

The Story of Patient Zero – Teacher Version

With Suggested Responses

Patient Zero has already contracted the disease that your group is studying. She is not yet aware that she is infected.

Patient Zero wakes up in the morning and gets out of bed. It is warm in the Gatsby Apartments where she lives, so she opens the bedroom window on the south side of the building. She uses the bathroom, gets dressed, and goes down the elevator to head outside for her usual morning jog with her dog. She exits the building onto E. Highland Drive and begins to jog east toward the reservoir. She stays on E. Highland Drive until the trail to jog around the reservoir.

One of her favorite places to jog is around the reservoir. It is especially warm today, and the trail around the reservoir needs maintenance. The grass is high and other five joggers on the trail kick dust into the air. She begins to cough from the dust. ***There is potential for airborne transmission to other joggers on the trail.***

When she reaches the road to the park, she is coughing quite hard and needs a drink. She gets in the line for the drinking fountain behind four other people. In the line for the drinking fountain, she tries to cover her cough with her hands, but must hold the dog leash with one hand. Three people get in line behind her. ***There is potential for airborne transmission to others in line. She may get infected droplets on her hand when coughing.***

When she gets to the drinking fountain, she sees that there is a large puddle of water around the fountain, and many mosquitos are buzzing around it. She turns on the fountain with one hand, and keeps the dog leash in the other. Mosquitos start to land all over her legs, but her hands are busy and she cannot swipe them away before they begin to bite her. After a drink, her cough subsides and she swats the mosquitos off of her legs. As she walks away from the fountain, she hears the others in line complain about being bitten, too. ***She may contaminate the drinking fountain handle with droplets from the hand that she was using to cover her cough. Mosquitos may have picked up the infection from biting her, and then infected others in line through vector transmission.***

She sits at a bench to rest. When she sits down, she screams! She sees that three ticks have attached themselves to her legs during the jog! She checks her dog for ticks and finds none. She has a pair of fine tip tweezers in the first aid kit that she jogs with, so she carefully pulls the ticks off of her leg and tosses them on the ground. This is the fourth time this year that she has picked up ticks while on her morning jog. She gets up and walks away with her dog. When she leaves the bench, a family of three sits down. The two young children in the family begin to play on the ground in front of the bench.

Ticks may have contracted disease from biting her. They can now attach to the children and spread disease through vector transmission.

Patient Zero is so disgusted that she becomes sick to her stomach. She leans against a tree and vomits into a trash can. While she is throwing up, a small child approaches her and asks if she is okay. The child's caretaker runs up and grabs the child, but not before a small amount of vomit splashes on the child's arm. The caretaker yells at the child for going so close to Patient Zero, and then at Patient Zero for vomiting in public. Having limited resources available, the caretaker uses a paper napkin to wipe the child off, and then marches toward the bathroom to better wash the vomit from the child's arm. **The child and caretaker may become infected through contact with particles of vomit.**

Patient Zero is so embarrassed, she decides to go straight home to the Gatsby Apartments. She leaves via E. Highland Dr. heading south, and takes a trail to E. Prospect Street. She follows E. Prospect Street to 10th Ave. E. and takes a right. She enters her building through the back door on 10th. When she arrives home, she hears the construction workers outside her bedroom window on the south side of the building complaining about mosquitos living in the standing water near the puddle outside her window. She sees that many mosquitos have flown into her bedroom! As she tries to squish all of them and shoo them back outside, she is bitten several more times. Finally, she shuts the window and kills the remaining mosquitos. **Mosquitos may have bitten her and then bitten the workers outside her window.**

Now that she is done with her jog and the mosquitos are dead, she removes her mp3 player from her arm. In doing so, she sees that there are several more ticks attached to her arm under the band. Horrified, she gently removes them with her tweezers and throws them in the garbage. **The ticks are now infected, but are in the garbage.**

She looks at the time and realizes that she is going to be late to meet some friends for lunch. However, she cannot leave yet. She suddenly has to use the bathroom! Using the bathroom takes longer than she expected. In her rush, she leaves the bathroom without washing her hands. **She potentially has contaminated her hands with fecal matter.**

Wanting the ticks out of her apartment, she ties up the garbage and brings it downstairs with her. She pushes the Ground Floor button on the elevator to take the trash out on her way to lunch. The elevator is crowded with five other people who complain about her smelly garbage. **She may now have contaminated the elevator button.**

She rushes to the dumpster on 10th Ave E. to toss her garbage, and in her hurry, collides with another tenant who is also taking out the trash. She drops her garbage and it spills onto the ground. The tenant sees how frustrated she is, and offers to clean the spilled garbage up. She thanks the tenant, and runs off, leaving the tenant to pick up all of the trash. **The tick is now free to attach to the tenant. There is also the possibility of indirect transmission from touching the garbage sack.**

Patient Zero arrives at the Bacon Mansion Bed and Breakfast for lunch to a table on the patio with three friends waiting for her. She sits down, picks up a water glass, and takes a large drink. "Hey!" her friend says. "That's my water!" Patient Zero apologizes and her friend shows her the correct glass. The friend keeps her original glass of water to drink.

The water glass may have become contaminated from saliva on the rim, and also from touching the glass.

Patient Zero begins to tell her friends about her awful day, when she begins to sneeze. There is a gardener mowing the grass strip outside the restaurant, and the debris and pollen bother Patient Zero's respiratory track. They summon the host to find them a table inside. Patient Zero tries to cover her sneezes with her hands, but sneezes non-stop for several minutes, including along the walk through the busy patio to the inside of the restaurant where they are seated at a new table. The busser follows with everyone's water glasses, but sets them down at different people's seats. ***There may be transmission from sneezing on the guests at the restaurant. Her hands may be contaminated with droplets from sneezing into them. The water glasses are now with different people, which could also be another source of transmission. The busser handled the glasses and may now have contaminated hands.***

Patient Zero stops sneezing, but is so upset by the terrible day, that she decides to go home. She leaves the restaurant and walks toward home along Broadway E., crying. Blinded by her tears, she trips over a large crack in the sidewalk outside of the Adamson Apartments and badly skins both knees and hands. The same tenant who helped her with her garbage is walking by, sees her bleeding and crying, and offers to help. Patient Zero leans on the tenant as she limps home. She rides the elevator up, enters her apartment, and cleans her wounds with soap and warm water. She then goes to bed for the rest of the day. ***May have transmitted disease through contact with hands contaminated with droplets, feces, or blood.***