ALABAMA STATE DEPARTMENT OF EDUCATION

ALABAMA HEALTH SERVICES

STANDARD PRECAUTIONS

In the School Setting

Resource Procedure Guideline

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FOREWORD

Successful programs of school health continue to be an imperative responsibility for nurses at various school system levels. This manual is designed to serve as a guide in the establishment of such programs. To ensure its usefulness, we solicited the assistance of selected school nurses from multiple education levels and our own department.

The State Board of Education members and the State Department of Education appreciate the time and effort expended by our committee members. We also appreciate the local superintendents who allowed these members time to participate in this project.

Few programs are useful without implementation that is done consistently well. Therefore, I challenge each person at the local school level to become knowledgeable of the information provided herein and to consistently provide quality health services to all of your constituents. There are many children with health issues and chronic illnesses that attend our schools. A school's approach to the health of its students is to continually provide quality health care in the school setting. The goal is to promote an optimum wellness environment in order to enhance each student's ability to learn.

I pledge my support to you in the development and implementation of this resource manual, and I implore of you to maintain continuity in school nursing services, as nurses strive to provide quality health services for students in the school setting.

Sincerely,

Michael Sentance

State Superintendent of Education

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INTRODUCTION

The material presented in this publication may be the first step in the development of local guidelines and procedures. This manual represents the committee's attempt and recommendation to organize information from various sources such as the Alabama State Board of Education, the Alabama Department of Public Health, the Jefferson County Health Department, the Center for Disease Control, the Alabama Board of Nursing and local education agency protocol and procedures.

This material is primarily for reference. It is not intended as a substitute for local board policies or procedures, nor is it advice of counsel. **Where there are statutes cited, please refer to the full text for clarification and direction going forward.**

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Standard Precautions in the School Setting

Employee Resource Guidelines

SECTION 1:

Resource for Licensed Nurses
Professional Development for Local Education Agency (LEA) personnel

Procedure: Guidelines for Universal Precautions and Standard Precautions

Purpose: To reduce the transmission of communicable diseases in the school setting, and facilitate consistent use of standard precautions. Intended as an educational resource for licensed nurses in providing staff development and infection control in the school setting.

Nursing Supplies: Licensed nurses may enhance this training as needed to optimize the learning environment for school personnel.

- Sign in sheet
- Handouts
- PowerPoint and/or Video

Administrative Support and Implementation:

Occupational exposure in the school setting can be minimized or eliminated by adopting recommended best practice procedures for all school personnel.

- Availability of handwashing facilities: running water, soap and paper towels
- Antiseptic hand cleansers, when a handwashing facility is inaccessible
- Puncture-proof, disposable, labeled containers: needles, syringes and sharps
- Personal protective equipment (PPE) per specific task: gloves, CPR mask etc.
- Disinfectants as needed for specific tasks: cleaning agents, supplies, equipment
- Waste receptacles including disposable plastic liners, for appropriate disposal
- Provide annual training to evaluate personnel implementation

Engineering controls are supplies and facilities needed to create a safe work environment.

Work practice controls are the behavior that employees adopt and practice that are necessary to create and maintain a safe work environment.

Both engineering and work practice controls are essential to prevent the transmission of bloodborne pathogens.

Personnel to Perform Duties:

Licensed School Nurse: Training material for educational purposes

All personnel: Follow standard precautions guidelines

Steps to Complete Procedure/Task:

Objectives

Training for all school personnel, to include: Nurses, Medication Assistance and Unlicensed Diabetic Assistance, Teachers, Support Staff, Janitorial, Transportation and Lunchroom Personnel.

- Provide information in school settings
- Practice how to safely put on and remove PPE

Prevent exposure to blood borne pathogens (including task such as assisting with medications, diabetic care such as finger sticks, EpiPen preparedness)

Exposure to blood through a skin wound or mucous membrane:

1. Stay calm and rational. Report exposure to the School Nurse.

Bacteria and viruses carried in the blood, such as hepatitis B virus, pose a small but specific risk in the school setting. (*American Academy of Pediatrics)*

- Blood and blood-derived fluids (such as watery discharges from injuries) pose potential risk.
- Hepatitis B virus may survive in a dried state in the environment for a week or longer. Some other body fluids such as saliva contaminated with blood or blood-associated fluids may contain live virus (such as hepatitis B virus), but at lower concentrations than are found in blood.
- Other body fluids, including urine and feces, may not pose a risk with blood borne diseases unless they are contaminated with blood, these fluids may pose a risk for other infectious diseases.

Learner objectives:

At the end of this section, school personnel should:

Prevent exposure through education. Build educational partnerships, to ensure quality care that is compassionate, effective, appropriate, and responsive to the diverse and changing needs of students and staff members. (PPE, personal protective equipment)

1. Practice standard precautions consistently
2. Identify the appropriate circumstances for which each type of PPE as indicated
3. Practice how to safely and effectively utilize personal protective equipment, put on and remove PPE
4. Safely handle needles and sharps, specific delegated task, without bending or recapping needles
5. Dispose of contaminated personal protective equipment (PPE), needles and sharps appropriately, per protocol
6. Immediately report all exposure incidents involving students to the principal and school nurse
7. Immediately report any personnel exposure incident to the principal and school nurse

Outcome: Prevention is the goal, to increase the safety for students and school employees in the work environment through education, appropriate hand washing technique, improved personnel use of protective equipment such as gloves, sharps containers, storage of supplies, and disposal of contaminated objects.

Achieve and maintain quality health services with continuity of care for students and school personnel.

Risk Management, Self-Assessment - Exposure Potential

According to the Code of Federal Regulations, "occupational exposure" means reasonably anticipated contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Federal regulations do not distinguish which employees are occupationally exposed. However, the regulations clearly state the employer must determine which employees might be potentially exposed to bloodborne pathogens. Therefore, it is recommended that LEA's list job titles as well as task and procedures in which occupational exposure occurs.

Job Title	Tasks/Responsibilities
School Nurse	Providing nursing assessments, first aid, procedures such as administering injections; checking blood glucose; catheter care; gastrostomy care and feedings; respiratory and tracheostomy care
Unlicensed Assistive Personnel currently referred to as "Medication Assistants" (MA):	The registered nurse is accountable for determining the tasks that may be safely performed by the unlicensed assistive personnel/medication assistant (MA). Following training and demonstration of competency, the MA may provide assistance with medication, which may include oral medication, inhalers, topical medications, nasal drops and sprays, ophthalmic (eye) drops, ointment and patches, ear drops, glucose gel to the oral mucus membranes for low blood sugar, and EpiPen a single dose auto injectable epinephrine for anaphylaxis is the only injectable medication in the **"Curriculum to Teach Unlicensed School Personnel How To Assist with Medications In The School Setting"**
Medication Assistant currently referred to as "Unlicensed Diabetic Assistants" (UDA):	Each local education agency (LEA) shall **ensure that diabetes training programs are provided in accordance with the Safe at Schools Act #2014-437,** in the care needed for students with diabetic medical needs according to the student's Individualized Healthcare Plan (IHP). The medical authorizations of which are limited to permitting the administration of injectable medication specific to his or her diabetes; the Unlicensed Diabetic Assistant (UDA), to the extent required by the student's IHCP, may perform task based on the individual student's needs, such as use of glucose gel to oral mucus membranes, finger stick for glucose monitoring, and may include the use of injectable medication such as insulin and glucagon in accordance with the Safe at Schools Act and to the extent of the IHP.
Personnel trained in the use of EpiPen injection for anaphylaxis	**Anaphylaxis Preparedness Act #2014-405**: EpiPen used for anaphylaxis, a single dose auto injectable epinephrine may be administered or provided to school children by the school nurse, or medication assistant who has completed an anaphylaxis training program conducted by a nationally recognized organization experience in training laypersons in emergency health treatment or other medication administration program approved by the State Department of Ed. and State Board of Nursing.
Nurses, Administrators, Teachers, Coaches, Security Officers, Clerical Staff, Aides, and Bus Drivers	Providing health services in providing first aid, routine and/or invasive procedures Routine care: vomiting, cuts and abrasions, diapering Emergency: seizure precautions, assistance in anaphylaxis emergency
Janitorial	Cleaning spills and surfaces possibly containing blood and/or body fluids and disposing of garbage and waste materials containing potentially infectious body fluids.
Lunchroom staff	Cleaning spills and surfaces Potential injury from sharp objects, body fluids possibly containing blood Disposing of garbage and waste materials containing potentially infectious body fluids

Section 2: Process of Disease Transmission

General Information

Employee Resource Procedure Guidelines

Section 2: Process of Disease Transmission

General Information:

1. Individuals may be infectious prior to exhibiting symptoms, therefore it is recommended that precautions are implemented for all Local Education Agencies (LEA's) personnel and students. This practice is endorsed by the Centers for Disease Control and Prevention (CDC), The American Public Health Association (APHA) and the United States Department of Labor, Occupational Safety and Health Administration (OSHA) Part 19191939, Title 29 of the Code of Federal Regulations, "Occupational Exposure to Blood borne Pathogens," and is referred to as Standard Precautions. Although OSHA does not regulate LEA's in Alabama, it is imperative that efforts be taken to safeguard the health of students and staff.
2. Standard Precautions includes the use of barriers to prevent contact with non-intact skin, mucous membranes, blood, and body fluids.
3. The term Standard Precautions includes hand-washing and the use of personal protective equipment (PPE) gloves, eye protection and barriers to prevent contact where splashing or soiling is likely to occur."
4. Direct contact transmission occurs when the organism enters through small breaks or cracks in skin or is in contact with mucous membranes (eyes, nose, mouth)
5. Indirect transmission occurs when a host comes in contact with an infectious organism in the environment, via airborne transmission through aerosols or droplets; example influenza (cough, sneeze, nasal discharge), Vehicle infection via contaminated water or food and from fecal material (ex: hepatitis A or salmonella), Vector infection via insects (ex.: Lyme disease from ticks)

Definition:

Prevention, using standard precautions, should include use of cleaning agents and sanitizing contaminated surfaces. Utilizing appropriate barriers such as moisture-resistant disposable products when possible. Cleaning, removing visible soil from objects and surfaces, is essential prior to using a sanitizer or disinfectant.

- "Sanitizer" is a product that reduces germs on inanimate surfaces to levels considered safe by public health codes or regulations. A sanitizer may be appropriate to use on surfaces utilized for food preparation, lunchroom tables, dishes, utensils, cutting boards, and shared daily items.
- "Disinfectant" is a product that destroys or inactivates germs on an inanimate object. A disinfectant may be appropriate to use on non-porous surfaces such as bathroom surfaces, door and cabinet handles, tables or areas that are used for special procedures such as catheterization and diaper changes.

  Note: the surface must be visibly clean before sanitizing or disinfecting it. If it is not visibly clean, wash the surface with detergent solution, and then rinse with water before applying the sanitizer or disinfectant. Some sanitizers/disinfectants require rinsing the surface after the chemical is applied for the require contact time. Be sure to read labels and follow the manufacturer's instructions for use.

  It is important to remember to use in a well ventilated area, and not in an area that is occupied. Asthma and reactive airway disease can occur in sensitized persons exposed to any airborne chemical, including germicides.

EPA registered products: Federal law requires that all EPA-registered products must be used according to the instructions on the manufacturer's label. Look for the U.S. Environmental Protection Agency (EPA) registration number on the label of any product to be used as a sanitizer or disinfectant.

Section 3: Guidelines and Procedures

Employee Guidelines and Procedures

Hand Hygiene

Cleaning and Disinfecting

Section 3: Prevention & Steps to Complete Procedure/Task:

Prevention: Hand Hygiene/ Gloves

1. Handwashing is the single most effective way to prevent the spread of infectious diseases
2. Personal protective equipment should be readily accessible for routine and emergent situations
3. Appropriate equipment for decontamination and disposal of waste products should be readily available

Prevent exposure to blood borne pathogens such as Human Immunodeficiency Virus (HIV), Hepatitis B virus (HBV) and Hepatitis C virus.
As well as protection from other body fluids that may not contain blood, including but not limited to saliva, vomit, urine, feces, and discharge from eyes, nasal cavity etc.

Always refer to CDC and ADPH for all current recommendations.

1. All personnel shall consistently utilize good handwashing technique at all times
2. Wear gloves if you anticipate or potentially may contact blood and/or body fluids, including blood-containing tissue or injury discharges. Persons with an allergy to latex should not wear latex gloves. (Check with your school nurse, regarding other glove alternatives.)
3. Pick up the spill using disposable towels and tools that can be disinfected. Be careful not to splash any of the contaminated materials. (If possible ask the person to hold the towel or item to collect the fluid, until you are able to put on gloves.)
4. Utilize single-use disposable gloves and discard them into a hands-free, covered receptacle that is lined with a leak-proof plastic bag that can be securely tied or sealed when removed from the trash.
5. Avoid handling the contaminated gloves. Wash your hands immediately, after removing contaminates and gloves.

<u>Handwashing Technique</u> (Recommendation by CDC)

- Wet hands with running water (warm or cold)
- Rub hands together producing friction, lather with soap. (Soap suspends easily removable soil and microorganisms.)
- Remember to scrub between fingers, knuckles, backs of hands, nails and around jewelry.
- Scrub your hands for at least 20 seconds (Hum the “Happy Birthday” song from beginning to end twice)
- Rinse hands well under clean running water, while holding finger down toward sink
- Dry hands using a disposable paper towel
- Use paper towel to turn off the faucet
- If in public area, after washing hands, we can use a paper town to open the door and exit
- Throw paper towels and any other dirty items in the appropriate waste containers.

<u>Lunchroom/ Food Preparation</u>

Do not use food preparation sinks to wash hands if contaminated with blood or other body fluids
Wash hands before: serving food; before and after eating; before and after preparing food

Handwashing is essential to prevent the transmission of germs from person to person and is not replaced by the use of gloves. Gloves may be worn to protect the wearer or they may be worn to protect others from the wearer. For example, gloves may be worn to protect the wearer when assisting a person with a bloody nose. However, food preparers wear gloves to protect the public from the wearer.

Gloves do not provide total protection, since defects may occur. The combination of gloves, and handwashing, offers the most complete protection.

Wear gloves:

- When in contact with blood or other body fluids is anticipated or may potentially occur
- When open sores and cuts are present
- When cleaning items that may be contaminated with body fluids such as blood, urine and vomit

Wear Gloves for Specific Tasks:

First aid, CPR and emergency care

Nursing, health care procedures

Before and after procedures (Including teachers/staff that has received specialized training by the nurse for procedures such as EpiPen in an anaphylaxis emergency; Unlicensed Diabetic Assistance, staff that has received training and delegation for specific identified students using blood glucose testing with sharps and needles for diabetic care, emergency care with glucose gel or glucagon.)

Before and after changing diapers and toileting

Cleaning contaminated areas

Disposing of trash

Handling or preparing food

Donning (putting on) Gloves:

- Gloves should fit smoothly, not loose
- Avoid excessive stretching of gloves, not tight
- Inspect gloves for visible breaks or tears in the gloves
- Gloves must be changed between each person, completion of each task

Remove gloves:

The outside of used gloves should be considered a health hazard. Avoid contacting any bare skin with the outside surface of used gloves.

- Grasp the cuff area of one glove using other gloved hand.(Glove: dirty/dirty)
- Pull the glove off the hand, allowing it to turn inside out.
- Grasp and contain the glove, formed into a ball within the palm of the gloved hand.
- Place the thumb of the ungloved hand underneath the cuff (between skin and glove) of the gloved hand, and remove it by pulling inside out, over the first glove. (Clean/Clean)
- Push glove inside out, down over fingers and around balled up glove. Both soiled glove surfaces are now contained inside the second glove.
- Grasp inside out gloves and discard into plastic sealable bag, in accordance with disposal procedures

After removing gloves, wash and dry hands thoroughly. Do not contaminate area such as telephones, doors, drawer handles, light switch or elevator buttons before removing gloves.

Disposal of Sharps (Including specific tasks)

1. Unlicensed Medication Assistant: commonly referred to as medication assistance (MA's)
Anaphylaxis Preparedness Act #2014-405: A single dose auto injectable medication, epinephrine used for anaphylaxis, may be administered or provided to school children by the school nurse, or medication assistant who has completed an anaphylaxis training program conducted by a nationally recognized organization experience in training laypersons in emergency health treatment or other medication administration program approved by the State Department of Ed. and State Board of Nursing.

- EpiPen auto injector in an approved designated sharps container and disposal of gloves appropriately

2. Unlicensed Diabetic Assistant: commonly referred to as UDA
Each local education agency (LEA) shall **ensure that diabetes training programs are provided in accordance with the Safe at Schools Act #2014-437,** in the care needed for students with diabetic medical needs according to the student's Individualized Healthcare Plan (IHP). The medical authorizations of which are limited to permitting the administration of injectable medication specific to his or her diabetes; the Unlicensed Diabetic Assistant (UDA), to the extent required by the student's IHCP, may perform task based on the individual student's needs, such as use of glucose gel to oral mucus membranes, finger stick for glucose monitoring, and may include the use of injectable medication such as insulin and glucagon in accordance with the Safe at Schools Act and to the extent of the IHP.

- Sharps and Injectable in an approved designated sharps container, and disposal of gloves appropriately, as indicated.

GENERAL PROCEDURES FOR HANDLING BODY FLUIDS

Objects and surfaces that come in contact with blood and/or body fluids need to be cleaned immediately.

- Use disposable gloves and disposable towels for cleaning up blood and body fluids.

If contamination occurs on surfaces such as floors, walls, bathrooms, or procedure areas:

- Clean the surface with disposable gloves and disposable towels
- Fresh water and cleaning agent should be used for cleaning contaminated and/or dirty objects and surfaces. DO NOT REUSE WATER. (If possible, rinse objects under water after cleaning.)
- Disinfect all areas, surfaces and objects after cleaning. (Follow product manufacturer label.)
- Contaminates should be sealed and discarded in a plastic-lined hazardous waste container

Objects and surfaces that come in contact with blood and/or body fluids (stool, urine, vomit) need to be disinfected immediately after cleaning.

Cleaning and Disinfecting

- Immediately clean any surface or items that are contaminated with blood or other body fluids.
- Disposable paper towels should be used in the cleaning process.
- Disinfect all surfaces after cleaning using the correct bleach solution or use an EPA approved commercial disinfectant.
- If using bleach solution make it FRESH DAILY, since it loses its ability to kill germs over time.

INSTRUCTIONS FOR MIX AND USE OF DISINFECTION AGENTS FORMULAS FOR MIXING CHLORINE BLEACH SOLUTIONS

Some of the proportions will be approximate for both formulations. Standard abbreviation for cups (C.), tablespoons (T.), and teaspoons (t.) are used.

1:10 Chlorine Bleach Solution

This solution is used for general cleaning of non-porous environmental surfaces on a routine basis. The solution must be MADE FRESH DAILY or at least every four hours, as the active ingredient is lost more rapidly in very dilute solutions than in the more concentrated solutions. Test bleach solutions with chlorine strips for adequate concentrations before use.

- Commercial disinfectants, must be effective against hard- to-kill bacteria, and approved by the US Environmental Protection Agency. (Follow product manufacturer label.)

KEEP DISINFECTANT, as well as, BLEACH OR BLEACH AND WATER SOLUTION OUT OF THE REACH OF CHILDREN. Remove gloves and discard after use.

Section 4: Communicable and Infectious Diseases

Mandatory Reporting Law

Disease Specific Guidelines (Reference for Employees)

- **This is not an exhaustive list of reportable diseases**

EXPOSURE CONTROL AND OUTBREAK MANAGEMENT

A. Protocol for Control of Contagious Diseases

B. Individual Listing/Description of Some Reportable or Contagious Diseases in the School Setting

* Explains the protocol for control of contagious diseases and includes individual fact sheets on diseases that most affect schools and the people associated with them. Reportable diseases are marked.

** Although a condition or illness may not be considered "reportable," it is reportable in an outbreak situation.

*** An outbreak is defined as two or more similarly ill persons who live in different households and have a common exposure.

Disease Specific Guidelines: Table of Content

CONJUNCTIVITIS (Pinkeye)

BACKGROUND

Conjunctivitis is a non-fatal disease affecting one or both eyes with irritation and discharge. In the US, conjunctivitis is most common to southern areas, especially in summer and fall, due to their warm climates. Two types of conjunctivitis exist: bacterial and viral. Bacterial conjunctivitis is the most common type found in day care centers. Viral conjunctivitis is mostly associated with the common cold.

REPORTABLE

Not reportable.

INFECTIOUS AGENT(S)

Various agents.

MODE OF TRANSMISSION

Conjunctivitis can be contracted from direct contact with discharge from an infected person's eye or from the upper respiratory tract of those infected. It may also be contracted from fingers, clothing, or shared eye makeup that is contaminated.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

Bacterial – Discharge from one or both eyes, red or pink conjunctiva (the white area of the eyeball), and red eyelids and pain in one or both eyes. Viral – Watery discharge from one or both eyes, pink conjunctiva, and red eyelids and pain in one or both eyes.

INCUBATION PERIOD

Typically 24 to 72 hours.

CONTAGIOUS PERIOD

While the infection is active; anywhere from 2 days to 2-3 weeks.

EXCLUSION

Until treatment has been in effect for at least 24 hours and child can participate in daily activities (bacterial conjunctivitis only). None for viral conjunctivitis.

PREVENTION / CONTROL MEASURES

Proper personal hygiene and proper medical treatment of eyes.
Keeping eyes clean and free of discharge.
Proper handwashing procedures before and after cleaning the eyes.

POSSIBLE COMPLICATIONS

None.

SPECIAL WARNINGS

None.

VACCINE AVAILABILITY

None.

Contact Alabama Department of Public Health, or physician with any related questions

DIARRHEA – NOROVIRUS

BACKGROUND Noroviruses typically occur in outbreaks and cause mild to moderate disease that is self-limiting. Noroviruses cause more disease in those in developed countries over 10 years of age than any other of the agents responsible for causing gastroenteritis.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Norovirus.

MODE OF TRANSMISSION Most likely fecal-oral transmission occurs with some airborne transmission possible; however the true mode is unknown.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Watery diarrhea, nausea, vomiting, abdominal cramps, headache, and low grade fever.

INCUBATION PERIOD 24 to 48 hours; with a range of 10 to 50 hours.

CONTAGIOUS PERIOD From acute stage to 48 hours after diarrhea stops.

EXCLUSION Until diarrhea is no longer present.

PREVENTION / CONTROL MEASURES

Practicing proper hygiene, such as proper handwashing techniques, may reduce transmission.
Sanitary handling of foods is recommended.
Clean and disinfect areas that have been contaminated.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS Norovirus has the potential for severe outbreaks. Infants and young children should not be exposed to those with the disease.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

DIARRHEA – ROTAVIRUS

BACKGROUND

Rotavirus is the cause of a seasonal and sporadic gastroenteritis. It occurs in temperate climates in the cooler months; in tropical climates, it is present year round. It is the most common cause of nosocomial diarrhea in children attending day care. Essentially all children are infected by age 3, but they are most likely to be infected between 4 and 24 months of age.

REPORTABLE

Not reportable.

INFECTIOUS AGENT(S)

Rotavirus;
.

MODE OF TRANSMISSION

Fecal-oral and respiratory transmission are most probable.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

Fever, vomiting, followed by diarrhea; sometimes dehydration and death can occur in young children.

INCUBATION PERIOD

24 to 72 hours.

CONTAGIOUS PERIOD

During the acute stage of disease and while the virus is being shed; symptoms typically last 3 to 8 days.

EXCLUSION

Until diarrhea is no longer present.

PREVENTION / CONTROL MEASURES

Practicing proper hygiene, such as proper handwashing techniques, may reduce transmission.
Sanitary handling of foods is recommended.
Clean and disinfect areas that have been contaminated.
Rotavirus vaccine is given at 2, 4, and 6 months of age. Vaccination is recommended for day care center attendance in Alabama.

POSSIBLE COMPLICATIONS

None.

SPECIAL WARNING

Rotavirus has outbreak implications.

VACCINE AVAILABILITY

Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

DIARRHEA – NO SPECIFIC PATHOGEN

BACKGROUND	Diarrhea is characterized by increased stools that are usually watery. It can be caused by various agents.
REPORTABLE	Not reportable.
INFECTIOUS AGENT(S)	Various agents including *Salmonella*, *Shigella*, *Campylobacter*, Noroviruses and Rotaviruses.
MODE OF TRANSMISSION	Fecal-oral is the most common mode.
OCCURRENCE	Worldwide; any age group.
SYMPTOMS	Frequent, loose or watery stools, vomiting, and fever.
INCUBATION PERIOD	24 to 72 hours.
CONTAGIOUS PERIOD	While pathogen is being shed; acute period.
EXCLUSION	Until diarrhea is no longer present.
PREVENTION / CONTROL MEASURES	
	Practicing proper hygiene, such as proper handwashing techniques, may reduce transmission.
	Sanitary handling of foods is recommended.
	Clean and disinfect areas that have been contaminated.
POSSIBLE COMPLICATIONS	None.
SPECIAL WARNINGS	Diarrhea has possible outbreak implications.
VACCINE AVAILABILITY	None.

Contact Alabama Department of Public Health, or physician with any related questions

EAR INFECTION

BACKGROUND	Ear infections are commonly seen in children. Though they are not considered contagious, they usually follow colds.
REPORTABLE	Not reportable.
INFECTIOUS AGENT(S)	Bacteria or virus.
MODE OF TRANSMISSION	Not contagious; usually follows a cold.
OCCURRENCE	Worldwide; any age group.
SYMPTOMS	Earache, fever, irritability; pulling on the ear, and sometimes drainage from the ear. The pain associated with ear infections may last from 1 to 2 hours. Some people are asymptomatic.
INCUBATION PERIOD	Unknown.
CONTAGIOUS PERIOD	None.
EXCLUSION	Until fever is no longer present and child can participate in daily activities.

PREVENTION / CONTROL MEASURES

Use standard precautions.

POSSIBLE COMPLICATIONS	None.
SPECIAL WARNINGS	None.
VACCINE AVAILABILITY	None.

Contact Alabama Department of Public Health, or physician with any related questions

ENTEROVIRUSES

BACKGROUND Enteroviruses, which are associated with various illnesses, usually occur in children. These illnesses are more common during the summer and fall. Illnesses associated with enteroviruses include colds, throat infections, pneumonia and meningitis or encephalitis.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Coxsackieviruses; echoviruses; enteroviruses.

MODE OF TRANSMISSION Fecal-oral transmission is most common, with some respiratory/airborne spread possible.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Sore throat, fever, rash, vomiting, nausea, and diarrhea. Some people are asymptomatic.

INCUBATION PERIOD 3 to 6 days.

CONTAGIOUS PERIOD From acute period to several weeks after.

EXCLUSION Until diarrhea is no longer present.

PREVENTION / CONTROL MEASURES

- Proper handwashing techniques should be followed, especially after changing diapers.
- Clean and disinfect areas that are contaminated.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

FIFTH DISEASE (Erythema Infectiosum, Parvovirus B19 infection)

BACKGROUND	Fifth disease is a viral infection which often affects red blood cells. For many years, fifth disease was viewed as an unimportant rash illness of children. Recently, studies have shown that the virus may be responsible for serious complications in certain individuals.
REPORTABLE	Not reportable.
INFECTIOUS AGENT(S)	Parvovirus B19.
MODE OF TRANSMISSION	The virus is spread by exposure to airborne droplets from the nose and throat of an infected person.
OCCURRENCE	Worldwide; any age group. Most common in elementary school-aged children.
SYMPTOMS	Low grade fever, fatigue, a red rash generally appears on the cheeks giving a "slapped" face appearance. The rash may then extend to the body and with tendencies to fade and reappear. Sometimes, the rash is lacy in appearance and may be itchy. Some children may have vague signs of illness or no symptoms at all.
INCUBATION PERIOD	Varies; typically 4 to 20 days for rash development.
CONTAGIOUS PERIOD	During the week prior to the appearance of the rash to one week after onset for those with aplastic crisis syndrome.
EXCLUSION	Until child can participate in daily activities.

PREVENTION / CONTROL MEASURES

- Measures to effectively control fifth disease have not been developed yet; however proper handwashing techniques after wiping nose or mouth are helpful in controlling the spread of infectious agents.

POSSIBLE COMPLICATIONS	While most women infected during pregnancy will not be affected, some studies have shown that parvovirus B19 may infect the fetus and increase the risk of miscarriage. In people with chronic red blood cell disorders, such as sickle cell disease, infection may result in severe anemia. Infection has also been associated with arthritis in adults.
SPECIAL WARNINGS	During outbreaks in schools, pregnant employees and people with chronic red blood cell disorders should consult their physician for advice.
VACCINE AVAILABILITY	None

Contact Alabama Department of Public Health, or physician with any related questions

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HAEMOPHILUS INFLUENZAE TYPE B (Hib)

BACKGROUND Hib can cause serious bacterial infections in young children. Hib may contribute to a variety of diseases such as meningitis (inflammation of the coverings of the spinal cord and brain), blood stream infections, pneumonia, arthritis, and infections of other parts of the body. It is most common in children three months to three years of age. Past infection in children younger than 24 months of age does not make a person immune.

REPORTABLE Report within 24 hours of diagnosis.

INFECTIOUS AGENT(S) *Haemophilus influenza* type b bacteria.

MODE OF TRANSMISSION Hib disease may be transmitted through contact with mucus or droplets from the nose and throat of an infected person.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Fever, nausea, and vomiting. Other symptoms depend upon the part of the body affected.

INCUBATION PERIOD Less than 10 days; commonly 2 to 4 days.

CONTAGIOUS PERIOD Varies; unless treated, may persist for as long as the organism is present in the nose and throat, even after symptoms have disappeared.

EXCLUSION Until fever is no longer present and child can participate in daily activities.

PREVENTION / CONTROL MEASURES

Maintain the highest levels of immunization
Treatment with appropriate antibiotics.

POSSIBLE COMPLICATIONS Hib manifests itself in a variety of ways, most commonly meningitis. When Hib meningitis occurs, a certain proportion of those who recover may suffer long-lasting neurologic problems. In some instances, cases may be fatal.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

HAND, FOOT, AND MOUTH DISEASE

BACKGROUND	The greatest occurrence of hand, foot and mouth disease is in summer and fall. It is most common in children under the age of ten.
REPORTABLE	Not reportable.
INFECTIOUS AGENT(S)	Coxsackievirus group A: types 4, 5, 9, 10, and enterovirus 71.
MODE OF TRANSMISSION	Direct contact with discharge from the nose or throat of an infected person or from the feces of an infected person.
OCCURRENCE	Worldwide; any age group.
SYMPTOMS	Sudden fever, sore throat, and small grayish oral lesions on the cheeks and gums as well as on the sides of the tongue. Lesions also may appear on the palms of the hands, soles of the feet, and on the fingers.
INCUBATION PERIOD	Typically 3 to 5 days.
CONTAGIOUS PERIOD	During the acute stage and several weeks after.
EXCLUSION	Until fever is no longer present.

PREVENTION / CONTROL MEASURES

- Reduce direct person-to-person contact.
- Practice personal hygiene such as handwashing.
- Wash or discard infected articles.
- Wash hands immediately after handling of discharges, feces or other infected articles.

POSSIBLE COMPLICATIONS	None.
SPECIAL WARNINGS	None.
VACCINE AVAILABILITY	None.

Contact Alabama Department of Public Health, or physician with any related questions

HEPATITIS A (Infectious hepatitis)

BACKGROUND

Hepatitis A (formerly known as infectious hepatitis) is a liver disease caused by a specific virus. The disease is fairly common and usually affects school-aged children and young adults showing no or mild symptoms. It occurs sporadically and in epidemics. Once an individual recovers from hepatitis A, he or she is immune for life and does not continue to carry the virus.

REPORTABLE

Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S)

Hepatitis A virus (HAV).

MODE OF TRANSMISSION

The hepatitis A virus enters through the mouth, multiplies in the body and is passed in the feces. The virus can then be carried on an infected person's hands and can be spread by direct contact, or by consuming food or drink that has been handled by the individual (fecal-oral). In some cases, it can be spread by consuming water contaminated with improperly treated sewage.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

Fatigue, poor appetite, fever and vomiting. Urine may become darker in color, and then jaundice (a yellowing of the skin and whites of the eyes) may appear. The disease is rarely fatal and most people recover in a few weeks without complications. Infants and young children tend to have very mild symptoms and are less likely to develop jaundice than are older children and adults. Not everyone who is infected will have all of the symptoms.

INCUBATION PERIOD

2 to 6 weeks.

CONTAGIOUS PERIOD

About 1 week before symptoms appear until about 10 days after jaundice appears.

EXCLUSION

Depends on individual case. Consult your local health department or physician for advice.

PREVENTION / CONTROL MEASURES

- The single most effective way to prevent spread is careful handwashing after using the toilet.
- Infected people should not handle foods during the contagious period.
- Hepatitis A vaccine is given at 12 and 18 months of age. Vaccination is recommended for day care center attendance in Alabama.
- Hepatitis A vaccine is recommended for employees of child care centers.
- Household members or others in close contact with an infected person should call a doctor or health department to obtain a shot of immune globulin which minimizes their chances of becoming ill.

POSSIBLE COMPLICATIONS

None.

SPECIAL WARNINGS

None.

VACCINE AVAILABILITY

Available. See Control/Prevention Measures.

Contact Alabama Department of Public Health, or physician with any related questions

HEPATITIS B

BACKGROUND Hepatitis B (formerly known as serum hepatitis) is a fairly common liver disease.

REPORTABLE Report within 5 days to county or state health department.

INFECTIOUS AGENT(S) Hepatitis B virus (HBV).

MODE OF TRANSMISSION Hepatitis B can be found in the blood, and to a lesser extent in saliva, semen and other body fluids of an infected person. It is spread by direct contact with infected body fluids. Hepatitis B virus is not spread by casual contact.

OCCURRENCE Worldwide; any age group; people in custodial care (in settings such as developmental centers) and certain household contacts of an infected person are among those at highest risk.

SYMPTOMS Fatigue, poor appetite, fever, vomiting and occasionally joint pain, hives or rash. Urine may become darker in color, and then jaundice (yellowing of the skin and whites of the eyes) may appear. Some individuals may experience few or no symptoms. Some may develop hepatocellular carcinoma or cirrhosis.

INCUBATION PERIOD Six weeks to 6 months; usually within 3 months.

CONTAGIOUS PERIOD Several weeks before symptoms appear and for several months afterward. Some people become lifetime carriers.

EXCLUSION None unless there is the possibility of blood exposure (child bites frequently, hemophiliac, child has open sores, etc.).

PREVENTION / CONTROL MEASURES

- Hepatitis B carriers should follow standard hygiene practices to ensure that close contacts are not directly contaminated by their blood or other body fluids.
- Carriers must not share razors, toothbrushes or any other object that may become contaminated with blood.
- It is important for carriers to inform their dentist and health care providers.
- A vaccine to prevent hepatitis B has been available for several years. It is safe, effective and is recommended for people in high-risk settings who have not already been infected.
- In addition, susceptible household members, particularly sexual partners, should be immunized with the hepatitis B vaccine.
- Hepatitis B vaccine is given to children at 2, 4, and 6 months of age. Vaccination is recommended for day care center attendance in Alabama.
- A special hepatitis B immune globulin is also available for people who are exposed to the virus.
- In the event to exposure to hepatitis B, consult a doctor or the local health department.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

IMPETIGO

BACKGROUND Impetigo is a skin disorder commonly seen in newborns. Impetigo is the most commonly found staphylococcal disease acquired in a nursery setting.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Different strains of *Staphylococcus aureus*.

MODE OF TRANSMISSION Usual mode of transmission is by touching sores. Spread to peripheral areas occurs by cracking open lesions.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Itchy lesions that are sticky and oozing and occur mainly in the diaper area but may spread to other places on the body.

INCUBATION PERIOD 4 to 10 days / variable

CONTAGIOUS PERIOD As long as lesions are producing discharge.

EXCLUSION Until treatment has been in effect for at least 24 hours.

PREVENTION / CONTROL MEASURES

- Use proper handwashing techniques after contact with lesions.
- Cover lesions if possible.

POSSIBLE COMPLICATIONS Not typical; however, breast abscess, staphylococcal pneumonia, septicemia, meningitis and brain abscess have been documented.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

LYME DISEASE (Lyme borreliosis)

BACKGROUND Lyme disease is caused by a bacterial infection transmitted by certain *Ixodid* ticks. Lyme disease may cause symptoms affecting the skin, nervous system, heart and/or joints of an individual. Reinfection is possible with Lyme disease. The first cluster of disease cases associated with this infectious agent was discovered near Lyme, Connecticut, giving it its name.

REPORTABLE Report within 5 days to county or state health department.

INFECTIOUS AGENT(S) *Borrelia burgdorferi*, a spirochete (a certain classification of bacteria).

MODE OF TRANSMISSION The bacteria that causes Lyme disease is part of the natural cycle of ticks that feed on animals such as mice, opossums, dogs or deer. During certain stages of the tick life cycle, especially the nymph, ticks can feed on humans. If the tick is infected with the bacteria, it can cause an infection in humans. Cases of Lyme disease have also been reported in dogs and horses. Person-to-person spread of Lyme disease does not occur.

OCCURRENCE In the United States; endemic from Georgia to Massachusetts, the upper Midwest, and in Oregon and California; affects all age groups. People who spend time outdoors in tick-infested environments are at an increased risk of exposure. Most cases have reported an exposure to ticks in their woodland/brush habitat during the warmer months, but cases have been reported during every month of the year.

SYMPTOMS Starts as a circular reddish rash expanding around or near the site of the tick bite. Multiple rash sites may occur. During the rash stage, or occasionally prior to the rash, other symptoms such as fever, headache, fatigue, stiff neck, muscle and/or joint pain may be present. These may also last for several weeks. Many cases develop without sign of a rash.

INCUBATION PERIOD Within a month of exposure.

CONTAGIOUS PERIOD No contagious period known.

EXCLUSION None.

PREVENTION / CONTROL MEASURES

- Repellents containing DEET applied to skin or clothing may prevent tick attachment.
- DEET-containing products should be applied sparingly and according to the instructions.
- The control of rodents around the home may be helpful.
- If exposed to tick-infested areas, family members should help to check body surface for attached ticks.*

POSSIBLE COMPLICATIONS If left untreated, within a few weeks to months after the rash onset, complications such as meningitis, facial palsy or heart abnormalities may occur. Swelling and pain in the large joints may recur over many years.

SPECIAL WARNINGS Special precautions to prevent exposure to ticks should be used, such as wearing light colored clothing and tucking pants into socks and shirts into pants.

VACCINE AVAILABILITY None.

*To remove an attached tick, grasp with tweezers or forceps as close as possible to attachment (skin) site, and pull upward and out with firm and steady pressure. If tweezers are not available, use fingers shielded with tissue paper or rubber gloves. Do not handle the tick with bare hands. Be careful not to squeeze, crush or puncture the body of the tick which may contain infectious fluids. After removing the tick, thoroughly disinfect the bite site and wash hands. An antibiotic ointment should be applied to the bite area. See or call a doctor if there is a concern about incomplete tick removal. It is important that a tick be removed as soon as discovered. Check after every two to three hours of outdoor activity for ticks attached to clothing or skin. If removal occurs within several hours after attachment, the risk of tick-borne infection is reduced.

Contact Alabama Department of Public Health, or physician with any related questions

MEASLES (Rubeola)

BACKGROUND

Measles is an acute and highly contagious viral disease capable of producing epidemics. Measles is more common in winter and spring and is one of the most readily transmitted communicable diseases. Permanent immunity is acquired after contracting the disease.

REPORTABLE

Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S)

Measles virus, a member of the genus *Morbillivirus*.

MODE OF TRANSMISSION

Measles is spread by direct contact with nasal or throat secretions of infected people or, less frequently, by airborne transmission.

OCCURRENCE

Worldwide; any age group. Generally, pre-school children, adolescents, young adults and inadequately immunized individuals comprise the majority of measles cases in the United States.

SYMPTOMS

Measles symptoms generally appear in two stages. In the first stage, the individual may have a runny nose, cough and a slight fever. The eyes may become reddened and sensitive to light while the fever consistently rises each day. The second stage begins on the third to seventh day, consisting of a temperature of 103-105^{O}F and a red blotchy rash lasting four to seven days. The rash usually begins on the face and then spreads over the entire body. Koplik spots (little white spots) may also appear on the gums and inside of the cheeks.

INCUBATION PERIOD

8 to 13 days.

CONTAGIOUS PERIOD

5 days prior to and 4 days after rash onset.

EXCLUSION

At least 4 days after rash appears.

PREVENTION / CONTROL MEASURES

- Maintaining the highest level of immunizations against measles is the best preventive measure.
- Two doses of measles vaccine are required. The first dose should be given as measles, mumps, rubella (MMR) at age 12 months and the second MMR must be given between ages 4-6 (prior to entering kindergarten).

POSSIBLE COMPLICATIONS

Pneumonia occurs in up to 6 percent of reported cases and accounts for 60 percent of deaths attributed to measles. Encephalitis (inflammation of the brain) may also occur. Other complications include middle ear infections and convulsions. Measles is more severe in infants and adults.

SPECIAL WARNINGS

Measles introduced into refugee populations has disaster implications with high fatality rates.

VACCINE AVAILABILITY

Readily available. See Prevention/Control Measures.

MENINGOCCOCAL DISEASE (meningococcal meningitis, meningococcemia)

BACKGROUND Meningococcal disease is a severe bacterial infection of the bloodstream and/or the meninges (the thin lining covering the brain and spinal cord). It is a relatively rare disease and usually occurs as a single isolated event. Clusters of cases or outbreaks are rare in the United States. Highest incidence occurs in winter and spring.

REPORTABLE Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S) *Neisseria meningitidis.*

MODE OF TRANSMISSION The meningococcus germ is spread by close direct contact with nose or throat discharges of an infected person. Many people carry this particular germ in their nose and throat without any signs of illness, while others may develop serious symptoms.

OCCURRENCE Worldwide; any age group. Most common in infants and children and in males more than females.

SYMPTOMS Most people do not become seriously ill; but those who do may develop fever, headache, vomiting, stiff neck, and a rash. Up to 25 percent of patients who recover may have chronic damage to their central nervous system. The disease is occasionally fatal.

INCUBATION PERIOD 2 to 10 days; but usually within 5 days.

CONTAGIOUS PERIOD From the time a person is first infected until the germs are no longer present in discharge from the nose and throat. The duration varies according to treatment.

EXCLUSION Until treatment has begun and child can participate in daily activities.

PREVENTION / CONTROL MEASURES

- Only people who have been in close contact (household members, intimate contacts, health care personnel performing mouth-to-mouth resuscitation, day care center playmates, etc.) need to be considered for preventive treatment.
- Such people are usually advised to obtain a prescription for rifampin or a sulfa drug from their physician or the health department.
- Casual contact, as might occur in a regular classroom, office or factory setting, is not usually significant enough to cause concern.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS Outbreak implications may occur when people are housed in crowded living conditions, such as barracks and institutions.

VACCINE AVAILABILITY Presently, there is a vaccine that will protect against some strains of meningococcus. It is routinely recommended for all children at 11-12 years of age and unvaccinated children entering high school.

MONONUCLEOSIS (infectious)

BACKGROUND Infectious mononucleosis is a viral disease that affects certain blood cells. Most cases occur sporadically with outbreaks rare. While most people are exposed to the Epstein-Barr virus, the virus that causes mononucleosis, at some time in their lives, very few go on to develop the symptoms of infectious mononucleosis. The disease is rarely fatal.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Epstein-Barr (EB) virus.

MODE OF TRANSMISSION The virus is spread by person-to-person contact, via saliva (by kissing, shared objects i.e. tooth brush). In rare instances, the virus has been transmitted by blood transfusion.

OCCURRENCE Worldwide; any age group. In developing countries, people are exposed in early childhood when they are not likely to develop noticeable symptoms. In developed countries such as the United States, the age of first exposure may be delayed to older childhood and young adult age when symptoms are more likely to result. For this reason, it is recognized more often in high school and college students.

SYMPTOMS Fever, sore throat, swollen lymph nodes and feeling tired. Duration is from one to several weeks. Sometimes the liver and spleen are affected.

INCUBATION PERIOD 4 to 6 weeks.

CONTAGIOUS PERIOD Prolonged; one year or more.

EXCLUSION Until child can participate in daily activities.

PREVENTION / CONTROL MEASURES

- Avoid activities involving the transfer of body fluids (commonly saliva) with someone who is currently or recently infected with the disease.
- Use proper handwashing techniques after contact with saliva or other contaminated items.
- Clean and disinfect items that are contaminated.
- No specific treatment available.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

MUMPS

BACKGROUND

Mumps is an acute viral, systemic disease characterized by fever, swelling and tenderness of one or more of the salivary glands. Mumps occurs less frequently than other common childhood communicable diseases. The greatest risk of infection occurs among older children. Mumps is more common during winter and spring. Immunity acquired after contraction of the disease is usually permanent.

REPORTABLE

Report within 5 days to county or state health department.

INFECTIOUS AGENT(S)

Mumps virus, a member of the genus *Paramyxovirus*.

MODE OF TRANSMISSION

Mumps is transmitted by direct contact with saliva and discharges from the nose and throat of an infected individual.

OCCURRENCE

Worldwide; any age group but usually occurs in children between the ages of 5 and 15 years.

SYMPTOMS

Fever, swelling and tenderness of one or more of the salivary glands, usually the parotid (located just below the front of the ear). Approximately one-third of infected people do not exhibit symptoms.

INCUBATION PERIOD

16 to 18 days; with a range of 14 to 25 days.

CONTAGIOUS PERIOD

7 days prior to and 9 days after onset of symptoms. A person is most contagious 48 hours prior to the appearance of symptoms.

EXCLUSION

Children should not attend school during their infectious period, which includes from the 12th through the 25th day after exposure. Five days from onset of parotid glad swelling.

PREVENTION / CONTROL MEASURES

- The single most effective control measure is maintaining the highest possible level of immunization in the day care center and community.
- Two doses of mumps vaccine are required. Mumps vaccine is administered in combination with measles and rubella vaccine (MMR). The vaccine is given at 12 months of age. A booster dose of MMR is given at 4-6 years of age prior to entering kindergarten (5K).

POSSIBLE COMPLICATIONS

Swelling of the testicles occurs in 15-25 percent of infected males. Mumps can cause central nervous system disorders such as encephalitis (inflammation of the brain) and meningitis (inflammation of the covering of the brain and spinal cord). Other complications include arthritis, kidney involvement, inflammation of the thyroid gland and breasts, and deafness.

SPECIAL WARNINGS

None.

VACCINE AVAILABILITY

Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

ORAL HERPES

BACKGROUND	Oral herpes, or cold sores, are common among both children and adults. They are usually acquired at a young age and recur throughout one's life. Infections of the eyes, fingers and central nervous system may also occur with the herpes simplex virus.
REPORTABLE	Not reportable.
INFECTIOUS AGENT(S)	Herpes simplex virus type 1 (HSV-1).
MODE OF TRANSMISSION	Direct person-to-person contact with infected saliva or sores.
OCCURRENCE	Worldwide; any age group.
SYMPTOMS	Blisters on the lips or face that contain fluid. Crusting and healing occur within several days after initial infection.
INCUBATION PERIOD	2 to 12 days.
CONTAGIOUS PERIOD	Unknown; but may be from 5 to 7 days to months after exposure.
EXCLUSION	Only necessary for children with active lesions who have no control over oral secretions.

PREVENTION / CONTROL MEASURES

- Proper handwashing techniques after contact with saliva or sores.
- Wear gloves when coming in contact with sores, as in applying medication.
- Avoid kissing or other contact of a person with active lesions.
- Clean and disinfect contaminated surfaces.

POSSIBLE COMPLICATIONS	Chronic eczema, meningoencephalitis.
SPECIAL WARNINGS	Fatal infections in newborn infants.
VACCINE AVAILABILITY	None.

Contact Alabama Department of Public Health, or physician with any related questions

PERTUSSIS (Whooping cough)

BACKGROUND Pertussis, or whooping cough, is a highly contagious disease involving the respiratory tract. It is caused by a bacterium that is found in the mouth, nose and throat of an infected person. One attack does not necessarily confer lifelong immunity.

REPORTABLE (Immediate/Urgent) Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S) *Bordetel/a pertussis,* the pertussis bacillus.

MODE OF TRANSMISSION Pertussis is primarily spread by direct contact with discharges from nose and throat of an infected individual. Older siblings or adults who may be harboring the bacteria in their nose and throat can bring the disease home and infect an infant in the household.

OCCURRENCE Worldwide; any age group. Seventy-five percent of reported cases occur in children under five years of age and 50 percent of these are in children under one year of age.

SYMPTOMS Begins as a mild upper respiratory infection. Initially, symptoms resemble those of a common cold, including sneezing, runny nose, low grade fever and a mild cough. Within two weeks, the cough becomes more severe and is characterized by episodes of numerous, rapid coughs followed by a crowing or high pitched whoop. A thick, clear mucus may be discharged. These episodes may recur for one to two months and are more frequent at night. Older people or partially immunized children generally have milder symptoms.

INCUBATION PERIOD 5 to 10 days; but as long as 21 days.

CONTAGIOUS PERIOD 7 days following exposure to three weeks after the onset of coughing. This time is reduced to 5 to 7 days with antibiotic treatment.

EXCLUSION Until receipt of at least 5 days of a 14-day treatment with antibiotics.

PREVENTION *I* CONTROL MEASURES

- The single most effective control measure is maintaining the highest possible level of immunizations in the community.
- Pertussis vaccine is required. The vaccine is given in combination with diphtheria and tetanus. The American Academy of Pediatrics and the Advisory Committee on Immunization Practices recommends that DTaP (diphtheria, tetanus, and acellular pertussis) vaccine be given at 2, 4, 6 and 12 months of age and again at 4-6 years of age.
- Treatment of cases with certain antibiotics can shorten the contagious period.
- People who have or may have pertussis should stay away from young children and infants until properly treated.

POSSIBLE COMPLICATIONS Complications may include pneumonia, middle ear infection loss of appetite, dehydration, seizures, encephalopathy (inflammation of the brain), apnea episodes (brief cessation of breathing) and death.

SPECIAL WARNINGS Epidemic implications if introduced in populations with numbers of unimmunized children.

VACCINE AVAILABILITY Available. See Prevention/Control Measures

Contact Alabama Department of Public Health, or your physician with any related questions

SHIGELLOSIS

BACKGROUND

Shigellosis is a bacterial infection affecting the intestinal tract. It is a fairly common disease usually seen in the summer and early fall and may occur as single cases or outbreaks.

REPORTABLE (Standard)

report within *5* days to county or state health department.

INFECTIOUS AGENT(S)

Shigella consists of four species: Group A, *Shigella dysenteriae;* Group B, *Shigella flexneri;* Group C, *Shigella boydii;* and Group D, *Shigella sonnei.*

MODE OF TRANSMISSION

Shigella germs are found in the intestinal tract of infected people who may contaminate food or water. The *Shigella* germ is spread by eating or drinking contaminated food or water or by direct contact with an infected person. Shigella may also be transmitted by swimming in contaminated water.

OCCURRENCE

Worldwide; any age group. Those who may be at greater risk include children in day care centers, foreign travelers to certain countries, institutionalized people and active homosexuals.

SYMPTOMS

Mild or severe diarrhea, often with fever and traces of blood or mucous in the stool. Some infected people may not show any symptoms.

INCUBATION PERIOD

1 to 7 days; but usually within 2 to 3 days.

CONTAGIOUS PERIOD

1 to 2 weeks.

EXCLUSION

Until treatment is complete and 2 consecutive stool cultures taken 24 hours apart are negative.

PREVENTION *I* CONTROL MEASURES

- Since germs are passed in feces, the single most important prevention activity is careful handwashing after using the toilet.
- Clean and disinfect any contaminated surfaces.

POSSIBLE COMPLICATIONS

Convulsions may appear in young children.

SPECIAL WARNINGS

Special considerations must be given to food handlers, health care workers and children in day care. Outbreak implications possible in areas where there is poor sanitation, both personal and environmental.

VACCINE AVAILABILITY

None.

Contact Alabama Department of Public Health, or your physician with any related questions

RESPIRATORY INFECTIONS (viral)

BACKGROUND Different etiologic agents are responsible for respiratory viral infections. These infections are more commonly known as colds. Most infections occur during fall and winter.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Various viruses.

MODE OF TRANSMISSION Direct person-to-person contact with discharges from the nose or mouth of an infected person.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Sneezing, chills, runny nose, fever, muscle and joint aching, sore throat, and coughing.

INCUBATION PERIOD Up to 10 days.

CONTAGIOUS PERIOD Shortly before symptoms begin to end of acute period.

EXCLUSION Until fever is no longer present and child can participate in daily activities.

PREVENTION / CONTROL MEASURES

- Cover nose and mouth when sneezing and coughing.
- Dispose of tissues properly.
- Clean and disinfect any contaminated surfaces.
- Use proper handwashing techniques after coughing or sneezing.

POSSIBLE COMPLICATIONS None.
SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

RESPIRATORY SYNCYTIAL VIRUS (RSV)

BACKGROUND Respiratory syncytial virus (RSV) is a viral disease affecting the respiratory tract. RSV is the most common cause of respiratory tract diseases such as bronchitis and pneumonia in early infancy, with most cases occurring within the first 2 years of life. RSV can seriously affect those that are born prematurely or those with heart, lung, or immune problems. RSV occurs seasonally in temperate zones, usually during winter and early spring, but can also occur in sharp outbreaks.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Respiratory syncytial virus (RSV).

MODE OF TRANSMISSION Spread by direct contact of mouth or droplets from the mouth. Can be spread indirectly by hands, eating utensils or other objects contaminated with discharges from the respiratory tract of an infected person.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Fever, chills, headache, general aching, and anorexia.

INCUBATION PERIOD 1 to 10 days.

CONTAGIOUS PERIOD Several days before and after active disease is seen; this can be several weeks.

EXCLUSION Until fever is no longer present.

PREVENTION / CONTROL MEASURES

- Cover mouth and nose when coughing or sneezing.
- Use personal hygiene and frequent handwashing.
- Properly dispose of contaminated tissues.
- Clean and disinfect any contaminated items.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS Children and infants with certain medical problems should not be exposed to the disease.

VACCINE AVAILABILITY None.

REYE SYNDROME

BACKGROUND Reye syndrome is not a disease but a “syndrome" or combination of signs and symptoms which occur in children. Reye syndrome is considered a medical emergency, so a physician should be notified immediately if the symptoms occur after a viral illness. Early medical treatment and hospitalization may reduce the chances of coma and death.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Unknown; associated with viral illnesses (such as chickenpox and influenza) and aspirin use.

MODE OF TRANSMISSION Although the cause of the syndrome remains unknown, most cases follow a common viral illness, most frequently influenza or chickenpox. This is **NOT** a contagious disease; however the severity of it warrants immediate attention in day care centers.

OCCURRENCE Unknown.

SYMPTOMS Unexpected vomiting, lethargy, confusion, irritability, or aggressiveness in children recovering from a viral illness. Fever and jaundice (a yellowing of the skin and whites of the eyes) are not usually present.

INCUBATION PERIOD Unknown.

CONTAGIOUS PERIOD None.

EXCLUSION Until child can participate in daily activities.

PREVENTION / CONTROL MEASURES

- Parents should **NOT** give aspirin or any other salicylate-containing medication to children with influenza or chickenpox.
- Contact physician immediately should any of the above symptoms occur. Immediate action needs to take place.
- Children and teenagers should not be allowed to take any medicine before consulting with their parents.

POSSIBLE COMPLICATIONS Coma or death can occur without immediate treatment.

SPECIAL WARNINGS If the symptoms of Reye syndrome are present, get medical advice immediately.

VACCINE AVAILABILITY None.

RINGWORM

BACKGROUND Ringworm is a skin infection caused by a fungus that can affect the scalp, skin, fingers, toenails, or feet. Since so many species of fungus can cause ringworm, infection with one species will not make a person immune to future infections.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) Various organisms including *Microsporum*, *Trichophyton*, and *Epidermophyton floccosum*.

MODE OF TRANSMISSION Transmission of these fungal agents can occur by direct skin-to-skin contact with infected people or pets, or indirectly by contact with items such as hair clippers, hair from infected people, and shower stalls or floors.

OCCURRENCE Worldwide; any age group. Children are more susceptible to certain varieties while adults may be more affected by other varieties.

SYMPTOMS Ringworm of the scalp usually begins as a small pimple which becomes larger in size leaving scaly patches of temporary baldness. Infected hairs become brittle and break off easily. Occasionally, yellowish cuplike crusty areas are seen. With ringworm of the nails, the affected nails become thicker, discolored and brittle, or they become chalky and disintegrate. Ringworm of the body appears as flat, spreading ring-shaped areas. The edge is reddish and may be either dry and scaly or moist and crusty. As ringworm spreads, the center area clears and appears normal. Ringworm of the feet appears as a scaling or cracking of the skin especially between the toes.

INCUBATION PERIOD Unknown for most of these agents. Ringworm of the scalp is usually seen 10 to 14 days after contact and ringworm of the body is seen 4 to 10 days after initial contact.

CONTAGIOUS PERIOD As long as active lesions are found.

EXCLUSION Until treatment has been in effect for at least 24 hours.

PREVENTION / CONTROL MEASURES

- Towels, hats and clothing of the infected individual should not be shared with others.
- Young children who are infected should minimize close contact with other children until effectively treated.
- When multiple cases occur, seek advice from your local health department.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

RUBELLA (German measles)

BACKGROUND

Rubella is a viral disease characterized by slight fever, rash and swollen lymph nodes. Most cases are mild. Rubella occurs more frequently in winter and spring. Immunity acquired after contracting the disease is usually permanent.

REPORTABLE

Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S)

Rubella virus.

MODE OF TRANSMISSION

Rubella is spread by direct contact with nasal or throat secretions of infected individuals.

OCCURRENCE

Worldwide; any age group. In unvaccinated populations, rubella is primarily a childhood disease. Where children are well-immunized, adolescent and adult infections become more evident.

SYMPTOMS

Rubella is a mild illness which may present few or no symptoms.

Symptoms may include a rash, slight fever, joint aches, headache, discomfort, runny nose and reddened eyes. The lymph nodes just behind the ears and at the back of the neck may swell causing some soreness and/or pain. The rash, which may be itchy, first appears on the face and progresses from head to foot lasting about three days. As many as half of all rubella cases occur without a rash.

INCUBATION PERIOD

16 to 18 days; range of 14 to 23 days

CONTAGIOUS PERIOD

7 days before, to 7 days after rash onset

EXCLUSION

Until 7 days after onset of rash.

PREVENTION / CONTROL MEASURES

- Maintaining high levels of rubella immunization in the community is critical to controlling the spread.
- Controlling the spread of rubella is needed primarily to prevent the birth defects caused by Congenital Rubella Syndrome (CRS). Therefore, women of childbearing age should have their immunity determined and receive the rubella vaccine if needed.
- Rubella vaccine is required at 12 months of age and is given in combination with measles and mumps vaccine. A booster dose is required at 4-6 years of age prior to entering kindergarten.

POSSIBLE COMPLICATIONS

Rubella is dangerous because of its ability to damage an unborn baby.

Infection of a pregnant woman may result in miscarriage, stillbirth or the birth of an infant with abnormalities which may include deafness, cataracts, heart defects, liver and spleen damage and mental retardation. CRS occurs among at least 25 percent of infants born to women who have had rubella during the first trimester of pregnancy.

SPECIAL WARNINGS

None.

VACCINE AVAILABILITY

Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

SALMONELLOSIS

BACKGROUND

Salmonellosis is a bacterial infection that generally affects the intestinal tract and occasionally the bloodstream. It is one of the more common causes of gastroenteritis. Most cases occur in the summer months and are seen as single cases, clusters or outbreaks. *Salmonella* are widely distributed in the food chain and environment. The organisms often contaminate raw meats, eggs, unpasteurized milk and cheese products. Other sources of exposure may include contact with infected pet turtles, pet chicks, dogs and cats.

REPORTABLE

Report within 5 days to county or state health department.

INFECTIOUS AGENT(S)

The two most common serotypes are *Salmonella typhimurium* and *Salmonella enteritidis*

MODE OF TRANSMISSION

Salmonella are spread by eating or drinking contaminated food or water or by contact with infected people or animals.

OCCURRENCE

Worldwide; any age group. It is more recognized in infants and children.

SYMPTOMS

Mild or severe diarrhea, fever and occasionally vomiting.

INCUBATION PERIOD

1 to 3 days after exposure.

CONTAGIOUS PERIOD

Several days too many months; as long as present in the stool.

EXCLUSION

Until diarrhea is no longer present.

PREVENTION / CONTROL MEASURES

- Always treat raw poultry, beef and pork as if they are contaminated and handle accordingly.
- Wrap fresh meats in plastic bags at the market to prevent blood from dripping on other foods.
- Refrigerate foods promptly; minimize holding at room temperature.
- Cutting boards and counters used for preparation should be washed immediately after use to prevent cross- contamination with other foods.
- Avoid eating raw or undercooked meats.
- Ensure that the correct internal cooking temperature is reached, particularly when using a microwave.
- Avoid eating raw eggs or undercooked foods containing raw eggs.
- Avoid using raw milk.
- Encourage careful handwashing before and after food preparation.
- Make sure children, particularly those who handle pets, attend to handwashing.

POSSIBLE COMPLICATIONS

Bloodstream infections can be quite serious, particularly in the very young or elderly.

SPECIAL WARNINGS

Special consideration must be given to food handlers, health care workers and children in day care. Epidemic implications possible with mass feeding and poor sanitation. Prevent dehydration.

VACCINE AVAILABILITY

None.

Contact Alabama Department of Public Health, or physician with any related questions

SCABIES

BACKGROUND Scabies is a fairly common infestation of the skin caused by a mite. Scabies mites burrow into the skin producing pimple-like irritations or burrows. Clusters of cases, or outbreaks, are occasionally seen in nursing homes, institutions and child care centers.

REPORTABLE Not reportable.

INFECTIOUS AGENT(S) *Sarcoptes scabiei*, a mite.

MODE OF TRANSMISSION Scabies are transferred by direct skin-to-skin contact. Indirect transfer from undergarments or bedclothes can occur only if these have been contaminated by infected people immediately beforehand. Scabies can also be transmitted during sexual contact.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Intense itching particularly at night. The areas of the skin most affected by scabies include the webs and sides of the fingers, around the wrists, elbows and armpits, waist, thighs, genitalia, nipples, breasts and lower buttocks.

INCUBATION PERIOD 2 to 6 weeks in people who have not previously been exposed to scabies infestations. People who have had a previous infestation with scabies mites may show symptoms within 1 to 4 days after subsequent re-exposures.

CONTAGIOUS PERIOD Until mites and eggs are destroyed by treatment.

EXCLUSION Until treatment has been in effect for at least 24 hrs.

PREVENTION / CONTROL MEASURES

- Avoid physical contact with infested individuals and their belongings, especially clothing and bedding.
- Health education on the life history of scabies, proper treatment and the need for early diagnosis and treatment of infested individuals and contacts is extremely important.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS Outbreak implications in overcrowded situations.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

SHINGLES (Herpes zoster)

BACKGROUND

Shingles is a localized infection due to the varicella zoster virus, the same virus that causes chickenpox. It occurs only in people who have had chickenpox in the past. Most people who have shingles have only one episode with the disease in their lifetime. Those with impaired immune systems (people with AIDS, cancer or leukemia, for example) may suffer repeated attacks.

REPORTABLE

Not reportable.

INFECTIOUS AGENT(S)

Varicella zoster virus, (VZ virus or VZV), a member of the herpesvirus family.

MODE OF TRANSMISSION

A person must have already had chickenpox in the past to develop shingles. Contact with an infected individual does not cause another person's dormant virus to reactivate. However, the virus from shingles patients may cause chickenpox in someone who has not had it before.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

First sign is often a tingling feeling on the skin, itchiness or a stabbing pain. After several days, a rash appears beginning as a band or patch of raised dots on the side of the trunk or face. It then develops into small, fluid-filled blisters which begin to dry out and crust over within a few days. When the rash is at its peak, symptoms can range from mild to extreme and intense pain. The rash and pain usually disappear within three to five weeks.

INCUBATION PERIOD

The virus lies dormant and can reactivate many years later.

CONTAGIOUS PERIOD

1-2 days before the onset of rash and continuing until all lesions are crusted.

EXCLUSION

Until sores are dried or if they can be covered, no exclusion is necessary.

PREVENTION / CONTROL MEASURES

- Immunization with the varicella (chickenpox) vaccine may lower the likelihood of development.

POSSIBLE COMPLICATIONS

Shingles is not usually dangerous to healthy individuals although it can cause great misery during an attack. Anyone with shingles on the upper half of their face, no matter how mild, should seek medical care at once. There is some danger that the virus could cause damage to the eye resulting in blindness. Complications are rare but may include partial facial paralysis (usually temporary), ear damage or encephalitis (inflammation of the brain).

SPECIAL WARNINGS

Do **NOT** give aspirin to a child with shingles due to the possible development of Reye syndrome. Contact physician if shingles appears on the upper half of the face.

VACCINE AVAILABILITY

Individuals immunized with the chickenpox vaccine may be less likely to develop shingles in later life. Zoster (Shingle) vaccine is recommended for adults age 60 or older.

Contact Alabama Department of Public Health, or physician with any related questions

STREP THROAT / SCARLET FEVER

BACKGROUND

Both strep throat and scarlet fever are common illnesses among children.

The majority of the time these illnesses are not serious; however, complications may develop if proper treatment is not administered.

REPORTABLE

Not reportable.

INFECTIOUS AGENT(S)

Streptococcus bacteria.

MODE OF TRANSMISSION

Direct person-to-person contact with discharges from an infected person.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

Sudden fever, sore throat, headache, swollen glands, and abdominal cramps. Occasionally vomiting and nausea occur. Scarlet fever occurs with a rash appearing on the neck, chest, in the folds of the armpit, elbow, groin and inner thigh.

INCUBATION PERIOD

1 to 3 days.

CONTAGIOUS PERIOD

Until 24 hours of treatment has been administered.

EXCLUSION

Until fever is no longer present and treatment has been in effect for at least 24 hours.

PREVENTION / CONTROL MEASURES

- Consult physician if child does not feel well or develops a sore throat.

POSSIBLE COMPLICATIONS

If proper treatment is not administered, rheumatic fever, kidney disease and other serious illnesses may result.

SPECIAL WARNINGS

None.

VACCINE AVAILABILITY

None.

Contact Alabama Department of Public Health, or physician with any related questions

TUBERCULOSIS (TB)

BACKGROUND Tuberculosis (TB) affects the lungs in the majority of cases; however it has been known to affect other parts of the body. Without proper treatment, TB can become a serious illness.

REPORTABLE Report within 24 hours to county or state health department.

INFECTIOUS AGENT(S) *Mycobacterium tuberculosis* bacteria.

MODE OF TRANSMISSION Airborne transmission of droplets from the sneezing and coughing of an infected person.

OCCURRENCE Worldwide; any age group.

SYMPTOMS Tiredness, weight loss, fever, night sweats, sometimes coughing, and chest pain. Symptoms get progressively worse without treatment.

INCUBATION PERIOD 2 to 10 weeks.

CONTAGIOUS PERIOD As long as TB bacteria is found in the sputum. Effective treatment usually eliminates the organism within a few weeks. TB of the lung and larynx are the only communicable types.

EXCLUSION Until physician determines the child is no longer contagious.

PREVENTION / CONTROL MEASURES

- Test for TB if a person has been exposed.

POSSIBLE COMPLICATIONS None.

SPECIAL WARNINGS None.

VACCINE AVAILABILITY None.

Contact Alabama Department of Public Health, or physician with any related questions

VARICELLA (Chickenpox)

BACKGROUND

Varicella is a highly communicable disease occurring most frequently in Jefferson County in winter and early spring. Mild or inconspicuous infections occasionally occur in children.

REPORTABLE

Report within 5 days to county or state health department.

INFECTIOUS AGENT(S)

Varicella zoster virus, (VZ virus or VZV), herpesvirus family

MODE OF TRANSMISSION

Varicella is transmitted to others by direct person-to-person contact, by droplet or airborne spread of discharges from an infected person's nose and throat, or indirectly through articles freshly soiled by discharges from an infected person's lesions. The scabs themselves are not considered infectious.

OCCURRENCE

Worldwide; any age group.

SYMPTOMS

Sudden onset of slight fever, feeling tired and weak, soon followed by an itchy blister-like rash. The blisters eventually dry, crust over and form scabs and tend to be more common on covered than on exposed parts of the body. Blisters may appear on the scalp, armpits, trunk, on the eyelids and in the mouth.

INCUBATION PERIOD

13 to 17 days; with a range of 11 to 21 days.

CONTAGIOUS PERIOD

5 days from onset of rash to not more than 6 days after the appearance of the first lesion. This period may be longer with altered immunity conditions.

EXCLUSION

For at least 5 days after onset of rash or until blisters become dry.

PREVENTION / CONTROL MEASURES

- The best method to prevent further spread of chickenpox is for individuals infected with the disease to remain home and avoid exposing others who are susceptible.
- One dose of Varicella vaccine is **required** for all children 12 months of age and older. A booster dose is **recommended at** 4 years of age.
- To protect high-risk newborns and immunodeficient patients from exposure, a shot of varicella zoster immune globulin (VZIG) is effective in modifying or preventing disease if given within 96 hours after exposure to a case of chickenpox.

POSSIBLE COMPLICATIONS

Reye syndrome has been a potentially serious complication associated with clinical chickenpox. Newborn children (less than one month old) whose mothers are not immune and those with impaired immune function may suffer severe, prolonged, or fatal chickenpox.

SPECIAL WARNINGS

DO NOT GIVE ASPIRIN TO A CHILD WITH CHICKENPOX
There is a possible connection with Reye Syndrome**.** Avoid unnecessary exposure of nonimmune newborns and immunodeficient children to chickenpox.

VACCINE AVAILABILITY

Available. See Prevention/Control Measures.

Contact Alabama Department of Public Health, or physician with any related questions

GLOSSARY

AIRBORNE – Suspended in, transported by, or spread by air, as an infectious disease or pathogen.

BACTERIAL – Pertaining to or caused by bacteria.

COMMUNICABLE DISEASE – A disease which is capable of being transmitted from one infected person, animal, or contact to a susceptible person.

CONTACT – A person or animal that has been in association with an infected person or animal or a contaminated environment.

CONTAMINATION – The presence of an infectious agent on a body surface, in clothes, bedding, toys, surgical instruments, dressings or other inanimate articles including water and food.

DIARRHEA – Loose, frequent stools different from a person's usual pattern. Diarrhea is often defined as 3 or more loose stools within a 24-hour period. Diarrhea can be characterized with adjectives like bloody, watery and malodorous.

DISINFECTION – Killing of infectious agents outside the body by direct exposure to chemical or physical agents.

EPIDEMIC – Occurring suddenly, clearly in numbers in excess of normal expectancy.

ETIOLOGIC AGENT – In an infectious disease, the microorganism that is the cause of the illness.

EXPOSURE – An opportunity of contact with or acquisition of an etiologic agent. The condition in which an individual comes in contact with a disease or health condition in a manner such as to allow transmission of said disease or health condition.

FOODBORNE OUTBREAK – Occurrence of two or more cases of similar illness among persons who had a common exposure to a food, and do not live in the same household. Single cases are rare; however, with important diseases, such as trichinosis and botulism, single cases are considered outbreaks.

IMMUNITY – The resistance usually associated with the presence of antibodies or cells having a specific action on the microorganism concerned with a particular infectious disease.

INCUBATION PERIOD – The length of time between exposure to the agent and the development of illness.

INFECTIOUS DISEASE – A disease that is attributed to a microbiologic agent which establishes an infection in a person. Not all infectious disease are communicable from one person to another.

ISOLATION – The restriction of free movement of a person or persons to prevent the spread of a notifiable disease by ordering confinement to a particular building or part thereof or the restriction of said individual to a facility specifically designated for the confinement of persons who may be infectious and possibly capable of transmitting a notifiable disease.

LOWER GASTROINTESTINAL SYMPTOMS – Usually refers to abdominal pain or cramps, flatulence and diarrhea.

MICROORGANISM – A microscopic organism; those of medical interest include bacteria, viruses, fungi, and protozoa.

OUTBREAK- Two or more similarly ill persons who live in different households and have a common exposure.

QUARANTINE – The forced isolation or restriction of free movement of a person or persons to prevent the spread of a notifiable disease or health condition. Quarantine may refer to the restriction of access to or egress from any building, place, property or appurtenance.

SIGNS – Abnormalities of an illness that are observable, usually by a trained health care professional. An elevated temperature is a sign of fever.

SOURCES – The point of introduction of an infectious agent in an outbreak situation. For example, a particular hen flock might be the source in a Salmonella enteritidis outbreak.

SYMPTOMS – Subjective feelings of illness experienced by the sick person.

UPPER GASTROINTESTINAL SYMPTOMS – Usually refers to nausea, vomiting and heartburn.

VECTOR – An organism (as an insect) that transmits a pathogen from one organism to another. Ticks are vectors of Lyme disease.

VEHICLE – An inanimate object on which the causative agent is transferred to an individual. For example, roast beef can be a vehicle for Staphylococcus aureus toxin.

VIRAL – Pertaining to, caused by, or of the nature of a virus.

VIRULENCE – The degree of pathogenecity of a microorganism as indicated by the severity of the disease produced.

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