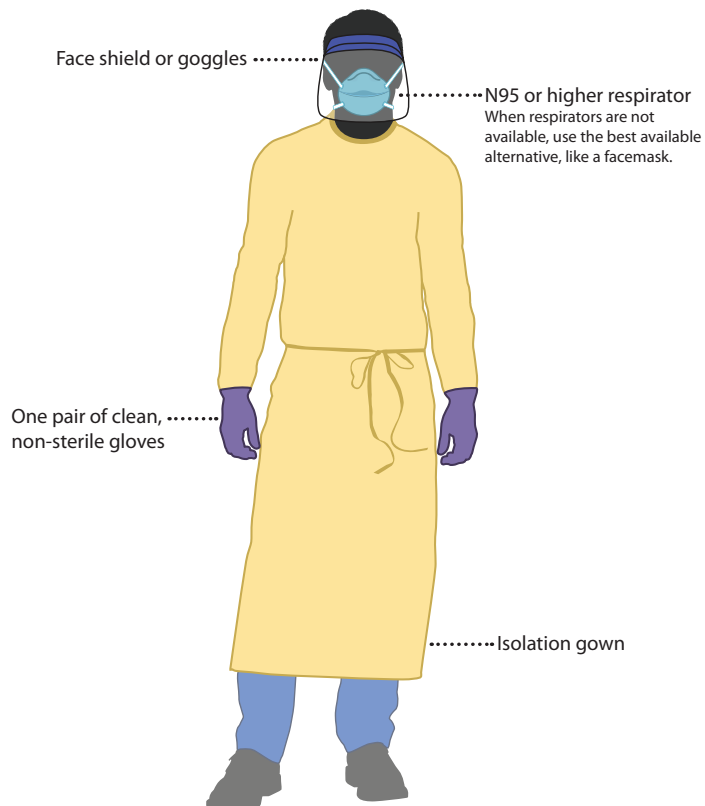
Before caring for patients with confirmed or suspected COVID-19, healthcare personnel (HCP) must:

- **Receive comprehensive training** on when and what PPE is necessary, how to don (put on) and doff (take off) PPE, limitations of PPE, and proper care, maintenance, and disposal of PPE.
- **Demonstrate competency** in performing appropriate infection control practices and procedures.

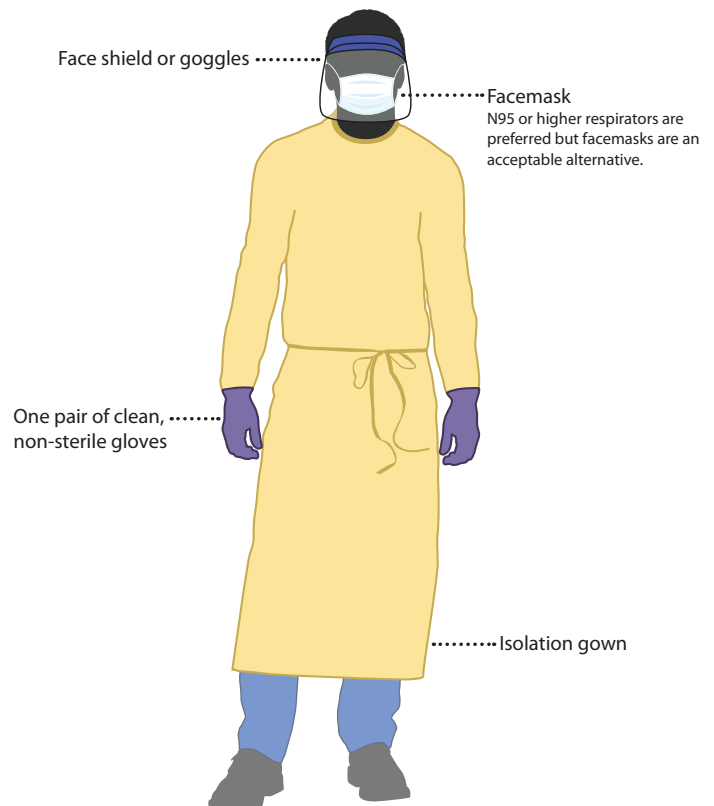
Remember:

- PPE must be donned correctly before entering the patient area (e.g., isolation room, unit if cohorting).
- PPE must remain in place and be worn correctly for the duration of work in potentially contaminated areas. PPE should not be adjusted (e.g., retying gown, adjusting respirator/facemask) during patient care.
- PPE must be removed slowly and deliberately in a sequence that prevents self-contamination. A step-by-step process should be developed and used during training and patient care.

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask



www.cdc.gov/coronavirus

Donning (putting on the gear):

More than one donning method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of donning.

1. **Identify and gather the proper PPE to don.** Ensure choice of gown size is correct (based on training).
2. **Perform hand hygiene using hand sanitizer.**
3. **Put on isolation gown.** Tie all of the ties on the gown. Assistance may be needed by another HCP.
4. **Put on NIOSH-approved N95 filtering facepiece respirator or higher (use a facemask if a respirator is not available).** If the respirator has a nosepiece, it should be fitted to the nose with both hands, not bent or tented. Do not pinch the nosepiece with one hand. Respirator/facemask should be extended under chin. Both your mouth and nose should be protected. Do not wear respirator/facemask under your chin or store in scrubs pocket between patients.*
 - » **Respirator:** Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap). Perform a user seal check each time you put on the respirator.
 - » **Facemask:** Mask ties should be secured on crown of head (top tie) and base of neck (bottom tie). If mask has loops, hook them appropriately around your ears.
5. **Put on face shield or goggles.** When wearing an N95 respirator or half facepiece elastomeric respirator, select the proper eye protection to ensure that the respirator does not interfere with the correct positioning of the eye protection, and the eye protection does not affect the fit or seal of the respirator. Face shields provide full face coverage. Goggles also provide excellent protection for eyes, but fogging is common.
6. **Put on gloves.** Gloves should cover the cuff (wrist) of gown.
7. **HCP may now enter patient room.**

Doffing (taking off the gear):

More than one doffing method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of doffing.

1. **Remove gloves.** Ensure glove removal does not cause additional contamination of hands. Gloves can be removed using more than one technique (e.g., glove-in-glove or bird beak).
2. **Remove gown.** Untie all ties (or unsnap all buttons). Some gown ties can be broken rather than untied. Do so in gentle manner, avoiding a forceful movement. Reach up to the shoulders and carefully pull gown down and away from the body. Rolling the gown down is an acceptable approach. Dispose in trash receptacle.*
3. **HCP may now exit patient room.**
4. **Perform hand hygiene.**
5. **Remove face shield or goggles.** Carefully remove face shield or goggles by grabbing the strap and pulling upwards and away from head. Do not touch the front of face shield or goggles.
6. **Remove and discard respirator (or facemask if used instead of respirator).*** Do not touch the front of the respirator or facemask.
 - » **Respirator:** Remove the bottom strap by touching only the strap and bring it carefully over the head. Grasp the top strap and bring it carefully over the head, and then pull the respirator away from the face without touching the front of the respirator.
 - » **Facemask:** Carefully untie (or unhook from the ears) and pull away from face without touching the front.
7. **Perform hand hygiene after removing the respirator/facemask** and before putting it on again if your workplace is practicing reuse.

**Facilities implementing reuse or extended use of PPE will need to adjust their donning and doffing procedures to accommodate those practices.*



What is RSV

Respiratory Syncytial Virus



What Is RSV?

RSV is a highly contagious virus that affects the respiratory system, which includes the lungs and breathing passages. Most people who get RSV recover quickly but it can be serious for infants and older adults. RSV is the most common cause of hospitalization in U.S. infants.

What Is Nirsevimab?

Nirsevimab (Beyfortus) is an immunization designed to help prevent RSV in infants through their first RSV season. The immunization is recommended for all infants younger than eight months who are born during or entering their first RSV season.

Where Can Infants Get Nirsevimab?

Nirsevimab is covered by the Texas Vaccines for Children (TVFC) program, a state funded program that provides vaccines at a low administrative cost to those who qualify.

When Should Infants Get Immunized?

Infants should get nirsevimab during the RSV season. This starts in the fall and peaks in the winter. Talk to your child's health care provider about the right time for your child to be immunized based on your community's RSV season.

Who Should Get Vaccinated?

Nirsevimab is recommended for all infants younger than 8 months born during RSV season.

Infants younger than 8 months who were born before or after the RSV season should receive nirsevimab before the start of their first RSV season.

Infants and young children 8 through 19 months of age who are at risk for severe RSV disease should receive the immunization before the start of their second RSV season.

Those Who Are Most At Risk:

- ⚠️ Premature or have chronic lung disease
- ⚠️ Severe cystic fibrosis
- ⚠️ The severely immunocompromised
- ⚠️ American Indian or Alaskan native



Immunization Timeline Example

If your child is born in December, a single dose of nirsevimab is recommended within one week after birth.

If your child is born in June, it is recommended a single dose be given to infants (younger than eight months) before the start of their first RSV season.



TEXAS
Health and Human
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**Texas Department of State
Health Services**

What is RSV

Respiratory Syncytial Virus



What Is RSV?

Respiratory Syncytial Virus Infection (RSV) is a highly contagious virus that affects the respiratory system, which includes the lungs and breathing passages. Most people who get RSV recover quickly but it can be serious for infants and young children, pregnant women, and older adults.

What RSV Vaccines Are Available?

- Abrysvo is recommended for pregnant women in weeks 32-36 during pregnancy.
- Any FDA-licensed RSV vaccine is recommended for all adults ages 75 and older and adults ages 60-74 with increased risk of severe illness.

When Should Adults Get Vaccinated?

RSV vaccines are typically administered before or during the RSV season, September – January. Consult healthcare providers about vaccine eligibility, timing, and any potential risks or side effects.



Protect yourself and others, find more information on where to get vaccinated. Scan the QR code to learn more

Who Should Get Vaccinated?

RSV can lead to severe illness and hospitalizations in vulnerable populations.

Adults ages 75 and older: This population is at higher risk of severe RSV complications.

Adults ages 60-74 with underlying medical conditions.

Those Who Are Most At Risk:

- ⚠️ Chronic heart or lung disease
- ⚠️ The severely immunocompromised
- ⚠️ Underlying health conditions
- ⚠️ Living in nursing homes



RSV And Pregnancy

RSV is especially dangerous to infants. Pregnant women between 32-36 weeks of pregnancy should be vaccinated during RSV season.

This passive immunity helps protect the baby during the critical first few months of life, when they are most vulnerable to severe RSV infections and not old enough to get vaccinated against RSV.

Little immune systems deserve a fighting chance

Respiratory Syncytial Virus (RSV) is a seasonal virus that can be dangerous for babies. Babies under a year old, especially those six months or younger, and infants with chronic illness are at the highest risk. Babies between 8 and 19 months old who are entering their second RSV season may be at increased risk if they have another severe disease.

Signs and Symptoms



Congestion



Fever



Runny nose



RSV is transmitted in similar ways to colds or the flu. Avoid kissing or holding baby while sick.



Short, rapid breathing



Irritability



Trouble feeding



Decreased appetite



Worsening cough

RSV Facts



It's Common

Two out of three babies will get RSV by age one.



It's Serious

RSV is the top reason babies go to the hospital.



It's Seasonal

RSV typically runs from fall to spring.



It's Up To You

Keeping surfaces clean and staying away from sick people can lower your chance of illness.



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Texas Department of State
Health Services

Texas Department of State Health Services
Immunizations Section
Stock # 23-XXXXXX
Rev 9/24

Treating Influenza (Flu)



Information for People at High Risk for Serious Flu Complications



Do you have Asthma, Chronic Obstructive Pulmonary Disease, Diabetes, or Heart Disease?

If so, you are at high risk of serious illness if you get flu. Treatment with an influenza antiviral drug can mean the difference between having milder illness instead of very serious illness that could result in a hospital stay. This fact sheet provides information about using prescription antiviral drugs to treat influenza in people at high risk for serious flu complications.

Why am I at greater risk of serious flu complications?

Your medical condition makes it more likely that you will get complications from flu, like pneumonia. Flu also can make long-term health problems worse, even if they are well-managed. People with asthma, chronic obstructive pulmonary disease, or heart failure may experience worsening of their conditions and have difficulty breathing. Diabetes (type 1 and 2) can make the immune system less able to fight flu. Also, flu illness can raise blood sugar levels.

Can flu be treated?

Yes. There are prescription medications called “antiviral drugs” that can be used to treat influenza illness. Antiviral drugs fight influenza viruses in your respiratory tract. They are different from antibiotics, which fight against bacterial infections.

What should I do if I think I have flu?

Check with your doctor promptly if you are in a group at high risk for serious complications and you get flu symptoms. Symptoms of flu can include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills, and fatigue. If you get flu, antiviral drugs are a treatment option. Your doctor may prescribe antiviral drugs to treat your flu illness.

Should I still get a flu vaccine?

Yes. Antiviral drugs are not a substitute for getting a flu vaccine. While flu vaccines can vary in how they work, flu vaccination is the first and best way to prevent influenza. You should receive flu vaccine every year. Antiviral drugs are a second line of defense to treat flu if you get sick.

What are the benefits of antiviral drugs?

Antiviral treatment works best when started within two days of getting symptoms. Antiviral drugs can lessen fever and other symptoms and shorten the time you are sick by about one day. They also can prevent serious flu complications, like pneumonia when treatment is started early.

For people at high risk of serious flu complications, early treatment with an antiviral drug can mean the difference between having a milder illness instead of a more serious illness that could result in a hospital stay. For adults hospitalized with flu illness, some studies have reported that early antiviral treatment can reduce the risk of death.

What antiviral drugs are recommended?

There are four FDA-approved influenza antiviral drugs recommended by CDC: oseltamivir (available as a generic version or under the trade name Tamiflu®), zanamivir (trade name Relenza®), peramivir (trade name Rapivab®), and baloxavir marboxil (trade name Xofluza®). Oseltamivir is available as a pill or liquid, and zanamivir is a powder that is inhaled. Peramivir is administered intravenously by a health care provider. Baloxavir is a pill given as a single dose by mouth.



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Centers for Disease
Control and Prevention

Health and age factors known to increase a person's risk for developing flu-related complications:

- Asthma
- Neurological and neurodevelopmental conditions
- Blood disorders (such as sickle cell disease)
- Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
- Endocrine disorders (such as diabetes mellitus)
- Heart disease (such as congenital heart disease, congestive heart failure, and coronary artery disease)
- Kidney disorders
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
- People who are obese with a body mass index [BMI] of 40 or higher
- People younger than 19 years of age on long-term aspirin- or salicylate-containing medications
- People with a weakened immune system due to disease or medication (such as people with HIV or AIDS, or some cancers such as leukemia) or medications (such as those receiving chemotherapy or radiation treatment for cancer, or persons with chronic conditions requiring chronic corticosteroids or other drugs that suppress the immune system)

Other people at high risk from the flu:

- Adults 65 years and older
- Children younger than 2 years old¹
- Pregnant women and women up to 2 weeks after the end of pregnancy
- American Indians and Alaska Natives
- People who live in nursing homes and other long-term-care facilities

¹ Although all children younger than 5 years old are considered at high risk for serious flu complications, the highest risk is for those younger than 2 years old, with the highest hospitalization and death rates among infants younger than 6 months old, younger than 6 months old.

What are the possible side effects of antiviral drugs?

Side effects vary for each medication. For example, the most common side effects for oseltamivir are nausea and vomiting, zanamivir can cause wheezing and difficulty breathing (bronchospasm), and peramivir can cause diarrhea.

Other less common side effects also have been reported. Your health care provider can give you more information about these drugs, or you can check the Food and Drug Administration (FDA) website for specific information about antiviral drugs, including the manufacturer's package insert.

When should antiviral drugs be taken for treatment?

Studies show that flu antiviral drugs work best for treatment when started within two days of getting sick. However, starting them later can still be helpful, especially if the sick person is in a group at high risk for serious complications (see list in sidebar) or is very sick from flu (for example, hospitalized from flu). Follow your health care provider's instructions for taking these drugs. These antiviral drugs are given in different ways and are approved for different ages.

How long should antiviral drugs be taken?

To treat flu, oseltamivir and zanamivir are usually taken for 5 days, although people hospitalized with flu may need the medicine for longer than 5 days. Peramivir is given once intravenously. Baloxavir is given as a single dose.

Can children take antiviral drugs?

Yes. Oseltamivir is recommended by CDC and the American Academy of Pediatrics (AAP) for early treatment of flu in people of any age, and is approved for the prevention of flu (i.e., prophylaxis) in people 3 months and older. Zanamivir is recommended for early treatment of flu in people 7 years and older. Peramivir is recommended for early treatment of flu in people 6 months and older. Baloxavir is recommended for early treatment of flu in children aged 5 to less than 12 years without chronic medical conditions and in all persons aged 12 years and older.

Can pregnant and breastfeeding women take antiviral drugs?

Oral oseltamivir is recommended for treatment of pregnant women it has the most studies available to suggest that it is safe and beneficial during pregnancy. Baloxavir is not recommended for pregnant women or breastfeeding mothers.

Who should take antiviral drugs?

It's very important that antiviral drugs be used early to treat flu in people who are very sick with flu (for example, people who are in the hospital).

People who are sick with flu and have a high-risk factor related to a health condition like asthma, diabetes or chronic heart disease or their age. (See the full list of high-risk factors).

For more information, visit: www.cdc.gov/flu
or call 1-800-CDC-INFO

INTER-FACILITY INFECTION PREVENTION TRANSFER FORM

Affix patient label here or complete patient information below.

Patient Name:

DOB:

MRN:

This form must be completed for transfer of a patient to the receiving facility. Information should be communicated prior to and during the transfer.

TRANSFER INFORMATION

Transfer Date: Sending Facility Name, City/State:

Sending Facility Point of Contact and Phone Number (for follow up questions):

Receiving Facility Name, City/State:

ISOLATION STATUS

Currently in Isolation? ☐ Yes ☐ No (standard precautions only)

If Yes, Check Type(s) of Isolation:

☐ Contact

☐ Contact plus Hand Hygiene with Soap/Water

☐ Droplet

☐ Airborne



SIGNIFICANT INFECTIOUS DISEASE HISTORY

Does the patient have a history of any known MDRO or infectious disease? ☐ Yes ☐ No

If Yes, check box(es) below and provide supporting lab reports and antimicrobial susceptibility results, if available.

☐ *Acinetobacter*, multidrug-resistant (MDR-A)

☐ *Candida auris*

☐ Carbapenem-resistant Enterobacteriaceae (CRE)

☐ Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)

☐ *Clostridoides difficile* (C. diff.)

☐ Extended Spectrum β -lactamase (ESBL)

☐ Influenza or Influenza-like illness (ILI)

☐ Methicillin-resistant *Staphylococcus aureus* (MRSA)

☐ *Mycobacterium tuberculosis* (TB)

☐ Vancomycin-resistant *Enterococcus* (VRE)

☐ Other: (example: pertussis)

SIGNS AND SYMPTOMS

Check all that **currently** apply:

☐ Incontinent of urine

☐ Draining wounds

☐ Vomiting

☐ Rash (e.g., vesicular)

☐ Acute diarrhea or incontinent of stool

☐ Cough/uncontrolled respiratory secretions

☐ Other uncontained body fluids/drainage

☐ Other (specify):

OTHER RISK FACTORS

Is the patient currently on antibiotics? ☐ Yes (complete table below or attach medication list) ☐ No

Antibiotic	Start Date	Stop Date

Does the patient currently have any of the following devices? ☐ Yes (check all that apply) ☐ No

☐ Central line/PICC

☐ Hemodialysis Catheter

☐ Urinary Catheter

☐ Suprapubic catheter

☐ Nasogastric/PEG tube

☐ Tracheostomy

☐ Fecal management system

☐ Ventilator/Intubated

☐ Other (specify):

Cultures pending? ☐ Yes, date collected:

☐ No

Additional Comments:



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ANTIMICROBIAL RESISTANCE TESTING

CURRENTLY ACCEPTING
ISOLATES & SWABS

Testing and expedited shipping to our lab provided free of charge.

- *Candida auris** or unknown *Candida* spp.
- Carbapenem-Resistant Enterobacterales
- Carbapenem-Resistant *Pseudomonas aeruginosa*
- Carbapenem-Resistant *Acinetobacter baumannii*
- Antimicrobial Resistant *Neisseria gonorrhoeae* (AR GC)

REQUEST SUPPLIES
COLONIZATION SCREENING

Coordinate with a DSHS HAI Epidemiologist for colonization screening or to investigate potential outbreaks. Testing kits, shipping containers, and expedited delivery are provided free of charge.

Colonization Screenings can be performed for:

- Carbapenemase-producing Organism Screening
- *Candida auris* screening

QUESTIONS?

For more information on isolate submission or general inquiries, contact:

- TexasARLN@dshs.texas.gov

For Colonization Screenings:

- HAIOutbreak@dshs.texas.gov

*It is mandatory to submit isolates for positive cases of *C.auris* per Texas Administrative Code Rule §97.3.





SUBMITTING AR SAMPLES



1 BECOME A SUBMITTER

Establish a Submitter ID, or update submitter information.

Contact LabInfo@dshs.texas.gov for a Submitter ID Request Form

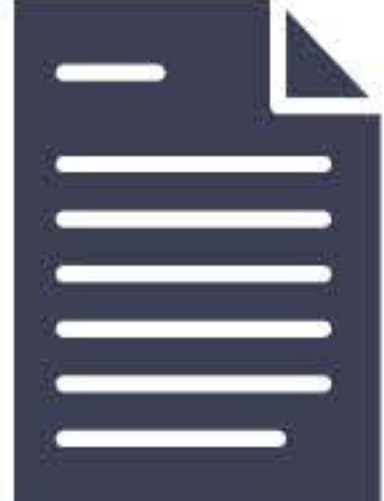
2 PREPARE YOUR SHIPMENT

Each specimen submitted should be paired with one form. Use the G-2B for GC and the G-2E for Candida and Carbapenem Resistant organisms. Complete all required sections of the form. The specimen must be labeled with two unique identifiers that match the form.

1 SAMPLE



1 FORM



SAMPLE LABEL IDENTIFIERS
MUST MATCH FORM!

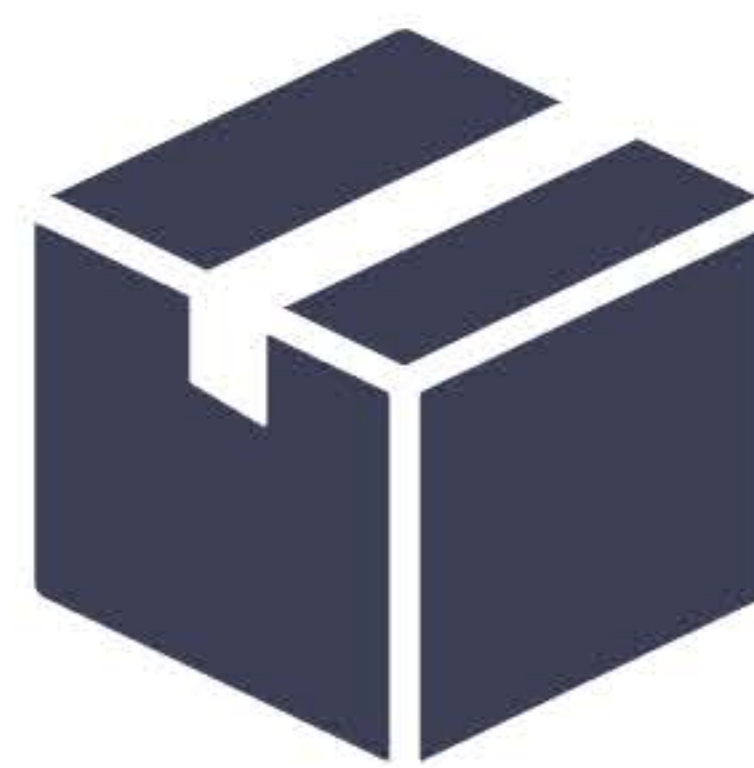


ACCEPTED
FOR
TESTING

3 SHIP TO THE DSHS LABORATORY

Shipping is free of charge using the ARLN FedEx account. **Please contact the DSHS Laboratory for ARLN FedEx instructions and to confirm shipment dates.** Shipments cannot be accepted on holidays or weekends.

- Isolates - Ship within 7 days of collection (preferred)
- CPO Swabs - Ship within 1 day of collection (required)
- C.auris Swabs - Ship within 1 day of collection (required)



Questions?

For support submitting samples, contact the DSHS Laboratory:

• TexasARLN@dshs.texas.gov

For epidemiology investigation support, contact a DSHS HAI Epidemiologist:

• HAIOutbreak@dshs.texas.gov



FIGHT ANTIMICROBIAL RESISTANCE WITH INFECTION CONTROL

Antimicrobial resistance happens when germs like bacteria and fungi develop the ability to defeat the drugs designed to kill them. That means the germs are not killed and continue to grow and spread.

As a frontline healthcare worker, you play an important role in fighting antimicrobial resistance.

When you practice infection control, you stop resistant germs from:



Entering the body and causing infections through procedures and medical devices



Spreading to people from surfaces like bedrails or the hands of healthcare workers



Moving with patients when they are transferred between facilities



Spreading into the community, making them harder to control

Infection control fights resistance by:



Infection control also protects you from getting sick and decreases the risk of spreading germs to patients.

Check out Project Firstline resources to learn more about how you can protect your patients, yourself, and your community from antimicrobial resistance.

www.cdc.gov/ProjectFirstline

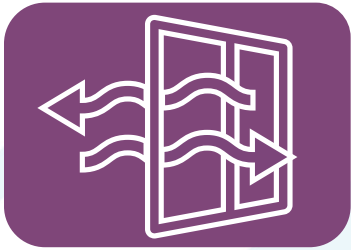
WE HAVE THE POWER
TO STOP RESISTANT
INFECTIONS. **TOGETHER**



VENTILATION IN HEALTHCARE SETTINGS

In healthcare settings, ventilation is important because it helps remove things from the air that we don't want to breathe in – like small virus particles. Good ventilation improves air quality and reduces the risk of germs spreading.

WHAT TO KNOW



Understand what an air change is and why recommended air changes per hour are important in healthcare.

- An air change means the air in a room is replaced with new air.
- Air changes are usually measured by the hour – air changes per hour (ACH).
- In healthcare facilities, nearly every type of room has a recommended number of ACHs to help reduce the risk of germs spreading among patients and staff.



Respect wait times to allow the air in rooms to clear.

- The infection prevention or clinical leaders in your area, like your nurse manager, will use the ACH to figure out how long a room should sit empty after a patient with a possible or confirmed respiratory infection has left.
- It is okay to enter a room before the air is completely cleared, including while the patient is still there, if you use the recommended personal protective equipment (PPE).



Ask before making changes to the ventilation in a room.

- Rooms are often connected in healthcare facilities.
- Making a change to the ventilation in one room – like opening a window or closing vents to adjust temperature – can change the ventilation in other places, too.
- **That's why it's important to talk to the person or team at your facility that is responsible for maintaining air filtration and ventilation if you have concerns about the ventilation in a room.**



Make sure vents are not blocked.

- A blocked vent could prevent the ventilation system from functioning like it is supposed to.



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Centers for Disease
Control and Prevention



PROJECT
FIRSTLINE
CDC's National Training Collaborative
for Healthcare Infection Prevention & Control

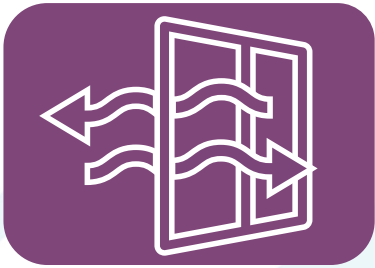
cdc.gov/ProjectFirstline

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LA VENTILACIÓN EN LOS ENTORNOS DE ATENCIÓN MÉDICA

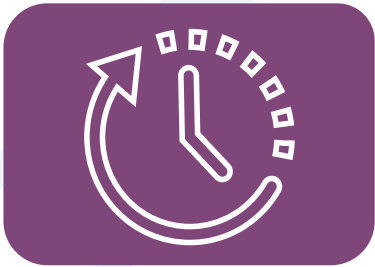
En los entornos de atención médica, la ventilación es importante porque ayuda a eliminar del aire elementos que no queremos respirar, como pequeñas partículas de virus. Una buena ventilación mejora la calidad del aire y reduce el riesgo de propagación de microbios.

LO QUE DEBE SABER



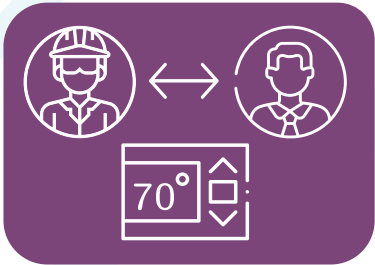
Entienda lo que es un cambio de aire y por qué los cambios de aire recomendados cada hora son importantes en la atención médica.

- Un cambio de aire significa que el aire de una habitación se reemplaza con aire nuevo.
- Los cambios de aire generalmente se miden por horas: cambios de aire por hora (ACH, por sus siglas en inglés).
- En los centros de atención médica, casi todos los tipos de habitaciones tienen una cantidad recomendada de ACH para ayudar a reducir el riesgo de propagación de microbios entre los pacientes y el personal.



Respete los tiempos de espera para permitir que el aire de las habitaciones se despeje.

- Los líderes clínicos o de prevención de infecciones de su área, como su gerente de enfermería, utilizarán el ACH para calcular cuánto tiempo debe permanecer vacía una habitación después de que se haya ido un paciente con una infección respiratoria posible o confirmada.
- Está bien entrar en una habitación antes de que el aire se haya despejado por completo, incluso mientras el paciente todavía está allí, si utiliza el equipo de protección personal (EPP) recomendado.



Pregunte antes de realizar cambios en la ventilación de una habitación.

- Las habitaciones suelen estar conectadas en los centros de atención médica.
- Hacer un cambio en la ventilación de una habitación, como abrir una ventana o cerrar las rejillas de ventilación para ajustar la temperatura, también puede cambiar la ventilación en otros lugares.
- **Por eso, si tiene preguntas sobre la ventilación de una habitación en su centro médico, es importante hablar con la persona o el equipo responsable de mantener la filtración del aire y la ventilación.**



Asegúrese de que las rejillas de ventilación no estén bloqueadas.

- Una rejilla de ventilación bloqueada podría impedir que el sistema de ventilación funcione como debería.

Meningococcal Disease Outbreaks: Information for Teens, Young Adults, and Their Parents

Meningococcal disease is a rare, but very serious bacterial illness. The best way to protect yourself or your child during an outbreak is to make sure they get vaccinated. Even if treated quickly, meningococcal disease can cause long-term problems or be deadly.

Outbreaks are rare and unpredictable

Outbreaks can occur in many settings, including

- Communities
- Schools and colleges
- Detention and correctional facilities
- Other populations

Since meningococcal disease is rare, just two cases in a setting over a few months might be considered an outbreak.

State and local health departments investigate outbreaks and determine

- Who is at increased risk during an outbreak
- How to best protect people's health and control the outbreak

Certain people are at increased risk

Anyone can get meningococcal disease, no matter their gender, age, race, ethnicity, or sexual orientation. However, being in an outbreak setting can increase someone's risk of getting meningococcal disease.



In addition, people of some ages have a higher risk than people of other ages:

- Babies
- Teens and young adults (16 to 23 year olds)
- Adults 65 years or older

Having certain medical conditions, going to college, or traveling to certain countries can increase someone's risk for getting this disease.

Vaccines, antibiotics offer protection during outbreaks

State and local health departments make sure all close contacts of someone with meningococcal disease get antibiotics. They may also recommend people at increased risk get vaccinated.

There are two types of vaccines that help protect against meningococcal disease: **MenACWY** and **MenB** vaccines. Each vaccine protects against different serotypes (strains), so it's important that the recommended vaccine matches the strain causing the outbreak.

Contact your state or local health department to learn about their vaccine recommendations during an outbreak.



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Vaccine side effects are usually mild

Meningococcal vaccines are safe. Most people who get a meningococcal vaccine do not have any serious problems with it. Side effects are usually mild and go away on their own within a few days. Serious reactions are possible, but rare.

Meningococcal bacteria are spread from person to person

People spread the bacteria that cause meningococcal disease to others through respiratory droplets and throat secretions (saliva or spit). Generally, it takes close (kissing) or lengthy (living together) contact to spread them.

Meningitis and bloodstream infection are common outcomes

With **meningococcal meningitis**, the lining of the brain and spinal cord becomes infected and swells. Symptoms include sudden onset of **fever, headache, and stiff neck**. There can be additional symptoms, such as

- Nausea and vomiting
- Eyes being more sensitive to light
- Confusion

In babies, these symptoms can be difficult to notice or may not be there at all. Instead, a baby may appear slow or inactive, be irritable, vomit, or feed poorly.

With a **meningococcal bloodstream infection**, the bacteria damage the walls of the blood vessels and cause bleeding into the skin and organs. Symptoms may include:

- Fever and chills
- Feeling tired
- Vomiting or diarrhea
- Cold hands and feet
- Severe aches or pain in the muscles, joints, chest, or belly
- Rapid breathing
- A dark purple rash

Seek medical care right away if you or your child has symptoms of meningococcal disease.

Meningococcal disease is very serious but treatable

Meningococcal disease can be treated with antibiotics. It's important that treatment be started as soon as possible. Meningococcal disease can be deadly in a matter of hours.

Vaccines are the best way to prevent meningococcal disease

Even when there isn't an outbreak, CDC recommends preteens, teens, and others get vaccinated.

Preteens, teens, and young adults

Preteens should get 1 dose of **MenACWY** vaccine at 11 or 12 years old. Teens should get a **MenACWY** booster dose at 16 years old. Teens and young adults may also be vaccinated with a **MenB** vaccine, preferably when they are between 16 and 18 years old.

Younger children and other adults

Younger children and other adults usually do not need meningococcal vaccines. However, CDC recommends one or both types of vaccines for people with

- Certain medical conditions that affect the immune system
- Travel plans to areas where the disease is common
- Laboratory jobs working with the bacteria

Talk to a doctor about which vaccines you or your child may need.

cdc.gov/meningococcal/





Increase in Pertussis Cases

November 12, 2024

Summary

The Texas Department of State Health Services (DSHS) is reporting an increase in pertussis cases in 2024 with about triple the number of cases reported so far this year compared with the same period in 2023. This follows a national trend, which has seen a more than fivefold increase in 2024 cases based on preliminary data.

DSHS advises clinicians to follow the recommendations below and report any cases to your local health department within one workday.

Background

Pertussis is highly contagious illness caused by the bacteria *Bordetella pertussis*. Early symptoms are very similar to the common cold. One to two weeks after the first symptoms start, people may develop paroxysms (coughing fits). The cough generally gets worse and becomes more common as the illness continues and can cause people to vomit or make a “whoop” sound when breathing in.

Coughing fits may continue for several weeks or even months. Many infants with pertussis may not have coughing fits; instead, they may gag, gasp, vomit, stop breathing, or turn blue. The best way to prevent pertussis is to get vaccinated. The specifics of the vaccine recommendations can be found [here](#). However, immunized children and adults can still get pertussis, so a history of immunization should not preclude a pertussis diagnosis. Immunized children, adolescents and adults may not present with the classic “whoop” symptom.

Pertussis can cause serious and potentially life-threatening complications in infants and young children who are not fully immunized. Infants under one year old are at greatest risk for serious disease and death because their immune systems are still developing. About a third of babies younger than 12 months old with pertussis need treatment in a hospital. Early recognition of cases, effective treatment and prophylaxis, and appropriate vaccination are vital to limiting the spread of pertussis.

Recent Pertussis Data Trends

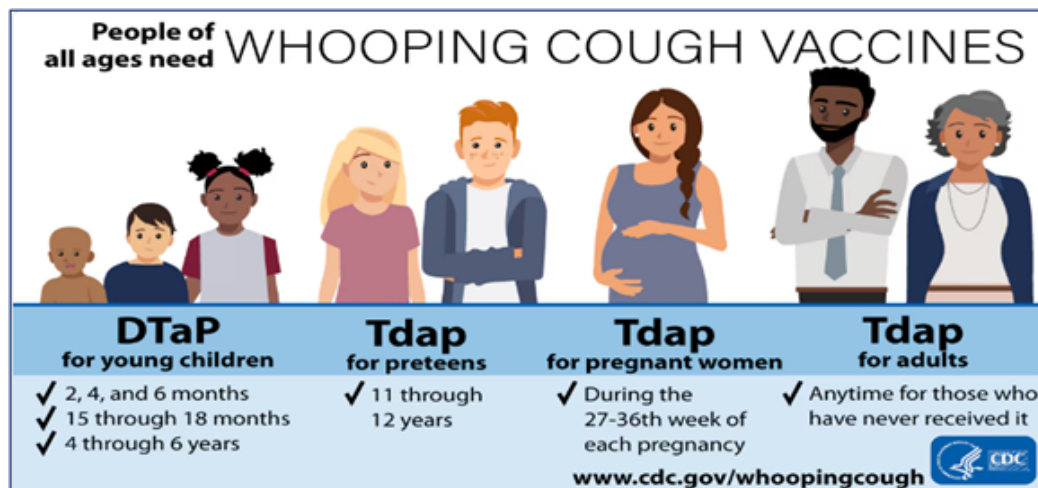
Reports of pertussis cases in Texas and nationally were lower than usual over the past few years, during and following the COVID-19 pandemic. However, nationally and in Texas, pertussis cases are beginning to return to pre-pandemic patterns when, on average, more than 1,400 cases were reported in Texas each year. In 2024, reported cases of pertussis increased across the United States and in Texas. Preliminary data show more than three times as many cases reported this year in Texas as compared to the same time in 2023.



Recommendations for Clinicians:

Vaccination

- The best way to protect against pertussis is vaccination. Centers for Disease Control and Prevention recommends pertussis vaccines for people of all ages.
- Pertussis infection may occur in vaccinated people since protection from vaccination fades over time. Thus, all individuals should be kept current with pertussis vaccination. Check the vaccination history of all individuals and offer vaccine to anyone that is not up to date.
- Ensure infants get the DTaP series on time and that pregnant women are vaccinated every pregnancy with Tdap to help prevent infant hospitalization and death.



Testing Symptomatic Patients

- Collect the test specimen prior to the patient starting any treatment. Test patients via culture and/or PCR assay, which are the preferred methods of pertussis testing. PCR assays are quick and widely available at hospital and commercial laboratories.
- **Consider beginning treatment prior to receiving test results, especially if clinical history is strongly suggestive of pertussis** (such as a long cough illness), the patient is at risk for severe or complicated disease (e.g., infants), or the patient has a known pertussis exposure and has not received prophylaxis.

Treatment for Cases

- Early treatment is critical to reduce illness severity and decrease risk of spread to others. Treat patients within three weeks after cough onset, except for infants aged <1 year and pregnant women (especially near term) who should be treated within six weeks after cough onset.
- Consider prescribing antibiotics effective for pertussis treatment and prevention, which include azithromycin, erythromycin, clarithromycin, or trimethoprim sulfamethoxazole (TMP-SMX).



- Treat patients regardless of vaccination history. According to provisional Texas Department of State Health Services data, more than half of 2024 cases (53%) have occurred in persons with one or more doses of pertussis vaccine and 33% have had five or more doses.
 - Note: The Texas Medical Board changed its rules (Texas Administrative Code, Title 22, Part 9, Chapter 190, Subchapter B, §190.8) regarding the prescribing of prophylaxis for close contacts to infectious disease. Physicians may now prescribe pertussis antibiotics to contacts of pertussis cases without first medically evaluating the contact.

Infection Control Precautions in Healthcare Settings

- Droplet precautions should be used for any suspected or confirmed pertussis cases until the patient has received at least five full days of an appropriate antibiotic.
- Healthcare workers should wear a mask and face protection, including, but not limited to, performing a physical examination on, feeding, or bathing a patient; bronchoscopy; intubation; or administration of bronchodilators.

Exclusion Guidelines

- People suspected of having pertussis should be told to stay home from work, school, daycare, and any public outings (e.g., church, grocery store) until they have completed five days of appropriate antibiotic therapy. School and childcare exclusion are mandated by the Texas Administrative Code, Title 25, Chapter 97, Subchapter A, Rule §97.7.

Disease Reporting Requirements/Statute

- Several Texas laws (Health & Safety Code Chapters 81 and 84) require specific information regarding notifiable conditions be provided to DSHS. Health care providers, hospitals, laboratories, schools, childcare facilities and others are required to report patients who are suspected of having pertussis within one workday (Texas Administrative Code, Title 25, Chapter 97, Subchapter A).
- Pertussis reports should be made to your local health department (contacts by county at www.dshs.texas.gov/idcu/investigation/conditions/contacts).

Post Exposure Prophylaxis (PEP) Recommendations for Contacts

Contact Group*	Description	PEP Recommended?**	PEP Administration Timeframe
Household contacts	Persons who spend many hours together or sleep under the same roof	Yes	within 21 days of onset of cough in the index patient



Infants	Aged <12 months	Yes; high-risk for developing severe illness	within 21 days of the last exposure to an infectious pertussis case
All persons with pre-existing health conditions that may be exacerbated by a pertussis infection	EX: immunocompromised persons or those with a chronic lung disease	Yes; high-risk for developing severe illness	
People in contact with people at high risk of severe illness	▪ Women in their third trimester of pregnancy ▪ All people in high-risk settings⁺	Yes	
Other relatives, coworkers, classmates, acquaintances, etc.	Persons who do not fit into any of the above descriptions	No; recommend evaluation for symptoms and educated about pertussis	-

*Some contacts may fall into more than one group. Base PEP recommendations on the group with the longest timeframe for administering PEP.

**Provide PEP regardless of vaccination history

^ Infectious period: from the beginning of symptom onset through the third week after the onset of paroxysms, or until 5 days after the start of effective antimicrobial treatment

+High-risk setting: settings that infants aged <12 months or women in their third trimester of pregnancy. These include, but are not limited to neonatal intensive care units, childcare settings, and maternity wards.

Recommendations for Public Health:

Lab Confirmation Tests

- Culture and PCR assay are the preferred methods of pertussis testing. PCR assays are quick and widely available at hospital and commercial laboratories.
- For PCR assays, a nasopharyngeal swab should be done using a synthetic swab. Check with the testing laboratory to determine what transport media, if any, is needed.
- Direct Fluorescent Antibody (DFA) and serological assays are not considered confirmatory tests for pertussis.
- More information on PCR testing is available at <https://www.cdc.gov/pertussis/php/pcr-bestpractices/index.html>.



Controlling Outbreaks in Group Settings

- Even in an outbreak, antibiotic prophylaxis is only recommended for household and high-risk contacts.
- Active screening for symptomatic patients with suspected pertussis can be considered during outbreaks in settings such as schools, daycare centers, and hospitals.
 - The asymptomatic contacts may remain in group settings if they comply with prophylaxis and lack respiratory symptoms.
 - They should be monitored for 21 days past their last known exposure.
- A broader use of PEP may be appropriate in limited closed settings when the number of identified cases is small and when a community-wide outbreak is not ongoing. However, when continued transmission of pertussis is evident, multiple rounds of antibiotics would not be recommended. Rather than repeating a course of antibiotics, public health should monitor people exposed to pertussis for onset of pertussis signs and symptoms for 21 days.
- During an outbreak, people without documented immunity from vaccination or previous pertussis infection should be isolated from anyone with pertussis to protect those without immunity and control the outbreak. Additional information on school exclusion and readmission can be found at dshs.texas.gov/idps-home/school-communicable-disease-chart.

Recommendations for the Public:

If you think you have pertussis, isolate yourself from others and call your healthcare provider before arriving so they can prepare for your arrival without exposing other people.

Routine prevention steps including hand washing and covering your mouth and nose while sneezing or coughing are essential to prevent the spread of bacteria. Avoid close contact with people who are sick, and don't share food, utensils, toothbrushes, cigarettes, or similar personal items.

Review your and your child's immunization history to see if you are up to date on your pertussis containing vaccines. Additionally, discuss with your provider your immunization history and any questions about these vaccines.

If you think you've been exposed to someone with pertussis, contact your healthcare provider about medication that can keep you from getting sick.

MEASLES

Measles can be dangerous, especially for babies and young children.

It can cause serious health complications like **pneumonia, swelling of the brain** and even **death**.

Measles symptoms can include:

- **High fever** (may spike to more than 104°F)
- **Rash** breaks out 3-5 days after symptoms begin
- **White spots inside the mouth**
- **Cough**
- **Runny nose**
- **Red, watery eyes**

Measles spreads easily.

- **Measles spreads through the air when an infected person coughs or sneezes.**
- **A person can spread measles to others even before knowing they have the disease.**
 - You can get measles just by **being in a room** where a person with measles has been.
 - This can happen even up to **2 hours** after that person has left the room.
 - If one person has it, up to **9 out of 10** people nearby will become infected if they are not protected.
 - You can spread measles to others from **4 days before** through **4 days after** the rash appears.



The best way to protect against measles is with the measles, mumps, and rubella (MMR) vaccine.

MMR is safe and effective.

Two doses of MMR vaccine are about **97% effective** at preventing measles.



Possible exposure:



If you think that you have measles or have been exposed to someone with measles, **ISOLATE YOURSELF FROM OTHERS** and call your healthcare provider or urgent care before arriving to be tested.



Do not arrive at a health care facility without giving advance notice.



TEXAS
Health and Human
Services

Texas Department of State
Health Services

SARAMPIÓN

El sarampión puede ser peligroso, especialmente para los bebés y los niños pequeños.

Puede causar graves complicaciones de salud, como **pulmonía, inflamación del cerebro e incluso la muerte.**

Los síntomas del sarampión pueden incluir:

- **Fiebre alta** (puede subir a más de 104 °F)
- **Sarpullido** que aparece entre 3 y 5 días después del inicio de los síntomas
- **Manchas blancas dentro de la boca**
- **Tos**
- **Secreción nasal**
- **Ojos rojos y llorosos**

El sarampión se propaga fácilmente.

- **Se transmite de una persona a otra a través de las gotitas que la persona infectada expulsa al aire cuando tose o estornuda.**
- **Una persona puede transmitir el sarampión a otras incluso antes de saber que tiene la enfermedad.**
 - Se puede contraer el sarampión simplemente por estar en una habitación donde haya estado una persona con sarampión.
 - Esto puede ocurrir incluso hasta 2 horas después de que esa persona haya abandonado la habitación.
 - Si una persona lo tiene, hasta 9 de cada 10 personas cercanas se infectarán si no están protegidas.
 - Se puede transmitir el sarampión a otras personas desde 4 días antes hasta 4 días después de que aparezca la erupción cutánea.



La mejor forma de protegerse contra el sarampión es con la vacuna contra el sarampión, las paperas y la rubéola (MMR).

La vacuna MMR es segura y eficaz. Dos dosis de la vacuna tienen un **97% de eficacia** en la prevención del sarampión.



Posible exposición:



Si cree que tiene sarampión o ha estado expuesto a alguien con sarampión, **AÍSELE DE LOS DEMÁS** y llame a su proveedor de atención médica o a un centro de urgencias antes de llegar para someterse a pruebas.



No llegue a un centro médico sin previo aviso.



TEXAS
Health and Human
Services

Texas Department of State
Health Services

THERE'S A CURRENT OUTBREAK OF MEASLES

Measles is a very contagious disease caused by a virus. It can be dangerous, especially for babies and young children. Protect your family and your community.



Measles spreads through the air when a sick person coughs or sneezes. The virus can stay in the air for 2 hours after a person with measles leaves the space. It is so contagious that about 9 out of 10 people who come near a person with measles and are not protected by vaccination will also become infected.

Measles symptoms appear 7 to 14 days after contact with the virus. Common measles symptoms include:



High fever
(may spike to more than 104°F)



Cough



Runny nose



Red and/or watery eyes



Rash
(breaks out 3-5 days after symptoms begin)

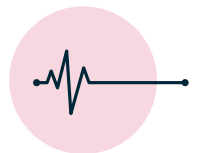
Measles can cause severe health problems, including:



Pneumonia



Swelling of the brain
(encephalitis)



Possibly even death

The best way to protect against measles ...

is with the measles, mumps, and rubella (MMR) vaccine. It's never too late to get vaccinated. Vaccination helps protect you, the people around you, and your community. If you are not vaccinated, consider staying at home or away from crowded areas until measles cases in the area decrease, especially to protect people in your family that could get very sick.

If you think that you or someone in your family have measles, stay away from others and call a healthcare provider, urgent care, or emergency room.



BE READY FOR MEASLES
cdc.gov/measles



HAY UN BROTE ACTUAL DE SARAMPIÓN

El sarampión es una enfermedad muy contagiosa causada por un virus. Puede ser peligroso, especialmente para los bebés y los niños pequeños. Proteja a su familia y a su comunidad.



El sarampión se propaga por el aire cuando una persona enferma tose o estornuda. El virus puede permanecer en el aire durante 2 horas después de que la persona con sarampión se vaya del lugar. Es tan contagioso que aproximadamente 9 de cada 10 personas que se acercan a una persona con sarampión y no están protegidas por la vacuna también se infectarán.

Los síntomas del sarampión aparecen entre 7 y 14 días después del contacto con el virus. Los síntomas comunes del sarampión incluyen:



Fiebre alta
(puede alcanzar más de 40 °C)



Tos



Moqueo



Ojos rojos y/o llorosos



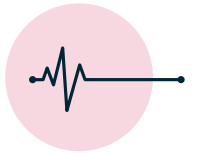
Sarpullido
(aparece de 3 a 5 días después del inicio de los síntomas)



Neumonía



Inflamación del cerebro
(encefalitis)



Incluso la muerte

La mejor manera de protegerse contra el sarampión...

es con la vacuna contra el sarampión, las paperas y la rubéola (MMR por sus siglas en inglés). Nunca es demasiado tarde para vacunarse. La vacunación ayuda a protegerle a usted, a quienes le rodean y a su comunidad. Si no está vacunado, considere quedarse en casa o lejos de lugares donde este mucha gente, hasta que disminuyan los casos de sarampión en el área, especialmente para proteger a los miembros de su familia que podrían enfermar gravemente.

Si cree que usted o algún familiar tiene sarampión, manténgase alejado de otras personas y llame a un médico, a un centro de atención de urgencias o a una sala de emergencias.

PREPÁRESE PARA EL SARAMPIÓN
cdc.gov/measles



DO YOU THINK YOUR CHILD HAS MEASLES?

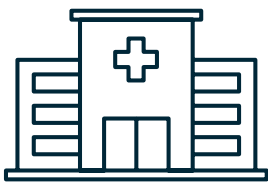
What to do if you think your child has measles

Measles usually starts with a fever, cough, runny nose, and red eyes that leads to a rash. If someone in your family has measles symptoms:

Keep them away from family members that are not sick.

Everyone in the house should stay home to not get your neighbors or people outside of your home sick.

Call a doctor or hospital right away to let them know someone in your home is sick with measles. They will give you instructions.



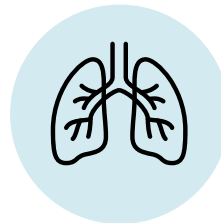
When to go to the emergency room

If the person who is sick gets rapidly worse or has any of symptoms below take them to the emergency department of a hospital immediately.

DO NOT WAIT.



Trouble breathing
(or breathing faster than normal)



Pain when breathing or coughing



Dehydration
(dry nose and mouth, urinating less, crying without making tears)



Fever or headache will not stop



Confusion, decreased alertness, or severe weakness



Blue color around the mouth, low energy, or difficulty feeding
(for young children)

Have someone call before you arrive. Let the hospital know a person with measles is coming.

BE READY FOR MEASLES
[cdc.gov/measles](https://www.cdc.gov/measles)



¿CREE QUE SU HIJO TIENE SARAMPIÓN?

Qué hacer si cree que su hijo tiene sarampión

El sarampión suele empezar con fiebre, tos, moqueo y ojos rojos que provocan un sarpullido. Si alguien de su familia tiene síntomas de sarampión:

Manténgalo alejado de los miembros de la familia que no están enfermos.

Todos los miembros de la familia deben quedarse en casa para no contagiar a los vecinos o a otras personas.

Llame inmediatamente al médico o al hospital para informarles de que alguien en su casa está enfermo de sarampión. Le darán instrucciones.



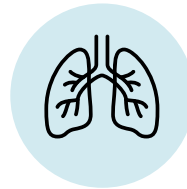
Cuándo acudir a un centro de atención de urgencias

Si empeora rápidamente, o presenta alguno de estos síntomas, vaya inmediatamente a la sala de urgencias de un hospital.

NO ESPERE.



Dificultad para respirar (o respiración más rápida de lo normal)



Dolor al respirar o toser



Deshidratación (sequedad de la nariz o boca, orinar menos, llorar sin lágrimas)



Fiebre o dolor de cabeza que no para



Confusión, disminución del estado de alerta o debilidad severa



Color azul alrededor de la boca, poca energía, o dificultad para alimentar (en niños pequeños)

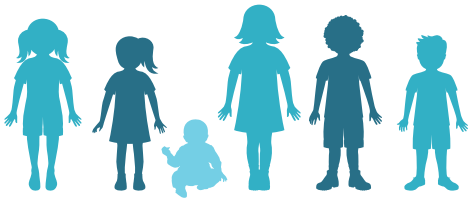
Pida que alguien llame antes de llegar. Avise al hospital de que viene una persona con sarampión.

PREPÁRESE PARA EL SARAMPIÓN
cdc.gov/measles



MEASLES

IT ISN'T JUST A LITTLE RASH



Measles can be dangerous, especially for babies and young children.

Measles symptoms typically include:



High fever
(may spike to more than 104°F)



Cough



Runny nose



Red and/or watery eyes



Rash
(breaks out 3-5 days after symptoms begin)

Measles can be serious.

Measles can cause severe health complications, including pneumonia, swelling of the brain (encephalitis) and death.



1 out of 5 people who get measles will be hospitalized.



1 out of every 20 children with measles will get pneumonia, the most common cause of death from measles in young children.



1 out of every 1,000 people with measles will develop brain swelling, which may lead to brain damage.



1 to 3 out of 1,000 people with measles will die.

Long-term complications

A very rare, but deadly disease called subacute sclerosing panencephalitis can develop 7 to 10 years after a person has recovered from measles.



You have the power to protect your child.

Provide your children with safe and long-lasting protection against measles by making sure they get the measles-mumps-rubella (MMR) vaccine. Talk to your healthcare provider.



www.cdc.gov/measles

EL SARAMPIÓN

NO ES SIMPLEMENTE UN SARPULLIDO LEVE



El sarampión puede ser peligroso, especialmente para los bebés y los niños pequeños.

Los síntomas del sarampión incluyen los siguientes:



Fiebre alta
(puede subir hasta más de 104 °F)



Tos



Moqueo



Ojos enrojecidos y llorosos



Sarpullido
(aparece de 3 a 5 días después del inicio de los síntomas)

El sarampión puede ser grave.

El sarampión puede causar complicaciones graves de salud, como neumonía, inflamación del cerebro (encefalitis) e incluso la muerte.



Cerca de 1 de cada 5 personas que contraen sarampión será hospitalizada.



1 de cada 20 niños con sarampión contraerá neumonía, la causa más frecuente de muerte por sarampión en niños pequeños.



1 de cada 1000 personas con sarampión presentará inflamación del cerebro por la infección (encefalitis), lo cual puede causar daño cerebral.



De 1 a 3 de cada 1000 personas con sarampión morirán.

Complicaciones a largo plazo

Una enfermedad muy rara, pero mortal, llamada panencefalitis esclerosante subaguda, puede desarrollarse entre 7 a 10 años después de que una persona se haya recuperado del sarampión.



Usted tiene el poder de proteger a su hijo.

Dele a su hijo una protección segura y duradera contra el sarampión al asegurarse de que reciba la vacuna contra el sarampión, las paperas y la rubéola (MMR, por sus siglas en español). Consulte con su médico.



www.cdc.gov/measles

Measles, Mumps, and Rubella (MMR) Vaccine Recommendations for Children (0 to 6 years of age) For Communities with Measles Transmission¹

Age Group	Number of Previous MMR Vaccine Doses	Recommended MMR Vaccine ² Doses (if otherwise not contraindicated)
0 - 6 months	0 doses	MMR vaccine is <u>NOT</u> recommended
6 - 11 months	0 doses	- Should receive an early (zero) dose of MMR vaccine immediately - The child should receive two additional doses of MMR vaccine: ➤ 1st dose at 12 to 15 months ➤ 2nd dose at 4 to 6 years of age - Each dose of MMR vaccine must be given at minimum 28 days apart
12 months - 6 years	0 doses	- Should receive a 1st dose of MMR vaccine <u>immediately</u> - Should receive a 2nd dose of MMR vaccine, <u>minimum 28 days after</u> the 1st dose.
	1 dose	Should receive the 2nd dose of MMR vaccine, <u>minimum 28 days after</u> the 1st dose of MMR vaccine.
	2 doses	- No additional MMR vaccination is recommended. - Child is considered <u>fully vaccinated</u> and does <u>not</u> need any additional doses of MMR vaccine.

- Only in counties designated as part of the outbreak with ongoing community transmission. All other counties follow the CDC's routine MMR vaccination recommendations ([Routine MMR Vaccination Recommendations: For Providers | CDC](#))
- MMR vaccine refers to the current live-attenuated MMR vaccine

Measles, Mumps, and Rubella (MMR) Vaccine Recommendations for Children ≥ 6 years of age and Adults³

For Communities with Measles Transmission¹

If you were born	Number of Previous MMR Vaccine Doses	Recommended MMR Vaccine ² Doses (if otherwise not contraindicated)
Before 1957	-----	People born before 1957 are presumptively immune to measles, and MMR vaccine is not recommended
Between 1957-1968	0 dose	<u>Should Immediately</u> get 1st dose of MMR vaccine - Should receive a 2nd dose of MMR vaccine, <u>minimum 28 days</u> after 1 dose of MMR vaccine.
	1 dose of the inactivated MMR Vaccine	
	1 dose of the live-attenuated MMR Vaccine	Should receive a 2nd dose of MMR vaccine.
After 1968	0 doses	<u>Should immediately</u> get 1st dose of MMR vaccine - Should receive a 2nd dose of MMR vaccine, <u>minimum 28 days</u> after 1 dose of MMR vaccine.
	1 dose	Should receive a 2nd dose of MMR vaccine, <u>minimum 28 days</u> after 1 dose of MMR vaccine.
	2 doses	- No additional MMR vaccination is recommended - You are <u>fully</u> vaccinated and do <u>not</u> need any additional doses of MMR vaccine.

- Only in counties designated as part of the outbreak with ongoing community transmission. All other counties follow the CDC's routine MMR vaccination recommendations ([Routine MMR Vaccination Recommendations: For Providers | CDC](#))
- MMR vaccine refers to the live-attenuated MMR vaccine
- Currently, there are no recommendations to receive a third dose or a booster dose of MMR vaccine for adults during measles community transmission or outbreaks

March 6, 2025



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Measles, Mumps, and Rubella (MMR) Vaccine Recommendations for Specific Populations*

Pregnant Women	• MMR vaccines are not recommended during pregnancy.
Severely Immunocompromised Individuals	• MMR vaccine is not recommended for individuals with severe immunodeficiency • Severe immunodeficiency includes hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised.
Healthcare Personnel	• Healthcare personnel without presumptive evidence of immunity should get two doses of MMR vaccine, minimum 28 days apart.

* [Measles Vaccination for Specific Groups](#) | [Measles \(Rubeola\)](#) | [CDC](#)

March 6, 2025



TEXAS
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Texas Department of State
Health Services

Summary of Measles Postexposure Prophylaxis*

Risk Population	Time from First Exposure	
	< 72 hours	Through 6 days
Infant < 6 months old	IG	IG
Infant 6 through 12 months	IG or MMR vaccine preferred	IG
Age > 12 months, no risk factor	MMR vaccine dose 1 or MMR vaccine dose 2, if ≥ 28 days from MMR dose 1	IG**
Pregnant woman	IG	IG
Severely immunocompromised	IG	IG

*The following patient groups are at risk for severe disease and complications from measles and should receive IG: infants aged <12 months, pregnant women without evidence of measles immunity, and severely immunocompromised persons. IGIM can be administered to other persons who do not have evidence of measles immunity, but priority should be given to persons exposed in settings with intense, prolonged, close contact (e.g., household, daycare, and classroom). For exposed persons without evidence of measles immunity, a rapid IgG antibody test can be used to inform immune status, provided that administration of IG is not delayed.

**IG is not often used for this age group given the volume of product required to achieve therapeutic doses <https://www.cdc.gov/surv-manual/php/table-of-contents/chapter-7-measles.html>

March 6, 2025



Texas Department of State Health Services

Measles-Mumps-Rubella (MMR) Vaccine Recommendations for Adults

People born after 1957 who have not received two doses of MMR, and have not had the measles, should get the vaccine. If both doses are needed for catch-up, they should be given at least 28 days apart.

If you do not have documentation of your MMR vaccination status, you should receive one dose of the vaccine followed by a second dose at least 28 days apart.

Born Before 1957

- People born before 1957 are presumptively immune to measles, and MMR vaccine is not recommended.

Born Between 1958 and 1968

- Should receive first dose if previously received inactivated ("killed") vaccine followed by a second dose at least 28 days apart.
- Should receive a second dose if previously received only one dose of live-attenuated vaccine, at least 28 days apart.

Born After 1968

- Should receive first dose if vaccination status is unknown, followed by a second dose at least 28 days apart.
- Should receive a second dose if previously received only one dose.

The MMR Vaccine is Safe and Effective

Two doses prevent more than 97% of measles infections.

Getting vaccinated is much safer than getting measles, mumps, or rubella.

The MMR Vaccine is NOT recommended if you are pregnant or immunocompromised.

Talk to Your Doctor

If you have questions about whether the vaccine is right for you, talk to your health care provider.

Measles Outbreak Vaccine Recommendations

for those who live in or visit counties* with measles spread

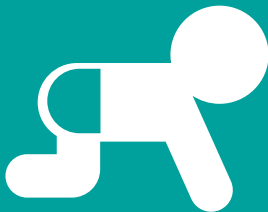
*As of April 7: Cochran, Dallam, Dawson, Gaines, Garza, Lamar, Lubbock, Lynn, Terry and Yoakum

0 to 6 months



Vaccine is NOT recommended

6 to 11 months

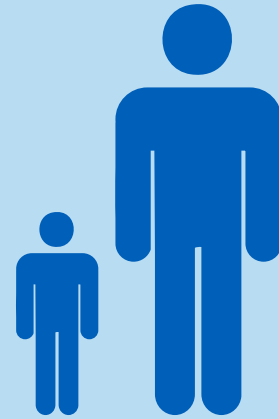


0

Previous Vaccine Doses

- Should receive an early dose of vaccine immediately
- Should receive two additional doses of MMR vaccine:
 - First dose at 12- 15 months
 - Second dose at 4- 6 years
- Give each dose at least 28 days apart

1 year to adult



0

Previous Vaccine Doses

- Should receive first dose immediately.
- Should receive second dose at least 28 days later.

1

Previous Vaccine Doses

- Should receive a second dose of MMR vaccine, at least 28 days after first dose.

2

Previous Vaccine Doses

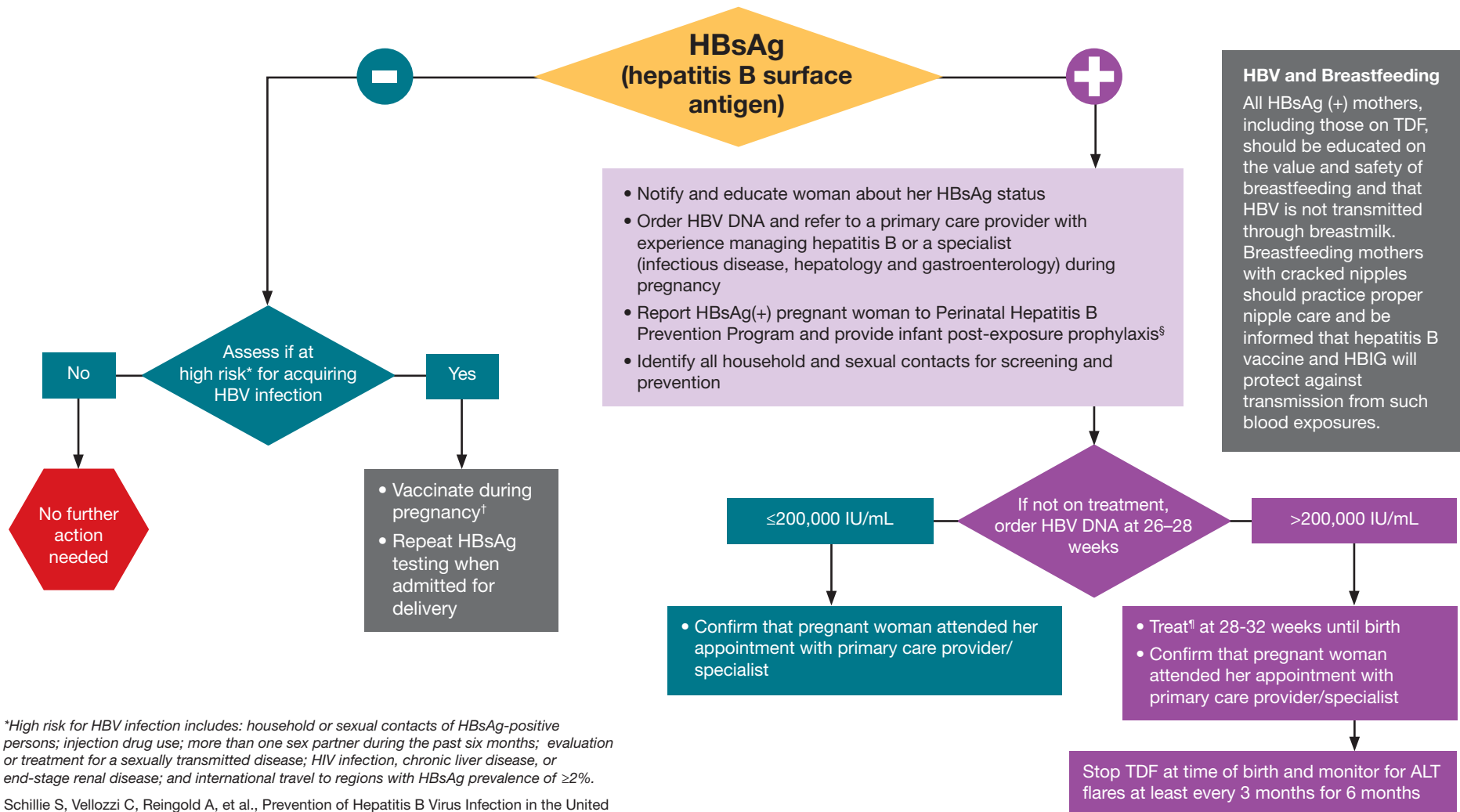
- Fully vaccinated.



TEXAS
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Screening and Referral Algorithm for Hepatitis B Virus (HBV) Infection Among Pregnant Women



*High risk for HBV infection includes: household or sexual contacts of HBsAg-positive persons; injection drug use; more than one sex partner during the past six months; evaluation or treatment for a sexually transmitted disease; HIV infection, chronic liver disease, or end-stage renal disease; and international travel to regions with HBsAg prevalence of $\geq 2\%$.

Schillie S, Vellozzi C, Reingold A, et al., Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018; 67(No. RR-1):1-34.

Originally adapted with permission from the Hepatitis B Foundation, from Apuzzio et. al, 2012. <http://www.hepb.org/assets/Uploads/Final-OB-publications-The-Female-Patient.pdf>

†Vaccinate if not previously vaccinated with a complete hepatitis B vaccine series (refer to Schillie et. al. for more information).

§Hepatitis B vaccine birth dose and Hepatitis B immune globulin (HBIG) (refer to Schillie et. al. for more information).

¶Tenofovir disoproxil fumarate (TDF) should be used for the treatment of pregnant women.



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**The American College of
Obstetricians and Gynecologists**
WOMEN'S HEALTH CARE PHYSICIANS

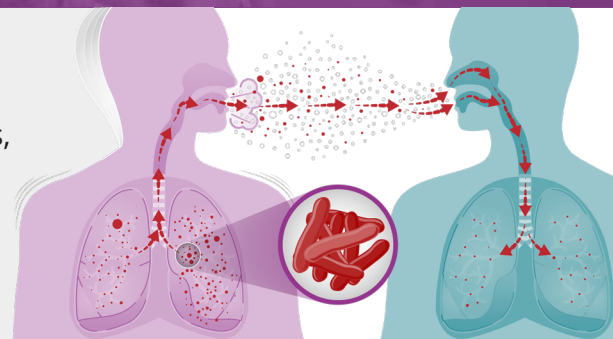
www.cdc.gov/hepatitis

Updated December 2021

What You Need to Know About Tuberculosis

Tuberculosis (TB) is a disease caused by germs that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine.

Not everyone infected with TB germs becomes sick. As a result, two TB-related conditions exist: latent TB infection (or inactive TB) and TB disease. If not treated properly, TB disease can be fatal.



The Difference Between Inactive TB and Active TB Disease

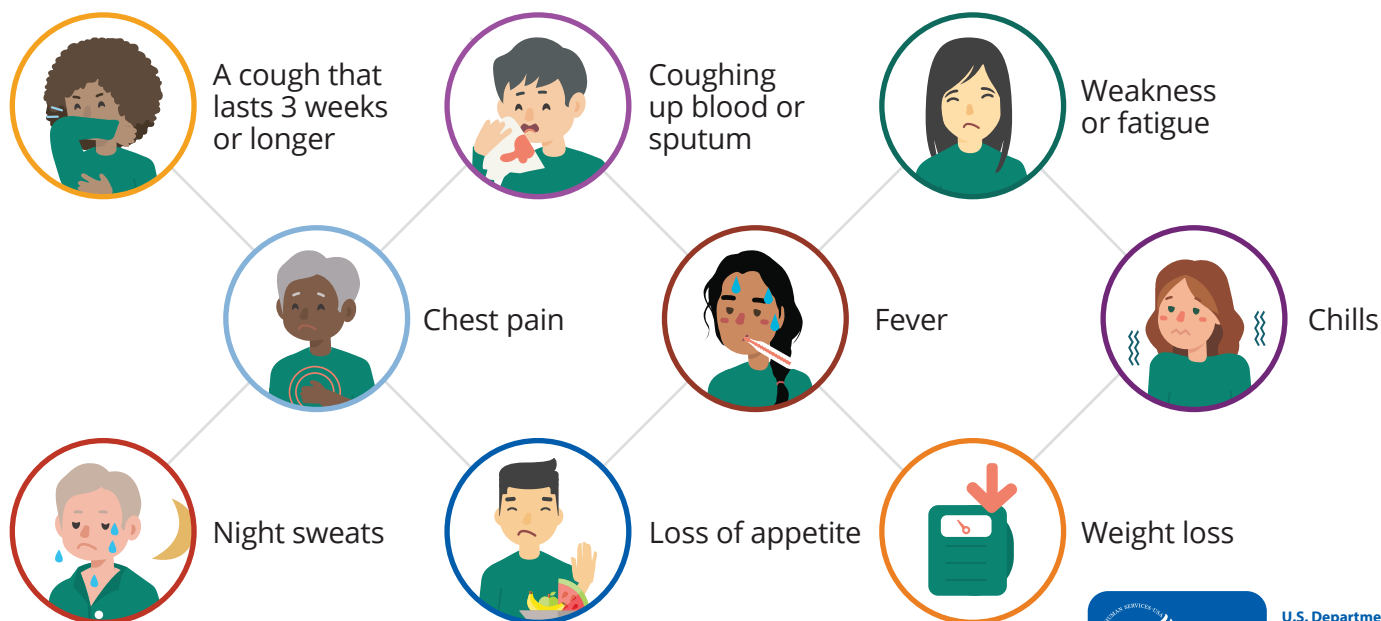
A Person With Inactive TB

- Has a small amount of TB germs in their body that are alive but inactive.
- Has no symptoms and does not feel sick.
- Cannot spread TB germs to others.
- Usually has a positive TB blood test or TB skin test indicating TB infection.
- Has a normal chest x-ray and a negative sputum smear.
- Needs treatment for inactive TB to prevent active TB disease.

A Person With Active TB Disease

- Has a large amount of active TB germs in their body.
- Has symptoms and feels sick.
- May spread TB germs to others.
- Usually has a positive TB blood test or TB skin test indicating TB infection.
- May have an abnormal chest x-ray, or positive sputum smear or culture.
- Needs treatment for active TB disease.

If your body cannot stop TB germs from growing, you develop active TB disease. Symptoms of active TB disease include:



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Testing for TB



Getting tested and treated for TB can protect yourself, your family and friends, and your community. There are two types of tests for TB infection: the **TB blood test** and the **TB skin test**.

A Positive Test For TB Infection

You have TB germs in your body. Your doctor will do other tests to determine if you have inactive TB or active TB disease. These tests may include a chest x-ray, and a test of the sputum you cough up.

A Negative Test For TB Infection

A negative test means you likely do not have inactive TB or active TB disease.

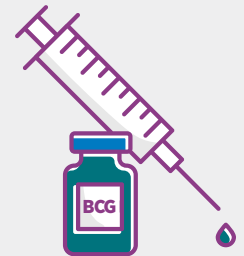
Your doctor may do more tests if:

- You have symptoms of active TB disease, like coughing, chest pain, fever, weight loss, or tiredness.
- You have HIV infection.
- Your exposure to TB germs was recent.

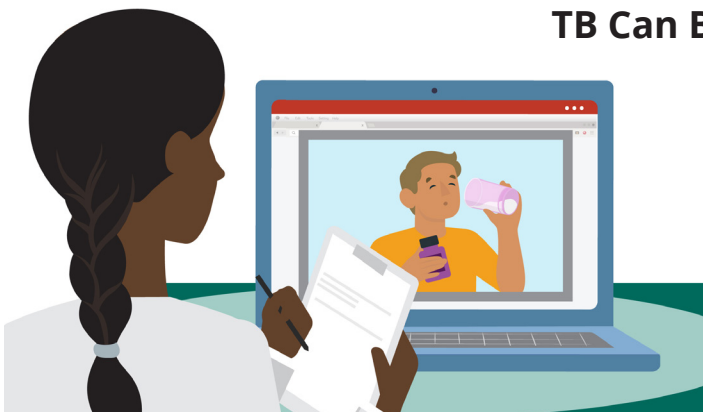
Tell Your Doctor if You Received a TB Vaccine

TB blood tests are the preferred test for people who have received the bacille Calmette-Guérin (BCG) TB vaccine. Unlike the TB skin test, TB blood tests are not affected by BCG vaccination.

Many people born outside of the United States have received the BCG TB vaccine. BCG vaccination does not completely prevent people from getting TB. A positive reaction to a TB skin test may be due to the BCG vaccine itself or due to infection with TB germs.



TB Can Be Treated



TB germs can live in your body for years without causing symptoms. If you have inactive TB, treating it is the best way to protect you from getting sick with active TB disease.

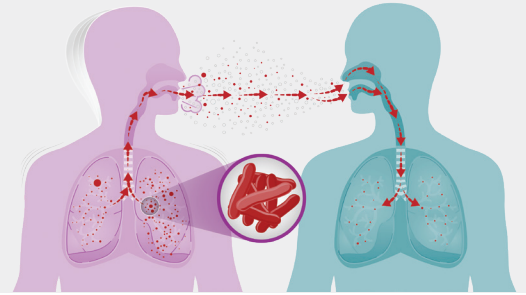
If you have been diagnosed with active TB disease, you can be treated with medicine. You will need to take and finish all of your TB medicine as directed by your doctor or nurse. This is to help you feel better and prevent other people from getting sick.

The best way to remember to take your medicines for active TB disease is by receiving directly observed therapy (DOT). Through DOT, you will meet with a health care worker every day or several times a week either in-person or virtually. The health care worker will make sure that the TB medicines are working as they should.

Lo que debe saber sobre la tuberculosis

La tuberculosis (TB) es una enfermedad causada por microbios que se propagan de persona a persona a través del aire. La TB generalmente afecta los pulmones, pero también puede afectar otras partes del cuerpo, como el cerebro, los riñones o la columna vertebral.

No todas las personas infectadas con microbios de TB se enferman. Como resultado, existen dos afecciones relacionadas con la TB: la infección de TB latente (o TB inactiva) y la enfermedad de TB. Si no se trata adecuadamente, la enfermedad de TB puede ser mortal.



Diferencias entre la TB inactiva y la enfermedad de TB activa

Las personas con TB inactiva

- Tienen una pequeña cantidad de microbios de TB en el cuerpo que están vivos pero inactivos.
- No tienen síntomas ni se sienten enfermas.
- No pueden transmitir los microbios de la TB a los demás.
- Suelen tener pruebas de sangre de la TB o pruebas cutáneas de la tuberculina positivas, lo cual indica infección de TB.
- Tienen radiografías de tórax normales y análisis de esputo con resultados negativos.
- Necesitan tratamiento para la TB inactiva para prevenir la enfermedad de TB activa.

Las personas con enfermedad de TB activa

- Tienen una gran cantidad de microbios de TB activos en el cuerpo.
- Tienen síntomas y se sienten enfermas.
- Pueden transmitir los microbios de la TB a los demás.
- Suelen tener pruebas de sangre de la TB o pruebas cutáneas de la tuberculina positivas, lo cual indica infección de TB.
- Pueden tener radiografías de tórax anormales, o cultivos o análisis de esputo con resultados positivos.
- Necesitan tratamiento para la enfermedad de TB activa.

Si su cuerpo no puede impedir que los microbios de la TB se multipliquen, usted presentará la enfermedad de TB activa. Los síntomas de la TB activa incluyen:



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Pruebas de detección de la TB

Hacerse una prueba de TB y recibir tratamiento puede protegerlo a usted y proteger a su familia, sus amigos y su comunidad. Hay dos tipos de pruebas para detectar la infección de TB: la **prueba de sangre de la TB** y la **prueba cutánea de la tuberculina**.



+ Resultado positivo de infección de TB

Usted tiene microbios de la TB en el cuerpo. Su médico hará otras pruebas para determinar si tiene la TB inactiva o la enfermedad de TB activa. Estas pruebas podrían incluir una radiografía de tórax y un análisis del esputo que expulsa al toser.

- Resultado negativo de infección de TB

Un resultado negativo significa que es probable que usted no tenga la TB inactiva ni la enfermedad de TB activa.

Su médico podría hacer más pruebas si usted:

- Tiene síntomas de la enfermedad de TB activa, como tos, dolor en el pecho, fiebre, pérdida de peso o cansancio.
- Tiene la infección por el VIH.
- Su exposición a los microbios de la TB fue reciente.

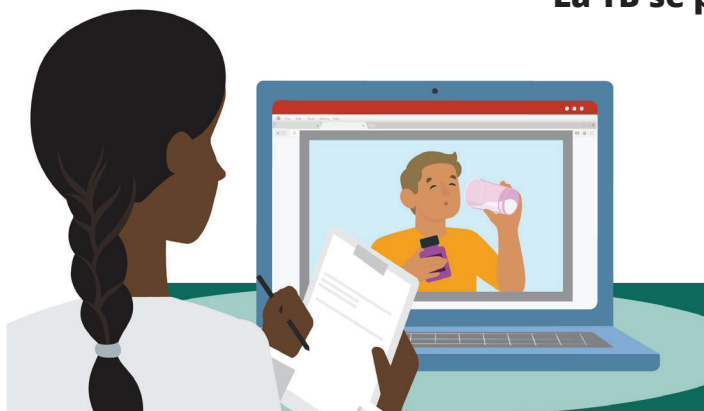
Dígale a su médico si recibió una vacuna contra la TB

Las pruebas de sangre de la TB son las que se prefieren para las personas que se han puesto la vacuna de bacilo de Calmette y Guérin (BCG) contra la tuberculosis. A diferencia de las pruebas cutáneas de la tuberculina, las pruebas de sangre no se ven afectadas por la BCG.

Muchas personas nacidas fuera de los Estados Unidos están vacunadas con la BCG. Esta vacuna no previene completamente que las personas contraigan la TB. La causa de una reacción positiva a la prueba cutánea de la tuberculina puede ser la vacuna BCG misma o una infección de microbios de TB.



La TB se puede tratar



Los microbios de la TB pueden permanecer en su cuerpo durante años sin causarle síntomas. Si usted tiene la TB inactiva, tratarla es la mejor forma de protegerse para que no le cause la enfermedad de TB activa.

Si le han diagnosticado enfermedad de TB activa, puede recibir tratamiento con medicamentos. Deberá tomar y terminar todos sus medicamentos según las indicaciones de su médico o enfermero. Esto es para ayudarlo a sentirse mejor y prevenir que se enfermen otras personas.

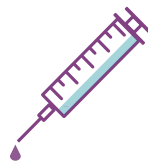
La mejor forma de acordarse de tomar sus medicamentos para la enfermedad de TB activa es mediante el tratamiento de observación directa (DOT, por sus siglas en inglés). Con la DOT, se reunirá con un trabajador de la salud todos los días o varias veces a la semana, ya sea en persona o de manera virtual. El trabajador de la salud se asegurará de que los medicamentos contra la TB estén funcionando del modo esperado.

What You Need to Know About the TB Skin Test

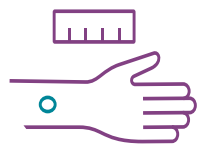
Getting tested and treated for **tuberculosis (TB)** can protect yourself, your family and friends, and your community. There are two types of tests for TB infection: the TB blood test and the TB skin test. This fact sheet provides information on the TB skin test.

TB Skin Test

The TB skin test, also known as the tuberculin skin test, may be used to find out if you are infected with TB germs. A health care worker will use a small needle to inject testing fluid (called tuberculin) under the skin on the lower part of your inner arm.



After Receiving the TB Skin Test



After the test, you should avoid using bandages, putting on lotion, or scratching the test area because it may affect the results. You can wash the area with water, but do not wipe or scrub. If the area itches, put an ice cube or cold cloth on it.

After 2 or 3 days, you must return to have a health care worker read your skin test. You may have swelling or a bump where the testing fluid was injected. The health care worker will measure the bump or swelling and will tell you if your skin test reaction is positive or negative.

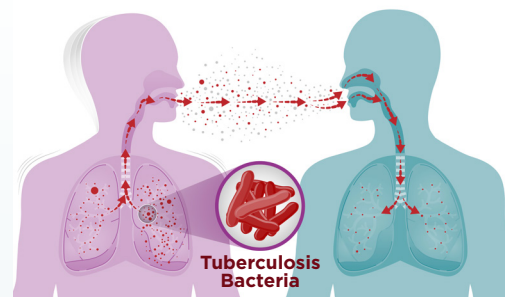
If you are not able to return within 2 to 3 days, you will need to repeat the skin test again.

Return to have your skin test read

Date: _____

Time: _____

Location: _____



TB germs spread through the air from one person to another. Anyone can get TB. TB germs usually attack the lungs but can move to any part of your body.

The bacteria responsible for causing TB can live in the body for years without symptoms. This is called latent TB infection or inactive TB. People with inactive TB do not have signs and symptoms of active TB disease and cannot spread TB bacteria to others.

Without treatment, inactive TB can become active TB disease at any time and make you sick. If not treated properly, active TB disease can be fatal.



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If your skin test is **POSITIVE**:

- You have TB germs in your body.
- The test does **not** tell whether you have inactive TB or active TB disease. You will need other tests, such as a physical examination, chest x-ray, and lab work to determine if you have active TB disease.
- Once you test positive for TB, you will always have a positive skin test even if you complete treatment for TB. Ask your health care provider for a written record of your positive TB skin test result. This will be helpful if you are asked to have another test in the future.



If your TB skin test is **NEGATIVE**:

- Your body did not react to the test. You likely do not have inactive TB or active TB disease.
- You may need to have more tests if:
 - » You have symptoms of active TB disease, like coughing, chest pain, fever, weight loss, or tiredness.
 - » You have HIV infection.
 - » Your exposure to TB germs was recent. You may need a second skin test 8 to 10 weeks after the last time you spent time with someone with active TB disease. This is because it can take several weeks after infection for your immune system to react to the TB skin test. If your reaction to the second test is negative, you likely do not have inactive TB or active TB disease.

Did You Receive the Bacille Calmette-Guérin (BCG) Vaccine?



BCG is a vaccine for TB. This vaccine is not widely used in the United States. Many people born outside of the United States have received the BCG TB vaccine.

It is often given to infants and small children in other countries where TB is more common. It protects children in those countries from getting severe forms of active TB disease, such as TB meningitis. Protection from TB goes away as people get older.

Let your health care provider know if you were previously vaccinated with the BCG TB vaccine.

In some people, the BCG TB vaccine may cause a positive TB skin test even if they are not infected with TB germs. Unlike the TB skin test, TB blood tests are not affected by prior BCG vaccination. Therefore, TB blood tests are the preferred test for people who have received the BCG TB vaccine.

TB Can Be Treated

If you have inactive TB, you can take medicine to prevent the development of active TB disease even if you do not feel sick.

TB germs can live in your body for years without causing symptoms. Without treatment, inactive TB can develop into active TB disease and make you sick.

If you have been diagnosed with active TB disease, you will need to take and finish all your TB medicine. This is to help you feel better and prevent other people from getting sick.

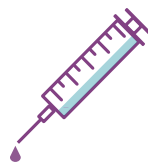


Lo que necesita saber sobre la prueba cutánea de la tuberculina

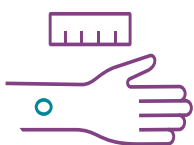
Hacerse la prueba de detección de la **tuberculosis** (llamada **TB en inglés**) y recibir tratamiento puede protegerlo a usted, a sus familiares y amigos, y a su comunidad. Hay dos tipos de prueba para detectar la infección de TB: la prueba de sangre y la prueba cutánea de la tuberculina. Esta hoja informativa proporciona información sobre la prueba cutánea de la tuberculina.

Prueba cutánea de la tuberculina

La prueba cutánea de la tuberculina se puede usar para determinar si usted se ha infectado con microbios de TB. Un trabajador de la salud usará una aguja pequeña para inyectarle un líquido para la prueba (llamado tuberculina) debajo de la piel, en el antebrazo.



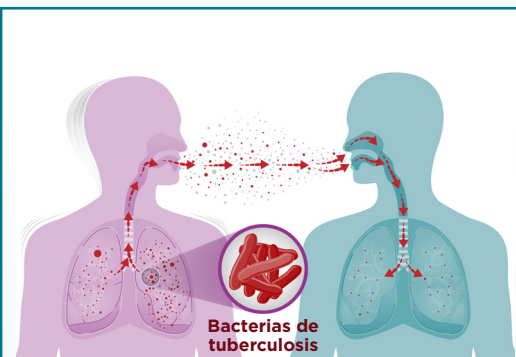
Después de que le hagan la prueba cutánea de la tuberculina



Después de la prueba, debe evitar usar vendajes, aplicarse lociones o rascarse el área de la piel usada para la prueba, ya que podría afectar los resultados. Puede lavarse el área con agua, pero no la limpie con una toallita ni la restriegue. Si le pica, aplique frío con un cubito de hielo o un paño frío.

Después de 2 o 3 días, deberá regresar para que un trabajador de la salud lea el resultado de su prueba cutánea. Es posible que tenga hinchazón o un bulto en donde se le inyectó el líquido. El trabajador de la salud medirá el bulto o la hinchazón y le dirá si la reacción a la prueba es positiva o negativa.

Si no puede regresar dentro de los 2 a 3 días, deberá repetir la prueba cutánea.



Los microbios de la TB se propagan por el aire de una persona a otra. Todas las personas pueden contraer TB. Los microbios de la TB por lo general atacan los pulmones, pero también pueden ir a cualquier parte del cuerpo.

Las bacterias que causan la TB pueden vivir en el cuerpo por años sin que se presenten síntomas. Esto se conoce como infección de TB latente o TB inactiva. Las personas con TB inactiva no presentan signos ni síntomas de la enfermedad de TB activa, ni pueden propagar las bacterias a otras personas.

Si no se trata, la TB inactiva puede volverse TB activa en cualquier momento y enfermarlo. Si no se trata adecuadamente, la enfermedad de TB activa puede ser mortal.

Regrese para la lectura de su prueba cutánea



Fecha: _____

Hora: _____

Lugar: _____



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Si su prueba cutánea da POSITIVO:

- Usted tiene los microbios de la TB en el cuerpo.
- La prueba **no** indica si usted tiene TB inactiva o la enfermedad de TB activa. Necesitará otras pruebas, como un examen físico, radiografía del tórax y pruebas de laboratorio para determinar si tiene la enfermedad de TB activa.
- Una vez que dé positivo en la prueba de TB, siempre tendrá un resultado positivo en la prueba cutánea, aunque complete el tratamiento. Pídale a su proveedor de atención médica un registro por escrito de su resultado positivo a la prueba cutánea de la tuberculina. Esto le servirá si se le pide que se haga otra prueba en el futuro.



Si la prueba de la tuberculina da NEGATIVO:

- Su cuerpo no reaccionó a la prueba. Probablemente no tiene TB inactiva ni la enfermedad de TB activa.
- Podría necesitar más pruebas si:
 - » Tiene síntomas de la enfermedad de TB activa, como tos, dolor en el pecho, fiebre, pérdida de peso o cansancio.
 - » Tiene infección por el VIH.
 - » Su exposición a los microbios de la TB fue reciente. Es posible que necesite una segunda prueba cutánea 8 a 10 semanas después de la última vez que haya pasado tiempo con alguien con enfermedad de TB activa. Esto se debe a que su sistema inmunitario puede tardar varias semanas en reaccionar a esta prueba después de la infección. Si su reacción a la segunda prueba es negativa, probablemente no tiene TB inactiva ni la enfermedad de TB activa.

¿Le pusieron la vacuna de bacilo de Calmette y Guérin (BCG)?



La BCG es una vacuna contra la TB. En los Estados Unidos su uso no es generalizado. Muchas personas nacidas fuera de este país están vacunadas con la BCG.

En otros países donde la TB es más común, se suele aplicar a los bebés y a los niños pequeños. Los protege contra las formas graves de la enfermedad de TB activa, como la TB meníngea. La protección contra la TB desaparece con la edad.

Dígale a su proveedor de atención médica si se vacunó previamente con la BCG.

En algunas personas la vacuna BCG puede causar una reacción positiva en la prueba cutánea de la tuberculina, aunque no estén infectadas por los microbios de la TB. A diferencia de las pruebas cutáneas de la tuberculina, las pruebas de sangre no se ven afectadas por la vacunación previa con la BCG. Por lo tanto, se prefieren las pruebas de sangre para las personas vacunadas con la BCG.

La TB puede ser tratada

Si usted tiene TB inactiva, puede tomar medicamentos para prevenir la aparición de la enfermedad de TB activa, aunque no se sienta enfermo.

Los microbios de la TB pueden permanecer en su cuerpo durante años sin causar síntomas. Si no se trata, la TB inactiva puede convertirse en la enfermedad de TB activa y enfermarlo.

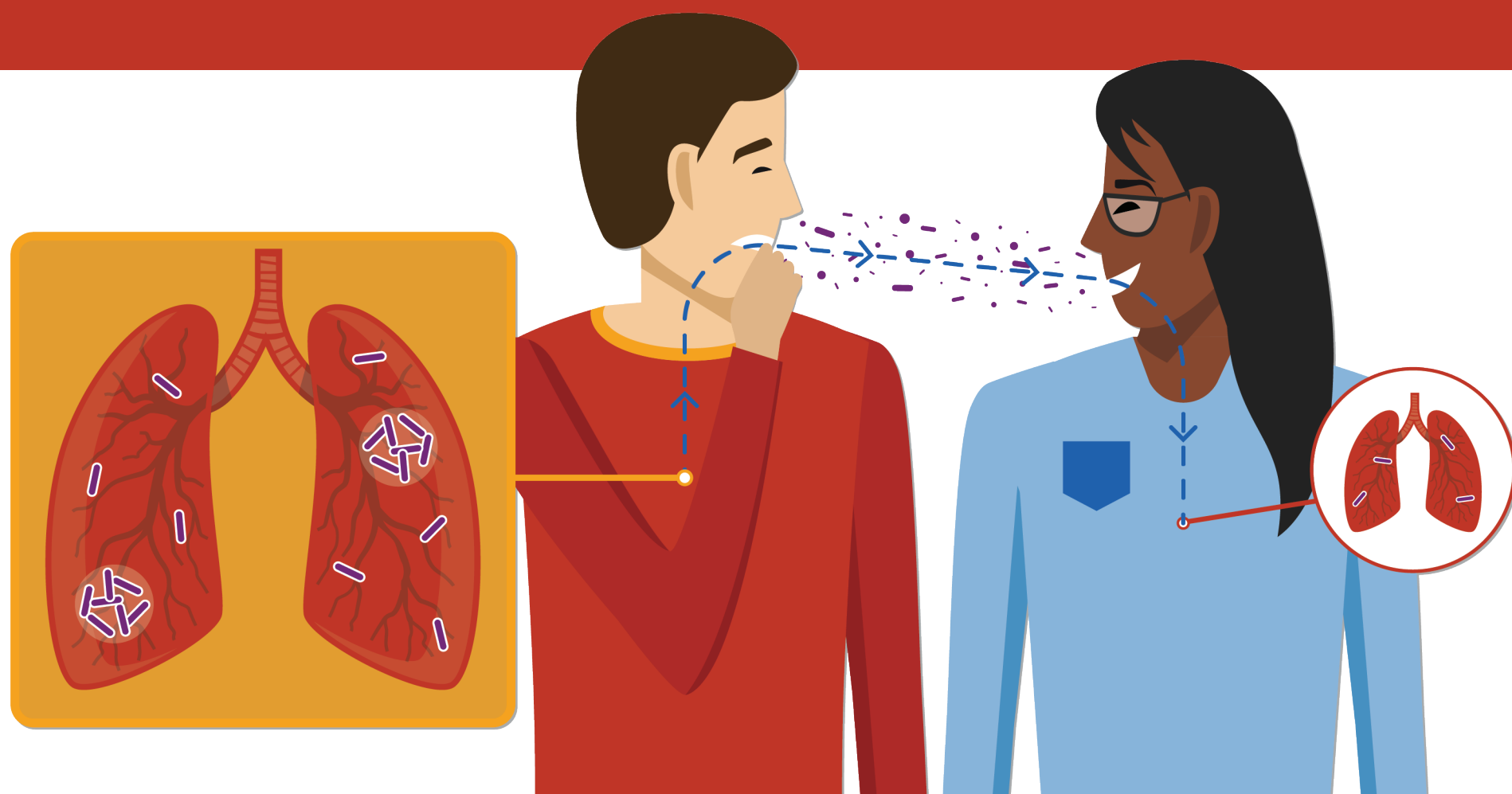
Si le han diagnosticado la enfermedad de TB activa, necesitará tomar y finalizar todos los medicamentos contra la TB. Esto es para ayudarlo a sentirse mejor y prevenir que otras personas se enfermen.



STOP TB

Tuberculosis (TB) **spreads through the air** from one person to another.

- TB germs spread when a person with infectious TB disease **coughs, speaks, or sings**.
- TB germs usually **attack the lungs** but can also move to any part of the body.



TB germs can live in the body **without making you sick**.

This is called **latent TB infection** or **inactive TB**.

- TB germs can live in your body for years without causing symptoms. Without treatment, **inactive TB can develop into active TB disease and make you sick**.
- If you have inactive TB, you can take TB medicine to **prevent the development of active TB disease** even if you do not feel sick.

If your body cannot stop TB germs from growing, **you develop active TB disease**.

- You may **feel sick** and **spread TB germs** to your family, friends, and others around you.
- You need to **take and finish all your TB medicine** to help you feel better and prevent other people from getting sick.

Symptoms of active TB disease:



Cough lasting 3+ weeks



Coughing up blood or sputum (phlegm from deep inside the lungs)



Chest pain



Weakness or fatigue



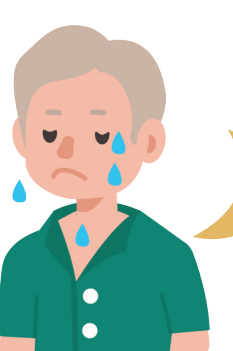
No appetite



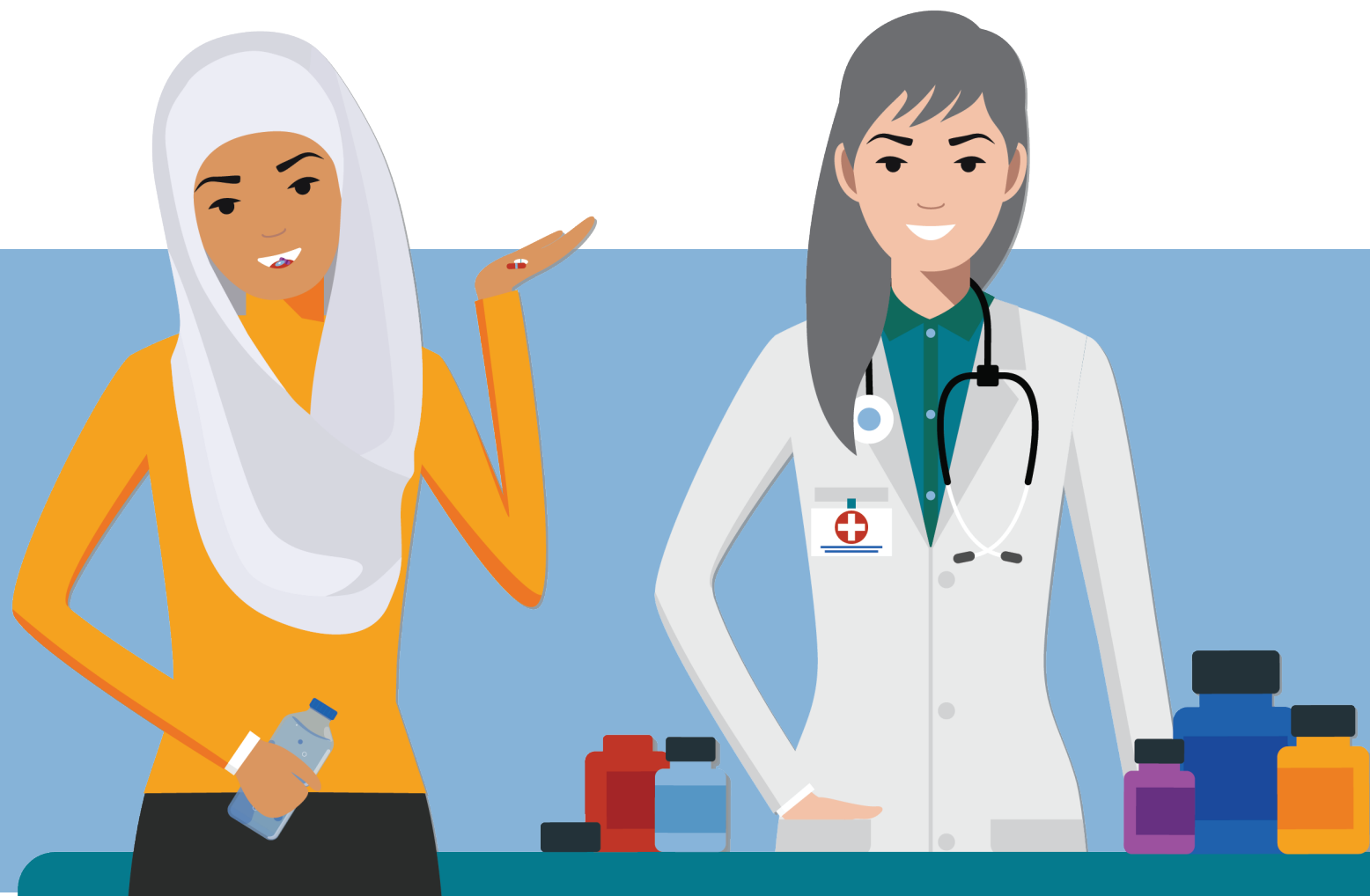
Weight loss



Fever and/or chills



Night sweats



Take and finish all of your TB medicine to **kill TB germs** and **STOP TB!**

What Clinicians Need to Know about LEGIONNAIRES' DISEASE

Legionnaires' disease is a sometimes fatal form of pneumonia that is on the rise in the United States. Unfortunately, this disease is also underrecognized and underdiagnosed. Clinicians are in a unique position to make sure cases are detected, allowing rapid investigation by public health officials and prevention of additional cases.

Diagnosis and Testing

Clinical features of Legionnaires' disease include cough, fever, and radiographic pneumonia. Signs and symptoms for Legionnaires' disease are similar to pneumonia caused by other pathogens; the only way to tell if a pneumonia patient has Legionnaires' disease is by getting a specific diagnostic test. Indications that warrant testing include:

- Patients who have failed outpatient antibiotic therapy for community-acquired pneumonia
- Patients with severe pneumonia, in particular those requiring intensive care
- Immunocompromised patients with pneumonia*
- Patients with a travel history (patients who have traveled away from their home within 14 days before the onset of illness)
- All patients with pneumonia in the setting of a Legionnaires' disease outbreak
- Patients at risk for Legionnaires' disease with healthcare-associated pneumonia (pneumonia with onset ≥ 48 hours after admission)

* Clinicians may also consider testing for Legionnaires' disease in patients with other risk factors for this infection (see page 2).

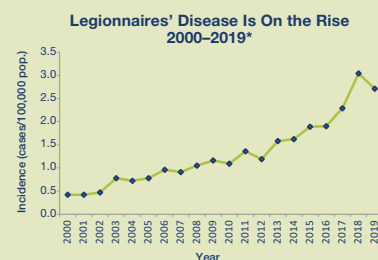
Testing for healthcare-associated Legionnaires' disease is especially important if any of the following are identified in your facility:

- Other patients with healthcare-associated Legionnaires' disease diagnosed in the past 12 months
- Positive environmental tests for *Legionella* in the past 2 months
- Current changes in water quality that may lead to *Legionella* growth (such as low chlorine levels)

Infection control staff may have more information about these situations in your facility.

The preferred diagnostic tests for Legionnaires' disease are culture of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on selective media and the *Legionella* urinary antigen test. Serological assays can be nonspecific and are not recommended in most situations. Best practice is to obtain both sputum culture and a urinary antigen test concurrently. Sputum should ideally be obtained prior to antibiotic administration, but antibiotic treatment should not be delayed to facilitate this process. The urinary antigen test can detect *Legionella* infections in some cases for days to weeks after treatment. The urinary antigen test detects *Legionella pneumophila* serogroup 1, the most common cause of Legionnaires' disease; isolation of *Legionella* by culture is important for detection of other species and serogroups and for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.

Order both a culture of a lower respiratory specimen and a urinary antigen test when testing patients for *Legionella*.



In the United States, reported cases of Legionnaires' disease have grown by nearly nine times since 2000. Nearly 10,000 cases of Legionnaires' disease were reported in 2018, but this number is likely an underestimate as the illness is thought to be underdiagnosed.

More illness occurs in the summer and early fall, but Legionnaires' disease can happen any time of year.



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Treatment

If your patient has Legionnaires' disease, see the most recent guidelines for treatment of community-acquired pneumonia (<http://bit.ly/CommunityPneumonia>) and hospital-acquired pneumonia (<http://bit.ly/HospitalPneumonia>). Macrolides and respiratory fluoroquinolones are currently the preferred agents for treating Legionnaires' disease.

Reporting

Make sure your infection control department or lab are promptly reporting cases of Legionnaires' disease to your local health department. Timely identification and reporting of cases is important, as this allows public health officials to quickly identify and stop potential clusters and outbreaks by linking new cases to previously reported ones.

Etiology

Legionnaires' disease is a severe form of pneumonia that often requires hospitalization and is fatal in about 10% of cases overall, and in 25% of healthcare-associated cases. Legionnaires' disease is caused by *Legionella* bacteria. There are at least 60 different species of *Legionella*, and most are considered capable of causing disease. However, most disease is caused by *L. pneumophila*, particularly serogroup 1.

Transmission

While *Legionella* is found in natural, freshwater environments, it can become a health concern in human-made water systems (e.g., plumbing system of large buildings, cooling towers, certain medical devices, decorative fountains, hot tubs) where conditions allow it to multiply and come in contact with vulnerable persons. People contract *Legionella* by inhaling aerosolized water droplets containing the bacteria, or, less commonly, by aspiration of contaminated drinking water. *Legionella* is usually not transmitted from person to person; however, a single episode of person-to-person transmission has been reported. Fortunately, most people exposed to the bacteria do not become ill.

Risk Factors

Risk factors for developing Legionnaires' disease include:

- Age ≥50 years
- Smoking (current or historical)
- Chronic lung disease, such as emphysema or COPD
- Immune system disorders due to disease or medication
- Systemic malignancy
- Underlying illness, such as diabetes, renal failure, or hepatic failure

Prevention

The key to preventing Legionnaires' disease is maintenance of the water systems in which *Legionella* may grow. If *Legionella* is found in a healthcare facility's water system, the facility should work to eliminate the bacteria. CDC encourages all building owners, and especially those in healthcare facilities, to develop comprehensive water management programs to reduce the risk of *Legionella* growth and spread. Learn more about how to develop a water management program at www.cdc.gov/legionella/WMPtoolkit.

Timely reporting of Legionnaires' disease cases is important for controlling clusters and outbreaks.

Common Sources of Infection

Outbreaks of Legionnaires' disease are most often associated with large or complex water systems, like those found in hospitals, long-term care facilities, hotels, and cruise ships.

The most likely sources of infection include:



Water used for showering (potable water)



Cooling towers (parts of large air conditioning systems)



Decorative fountains



Hot tubs

Figure 1. Routine *Legionella* testing: A multifactorial approach to performance indicator interpretation*^{oΔ}

Concentration indicates that *Legionella* growth appears:

Uncontrolled	Poorly Controlled	Well Controlled			
≥10 CFU/mL [†] in potable water OR ≥100 CFU/mL in cooling towers	1.0–9.9 CFU/mL in potable water OR 10–99 CFU/mL in cooling towers	Detectable to 0.9 CFU/mL in potable water OR Detectable to 9 CFU/mL in cooling towers	No <i>Legionella</i> detected in a single round of testing	No <i>Legionella</i> detected in multiple rounds of testing	No <i>Legionella</i> detected in multiple rounds of testing with methods that detect viable and non-viable bacteria of any <i>Legionella</i> species

Change in concentration over time indicates that *Legionella* growth appears:

Uncontrolled	Poorly Controlled	Well Controlled			
100-fold or greater increase in concentration (e.g., 0.05 to 5 CFU/mL)	10-fold increase in concentration (e.g., 0.05 to 0.5 CFU/mL)	<i>Legionella</i> concentration steady (e.g., 0.5 CFU/mL for two consecutive sampling rounds)	No <i>Legionella</i> detected in a single round of testing	No <i>Legionella</i> detected in multiple rounds of testing	No <i>Legionella</i> detected in multiple rounds of testing with methods that detect viable and non-viable bacteria of any <i>Legionella</i> species

Extent indicates that *Legionella* growth appears:

Uncontrolled	Poorly Controlled	Well Controlled			
Detection in multiple locations AND a common source location [‡] OR Detection across many locations within a water system	Detection in a common source location that serves multiple areas OR Detection in more than one location within a water system	Detection in a few of many tested locations within a water system	No <i>Legionella</i> detected in a single round of testing	No <i>Legionella</i> detected in multiple rounds of testing	No <i>Legionella</i> detected in multiple rounds of testing with methods that detect viable and non-viable bacteria of any <i>Legionella</i> species

Type[¥] of *Legionella* (species and serogroup) associated with Legionnaires' disease:

Highly Associated	Less Associated
<i>L. pneumophila</i> serogroup 1; Non-Lp1 <i>L. pneumophila</i> ; Presence of multiple different <i>Legionella</i> species or serogroups	Any non- <i>pneumophila</i> <i>Legionella</i> species including “blue-white” fluorescent <i>Legionella</i>

* This figure is intended for use during routine testing of potable water and cooling towers only. Due to their ability to rapidly grow and spread *Legionella*, any detection of viable *Legionella* in a hot tub or decorative fountain should prompt a response, including a review of the water management program and corrective actions. Test results are performance indicators and are not a measure of risk of human illness. This figure is not intended for use if a building or device is associated with Legionnaires' disease (LD) cases or an outbreak.

^o See “Routine testing for *Legionella*” for guidance regarding suggested response activities. Comparable results may lead to different suggested response activities when other factors are considered (e.g., if there is evidence of poorly controlled growth at a healthcare facility).

^Δ Considering the type of *Legionella* identified along with other *Legionella* testing performance indicators provides a clearer picture of water system control than the results of any single indicator. For example, facility owners and operators may consider implementing immediate interventions for a healthcare facility with: A. detectable but <10 colony-forming units per milliliter (CFU/mL), B. non-Lp1 *Legionella pneumophila*, C. observed at steady concentrations, but D. detected at multiple distal locations including a central water heater.

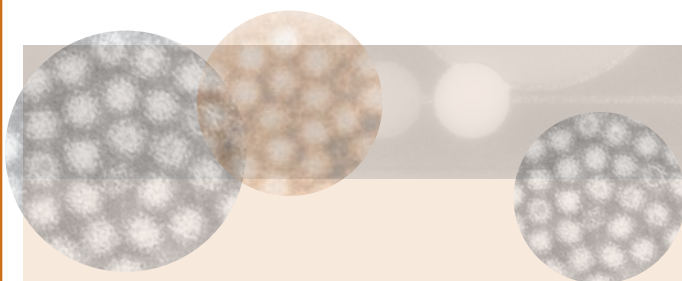
[†] Concentrations expressed as CFU/mL are for test results generated by traditional spread plate culture methods. If other test methods are used, consult testing lab or manufacturer instructions for appropriate interpretation.

[‡] Common source location examples include water heaters, hot water returns, storage tanks, and cooling tower basins.

[¥] If a facility has a history of associated LD cases, then sequencing isolates obtained during routine testing may provide performance indicators regarding outbreak strain persistence (if that strain is detected).



Norovirus in Healthcare Facilities Fact Sheet



General Information

Virology

Noroviruses (genus *Norovirus*, family *Caliciviridae*) are a group of related, single-stranded RNA, non-enveloped viruses that cause acute gastroenteritis in humans. Norovirus is the official genus name for the group of viruses provisionally described as “Norwalk-like viruses”. Currently, human noroviruses belong to one of three norovirus genogroups (GI, GII, or GIV), which are further divided into >25 genetic clusters. Over 75% of confirmed human norovirus infections are associated with genotype GII.

Clinical manifestations

The average incubation period for norovirus-associated gastroenteritis is 12 to 48 hours, with a median period of approximately 33 hours. Illness is characterized by nausea, acute-onset vomiting, and watery, non-bloody diarrhea with abdominal cramps. In addition, myalgia, malaise, and headache are commonly reported. Low-grade fever is present in about half of cases. Dehydration is the most common complication and may require intravenous replacement fluids. Symptoms usually last 24 to 60 hours. Up to 30% of infections may be asymptomatic.

Epidemiology of transmission

Noroviruses are highly contagious, with as few as 18 virus particles thought to be sufficient to cause infection. This pathogen is estimated to be the causative agent in over 21 million gastroenteritis cases every year in the United States, representing approximately 60% of all acute gastroenteritis cases from known pathogens. Noroviruses are transmitted primarily through the fecal-oral route, either by direct person-to-person spread or fecally contaminated food or water. Noroviruses can also spread via a droplet route from vomitus. These viruses are relatively stable in the environment and can survive freezing and heating to 60°C (140°F). In healthcare facilities, transmission can also occur through

hand transfer of the virus to the oral mucosa via contact with materials, fomites, and environmental surfaces that have been contaminated with either feces or vomitus.

Norovirus infections are seen in all age groups, although severe outcomes and longer durations of illness are most likely to be reported among the elderly. Among hospitalized persons who are immunocompromised or have significant medical comorbidities, norovirus infection can directly result in prolonged hospital stays, additional medical complications, and, rarely, death. There is currently no vaccine available for norovirus and, generally, no specific medical treatment is offered for norovirus infection apart from oral or intravenous repletion of volume.

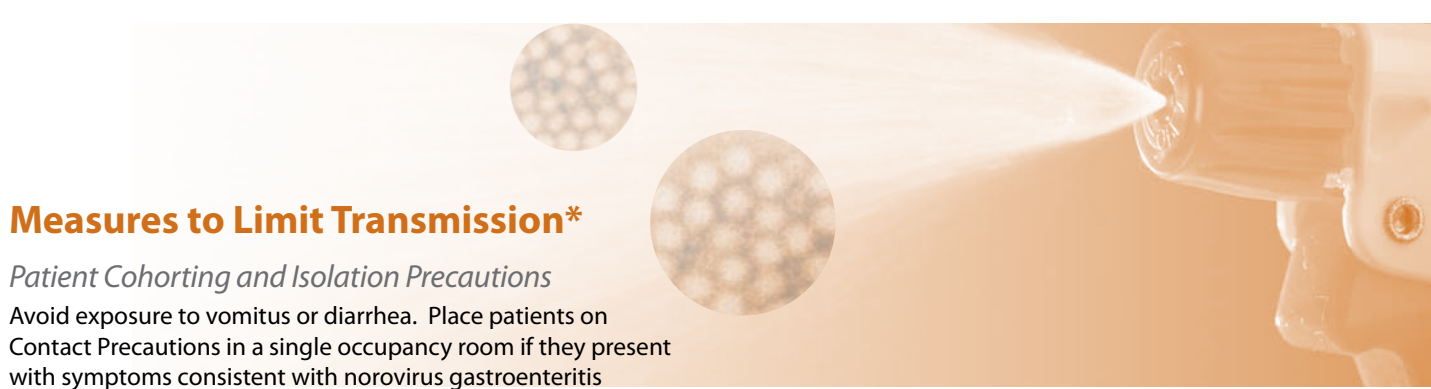
The ease of its transmission, a very low infectious dose, a short incubation period, environmental persistence, and lack of durable immunity following infection enables norovirus to spread rapidly through confined populations. Healthcare facilities and other institutional settings (e.g., daycare centers, schools, etc.) are particularly at-risk for outbreaks because of increased person-to-person contact. Healthcare facilities managing outbreaks of norovirus gastroenteritis may experience significant costs relating to isolation precautions and personal protective equipment, ward closures, supplemental environmental cleaning, staff cohorting or replacement, and sick time.

Diagnosis of norovirus infection

Diagnosis of norovirus infection relies on the detection of viral RNA in the stools of affected persons, by use of reverse transcription-polymerase chain reaction (RT-PCR) assays. This technology is available at CDC and most state public health laboratories and should be considered in the event of outbreaks of gastroenteritis in healthcare facilities. Enzyme immune-assays may also be used for identification of norovirus outbreak but are not recommended for diagnosis of individuals. Identification of the virus can be best made from stool specimens taken within 48 to 72 hours after onset of symptoms, although positive results can be obtained by using RT-PCR on samples taken as long as 7 days after symptom onset. Because of the limited availability of timely and routine laboratory diagnostic methods, a clinical diagnosis of norovirus infection is often used, especially when other agents of gastroenteritis have been ruled out.



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Measures to Limit Transmission*

Patient Cohorting and Isolation Precautions

Avoid exposure to vomitus or diarrhea. Place patients on Contact Precautions in a single occupancy room if they present with symptoms consistent with norovirus gastroenteritis.

Hand Hygiene

During outbreaks, use soap and water for hand hygiene after providing care or having contact with patients suspected or confirmed with norovirus gastroenteritis.

Patient Transfer and Ward Closure

Consider limiting transfers to those for which the receiving facility is able to maintain Contact Precautions; otherwise, it may be prudent to postpone transfers until patients no longer require Contact Precautions. During outbreaks, medically suitable individuals recovering from norovirus gastroenteritis can be discharged to their place of residence.

Diagnostics

In the absence of clinical laboratory diagnostics or in the case of delay in obtaining laboratory results, use Kaplan's clinical and epidemiologic criteria to identify a norovirus gastroenteritis outbreak.

Kaplan's Criteria

1. Vomiting in more than half of symptomatic cases and,
2. Mean (or median) incubation period of 24 to 48 hours and,
3. Mean (or median) duration of illness of 12 to 60 hours and,
4. No bacterial pathogen isolated in stool culture

Environmental Cleaning

Increase the frequency of cleaning and disinfection of patient care areas and frequently touched surfaces during outbreaks of norovirus gastroenteritis (e.g., increase ward/unit level cleaning to twice daily to maintain cleanliness, with frequently touched surfaces cleaned and disinfected three times daily using the US Environmental Protection Agency's list of approved products for healthcare settings (<http://www.epa.gov/oppad001/chemregindex.htm>).

Staff Leave and Policy

Develop and adhere to sick leave policies for healthcare personnel who have symptoms consistent with norovirus infection.

Exclude ill personnel from work for a minimum of 48 hours after the resolution of symptoms. Once personnel return to work, the importance of performing frequent hand hygiene should be reinforced, especially before and after each patient contact.

Establish protocols for staff cohorting in the event of an outbreak of norovirus gastroenteritis. Ensure staff care for one patient cohort on their ward and do not move between patient cohorts (e.g., patient cohorts may include symptomatic, asymptomatic exposed, or asymptomatic unexposed patient groups).

Communication and Notification

As with all outbreaks, notify appropriate local and state health departments, as required by state and local public health regulations, if an outbreak of norovirus gastroenteritis is suspected.

*Prevention and control recommendations taken from priority recommendations in the CDC HICPAC Guideline for the Prevention and Control of Norovirus Gastroenteritis Outbreaks in Healthcare Settings (<http://www.cdc.gov/hicpac/pdf/norovirus/Norovirus-Guideline-2011.pdf>)

Date last modified: September 6, 2011

Content source: Division of Healthcare Quality Promotion (DHQP), National Center for Preparedness, Detection, and Control of Infectious Diseases (NCEID)

Contact Us: Centers for Disease Control and Prevention
1600 Clifton Road, Atlanta, GA 30333, USA

1-800-CDC-INFO (1-800-232-4636)

TTY:888-232-6348,

24 hours/everyday at cdcinfo@cdc.gov (TTY)



U.S. Department of Health and Human Services
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Norovirus Illness: Key Facts

Norovirus—the stomach bug

Norovirus is a highly contagious virus. Norovirus infection causes gastroenteritis (inflammation of the stomach and intestines). This leads to diarrhea, vomiting, and stomach pain.

Norovirus illness is often called by other names, such as food poisoning and stomach flu. Noroviruses can cause food poisoning, as can other germs and chemicals. Norovirus illness is not related to the flu (influenza). Though they share some of the same symptoms, the flu is a respiratory illness caused by influenza virus.



Anyone can get norovirus illness

- Norovirus is the most common cause of acute gastroenteritis in the U.S.
- Each year, norovirus causes 19 to 21 million cases of acute gastroenteritis in the U.S.
- There are many types of norovirus and you can get it more than once.

Norovirus illness can be serious

- Norovirus illness can make you feel extremely sick with diarrhea and vomiting many times a day.
- Some people may get severely dehydrated, especially young children, the elderly, and people with other illnesses.
- Each year, norovirus causes 56,000 to 71,000 hospitalizations and 570 to 800 deaths, mostly in young children and the elderly.

Norovirus spreads very easily and quickly

- It only takes a very small amount of norovirus particles (fewer than 100) to make you sick.
- People with norovirus illness shed billions of virus particles in their stool and vomit and can easily infect others.
- You are contagious from the moment you begin feeling sick and for the first few days after you recover.
- Norovirus can spread quickly in enclosed places like daycare centers, nursing homes, schools, and cruise ships.
- Norovirus can stay on objects and surfaces and still infect people for days or weeks.
- Norovirus can survive some disinfectants, making it hard to get rid of.

Norovirus can spread in many ways

Norovirus can spread to others by—

- having direct contact with an infected person, for example, touching an infected person while caring for them,
- eating food or drinking liquids that are contaminated with norovirus,
- touching objects that have norovirus on them and then putting your fingers in your mouth, for example, touching a countertop that has vomit droplets on it and then putting your fingers in your mouth and
- sharing utensils or cups with people who are infected with norovirus.

There's no vaccine to prevent norovirus infection and no drug to treat it

- Antibiotics will not help with norovirus illness because antibiotics do not work on viruses.
- When you have norovirus illness, drink plenty of liquids to replace fluid loss and prevent dehydration.
- If you or someone you are caring for is dehydrated, call a doctor.



What is the Right Way to Wash Your Hands?

1. Wet your hands with clean, running water (warm or cold) and apply soap.
 2. Rub your hands together to make a lather and scrub them well; be sure to scrub the backs of your hands, between your fingers, and under your nails.
 3. Continue rubbing your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
 4. Rinse your hands well under running water.
 5. Dry your hands using a clean towel or air dry them.
- See Handwashing: Clean Hands Saves Lives (www.cdc.gov/handwashing/)

5 Tips to Prevent Norovirus From Spreading

1. Practice proper hand hygiene

Always wash your hands carefully with soap and water—

- after using the toilet and changing diapers, and
- before eating, preparing, or handling food.

Alcohol-based hand sanitizers can be used in addition to hand washing. But, they should not be used as a substitute for washing with soap and water.

2. Wash fruits and vegetables and cook seafood thoroughly

Carefully wash fruits and vegetables before preparing and eating them.

Cook oysters and other shellfish thoroughly before eating them.

Be aware that noroviruses are relatively resistant. They can survive temperatures as high as 140°F and quick steaming processes that are often used for cooking shellfish.

Food that might be contaminated with norovirus should be thrown out.

Keep sick infants and children out of areas where food is being handled and prepared.

3. When you are sick, do not prepare food or care for others

You should not prepare food for others or provide healthcare while you are sick and for at least 2 to 3 days after you recover. This also applies to sick workers in schools, daycares, and other places where they may expose people to norovirus.

4. Clean and disinfect contaminated surfaces

After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces. Use a chlorine bleach solution with a concentration of 1000–5000 ppm (5–25 tablespoons of household bleach [5.25%] per gallon of water) or other disinfectant registered as effective against norovirus by the Environmental Protection Agency (EPA).

5. Wash laundry thoroughly

Immediately remove and wash clothes or linens that may be contaminated with vomit or stool (feces).

You should—

- handle soiled items carefully without agitating them,
- wear rubber or disposable gloves while handling soiled items and wash your hands after, and wash the items with detergent at the maximum available cycle length then machine dry them.



Visit CDC's Norovirus Web site at www.cdc.gov/norovirus for more information.

Bird Flu Guidance for Farm Workers

1. Infected animals can pass disease to people in their **milk, saliva (spit), feces (poop), and other body fluids.**

2. Signs and symptoms of infection may include:



- Eye redness (conjunctivitis)
- Fever (temperature of 100°F (37.8°C) or greater) or chills



- Cough
- Sore throat
- Runny or stuffy nose
- Headaches



- Fatigue
- Diarrhea
- Nausea
- Difficulty breathing/shortness of breath (**call 911 immediately**)

3. **Personal protective equipment (PPE)** should be put on and taken off in areas away from animals.



- Masks
- Safety glasses, goggles or face shields
- Disposable gloves
- Overalls/gown



4. **Do not drink unpasteurized milk.**
Do not take milk home.



5. **Wash your hands with soap and water** or use hand sanitizer after touching animals or their **milk, saliva (spit), feces (poop), or other body fluids.**

6. **Do not touch your face, eyes, mouth, phone, food, or other commonly used objects until after you've washed your hands.**

Even though it's rare for humans to get sick from bird flu, we want you to know how to monitor your health and the health of your family.



For questions and 24/7 support, contact 806-778-7391 to reach the Texas Department of State Health Services in Lubbock. Let them know you work with cattle.

Guía Sobre la Gripe Aviar para Trabajadores de Lecherías

1. Los animales infectados pueden transmitir enfermedades a las personas a través de la **leche, la saliva, el excremento, y otros fluidos.**
2. Los signos y síntomas de una infección pueden incluir:



- Enrojecimiento de los ojos (conjuntivitis)
- Fiebre (temperatura de 100°F (37.8°C) o más) o escalofríos
- Tos
- Dolor de garganta
- Secreción o congestión nasal
- Dolores de cabeza
- Fatiga
- Diarrea
- Náuseas
- Dificultad para respirar/falta de aire (llame al 911 de inmediato)



3. El **equipo de protección personal (PPE en inglés)** debe ponerse y quitarse en un área alejada de los animales.



- Máscaras
- Gafas, anteojos de seguridad o protectores faciales
- Guantes desechables
- Bata/delantal



4. **No tome leche no pasteurizada.**
No se lleve leche a casa.



5. **Lávese las manos** con agua y jabón o gel desinfectante después de tocar **animales o leche, saliva, excremento, y otros fluidos.**

6. **No se toque la cara, los ojos, la boca, su teléfono, la comida ni otros objetos** hasta después de lavarse las manos.

Aunque es raro que los humanos se enfermen a causa de la influenza aviar, queremos que sepa cómo controlar su salud y la de su familia.



Si tiene preguntas y necesita ayuda 24/7, comuníquese al 806-778-7391 para comunicarse con el Departamento de Servicios de Salud del Estado de Texas, Región 1 de Salud Pública. Hágales saber que trabaja con ganado.

Your child needs vaccines as they grow!

2025 Recommended Immunizations for Birth Through 6 Years Old

Want to learn more?
Scan this QR code to find out which
vaccines your child might need. Or visit
www2.cdc.gov/vaccines/childquiz/



VACCINE OR PREVENTIVE ANTIBODY	BIRTH	1 MONTH	2 MONTHS	4 MONTHS	6 MONTHS	7 MONTHS	8 MONTHS	12 MONTHS	15 MONTHS	18 MONTHS	19 MONTHS	20–23 MONTHS	2–3 YEARS	4–6 YEARS
RSV antibody	Depends on mother's RSV vaccine status						Depends on child's health status							
Hepatitis B	Dose 1	Dose 2			Dose 3									
Rotavirus			Dose 1	Dose 2	Dose 3									
DTaP			Dose 1	Dose 2	Dose 3				Dose 4					Dose 5
Hib			Dose 1	Dose 2	Dose 3			Dose 4						
Pneumococcal			Dose 1	Dose 2	Dose 3			Dose 4						
Polio			Dose 1	Dose 2	Dose 3								Dose 4	
COVID-19					At least 1 dose of the current COVID-19 vaccine									
Influenza/Flu					Every year. Two doses for some children									
MMR								Dose 1						Dose 2
Chickenpox								Dose 1						Dose 2
Hepatitis A								2 doses separated by 6 months						

KEY

- ALL children should be immunized at this age
- SOME children should get this dose of vaccine or preventive antibody at this age

Talk to your child's health care provider for more guidance if:

1. Your child has any medical condition that puts them at higher risk for infection.
2. Your child is traveling outside the United States. Visit wwwnc.cdc.gov/travel for more information.
3. Your child misses a vaccine recommended for their age.

What diseases do these vaccines protect against?

BIRTH–6 YEARS OLD

VACCINE-PREVENTABLE DISEASE	DISEASE COMPLICATIONS
RSV (Respiratory syncytial virus) Contagious viral infection of the nose, throat, and sometimes lungs; spread through air and direct contact	Infection of the lungs (pneumonia) and small airways of the lungs; especially dangerous for infants and young children
Hepatitis B Contagious viral infection of the liver; spread through contact with infected body fluids such as blood or semen	Chronic liver infection, liver failure, liver cancer, death
Rotavirus Contagious viral infection of the gut; spread through the mouth from hands and food contaminated with stool	Severe diarrhea, dehydration, death
Diphtheria* Illness caused by a toxin produced by bacteria that infects the nose, throat, and sometimes skin	Swelling of the heart muscle, heart failure, coma, paralysis, death
Pertussis (Whooping Cough)* Contagious bacterial infection of the lungs and airway; spread through air and direct contact	Infection of the lungs (pneumonia), death; especially dangerous for babies
Tetanus (Lockjaw)* Bacterial infection of brain and nerves caused by spores found in soil and dust everywhere; spores enter the body through wounds or broken skin	Seizures, broken bones, difficulty breathing, death
Hib (Haemophilus influenzae type b) Contagious bacterial infection of the lungs, brain and spinal cord, or bloodstream; spread through air and direct contact	Depends on the part of the body infected, but can include brain damage, hearing loss, loss of arm or leg, death
Pneumococcal Bacterial infections of ears, sinuses, lungs, or bloodstream; spread through direct contact with respiratory droplets like saliva or mucus	Depends on the part of the body infected, but can include infection of the lungs (pneumonia), blood poisoning, infection of the lining of the brain and spinal cord, death
Polio Contagious viral infection of nerves and brain; spread through the mouth from stool on contaminated hands, food or liquid, and by air and direct contact	Paralysis, death
COVID-19 Contagious viral infection of the nose, throat, or lungs; may feel like a cold or flu. Spread through air and direct contact	Infection of the lungs (pneumonia); blood clots; liver, heart or kidney damage; long COVID; death
Influenza (Flu) Contagious viral infection of the nose, throat, and sometimes lungs; spread through air and direct contact	Infection of the lungs (pneumonia), sinus and ear infections, worsening of underlying heart or lung conditions, death
Measles (Rubeola)† Contagious viral infection that causes high fever, cough, red eyes, runny nose, and rash; spread through air and direct contact	Brain swelling, infection of the lungs (pneumonia), death
Mumps† Contagious viral infection that causes fever, tiredness, swollen cheeks, and tender swollen jaw; spread through air and direct contact	Brain swelling, painful and swollen testicles or ovaries, deafness, death
Rubella (German Measles)† Contagious viral infection that causes low-grade fever, sore throat, and rash; spread through air and direct contact	Very dangerous in pregnant women; can cause miscarriage or stillbirth, premature delivery, severe birth defects
Chickenpox (Varicella) Contagious viral infection that causes fever, headache, and an itchy, blistering rash; spread through air and direct contact	Infected sores, brain swelling, infection of the lungs (pneumonia), death
Hepatitis A Contagious viral infection of the liver; spread by contaminated food or drink or close contact with an infected person	Liver failure, death

*DTaP protects against tetanus, diphtheria, and pertussis

†MMR protects against measles, mumps, and rubella

Older children and teens need vaccines too!

2025 Recommended Immunizations for Children 7–18 Years Old

Want to learn more?
Scan this QR code to find out which
vaccines your child might need. Or visit
www2.cdc.gov/vaccines/childquiz/



RECOMMENDED VACCINES	7 YEARS	8 YEARS	9 YEARS	10 YEARS	11 YEARS	12 YEARS	13 YEARS	14 YEARS	15 YEARS	16 YEARS	17 YEARS	18 YEARS
HPV												
Tdap												
Meningococcal ACWY												
Meningococcal B												
Influenza/Flu												
COVID-19												
Mpox												
Dengue												

KEY

- ALL children in age group should get the vaccine
- ALL children in age group can get the vaccine
- SOME children in age group should get the vaccine
- Parents/caregivers should talk to their health care provider to decide if this vaccine is right for their child

Talk to your child's health care provider for more guidance if:

1. Your child has any medical condition that puts them at higher risk for infection or is pregnant.
2. Your child is traveling outside the United States. Visit wwwnc.cdc.gov/travel for more information.
3. Your child misses any vaccine recommended for their age or for babies and young children.

What diseases do these vaccines protect against?

7-18 YEARS OLD

VACCINE-PREVENTABLE DISEASE	DISEASE COMPLICATIONS	NUMBER OF VACCINE DOSES
HPV (Human papillomavirus) Contagious viral infection spread by close skin-to-skin touching, including during sex	Genital warts and many types of cancers later in life, including cancers of the cervix, vagina, penis, anus, and throat	2 or 3 doses
Tetanus (Lockjaw)* Infection caused by bacterial spores found in soil and dust everywhere; spores enter the body through wounds or broken skin	Seizures, broken bones, difficulty breathing, death	1 dose at age 11-12 years Additional doses if missed childhood doses 1 dose for dirty wounds
Diphtheria* Illness caused by a toxin produced by bacteria that infects the nose, throat, and sometimes skin	Swelling of the heart muscle, heart failure, coma, paralysis, death	1 dose at age 11-12 years Additional doses if missed childhood doses
Pertussis (Whooping Cough)* Contagious bacterial infection of the lungs and airway; spread through air and direct contact	Infection of the lungs (pneumonia), death; especially dangerous for babies	1 dose at age 11-12 years Additional doses if missed childhood doses 1 dose every pregnancy
Meningococcal** Contagious bacterial infection of the lining of the brain and spinal cord or the bloodstream; spread through air and direct contact	Loss of arm or leg, deafness, seizures, death	2 doses. Additional doses may be needed depending on medical condition or vaccine used.
Influenza (Flu) Contagious viral infection of the nose, throat, and sometimes lungs; spread through air and direct contact	Infection of the lungs (pneumonia), sinus and ear infections, worsening of underlying heart or lung conditions, death	1 dose each year 2 doses in some children aged 6months through 8 years
COVID-19 Contagious viral infection of the nose, throat, or lungs; may feel like a cold or flu. Spread through air and direct contact	Infection of the lungs (pneumonia); blood clots; liver, heart or kidney damage; long COVID; death	1 or more doses of the current COVID-19 vaccine depending on health status. For more information: www.cdc.gov/covidschedule
Mpox Contagious viral infection spread through close, often skin-to-skin contact, including sex; causes a painful rash, fever, headache, tiredness, cough, runny nose, sore throat, swollen lymph nodes	Infected sores, brain swelling, infection of the lungs (pneumonia), eye infection, blindness, death	2 doses
Dengue Viral infection spread by bite from infected mosquito; causes fever, headache, pain behind the eyes, rash, joint pain, body ache, nausea, loss of appetite, feeling tired, abdominal pain	Severe bleeding, seizures, shock, damage to the liver, heart, and lungs, death	3 doses

*Tdap protects against tetanus, diphtheria, and pertussis

**Healthy adolescents: Meningococcal ACWY vaccine (2 doses); Meningococcal B vaccine (2 doses if needed).

You need vaccines throughout your life!

2025 Recommended Immunizations for Adults Aged 19 Years and Older

Want to learn more?
Scan this QR code to find out which
vaccines you may need. Or visit:
www2.cdc.gov/nip/adultimmsched/



Staying **up to date** on your vaccines is one of the best things you can do to protect your health.

If you are pregnant or have a medical condition that puts you at higher risk for infections, talk to your health care provider about which vaccines are right for you.

KEY

-  ALL adults in age group should get the vaccine.
-  SOME adults in age group should get the vaccine.
-  Adults should talk to their health care provider to decide if this vaccine is right for them.

VACCINE	19–26 YEARS	27–49 YEARS	50–64 YEARS	65+ YEARS
COVID-19	Aged 64 and younger: At least 1 dose of the current COVID-19 vaccine.			65+: At least 2 doses.
Influenza/Flu	Every Year			
RSV	If pregnant during RSV season		If aged 60 through 74 years	If aged 75 years or older
Tdap/Td	Tdap every pregnancy. Td/Tdap every 10 years for all adults.			
MMR	If aged 68 years or younger			
Chickenpox	If U.S. born and aged 45 years or younger			
Shingles				
HPV	Aged 27–45 years			
Pneumococcal				
Hepatitis A				
Hepatitis B	Through 59 years			
Meningococcal				
Hib				
Mpox				

What diseases do these vaccines protect against?

ADULTS AGED 19 YEARS AND OLDER

VACCINE-PREVENTABLE DISEASE	DISEASE COMPLICATIONS	NUMBER OF VACCINE DOSES
COVID-19 Contagious viral infection of the nose, throat, or lungs; may feel like a cold or flu	Pneumonia, blood clots, liver, heart, or kidney damage, long COVID, death	1 or more doses of the current COVID-19 vaccine depending on age or health status. For more information: www.cdc.gov/covidschedule
Influenza (Flu) Contagious viral infection of the nose, throat, and sometimes lungs	Pneumonia, sinus and ear infections, worsening of underlying health conditions like heart and lung disease, death	1 dose each year
RSV (Respiratory syncytial virus) Contagious viral infection of the nose, throat, and sometimes lungs	Pneumonia, inflammation of the small airways in the lung; especially dangerous for infants, young children, and older adults	1 dose
Tetanus (Lockjaw)* Infection caused by bacterial spores found in soil and dust everywhere; spores enter the body through wounds or broken skin	Sudden, involuntary muscle spasms, jaw cramping, seizures, broken bones, difficulty breathing, death	3 doses if not already vaccinated 1 booster every 10 years 1 dose for dirty wounds
Diphtheria* Illness caused by a toxin produced by bacteria that infects the nose, throat, and sometimes skin	Thick, gray, build up in throat or nose makes breathing and swallowing difficult, heart failure, brain injury, coma, death	3 doses if not already vaccinated 1 booster every 10 years
Pertussis (Whooping Cough)* Contagious bacterial infection of the lungs and airway	Severe coughing fits, life-threatening pause in breathing, pneumonia, death; especially dangerous for babies	3 doses if not already vaccinated 1 dose every pregnancy
Measles (Rubeola)[†] Contagious viral infection that causes high fever, cough, red eyes, runny nose, and rash	Brain swelling, pneumonia, death	1 or 2 doses
Mumps[†] Contagious viral infection that causes fever, tiredness, swollen cheeks, and tender swollen jaw	Brain swelling, painful and swollen testicles or ovaries, deafness, death	1 or 2 doses
Rubella (German Measles)[†] Contagious viral infection that causes low-grade fever, sore throat, and rash	Very dangerous in pregnant women; can cause miscarriage or stillbirth, premature delivery, severe birth defects	1 or 2 doses
Chickenpox (Varicella) Contagious viral infection that causes fever, headache, and an itchy, blistering rash	Infected sores, brain swelling, pneumonia, death	2 doses
Shingles (Zoster) Caused by the chickenpox virus, which hides in the body and sometimes reactivates later in life	Severe blistering rash on one side of the face or body; long-term nerve pain, hearing damage, blindness, death	2 doses
HPV (Human papillomavirus) Contagious viral infection spread by sexual contact; sometimes causes genital warts	Many types of cancers including cancers of the cervix, vagina, penis, anus, and throat	2 or 3 doses
Pneumococcal Bacterial infections of ears, sinuses, lungs, or bloodstream	Depends on the part of the body infected, but can include pneumonia, blood poisoning, infection of the lining of the brain and spinal cord, death	1 or 2 doses
Hepatitis A Contagious viral infection of the liver spread by contaminated food or drink or close contact with an infected person	Liver failure, yellow skin or eyes, stomach pain, vomiting, fever, diarrhea, fatigue, death	2, 3, or 4 doses depending on vaccine used
Hepatitis B Contagious viral infection of the liver spread through contact with infected body fluids such as blood or semen	Liver failure, yellow skin or eyes, stomach pain, vomiting, fever, diarrhea, fatigue, death	2, 3, or 4 doses depending on vaccine used
Meningococcal Bacterial infection of the lining of the brain and spinal cord or the bloodstream	Fever, headache, stiff neck, light sensitivity, confusion, loss of arm or leg, deafness, seizures, death	1 or more doses depending on vaccine used, medical condition, where patient lives or works
Hib (Haemophilus influenzae type b) Bacterial infection that can attack the lungs, brain and spinal cord, or bloodstream	Brain damage, hearing loss, loss of arm or leg, death	1 or 3 doses depending on medical condition
Mpox Contagious viral infection spread by sexual contact; causes a painful rash, fever, headache, tiredness, cough, runny nose, sore throat, swollen lymph nodes	Infected sores, brain swelling, pneumonia, eye infection, blindness, death	2 doses

***Td** protects against tetanus, diphtheria, and pertussis

***Td** protects against tetanus and diphtheria

[†]**MMR** protects against measles, mumps, and rubella

Last updated April 2025

Free Immunization Resources

What is the DSHS Immunization Publication Order Form?

DSHS Immunization has created materials to help educate the public on the importance of vaccines.

These materials are available for free using the publication order form on our online portal.

What is Available in the Order Form?

- Brochures
- Flyers
- Posters
- Vaccine Information Statements (VIS)
- Immunization Schedules
- Children and Teen Activity Books
- Refrigerator Magnets

How to Access the Order Form

1. Go to immunizetexasorderform.com.
2. Create an account by clicking “click here to register.”
3. After registering, your email becomes your username.
4. You can browse by page or use keywords to look for specific materials in the search field in the top-right corner, next to the cart icon.

How to Place an Order

Once you find the items you want to order, add them to your cart and proceed to checkout. DSHS will ship the materials free to the address provided unless you request expedited shipping.

Please note: Products have a limit on the amount you can order at one time. Please contact PIET@dshs.texas.org for orders that exceed the online limits. Submitting multiple orders to bypass the maximum limit will delay your order.



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If you receive an error message, please provide the error ID number and a screenshot of the error along with a brief description. We will work with our vendor to fix your cart.

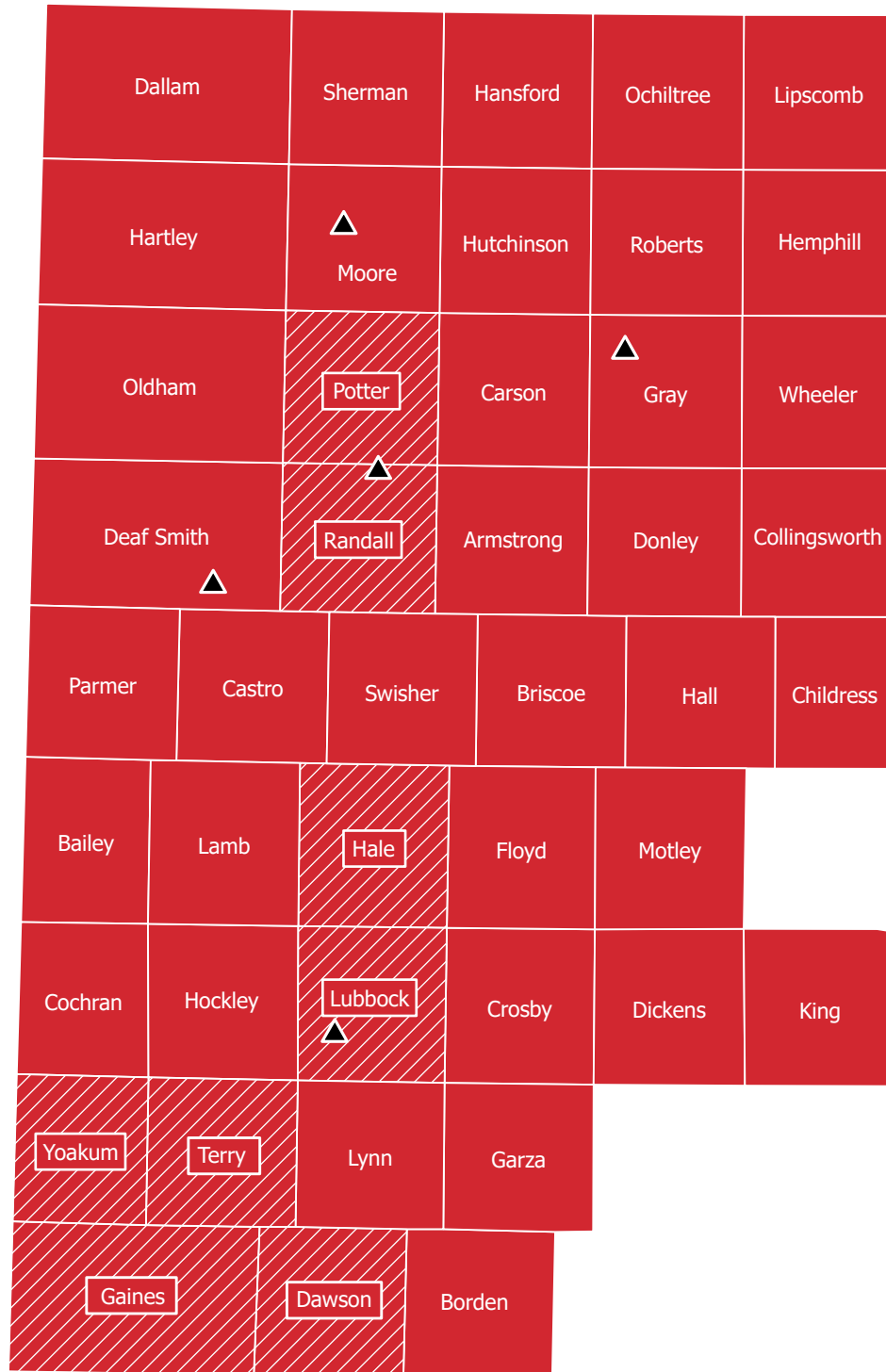
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Texas Department of State
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▲ DSHS Regional Office

○ Local Health Department provides public health services to city only (not county)

▨ Local Health Department provides public health services



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