

# Infectious Diseases Activity

## Objectives

1. Students will understand about symptoms and risk factors for some common infectious diseases.
2. Students will record patient data based on exams and patient history.
3. Students will diagnose an illness based on clinical findings.

## Materials

Patient Record Form  
Disease Description Card  
Gloves  
Face masks  
Thermometer  
Tongue depressors  
Rubbing alcohol  
Cotton balls  
Symptoms Checklist

## Directions

1. Choose a partner and decide who will be the “Health Care Worker” and “Patient”.
2. Get a “Disease Description Card” from your instructor.
3. As a patient, follow the “role” of your disease carrier. As a doctor, record the data your patient gives you on the Patient Record Form.
4. Collect materials for the patient exam. Record the data under Patient Exam and Observations. Be sure to record two sets of data where indicated on the form.
5. Wearing your gloves and face mask, complete the following:
  - Pulse Recording - Record your patient’s *radial pulse* by taking their pulse on their wrist. Count the “beats” for 1 minute (or for 30 seconds and multiply by 2).
  - Temperature Recording - Use the digital thermometer. Record the temperature. Wipe off the thermometer with rubbing alcohol before giving it to the next group.
  - Throat Description - Using a tongue depressor, gently look inside your patient’s mouth at the color of the throat. Record descriptions like pink, red, blotchy, white patches, etc.
  - Lymph nodes (neck) - Swollen? Tender? Record findings.
  - Respiration - Count how many times the patient “breathes” in 1 minute.
6. Once you have recorded all of the exam and history data, look at the Symptoms and History Checklist. Examine the checklist and search for your patient’s disease. Try to find the disease that matches all of your descriptions about symptoms and patient history (risk factors).
7. Turn in your patient’s information with diagnosis. Keep the Symptoms and History Checklist in your notes. Return the Disease Description Cards to your instructor.

## Disease Analysis

Now that you have arrived at a preliminary diagnosis for your patient, there is additional information about the disease that you will want to have. Ask your teacher for the infectious disease description handout to answer the following questions.

Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Patient Record Form

Healthcare Worker: \_\_\_\_\_ Date: \_\_\_\_\_

### Part I – Patient Information

Patient: \_\_\_\_\_ Disease Card (A-N): \_\_\_\_\_ Age: \_\_\_\_\_

Complaint/Symptoms:

\_\_\_\_\_  
\_\_\_\_\_

#### Questionnaire (history):

1. Have your eating habits been abnormal in the last 48 hrs? \_\_\_ no \_\_\_ yes  
\_\_\_ unknown

If yes, explain: \_\_\_\_\_

2. Have you traveled anywhere recently? \_\_\_ no \_\_\_ yes \_\_\_ unknown

If yes, where? \_\_\_\_\_

3. Do you own a pet? \_\_\_ no \_\_\_ yes

What kind? \_\_\_\_\_

4. Have you gone hiking or camping recently? \_\_\_ no \_\_\_ yes \_\_\_ unknown

5. Are you up to date on your vaccinations? \_\_\_ no \_\_\_ yes \_\_\_ unknown

6. Have you shared a glass or can with anyone recently? \_\_\_ no \_\_\_ yes \_\_\_ unknown

7. Do you live in the countryside or near wildlife? \_\_\_ no \_\_\_ yes \_\_\_ unknown

8. Do you have any recent cuts or bites on your skin? \_\_\_ no \_\_\_ yes

9. Do you work in a healthcare setting? \_\_\_ no \_\_\_ yes \_\_\_ unknown

10. Have you had any injuries or accidents recently? \_\_\_ no \_\_\_ yes \_\_\_ unknown

What type of injury? \_\_\_\_\_

11. Any other important information?

\_\_\_\_\_

### Part II – Patient Exam and Observations

Pulse: \_\_\_\_\_ Temperature \_\_\_\_\_

Description of throat: \_\_\_\_\_ Lymph nodes: \_\_\_\_\_

Respiration: \_\_\_\_\_

### Part III – Diagnosis and Treatment

1. Your diagnosis:

\_\_\_\_\_

2. Pathogen (infectious agent):

\_\_\_\_\_

3. Diagnostic tests:

\_\_\_\_\_

4. Types of treatment or cures:

\_\_\_\_\_

5. Public health preventions:

\_\_\_\_\_

## **Disease Description Cards**

### **Disease Description Card #1**

You are seeking medical attention because your stomach hurts and you feel a lot of nausea. You've been very tired lately, and your skin is looking a little bit yellowish. Your temperature has been normal though. You were recently on vacation in Thailand, where you sampled a variety of foods sold on the street. You are unsure whether you are up-to-date on your vaccinations.

### **Disease Description Card #2**

You are 72 years old and live in a crowded nursing home. You are seeking medical attention because you have a persistent fever (101°) and a cough that hurts and makes your chest feel tight. The illness makes you very tired and worried. You are unsure whether or not your vaccinations are current.

### **Disease Description Card #3**

You are urgently seeking medical attention because of extreme discomfort. You have a fever (102°) and some new red-purple spots on your arms and back. In the last 24 hours you have vomited twice, and you have a bad headache. When the HCW asks you questions, you get confused and anxious, which is not normal for you. You have just started work at an elementary school and have not had a chance to get up-to-date on your vaccinations.

**Disease Description Card #4**

You have just come back from a visit to your uncle's farm in Ireland and are not feeling very well. Your throat is sore, your head aches, and you have dizzy spells. When the HCW asks you questions, you are confused and anxious, which is not normal for you. Also, you have become uncoordinated and your balance is poor. Your temperature is normal, and you are up-to-date on all of your vaccinations.

**Disease Description Card #5**

You are seeking medical attention because your left leg muscles ache badly and your jaw is very stiff. You have a hard time chewing and swallowing. Your temperature and pulse are normal. You think the leg muscle ache has something to do with an injury you had a week ago while camping. You accidentally got stabbed in the leg by a large metal skewer when making smores over the campfire. You have had all your childhood vaccinations, but haven't had any shots for the last 10–15 years.

**Disease Description Card #6**

You are cancer patient who is currently undergoing chemotherapy, which weakens your immune system. You are seeking medical attention today because you have a fever (101.7°), a bad headache, and your throat hurts. Your stomach hurts more than normal. When the HCW performs the balance test, you get somewhat dizzy, and overall you have been less coordinated and mentally aware than usual. When you come home from chemotherapy, you like to seek comfort from your two cats that spend a lot of time outside. You do not remember whether your vaccinations are current.

**Disease Description Card #7**

You have recently returned from a camping trip in the Appalachian Mountains, where you did a lot of hiking through the woods. You are seeking medical attention because you are having a hard time recovering from the trip. Your joints are sore, and you feel tired all the time as though you have the flu. You are running a fever (100.6 degrees) and have a headache. When the HCW checks your lymph nodes, they are swollen, and there is a red bump on your leg where you think an insect bit you. You are up-to-date on all of your vaccinations.

**Disease Description Card #8**

You are seeking medical attention because you have been suffering from nausea for several days, and last night you vomited. You've been having stomach cramps and diarrhea as well, and have generally been feeling run down and tired. You live near a lake that you like to swim in each morning, but have been too tired to do it for the past week. It often has a lot of kids and pets playing in it. You updated your vaccinations about 6 months ago.

**Disease Description Card #9**

You are seeking medical attention because for the past 3 days you have been feeling very under the weather. You have a sore throat, cough, headache, and your muscles ache. Your body temperature is 101.4°. You work in an office where a lot of employees have been calling in sick lately. The shortage in staff has made your job pretty stressful for the past couple of weeks. The last time you got your vaccinations up-to-date was 2 years ago.

**Disease Description Card #10**

You are seeking medical attention for a combination of symptoms you've never had before. Your hand and arm itches, and sometimes there is a shooting pain there. You have a fever (101.8°), headache, and muscle soreness. When the HCW asks you questions, you show signs of some confusion and you complain that you can't think straight because you feel anxious a lot. Sometimes your throat is sore and you feel like you are thirsty more than usual. When asked if anything unusual has happened to the hand and arm that is irritated, the only thing you can think of is that you adopted a dog 6 months ago and he used to nip that hand a lot. You don't remember whether or not your vaccinations are current.

**Disease Description Card #11**

Last week you started to suffer from what you thought was the common chest cold, but this week the coughing has become a lot worse, especially at night. You start to cough very violently and then have to struggle to get enough air after the coughing bout is over. It makes your chest feel tight and gives you a headache. You still have a fever (101.2°) and are usually thirsty. You are a recent immigrant from a country that doesn't require childhood vaccinations, and so you did not have many of them.

**Disease Description Card #14**

Last night your mother-in-law had you over for a chicken dinner and now you feel very sick. You vomited soon after you came home, and today you are suffering from stomach cramps and severe diarrhea. You have a temperature of 101.6° and a slight headache. You are a teacher and haven't traveled in the past 6 months. Your vaccinations are all up-to-date. You have two pets, a dog, and a parrot.

### **Disease Description Card #12**

You think you have a bad case of the flu, but are seeking medical attention because it doesn't seem to be getting any better. For the past 2 days you've had a fever, and today your temperature is 102.3°. Your muscles ache, you get chills, and have a headache. Sometimes you have a dry cough. The balance test reveals that you are somewhat less coordinated than you usually are, and the entire experience with the HCW makes you a lot more anxious than you normally would be. You are an engineer and have been spending your weekends for the past month helping your grandmother clean her attic, which had a mouse infestation. You are current on all of your vaccinations.

### **Disease Description Card #13**

You are seeking medical attention because last night you started having a fever, and today your temperature is 103.4°. Your head and muscles ache, you feel very tired, and you get dizzy easily. Two weeks ago you returned from the rainforest in Brazil, where you spent a month conducting research on orchid species. You camped half of the time, and despite all your efforts, were bitten many times by mosquitoes and spiders. You were updated on all of your vaccines before you left on your research trip.

### **Disease Description Card #15**

You are seeking medical attention because for the past week you have been extremely tired and do not seem able to feel completely rested. Whenever you try to work, you feel worse and have to lie down. Your throat is sore, and the HCW discovers that your lymph nodes are swollen. You have a temperature of 100.8°, head and muscle aches, and are developing small, red, raised bumps on your chest and neck. You have very recently started to date a new person and often share food and drinks.

## **Disease Description Cards: Key**

Card # Disease

1 Hepatitis A

2 Pneumonia

3 Meningitis

4 Bovine spongiform

5 Tetanus

6 Toxoplasmosis

7 Lyme disease

8 Giardia

9 Influenza

10 Rabies

11 Pertussis

12 Hantavirus

13 Malaria

14 Salmonella

15 Mononucleosis



# Infectious Diseases Questionnaire

Name: \_\_\_\_\_ Pd: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is the name of the disease/pathogen?
2. What diagnostic testing is available for this disease?
3. What is the pathogen associated with this disease?
4. How is the disease transmitted?
5. What are the major signs and symptoms?
6. What is the major treatment/s for this disease?
7. How can individuals avoid contracting this disease?
8. What kind of cells from the Immune System are involved in this kind of disease:
9. Make a graphic organizer of how you classify (diagnosis) your disease:



