

Thank you, Justin!

So far, we have seen the different infectious diseases, their symptoms, pathophysiology, and how they spread. Now, we'll talk about how to handle these diseases and what are some things you must watch out for.

Being Aware

- Rate and prevalence are growing by the day
- Climate changes and mutations
- Awareness is key
- You may be the first medical person to contact a patient
- Reporting is essential



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The rate and prevalence of infectious diseases are growing by the day due to climate changes and improved adaptations and mutations. Hence, being aware of the emerging diseases and understanding their pathophysiology and symptoms are the key to treatment.

Often, you may be the first medical person to come in contact with a patient with an emerging disease, so even from a reporting standpoint, this awareness becomes essential.



Here are some resources:

The first is the CDC topic page for the National Center for Emerging and Zoonotic Infectious Diseases covering infectious diseases from anthrax to Zika.

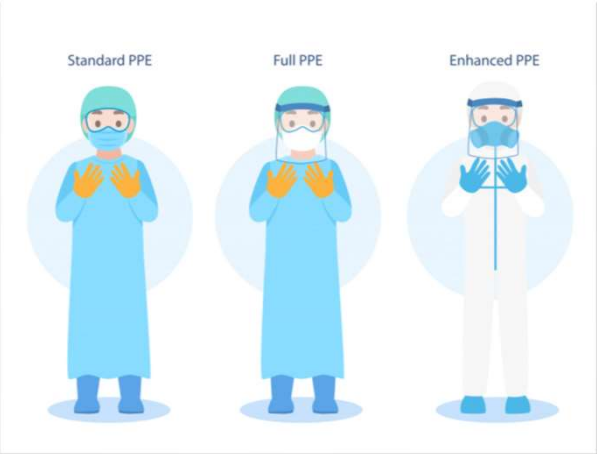
The second link is the U.S. Department of Health and Human Services, U.S. Food and Drug Administration home page. It provides regulatory information and resources for food, drugs, medical devices, radiation-emitting products, vaccines, cosmetics, tobacco products, and animal and veterinary products.

The third one is the Connecticut Department of Public Health.

These resources can help you stay updated with the infectious diseases prevalent in your community.

Preventing Exposure

- Know the pathophysiology
- Reduce exposure by wearing PPE
- Follow basic hygiene and sanitation



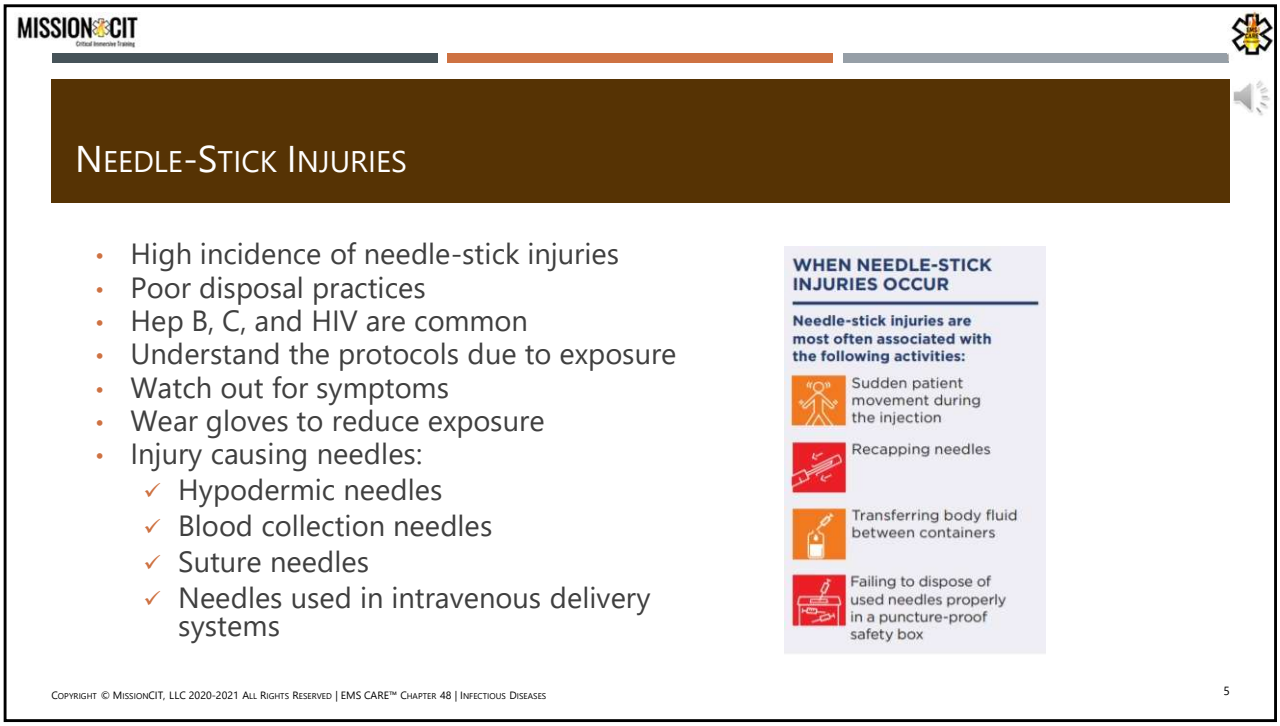
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Since you're likely to get in contact with a patient even before knowing the pathophysiology of their medical condition, it's vital to reduce the possibility of exposure. Hence, you must be aware of the symptoms of different infectious diseases. Consider wearing the appropriate personal protective equipment before you expose yourself to such patients.

There is likely to be a paradigm shift across the country concerning PPE since the onset of the COVID-19. You're more likely to see increased respiratory-related PPE requirements. Besides PPE, follow basic hygiene and

sanitation such as washing your hands frequently, keeping your equipment clean, decontaminating the ambulance often, and report as extensively as you can.

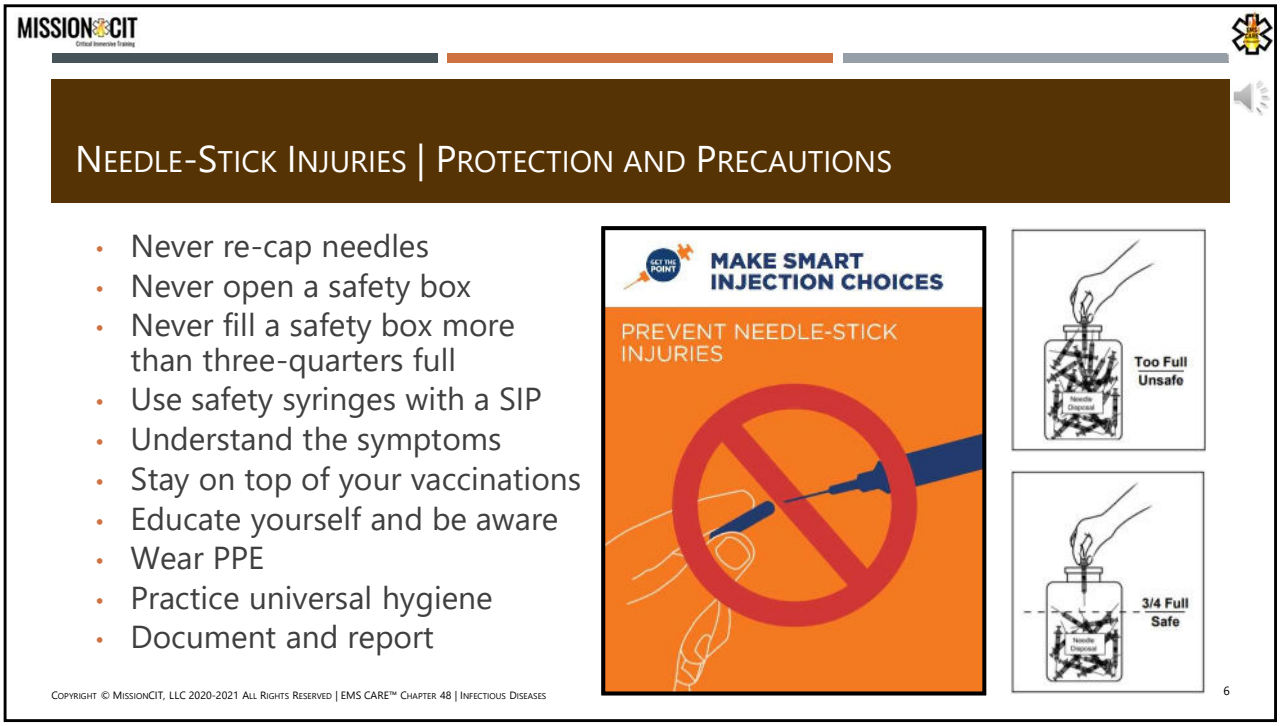


Needle-stick injuries expose us to a number of bloodborne pathogens that can cause severe or even fatal infections. EMTs are prey to a high incidence of needle stick injuries due to the nature of work, and poor disposal practices followed.

For example, while transporting a hypoglycemic diabetes patient, the hidden needle in the patient's pocket can poke an EMT.

Research shows that dreaded viral infections like Hepatitis B, C, and HIV can get transmitted through needle stick injuries. Naturally, it will be easier if EMTs can follow a protocol while handling such patients.

Wearing gloves at all times can help prevent such exposures. Understanding the symptoms of these needle-stick injuries can help to address them at the earliest. 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 prior to disposal. To further prevent needle-sticks after use, syringes and needles should be immediately placed in a leak-proof, puncture-proof container. These containers are called needle-disposal boxes, sharps containers, or safety boxes.



Here are some precautions and prevention strategies you can follow while handling patients with infectious diseases.

- If protocols allow you to use needles, never re-cap them after use.
- Never open a safety box.
- Never fill a safety box more than three-quarters full.
- Use safety syringes with a sharps injury protection (SIP) feature as recommended by WHO.
- Understand the symptoms that come with exposure and report as soon as you experience any of them.

- WHO recommends that health care workers and others who may be exposed to blood and blood products through their work should be vaccinated against hepatitis B.
- Educate yourself and be aware of infectious diseases and their possible symptoms.
- Consider wearing PPE when you examine patients with unknown symptoms.
- Practice universal hygiene and decontamination procedures.
- Document and report what you see.
- Finally, avoid giving injections for health conditions where oral formulations are available as the first-line treatment.



If you get a needle-stick injury, take the following actions immediately:

- Wash the wound with soap and water.
- Inform your supervisor and follow the needle-stick injury reporting mechanism of your health facility.
- Identify the source patient, who should be tested for HIV, hepatitis B, and hepatitis C infections — Tests should be carried out after patient consent.
- Get tested for HIV, hepatitis B, and hepatitis C infections.
- Read WHO Best Practices for Injections and Related

Procedures Toolkit

Case Study

What should be done differently to reduce the risk of infections?



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Before moving on to the chapter reviews, here is a case study for you to ponder.

An XYZ clinic has a special container for disposing of needles and syringes. The container is located in the vaccination room since that is where most injections are given. Sometimes, patients need to be given injections in the treatment room, which is down the hall from the vaccination room. When this occurs, the nurses recap the hypodermic needles, carry them down the hall to the vaccination room, and deposit them in the needle-disposal box.

What should be done differently to reduce the risk of infections at this clinic?