

Transcript for Module 1: Minnesota Statewide Burn Surge Planning

Hello, my name is Dr. Jon Gayken. I'm one of the burn surgeons at Hennepin County Medical Center. And I'm Dr. Bill Mohr one of the burn surgeons in the twin cities. Our presentation today is made up of four modules. The first module is revolving around the Minnesota Statewide Burn Surge and it's plan. The second module is a slight introduction to burn. The third module is burn treatment and stabilization, followed up with the fourth module revolving around special treatments and considerations for burn patients. The first module, the Statewide Burn Surge Plan is basically created with the idea that in an event where there is a mass casualty of burn patients that overwhelms our local resources, that we have in place a process in order to triage these patients into centers that have been willing to and are agreeable to and able to care for burn patients, at least for approximately 72 hours. So, that is a little bit about why it is necessary.

Minnesota has two burn centers that are verified by the American Burn Association, one in St. Paul, Regions Hospital, and the second in Minneapolis, Hennepin County Medical Center. These two facilities are capable of caring between 35 and 40 burn patients, and in an event where there were anywhere from hundreds, if not thousands of patients requiring the specialty resources of a burn center, that could easily overwhelm our capabilities. So, this is a little bit about why the Burn Surge Plan was put into place, and now we'll talk a little bit about what is that plan.

A burn disaster is defined by the American Burn Association as any incident where capacity and capability is insufficient to provide the normal standard of care and therefore, patient care may become compromised. As a result, an action of individual burn center, state, regional, or perhaps federal disaster response may become necessary.

The plan itself revolves around three phases. The first phase, going back to our local our Minneapolis and St. Paul burn centers that are capable of caring for approximately 35 to 40 patients is the first in the first triage center of which patients will be brought to. Once we feel or if we anticipate that these resources are going to be overwhelmed, we're going to then activate phase two, and that's the local, regional, or the metro regional response, and these centers are made up of level one or level two centers that have been prepped with both supplies and personnel in training in order to care for a surge of burn patients, and what would be the what we would consider to be the first 72 hours. Once we feel, or if in an event that these that this phase will be overwhelmed, then we move onto the local or excuse me, the outreach, the regional, the medical centers that make up our the greater areas of Minnesota. If and when these facilities become overwhelmed, that's where we start looking into or if this at this point, we should've also begun the national or regional when I say regional, I mean Midwestern region resources and that is housed out of Nebraska, or Lincoln, Nebraska, and the burn center directors or the surgeons at both Regions Hospital and Minnesota should be working together at this point with the phase two centers to start beginning the triage

planning and the possible evacuation of patients out of Minnesota to some of the neighboring states.

Dr. Mohr: There are two ABA verified burn centers in the state of Minnesota. This national verification is performed by the American Burn Association, in conjunction with the American College of Surgeons committee on trauma. This evaluates integrated, multidisciplinary teams who work towards optimal functional and cosmetic outcome for the thermally injured. Their experience and dedication to patients of all ages and different burn mechanisms is important when considering care for a mass casualty burn incident. The currently identified burn surge facilities in our region are the Mayo Clinic and Sanford and Worthington in the southern part of the state. St. Cloud Hospital in the central. The metro area where Abbott Northwestern Children's Hospital, Mercy Hospital, North Memorial Hospital, and the University of Minnesota Medical Center. And the western, central, and northern part in North Dakota includes Altru in Grand Forks, both Sanford and Essentia Hospitals in Fargo, and in the northeast, Essentia Health in Duluth.

Basically, the role of the burn surge facility is to care for any of these patients that may be burned or apart of a largescale trauma event. The initial assessment and treatment is going to revolve around recognizing and treating any associated trauma, this being the first and foremost aspect of any patient. We I always sort of mentor people into or when I'm teaching about ABLS or burn patients, that the first thing to remember is these are trauma patients and the first thing we need to do is rule out any injuries that are going to revolve around their airway or compromise their airway, excuse me. And then, focus on their breathing or ability to move air, and then of course their circulation, basically the ETL ABCs. Once we have sort of triaged and stabilized the patients in our primary survey, we move onto the to diagnose the burn size and then looking into the initial depth.

This will help us triage our patients whether or not they need to be referred to the local regional or to excuse me, to the one of the two burn centers or if there are patients that are able to be cared for in one of the other centers.

The initial burn dressings and wound care then come after the diagnosis and determination of their severity of their injury. And then, we move onto continuing their resuscitation.

The 72 hours that we've put together as a consortium between the two hospitals is one of which that we think that in an event of a largescale mass casualty, that is the amount of time that we feel that we'll be able to sort of and mobilize sufficient resources at either one of the two burn centers or in the internat or excuse me, in the Midwestern burn region, utilizing the facilities in the neighboring states. However, during that first stabilization period or the 72 hours, there may be surgical, critical care management that needs to take place.

We're going to be expecting that those positions and nurses communicate with the incident command center, either housed at Hennepin County or at Regions Hospital. One thing we'll be working on and we'll go over this a little bit later is the supportive care such as the burn resuscitation, pain medication, burn and ventilator support, inhalation injury, the beginning of enteral nutrition, and then of course, once we feel that we've managed those principles, we'll move onto finding out how we're going to get these patients to where they need to go.

And here are a list of additional resources for outside facilities where they can learn more about burn and burn care.