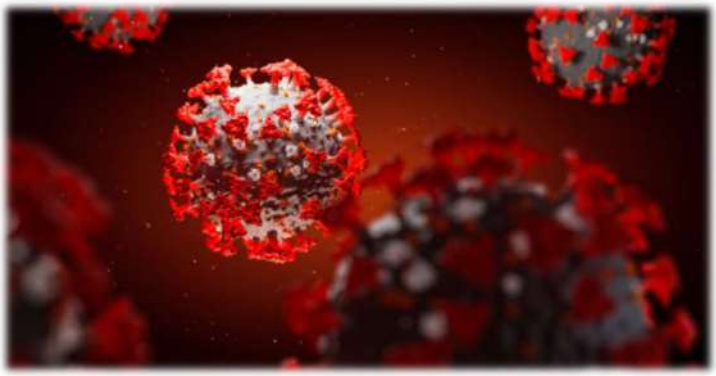


Chapter Review

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Welcome to the chapter review section, where we will quickly recap this chapter on infectious diseases.

Good Studying.

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LESSON 1 – WHAT ARE INFECTIOUS DISEASES?

- Infectious diseases are disorders caused by organisms – such as bacteria, viruses, fungi or parasites
- AMR occurs when microbes evolve mechanisms that protect them from the effects of antimicrobials



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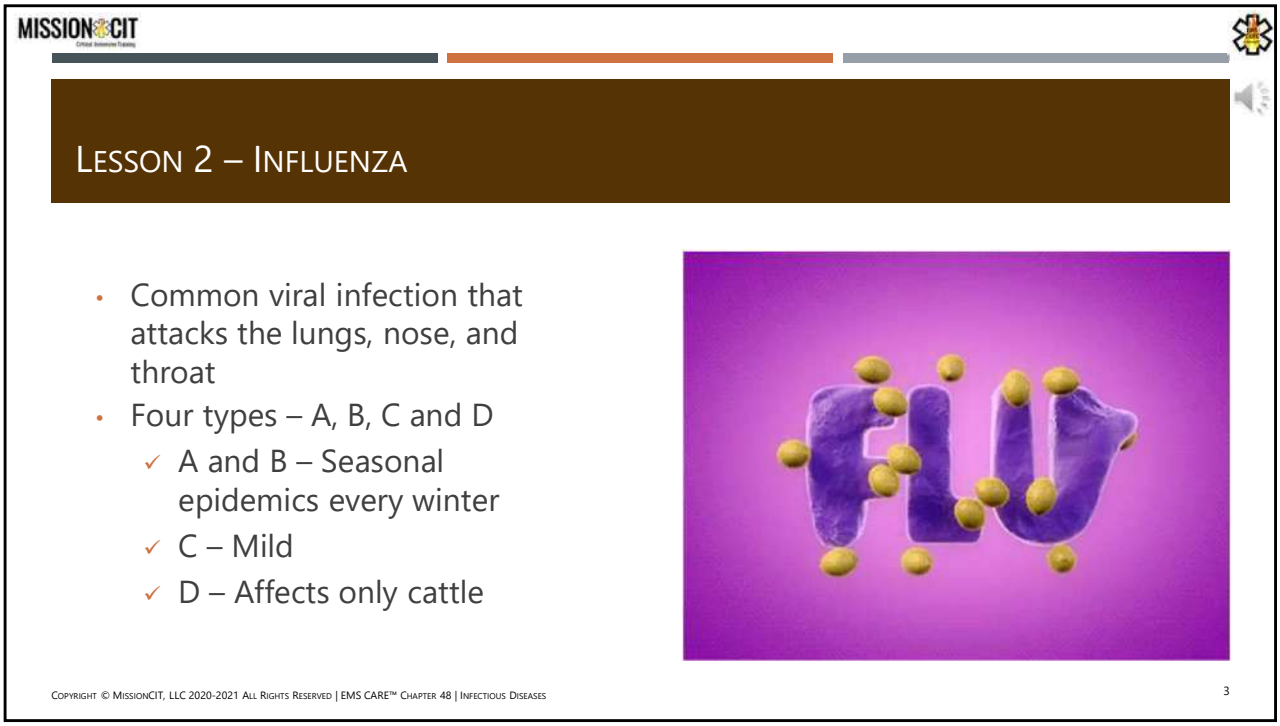
In the first lesson, we talked about infectious diseases, the cause of disease spread, and their corresponding treatment. To recollect, infectious diseases are illnesses caused by germs that enter the body, multiply, and can cause an infection. Some infectious diseases are contagious, that is, spread from one person to another. Other infectious diseases can spread by germs carried in the air, water, food, or soil. They can also be spread by vectors or by animals.

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi, and parasites change over time and no

longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness, and death. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective, and infections become increasingly difficult or impossible to treat. While some groups of people are more susceptible to these diseases, they tend to impact children and seniors as well.

With a worldwide occurrence, these infectious diseases spread more quickly due to international travel and trade practices. Infectious diseases, in general, are hard to treat and they mutate quickly making treatment difficult.

UTIs, sepsis, STDs, Klebsiella pneumonia, E.coli, Mycobacterium tuberculosis, Drug-resistant HIV, Candida Auris, Coronavirus, and other respiratory ailments are some common bacterial infections that are resistant to antibiotics.

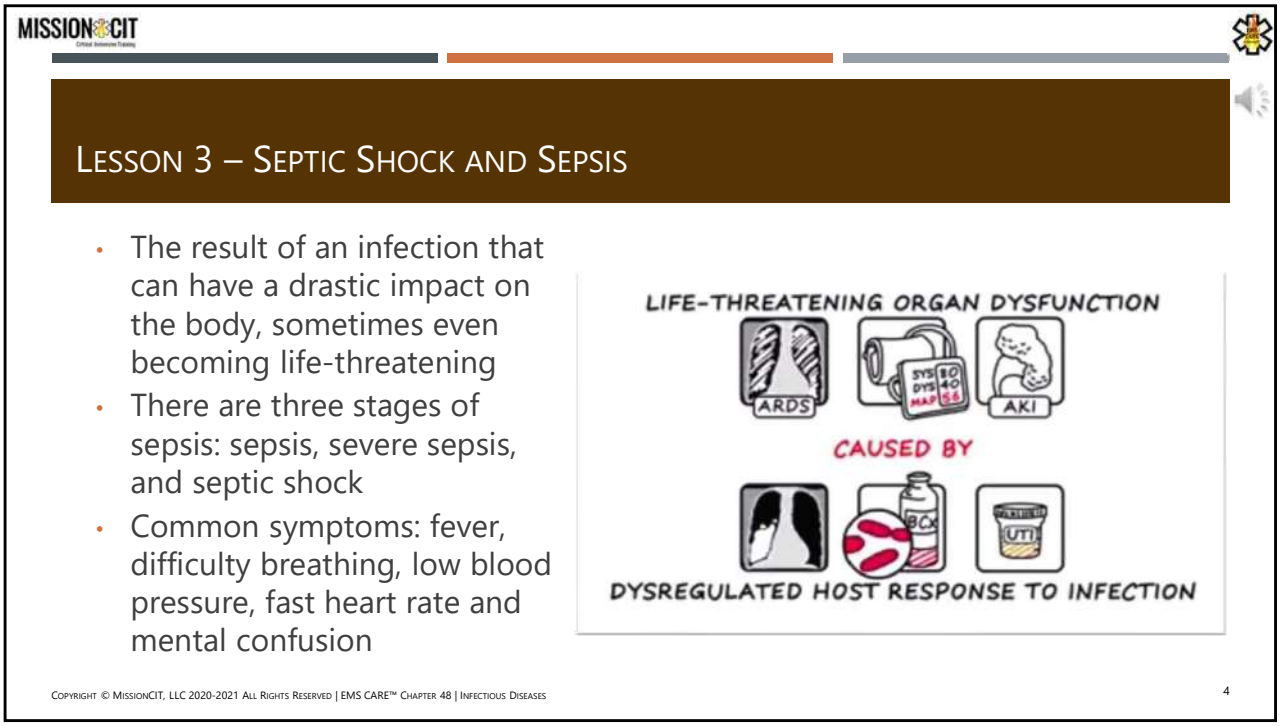


In the next lesson, we talk about the influenza virus, its symptoms, and vaccinations.

Influenza, commonly called flu, is a common viral infection that attacks the lungs, nose, and throat. There are 4 types of influenza viruses, namely, A, B, C, and D. While fever, chills, muscle aches, cough, congestion, runny nose, headache, and fatigue are some common symptoms caused by the influenza virus. Nausea, swollen lymph nodes, chest pressure, and sore throat are also some symptoms seen in people.

Preventive actions in case of flu include staying away

from people who are unwell, covering while coughing and sneezing, and frequenting washing hands to slow down the spread of germs. But prevention is better than cure, the easiest way is to get a vaccine each year.



We now talk about septic shock or sepsis, the result of an infection that can have a drastic impact on the body, sometimes even becoming life-threatening. There are three stages of sepsis: sepsis, severe sepsis, and septic shock. The common symptoms include fever, difficulty breathing, low blood pressure, fast heart rate, and mental confusion.

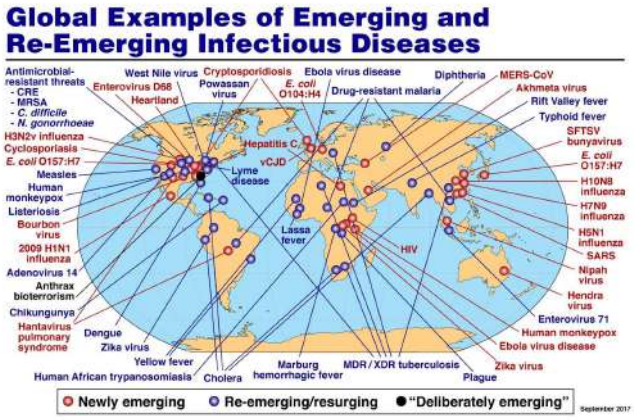
As an EMT, you can diagnose septic shock using the SOFA score or the surviving Sepsis screening tool. You can also look for infections, inflammations, and hypoperfusion.

Depending on the patient's condition, start resuscitation and provide oxygenation if needed. Transport the patient to the hospital and document everything.

Next, we will discuss the last lesson in this topic.

Lesson 4 – Emerging and Prevailing Infectious Diseases

- VRSA
- MRSA
- Vector borne
- Zoonotic
- Food-borne
- Airborne



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We now discuss emerging and prevalent infectious diseases in this slide. Vancomycin-Resistant Staphylococcus Aureus (VRSA) is a common bacterium resistant to the antibiotic vancomycin. And Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteria is resistant to isoxazolyl penicillin, such as methicillin and oxacillin.

Other types of diseases we discussed were vector-borne, zoonotic, food-borne, and airborne. Vector-borne happen through vectors such as mosquitoes, fleas, and ticks that spread pathogens from an infected person to

healthy people. Zoonotic diseases spread from animals to humans. Pathogens that contaminate foods and cause infections are food-borne. And finally, airborne diseases are caused by a microorganism transmitted through the air.

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LESSON 5 – HANDLING INFECTIOUS DISEASES

- Being aware of symptoms
- Wearing appropriate PPE
- Needle-stick injuries
  - ✓ Safe handling
  - ✓ Proper disposal
  - ✓ Avoid recapping needles
  - ✓ Report injuries



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So far, we have seen the different infectious diseases, their symptoms, pathophysiology, and how they spread. In this final slide, we'll talk about ways to handle these diseases. The rate and prevalence of infectious diseases are growing due to climate changes, and improved adaptations and mutations. Being aware of the symptoms, and wearing the appropriate PPE can shield you from possible exposure to viruses. Lastly, we talk about needle-stick injuries which are known to occur frequently in healthcare settings. While the introduction of universal precautions, and safety-conscious needle

designs has led to a decrease in needle-stick injuries, they still do occur. They expose us to several bloodborne pathogens that can cause severe or even fatal infections. Needle-sticks can be prevented by setting up the work area carefully so that syringes can be immediately disposed of at the point of use, needles are not recapped, and no used injection equipment needs to be put down or picked up before disposal.

With this, we've come to the end of the chapter reviews. Next is a 15 question quiz. Good testing.