**Chapter 37 Infectious Disease**

**Infectious Diseases**
- Infectious diseases are illnesses caused by infestation of the body by biological organisms such as ____________________________, viruses, ____________________________, protozoans, and helminths (worms).
- Most are not life threatening but several are.
- Most can be taken home and inadvertently given to your ____________________________.

**Public Health Agencies**
- Local health department
- ____________________________ Department of State Health Services (TDSHS)
- US Department of Health and ____________________________ Services (DHHS)
- Centers for ____________________________ Control (CDC)
- Other agencies include: OSHA, FEMA, NIOSH, NFPA

**Microorganisms**
- Normal ____________________________ : organisms that live inside our bodies without ordinarily causing harm.
- ____________________________ : organism capable of causing disease.
- ____________________________ pathogen: ordinarily nonharmful bacterium that causes disease only under unusual circumstances.
- ____________________________ : microscopic single celled organisms that reproduce independently.

**Viruses**
- Viruses are obligate ____________________________ parasites.
  - They can grow and reproduce only within a host cell.
  - “____________ ” inside host cells.
- Resistant to antibiotics; must “run their course”.
- About 400 types of viruses have been identified.

**Other Microorganisms**
- “Slow viruses”. Protein particles that accumulate in the nervous system and brain.
- Fungi: plant-like microorganisms.
Protozoa: single celled parasitic organisms

Other Microorganisms
- Pinworms: parasite that is 3-10mm log and lives in the colon
- Trichinosis: disease resulting from an infection of Trichinella spiralis caused by eating raw or undercooked pork

Transmission of Infectious Diseases
Types of Transmissions:
- person to person
  - Cough, sneeze, kiss, sexual contact
- through the environment
  - Doorknobs, desks, gloves, etc.

Routes of Exposure
- thru blood or body fluids
  - Hepatitis B, C and D, AIDS, syphilis
- thru the air by droplets or particles
  - TB, meningitis, mumps, measles, rubella, chicken pox
- oral route: from the GI tract to the mouth
  - Hepatitis A and E,
- thru ingested foods
  - E. coli, botulism, etc.

Factors Affecting Disease Transmission
- of Entry: In tact skin is non-penetrable but mucous membranes are easily penetrated
- Organisms strength
- Number of Organisms Transmitted: a number of organisms must enter the body to cause infection

Factors Affecting Disease Transmission
- the host’s ability to fight off infection
- Other Host Factors: age, 

Phases of the Infectious Process
- Period: time when a host cannot transmit an infectious agent to someone else
- Communicable Period: time when a host can transmit an infectious disease agent to someone else
- Period: time between a host’s exposure and the appearance of symptoms
– Seroconversion: creation of antibodies after exposure
– _____________________________ phase: time between exposure and seroconversion

14 Phases of the Infectious Process
● Disease ___________________________: the duration from onset of signs and symptoms of the disease until resolution of the S/S or death
  – Resolution of the S/S does not necessarily mean that the disease has been

15 The Body’s Defenses
   Barriers to Entry
   ○ Intact ___________________________
   ○ Respiratory System
   The Immune System
   ○ Identifies ___________________________ Material
     – Includes antigens of most bacteria and viruses.
     – An ___________________________ response triggers mechanisms designed to remove foreign material.

16 The Body’s Defenses
   The ___________________________ System
   ○ The Body’s “Rapid Response” System
     – Proteins that work with antibody formation and inflammatory reaction to fight infection.
     – Recognizes ___________________________ of certain bacteria.
   The Lymphatic System
   ○ Structures
     – Spleen, thymus, lymph nodes, and ducts.
     – Collects and filters ___________________________.

17 The Body’s Defenses
   Individual Host Immunity
   ○ ___________________________ Immunity
   ○ ___________________________ Immunity
     – Immunization

18 Infection Control in EMS
   Preparation for Response:
   ○ Provide written procedures for infection control.
   ○ Prepare an infection control ___________________________.
   ○ Provide adequate infection control training.
   ○ Ensure easy access to appropriately ___________________________, checked, and maintained personal protective equipment.
   ○ Ensure that all personal wounds are ___________________________ and treated before responding to an emergency.

19 Infection Control in EMS
Use ______________________________________ supplies and equipment when possible.
Ensure personnel have access to facilities for personal ______________________________________.
Do not allow infected personnel to deliver patient care.
Monitor EMS personnel for compliance with ______________________________________ and diagnostic tests.
Appoint a designated infectious disease control ______________________________________.

20 Infection Control in EMS
Identify jobs and processes where the possibility of ______________________________________ exists.
Provide ______________________________________ education, including MSDS training regarding chemicals or mixtures and health hazards.

21 Infection Control in EMS
Response:
Obtain as much information as possible from ______________________________________.
Prepare for patient contact.
Prepare ______________________________________ for the call.

22 Infection Control in EMS
Patient Contact
All body substances.
Wear appropriate ______________________________________.
Allow only necessary ______________________________________ to make patient contact.
Use airway adjuncts for assisted ventilation.
Use disposable items whenever possible.

23 Infection Control in EMS
Properly dispose of ______________________________________ waste.
Use extreme caution with ______________________________________ instruments and dispose of sharps in proper containers.
Never smoke, eat, or ________________________________ in the patient compartment of the ambulance.
Do not apply ______________________________________ or lip balm or handle contacts when a possibility of exposure exists.

24 Infection Control in EMS

25 Infection Control in EMS
Recovery:
Wash your ______________________________________ immediately after patient contact.
If you sustain a ______________________________________ and are exposed to the
body fluids of others, wash the wound with soap and water immediately.
- Dispose of biohazardous wastes in accordance with local laws and regulations.

26 Infection Control in EMS
- Place potentially infectious wastes in ________________________________ biohazard bags. Bag and label soiled linen.
- ________________________________ contaminated clothing and reusable equipment.
- Handle uniforms in accordance with agency policy.

27 Infection Control in EMS

28 Infection Control in EMS
- Decontamination
  - Low-Level ______________________________________
    - Destroys most bacteria and some viruses
    - Does not destroy __________
    - Used for routine ________________________________
    - All EPA registered disinfectants
- Intermediate-Level Disinfection
  - Destroys TB and most ________________________________ and viruses
  - Used for decontamination of equipment that has come into contact with
    ________________________________ bleach solution and EPA germicides

29 Infection Control in EMS
- High-Level Disinfection
  - All ________________________________ devices that have come into contact with mucous membranes, including laryngoscopes
  - Immerse in EPA approved sterilizing agents for __________ seconds, or
    - Immersion in ________________________________ water (176-212 degrees F.) for 30 minutes
- Sterilization
  - Destroys all ________________________________
  - Autoclave

30 Infectious Disease Exposure
- ________________________________ any infectious disease exposure immediately according to plan
- The Ryan White Act: outlines rights and responsibilities of agencies and healthcare workers
  - The exposed employee has the right to ask for the source’s ________________________________ status
- Cannot ________________________________ the source to be tested
- But can test ________________________________ his/her knowledge

31 Infectious Disease Exposure
Postexposure
- _____________________________ Evaluation
- Treatment and _____________________________

Confidentiality
�� The infectious disease control officer (IDCO) will maintain records of exposure as required by law
�� Employee medical records are also protected by _____________________________

32 ☐ KEY to Infection Control
�� _____________________________ all exposures to blood, blood products, or any potentially infectious material, regardless of their perceived severity.

33 ☐ Universal Precautions
�� Treat all body fluids as _____________________________
�� Use appropriate _____________________________ precautions.
�� Wash your hands after removal of gloves or contamination with blood or other body fluids.
�� Take precautions to prevent injuries caused by _____________________________, scalpels, or other sharp instruments.
�� Use mouthpieces with one-way valves, bag-valve-mask devices, or other ventilation devices to avoid mouth-to-mouth contact.

34 ☐ Universal Precautions
�� Do not put gloved hands to your _____________________________ or wipe your face with your forearm or the back of your gloved hand.
�� Refrain from direct patient contact if you have exudative or weeping skin lesions.
�� _____________________________ health care workers should strictly adhere to precautions.
�� Disinfection of diagnostic or therapeutic equipment and supplies is _____________________________.

35 ☐ Assessment of the Patient with Infectious Disease

36 ☐ General Approach
�� Ensure BSI Procedures
�� General Indicators of Infection
�� Unusual skin signs, _____________________________, weakness, profuse sweating, malaise, anorexia
�� Signs of _____________________________ infection, including redness, swelling, tenderness, capillary streaking, warmth
�� Presence of a rash or _____________________________ skin sign

37 ☐ Past Medical History
�� Illnesses
�� AIDS, autoimmune disorders, COPD, _____________________________ recipients
�� Taking _____________________________ drugs such as steroids
38 □ History
○ When signs and symptoms began
  ● Presence of fever and use of ______________________________ or other medications
  ● Presence of ______________________________ pain or stiffness
  ● Difficulty ______________________________
  ● Similar past symptoms or illnesses

39 □ The Physical Examination
● Evaluate for Fever, Hypotension, Dehydration
○ Assess:
  – Skin for temperature, hydration, color, or ______________________________
  – ______________________________ for jaundice
  – Lymph node swelling or tenderness
  – Stiffness of neck
  – Breath sounds
  – ______________________________ : enlarged liver
  – ______________________________ (pus filled) lesions

40 □ Diseases of Immediate Concern to EMS Providers
41 □ Human Immunodeficiency Virus
  ● Breakdown of the ______________________________ system
  ● Causes Acquired Immune Deficiency Syndrome (AIDS)
  ● Uses utilizes the host cell’s ______________________________ apparatus to copy itself
○ Risk to the General Public
  – Found in blood, blood products, and ______________________________ fluids.
  – Common methods of transmission include ______________________________ contact and shared needles.

42 □ Human Immunodeficiency Virus
Risk to Health Care Workers:
● Transmission to health care workers is actually ______________________________.
  ● Accidental ______________________________ are the most common source.
  ● High-risk exposures are those involving a large volume of blood, deep percutaneous injury, actual intramuscular injection, or a high antibody-retrovirus titer in the source

43 □ Human Immunodeficiency Virus
Clinical Presentation:
● Fatigue, fever, sore throat, lymphadenopathy, splenomegaly (enlarged spleen), rash, and diarrhea.
  ● ______________________________ sarcoma (purplish skin lesions)
  ● ______________________________ (opportunistic) infections and weight loss.
Dementia, psychosis, and peripheral neurological disorders develop as AIDS progresses.

Human Immunodeficiency Virus

Postexposure Prophylaxis:
- Medical evaluation
- "______________________________________ Therapy": (AZT, 3TC, and IDV)
- Postexposure counseling

Summary of HIV:
- HIV rarely presents life-threatening challenges, but often presents ____________________________ challenges.
- Take appropriate infection control precautions.
  - Precautions should not be a ______________________________________ to professional care.

Hepatitis

Inflammation of the ________________________________ characterized by diffuse or patchy necrosis

General Signs & Symptoms:
- Symptoms are similar regardless of type of infection.
- Headache, fever, weakness, joint pain, anorexia, nausea, vomiting, and _____________ abdominal pain.
- ____________________________, clay-colored stool, and dark urine develop as the disease progresses.

Hepatitis A

- Infectious or Viral Hepatitis (HAV)
  - Transmitted by ________________________________-oral route.
  - Typically is mild; many patients are ________________________________ .
  - Rarely serious and lasts 2–6 weeks.

Hepatitis B

- ________________________________ Hepatitis) (HBV)
  - Virus is transmitted through direct contact with infected ________________________________ , semen, vaginal fluids, or saliva.
  - Risk is significantly higher for EMS providers.
    - 5-35% of all ________________________________ result in infection.
  - ________________________________ is available and recommended for all EMS workers.
  - 60–80% of infected individuals are ________________________________ .

Hepatitis C, D and E

Hepatitis C (HCV):
- Primarily transmitted by IV drug abuse and ________________________________ contact.
- Chronic infection that can cause active disease years later.
- May cause ________________________________ and end-stage liver disease.
Hepatitis D (HDV):
- Exists only _______________________________ with HBV.

Hepatitis E (HEV):
- Is similar to HAV but primarily associated with contaminated ___________ water.

Airborne Infectious Diseases

Tuberculosis
- ____________________________ respiratory disease
- Most common preventable infectious disease in the world
- ____________________________ -resistant TB
  ⊗ Skin Testing
  ⊗ ____________________________ period of 4 to 12 weeks
  ⊗ Development of the disease normally occurs 6-12 months after ___________

Pneumonia
- An acute lung _______________________________.
  - Caused by viruses, bacteria, or fungi
- Not a single disease, but a ____________________________ of disease
- Differentiating pneumonia from CHF
- At-risk patient populations
  - ____________________________ and Sick
  - ____________________________ cell diseases, organ transplant patients, cancers, diabetes, flu, inhaled toxins, aspiration, near drowning, many other illnesses

Pneumonia
History and Assessment:
- ____________________________ -acquired pneumonia.
- Signs include acute onset of chills, fever, dyspnea, ____________________________ chest pain, cough, adventitious breath sounds.
- In ____________________________ patients, the primary sign may be an altered mental state.
Pneumonia
Patient Management and PPE
- Management should support ____________________________ and ventilation.
- Consider the possibility of TB.
- Consider placing a ____________________________ on yourself or the patient.

Immunization and Postexposure Management
- Routine vaccination is not necessary.
- ____________________________ agents and multidrug-resistant strains.

Chickenpox
Caused by the Varicella Zoster Virus (VCV) of the ____________________________ virus family

Clinical Presentation:
- Respiratory symptoms, malaise, and ____________________________ - grade fever followed by a rash.
- ____________________________ may be the first sign of illness and may be limited or widespread; often prolific on the trunk.
- Transmission is through ____________________________ droplets and direct contact with lesions.
- Can be ____________________________ in adult immunocompromised patients.

Assessing Immunity
- Past ____________________________ of chickenpox is sufficient.
- Blood ____________________________ is available
- ____________________________ is available since 1993 for pediatrics

EMS Response and Postexposure
- Observe universal (standard) precautions.
- Get postexposure vaccination.

Meningitis
- Inflammation of the ____________________________ and cerebrospinal fluid
- Caused by ____________________________ and/or viral infections.
- ____________________________ meningitis (spinal meningitis) is the disease variant of greatest concern to EMS

Transmission Factors
- Almost everyone has been a carrier at one point in their lives
- Host resistance factors, ____________________________ (cold)
- Contact with ____________________________ secretions
- Crowding, close contact, smoking

Clinical Presentation:
• ___________ period of 4–10 days
• Fever, chills, headache, nuchal (neck) rigidity with flexion, lethargy, malaise, altered mental status, vomiting, and seizures
• ___________ sign: flexion of the neck causes flexion of the hips and knees
  – Have the patient lie supine with a pillow, flex the ___________ while observing the hips and knees

61 Meningitis
Clinical Presentation (cont’d):
• ___________ signs: inability to fully extend the knees with hips flexed
  – Have the patient lie and flex the hips. Attempt to extend (straighten) the knees. Inability to straighten the knees is a positive sign

62 Meningitis
Immunization
- Immunization is available for ___________ strands
- Not routinely given
EMS Response and Postexposure
- Observe universal (standard) precautions.
- Perform postexposure ___________ within 24 hours.

63 Influenza and The Common Cold
- ___________ Infection
  - Mutation and virulence
  - ___________
- Symptoms
  - Fever, chills, malaise, muscle aches, nasal discharge, mild cough
  - ___________ infections
- Management: supportive care
- Immunization

64 Measles
- ___________ Infection characterized by a reddish rash
- Highly communicable, with lifelong immunity after disease.
- Transmitted by ___________ droplets and direct contact.
- Symptoms
  - Presents similar to severe cold with fever, conjunctivitis, photophobia, cough, and congestion.
  - Rash.
- Management: ___________ care
- Immunization is 99% effective in kids (MMR)

65 Mumps
- Viral Infection of the ___________ glands
– Transmitted by airborne droplets and direct contact with saliva of infected patient.
– Occurs primarily in 5- to 15-year-old patients.
– Lifelong __________________________ after disease.
  ⊗ Symptoms
  – Painful ___________________________ of salivary glands
  – Symptoms of cold with earache, difficulty chewing, and swallowing
  ⊗ Management: supportive care
  ⊗ Immunization: available in __________________________.

66  Rubella
  ● Systemic Viral Infection (German Measles)
  ● Characterized by a fine __________________________ rash on the face, trunk and extremities that fades quickly
  ⊗ Symptoms
  – Sore throat, low-grade fever, and fine pink rash
  – Extremely dangerous in __________________________ females: causes MR in unborn fetus
  ⊗ Management: supportive care
  ⊗ Immunization: available in MMR vaccine
  ⊗ Lifelong immunity after disease

67  Respiratory Syncytial Virus (RSV)
  ⊗ __________________________ Infection: Common cause of pneumonias and bronchiolitis in children
  ● RSV may be __________________________ in small children
  ● Commonly associated with lower respiratory infections during the winter
  ● Post exposure __________________________ is available for high risk persons
  ⊗ Symptoms: Runny nose and congestion, followed by wheezing, ____________, and signs of dyspnea
  ⊗ Management: administer humidified oxygen and control airway

68  Pertussis (Whooping Cough)
  ● Bacterial Infection that affects the __________________________
  3 phases:
  ● __________________________ phase
    – Lasts 1 to 2 weeks
    – Symptoms similar to the common cold

69  Pertussis (Whooping Cough)
  ● __________________________ phase
    – Lasts a month or longer
    – Fever subsides with development of a mild cough that becomes severe and violent
    – Rapid consecutive productive coughs are followed by a deep high-pitched inspiration (“whoop”)
    – Sustained coughing may lead to __________________________ ICP and/or pneumothorax
Pertussis (Whooping Cough)

- __________ phase
  - Frequency and severity of cough attacks decrease
  - Patient is no longer ______________________________________

Management:

- Oxygenation and airway control
- Watch for respiratory failure and tension __________

Immunization: Routine immunization for EMS is not yet recommended but is available if exposure

Viral Diseases Transmitted by Contact

Mononucleosis

- Viral infection of the ___________________________ and tonsils
  - Caused by the Epstein-Barr virus (EBV)
  - Transmitted through ___________________________ contact
  - 4-6 week incubation period

- Symptoms
  - Fatigue, followed by fever, severe sore throat, oral discharges, and enlarged, tender lymph nodes

- Management is ___________________________
  - Poses little risk to EMS

Herpes Simplex Virus Type 1

- ___________________________ Infection that infects the oropharynx, face, lips, skin, fingers, and toes
  - Transmitted in saliva

- Symptoms
  - Fluid-filled vesicles that develop into cold sores or fever blisters, then small ___________________________.
  - Fever, malaise, and dehydration may occur

Management is to wear gloves and wash hands

- No ___________________________ available, but poses little risk to EMS if universal precautions are used

Other Infectious Conditions of the Respiratory System

Epiglottitis

- A ___________________________ infection of the Epiglottis
  - True emergency in children but can occur in adults

- Signs/Symptoms
  - ________________ onset, drooling, dysphagia, distress
  - Stridor, ___________________________ grade fever, sore throat

- Management:
  - Oxygen, airway control, IV
  - Do NOT visualize the ___________________________
76 Croup
- Illness of the oropharynx causing upper-airway obstruction
- Most common in children under 3yoa
- Signs/Symptoms:
  - Onset with grade fever
  - Stridor, “seal-bark” cough, nocturnal occurrence with acute distress, tachypnea and retractions
- Treatment
  - Humidified oxygen, bronchodilators
  - Racemic Epinephrine via HHN

77 Pharyngitis
- Infection of the and Tonsils
- May be viral or
- Characteristics
  - Onset or sore throat and fever, with swelling of the palate, tonsils, and lymph nodes
  - Common in 5 to 11-year-old patients

78 Pharyngitis
- Group A streptococcus (throat) is a serious pharyngitis that can lead to rheumatic fever
- Another strain is responsible for scarlet fever
  - Presents with a scarlet colored rash
- Treatment is supportive care

79 Sinusitis
- Infection of the Sinuses
- Characteristics
  - Blood-tinged
  - Congestion and pressure
- Management: supportive care

80 Hantavirus
- A family of viral infection carried by
- Common house mouse is not known to be carrier
- Spread by inhalation of aerosols created by stirring up of dried infected rodents
- Characteristics
  - Fatigue, fever, aches, nausea, vomiting, diarrhea, and abdominal pain
  - Severe depression
- Management is supportive care of symptoms
- Prevention: wear is dusty or abandoned
Nervous System Infections

Encephalitis

- Infection of the ______________________________________
  - Is typically ______________________________________ in nature, but can also be
    caused by bacteria, fungi, or parasites
  - Commonly co-exists with ______________________________________.

  Clinical Presentation
  - Decreased level of consciousness, fever, headache, drowsiness, coma, tremors, and
    stiff neck/back

  Management: supportive

Rabies

- ______________________________________ Infection Affecting the Nervous System

  2 types:
  - ______________________________________: primarily transmitted by unimmunized domestic dogs and cats.
  - ______________________________________: carried by other animals.

- Transmitted through bites, nonintact skin, and direct contact with a mucous membrane.

Symptoms: Develop in 2 phases

- ______________________________________ phase: symptoms that appear before the appearance of the disease
  - Normally lasts one to three ______________________________________
  - Malaise, ______________________________________, fever, chills, sore throat, anorexia, N/V, diarrhea

- ______________________________________ phase:
  - If untreated, will cause ______________________________________ in 2 to 6 days
  - Excessive motor activity, excitation, and agitation
  - Followed by confusion, hallucinations, combativeness, ______________________________________ behavior, and seizures

Management

- Inspect and ______________________________________ wound.
- Do not ______________________________________; allow the wound to drain.
- Notify appropriate authorities so source animal’s status can be determined.
- Perform ______________________________________ prophylaxis.

  Immunization is now available to high risk persons

Tetanus

- Acute ______________________________________ infection of the CNS
  - Infection often occurs in minor wounds and burns.
Symptoms
- Rigidity of ___________________________ occurs close to infection site.
- Generalized symptoms include pain and stiffness in the jaw, muscle spasms, and respiratory arrest.

Management: Supportive care
- EMS personnel will rarely encounter tetanus, much less be able to diagnose it
- Immunization: ___________________________ vaccine every 10 years

Lyme Disease
- Recurrent ___________________________ Disorder caused by a tick-borne spirochete.

Stages of Disease:
- Early ___________________________ : painless, flat, red lesion at bite
- Early ___________________________ : spreads to skin, nervous system, heart and joints
  - Arthritis, malaise
  - Varies degrees of AV ___________________________ blocks

Lyme Disease
- ___________________________ Stage: can occur months or years after exposure
  - CNS signs, depression, sleep disorders

Management: supportive
- Immunization now available in series of 3 shots for the at risk
- Precautions: check patients and ___________________________ after calls when possibly exposed

Sexually Transmitted Diseases

Gonorrhea
- Gram-Negative ___________________________ Infection
- Most common STD
- Transmitted by direct ___________________________ contact with infected partner.

Symptoms
- Painful ___________________________ , discharge
- Fever, abdominal pain
- Systemic S/S can progress to sepsis and meningitis

Management: Supportive

Syphilis
- ___________________________ Infection
- Caused by spirochete.
- Transmitted by sexual intercourse or direct contact with a ___________________________ .
  - ___________________________ is susceptible
- May involve virtually any organ or tissue
Syphilis

Stages of Syphilis:
- ______________: painless lesion normally on genitals
- ______________: 5-6 weeks after lesions have healed
  - Skin rash on palms and soles
- ______________: S/S disappear for months or years
- ______________: Cardiovascular s/s, lesions, meningitis, aneurysms, spinal cord diseases, sepsis, stroke
  - Management: supportive

Genital Warts

- ______________ Infection
  - Caused by the human papillomavirus (_____________)
  - Some are associated with ____________________ cancer
  - Is highly contagious; transmitted by contact.
- Symptoms
  - Cauliflower-like, fleshy growths on the penis, anus, labial surfaces, and anal mucosa

Herpes Simplex Type 2

- ______________ Infection
  - Transmitted by ____________________ contact.
  - Characteristics
    - Vesicular lesions on penis, anus, rectum, mouth, vulva, buttocks, legs, and perineum
    - Lesions that heal but occur throughout the patient’s
  - Management: supportive care

Chlamydia

- ______________ Infection
  - Affects the genital area, eyes, and respiratory system
  - Transmitted by sexual activity and hand-to-hand contact of secretions.
  - Can cause ____________________ and sterility
  - S/S are same as gonorrhea but less severe
  - Management: supportive care

Trichomoniasis

- Protozoan ______________ infection
  - Transmitted by sexual contact
  - Males usually ____________________ carriers
  - Characteristics
    - Vaginal ____________________, irritation of the perineum and thighs, and dysuria
    - Often concurrent with gonorrhea
  - Management is supportive

Chancroid
Highly contagious ulcer
- Transmitted by direct sexual contact

Characteristics:
- Painful inflamed or ulcer of the penis, anus, urethra, or vulva
- Spreads to breasts, fingers, and thighs
- Swollen nodes and fever

Management is supportive

Diseases of the Skin

Impetigo
- Infection caused by staphylococci or streptococci
- Highly contagious
- Spread by direct contact
- Most commonly occur on the extremities and joints

Lice
- Parasitic infestation
- Commonly occurs on the trunk, or pubic areas
- Repeated infestations can lead to an reaction
- Treatment is to diagnose and treat exposure and to decontaminate

Scabies
- Infestation
- Characterized by intense itching
- Lesions appear as fine, dark lines less than 1cm in length
- Treatment is cream if exposed to and decontamination of equipment

Patient Education

Role of the Paramedic
- The history of sensationalized or misunderstood media coverage of infectious disease outbreaks
- The significance of leading by
- The serious personal and public health implications of infectious disease

Educate the Public
- Introduce disease as part of CPR and first aid classes.

Preventing Disease Transmission

Personal Accountability
Ensure ___________________________ Health
- Do not work if you have diarrhea, a draining wound, mononucleosis, or a cold; have untreated lice, scabies, or strep throat; or are ___________________________.

Maintain Current Immunizations.
- MMR, hepatitis B, DPT, polio, chickenpox, influenza, and rabies (if appropriate)

Preventing Disease Transmission
Utilize BSI, PPE, and Infection Control Materials
Keep Your ___________________________ Current
Treat ___________________________ patient like they could have an infectious disease