

# Preventing Sepsis

[VIDEO TRANSCRIPT]

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Hello. my name is doctor Anne Dabrow Woods and I'm the chief nurse of Wolters Kluwer health learning research and practice and this is from the desk of the chief nurse. Today let's talk about sepsis. Sepsis is a true medical emergency. Although we don't know the true incidence, it is believed that over 750,000 people in the U.S. each year contract sepsis. It is the leading cause of mortality and critical illness worldwide. In addition, it is the leading cause of non-cardiac death in intensive care units. And here's another fact that you may not know. We know now the people who have experienced sepsis have long term physical psychological and cognitive disabilities which result in health and social implications just from having sepsis. So what is the definition of sepsis. In 2016, a panel convened and changed the definition of sepsis. Sepsis is now defined as the life-threatening organ dysfunction caused by dysregulation of a host response to infection. That is a different definition than what we had before. The group took a look at some of the criteria that we used to use before to define sepsis and that was the SIRS criteria or the systemic inflammatory response syndrome criteria and what they found in research is that it wasn't really all that helpful because many patients who were sick actually had a surge response. So that's one of the reasons why they looked at reclassifying the definition of sepsis. What differentiates sepsis from other infections? Well it's about the level of response to the infection by the host and this is based on the work of Singer and Rhodes. No more in the definition of sepsis or in the treatment guidelines that have recently come out in 2017 do we talk about severe sepsis. A patient either has sepsis or they have septic shock. And septic shock is really defined as a subset of sepsis in which the underlying circulatory cellular metabolism abnormalities are so profound that they substantially increase mortality. So what are the variables that we as clinicians have to look at when we're looking at a

patient with sepsis? Well 3 variables we want to look at are blood pressure. Is the patient hypotensive, do they have a mean arterial pressure that's less than 65? Do they have an elevated lactate level? And do they have a sustained mean need for vasopressor therapy after being adequately volume resuscitated? And then in the new guidelines that means 30 mLs of crystalloid, normal saline, or lactated ringers per kilogram of body weight in the first three hours. So the three variables again are hypotension, elevated lactate level as well as sustained need for vasopressor therapy. In sepsis the most important thing is early recognition. When you identify a patient with sepsis you need to initiate treatment immediately because if you delay it could have a change in their outcome. So what tools are available to help us characterize or identify organ dysfunction and actually there's two of them: SOFA and quick SOFA. And sofa stands for sequential organ failure assessment. So let's take a look at quick SOFA first. Now quick SOFA is used for nurses who are outside of the critical care unit. So these are your nurses in the emergency department or on medical/surgical floors. And the quick SOFA scoring guideline identifies patients who are likely to have poor outcomes. So what are those three variables that are included in quick SOFA? The three variables are a respiratory rate that's greater than or equal to 22 respirations per minute, altered mentation as well as a systolic blood pressure less than or equal to 100 millimeters of mercury. Now I know you're going to say that counts from quite a few of our patients but if you see a patient who has an infection and they are exhibiting these three variables that's when you want to call the physician or nurse practitioner or physician assistant or call a rapid response and let them know that the patient has met the Q SOFA criteria. So what happens when the patient gets transferred into the intensive care unit. Well that's when we switch to SOFA and SOFA if you see a change in score by two points or more that patients gonna have a higher mortality risk. So what does SOFA really measure what measures respiration, coagulation, liver function, cardiovascular function, central nervous system function as well as renal function. So if you see alterations and SOFA points of two or more then that's when you need to realize your patient is at risk for higher mortality. So how do we manage patients now with sepsis and septic shock. Well the first thing we need to do is follow the right guidelines and that means following the surviving sepsis campaign

international guidelines for the management of sepsis and septic shock that were published in 2017. And then it's very important that we educate health care providers and professionals on early recognition and management of these patients. And here's something else you may not realize. We need to educate laypeople. If their family member is really, really sick. They should not delay in getting help to the patient. That means getting the patient into an emergency department or to see their primary care provider to see if the patient is at risk for sepsis. And then we need to educate patients and their families who have had sepsis that there is such a syndrome called post sepsis syndrome and that there is help for them in coping with the problems that occur with post sepsis syndrome. So one of the things you can do is look to the resources of Sepsis Alliance. They have resources not only for you as health care professionals but also resources for your healthcare institution. And remember, when we're talking about sepsis management what you do as a nurse matters. You have the ability to change patient outcomes through early recognition and making sure that patient gets the treatment they need when they need it.

Thank you very much

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