Transcript for Module 4 Basic: Special Treatment Considerations

Module four, special treatment considerations of burn patients.

We're going to talk a little bit of escharotomies, pain management, and then some of the small -- excuse me, some of the other threats that burn patients encompass or come in contact with. Escharotomies are typically required due to the fact that patients require a large amount of fluids for their resuscitation. When you have a full circumferential burn either around an extremity or the chest, as the body swells, the burned tissue or the eschar has the inability or is no longer able to expand and contract like normal compliant skin. When this happens, the vascular supply as well as nervous system can be compromised in those extremities. In the chest and back, when those are burned full circumferentially, what we worry about is the mechanics of breathing. Escharotomies may need to be performed on the chest as well as the extremities.

Burn patients require a large amount of pain medication. This hurts. Pain analogies of treatment should be assessed hourly and adjusted to achieve adequate pain control. Use your best judgment and your normal facilities protocols to treat these patient's pain, just always to keep in mind that it could be a lot more than you're used to giving. We typically treat patients with IV pain medication such as Morphine, Dilaudid IV, or Fentanyl. We then, over the course of the subsequent two or three days, add oral Oxycodone in addition to a long acting such as MS-Contin or even sometimes we'll use Methadone.

Specific threats to the burn patient is that of early -- in the early phases is that of burn shock, followed by burn sepsis, hyperglycemia, and hypothermia. Burn shock is defined as basically the inability to profuse and organs due to one, a hypovolemic state and two, due to a cardiac depression due to mediators released to -- in response to the burn enter to the [Indiscernible].

Typically, when patients have burn sepsis, this results in late burn deaths. The best treatment for this is prevention, and that most notably is done by removing eschar or tissue that is devascularized or vitalized, and this is where early removal of burn eschar has been adopted. We, at our burn center, use surface cultures to guide our anti-microbial therapy. However, it's generally accepted to treat a septic burn patient with impaired broad spectrum antibiotics. You want to avoid the obvious critical care infections such as line infections, ventilator associated events, and urinary catheter infections.

Hyperglycemia is something that most of our patients develop in response to their stress. This is possibly the greatest stress that the human body will encounter, leading to abnormally high and what sometimes can be detrimental levels of blood glucose. Typically, we treat these patients with insulin treatments or subcutaneous insulin as needed to achieve a blood concentration of approximately 100 to 180.

Hypothermia, again, this is a process that begins almost immediately after the burn and then transcends them through their care. We are continually monitoring or working to adjust their

thermal regulatory control from the time we take care of these patients in the stabilization room until we're essentially getting ready to discharge these patients. The skin is the ultimate breathable insulating garment, and when damaged, we lose that. The central nervous system is stimulated in response to the afferent stimulus from our skin, and when that is injured, we also lose that. Prevention is obviously the best key. We heat our rooms to greater than 80 degrees Fahrenheit, we use warm fluids when able, bear huggers, and other external passive heating devices are utilized.

I want to give a special thanks to the American Burn Association, and Advanced Burn Life Support Course, Regions Hospital, and Hennepin County Medical Center, and then of course to our partners with the Minnesota Department of Health, who put together this educational session. Thank you.