# Chain of Transmission and Risk Assessment

**Scored Test - ANSWERS**

## Question 1
Using the model of the Chain of Transmission, match the transmission of influenza or “the flu” to the links in this Chain of Transmission. Write the letter (e.g. A, B, C... etc.) that corresponds to your choice in the box.

<table>
<thead>
<tr>
<th></th>
<th>Infectious Agent</th>
<th>A. Respiratory tract through coughing and sneezing</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Reservoir</td>
<td>B. Eyes, nose, mouth</td>
</tr>
<tr>
<td>F</td>
<td>Portal of Exit</td>
<td>C. Hands and contaminated surfaces</td>
</tr>
<tr>
<td>A</td>
<td>Mode of Transmission</td>
<td>D. Influenza virus</td>
</tr>
<tr>
<td>C</td>
<td>Portal of Entry</td>
<td>E. People who have not received their annual influenza vaccine</td>
</tr>
<tr>
<td>B</td>
<td>Susceptible Host</td>
<td>F. Client’s/patient’s/resident’s lungs and air passages</td>
</tr>
</tbody>
</table>

## Question 2
A housekeeper, wearing gloves, cleans and disinfects the floor where small blood drops have fallen. Which link(s) in the Chain of Transmission is/are broken? Select all that apply. Put a “✓” in the appropriate cell.

- A. ✓ Infectious Agent (potentially)
- B. □ Reservoir
- C. □ Portal of Exit
- D. ✓ Mode of Transmission
- E. ✓ Portal of Entry
- F. □ Susceptible Host
Question 3
What should you do first before you either perform wound care on a client/patient/resident or clean his/her environment? Put a “✓” in the appropriate box.

A. ✓ Perform a risk assessment
B. □ Check the medication cart
C. □ Gather equipment and supplies
D. □ Document admission history

Question 4
Which question(s) is/are appropriate when performing a personal risk assessment? Put a “✓” in the appropriate box. Check all that apply.

A. ✓ How skilled am I at this task?
B. ✓ How cooperative is my client/patient/resident?
C. □ How is my supervisor going to evaluate my work?
D. ✓ Does my client/patient/resident have uncontrolled drainage?

Question 5
Which of the following activity/activities may reduce the transmission of infectious agents? Put a “✓” in the appropriate box. Check all that apply.

A. ✓ A health care worker cleans shared care equipment.
B. ✓ A health care worker removes a soiled dressing and puts it directly into the garbage.
C. □ A health care worker sorts cleaning supplies in the housekeeping cupboard.
D. □ A health care worker removes gloves and gives the resident medication.
Additional Feedback

**Question 1**
Influenza transmission occurs when the influenza virus (Infectious Agent), lives and grows in the client’s/patient’s/resident’s lungs and air passages (Reservoir), exits the respiratory tract through coughing and sneezing (Portal of Exit), travels via hands, surfaces and droplets (Mode of Transmission), and gains entry through the eyes, nose and mouth (Portal of Entry), to a Susceptible Host.

**Question 2**
The Chain is broken by:
- Wearing gloves to prevent the potentially Infectious Agent from entering the housekeeper’s skin through cuts or scrapes (Portal of Entry)
- Cleaning and disinfecting the floor removes the potentially Infectious Agent (blood) which blocks the Mode of Transmission (contact)

The person whose blood is on the floor was the Reservoir and the Portal of Exit. They are not in this scenario. Anyone is a Susceptible Host if they are exposed to another person’s blood. The housekeeper used gloves and did not touch the blood.

**Question 3**
Performing a Risk Assessment is the first step before you carry out any activity in a health care environment. Gathering equipment and supplies is necessary but this is not the first step. Cleaning the cart and informing your supervisor are not your first steps.

**Question 4**
When performing a personal risk assessment, you need to focus on three main areas: the task you are going to do, what you know about your client/patient/resident and what you know about the controls in place. It is appropriate to ask how skilled you are at the task. If this is the first time you have performed a procedure then you may need additional help to ensure that it is done safely. Assessing your client/patient/resident’s physical and cognitive (mental) status assists your personal decision making about your need for additional help or personal protection to complete the task. How your supervisor evaluates your work is definitely NOT the right question to ask in your personal Risk Assessment.

**Question 5**
Cleaning shared equipment and disposing a soiled dressing into the garbage reduces the risk of transmission of infection. Sorting supplies does not reduce the risk of transmission of infection. Removing gloves and not performing hand hygiene may increase the risk of transmission of infection.