

Mastery Series: VARICELLA AND SHINGLES

1. Describe the pathophysiology and symptoms of varicella.
2. Describe the pathophysiology and symptoms of shingles.
3. Compare the vaccines for chickenpox and shingles.
4. Compare the transmission of chickenpox with the transmission of shingles.
5. Can you get shingles from someone with chickenpox?
6. Can you get chickenpox from someone with shingles?
7. Why must you have a history of exposure to chickenpox in order to have a risk for shingles?
8. Is Varicella an RNA or DNA virus?
9. Why is the nucleic acid type significant for the pathophysiology of Varicella?

Mastery Series ANSWERS: VARICELLA AND SHINGLES

1. Describe the pathophysiology and symptoms of varicella.
 - *initial exposure on respiratory membrane
 - *T cells are infected, then travel to the skin
 - *itchy pustules contain live, free virus
 - *virus may invade and travel retrograde up sensory fibers to incorporate into the DNA in the sensory cell body in the DRG.
2. Describe the pathophysiology and symptoms of shingles.
 - *reactivated virus comes out of latency, forms virions that travel back down the neuron and causes a rash along that individual dermatome. If the infected sensory neurons were in the cranial nerves, the face or even the eye can be affected.
3. Compare the vaccines for chickenpox and shingles.

Shingles vaccine is just a far more concentrated version of the live attenuated virus (sometimes as much as 14X more concentrated)
4. Compare the transmission of chickenpox with the transmission of shingles.
 - *chickenpox can be transmitted through aerosol droplets from respiratory membranes or from live virus in the pustules. It can only cause chickenpox in the primary disease.
 - *shingles can transmit chickenpox disease via live virus in the pustules.
5. Can you get shingles from someone with chickenpox? **NO!**
6. Can you get chickenpox from someone with shingles? **YES!**
7. Why must you have a history of exposure to chickenpox in order to have a risk for shingles?
 - *shingles occurs when the varicella virus reactivates and affects the sensory dermatome it had been hiding in.
8. Is Varicella an RNA or DNA virus? **DNA!**
9. Why is the nucleic acid type significant for the pathophysiology of Varicella? **Only DNA viruses and retroviruses (viruses that can turn themselves into DNA—HIV is an example) incorporate into our DNA to cause latent diseases. RNA viruses (like enteroviruses and influenza and Ebola) cause their disease acutely.**