

# Teletrauma/Tele-ER

## Introduction and Frequently Asked Questions

### Teletrauma/Tele-ER Background

Teletrauma, or the placement of telehealth equipment into the emergency department setting, was originally started in the state of Nebraska by Good Samaritan Hospital, which installed cameras in 21 critical access hospitals. Regional West Medical Center shortly followed with its critical access hospital network. The Rural Nebraska Medical Response System Partnership, a grant funded collaboration of 69 entities, saw a benefit in having this technology in other critical access hospitals throughout the area not only for routine emergency use but also to enhance response capabilities in a larger disaster.

Originally, the grant included critical access hospitals and regional trauma centers located in the south-central, western and northern portions of the state (the original Partnership area). As the project progressed, working with the regional trauma systems' coordinators and medical directors, it was determined that the Partnership needed to expand to include major trauma centers in Lincoln and Omaha as many of the critical access hospitals interested in this technology refer the majority of their trauma to these facilities.

Regional referral centers that now have the capability to accept teletrauma or tele-emergency calls include:

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|---|------------------------|
| • Good Samaritan Hospital                             | Kearney, Nebraska      |
| • Regional West Medical Center                        | Scottsbluff, Nebraska  |
| • Great Plains Regional Medical Center                | North Platte, Nebraska |
| • Saint Francis Medical Center                        | Grand Island, Nebraska |
| • Faith Regional Health Services                      | Norfolk, Nebraska      |
| • BryanLGH Regional Medical Center                    | Lincoln, Nebraska      |
| • Nebraska Medical Center                             | Omaha, Nebraska        |
| • Creighton University Medical Center                 | Omaha, Nebraska        |
| • Saint Elizabeth Regional Medical Center (burn unit) | Lincoln, Nebraska      |

### Teletrauma/Tele-ER Usage

As stated, teletrauma has been utilized in the state of Nebraska for several years. It is also employed in other states, such as Vermont, Arizona, South Dakota and Missouri. While sites may employ it differently, preliminary discussions with Good Samaritan Hospital and Regional West Medical Center provided the following information regarding employment of teletrauma in Nebraska.

***Who determines if teletrauma will be initiated?***

Teletrauma is initiated only at the discretion of the facility in which the trauma patient is located. The hospitals utilizing it now have not initiated requirements that it be utilized each and every time there is a trauma in the facility. It is always the decision of the staff at the local facility. The local facility can also disengage teletrauma at any point.

The Nebraska trauma coordinators will continue to have discussions regarding how teletrauma usage will or will not be placed in hospital trauma protocols.

***What sites can the local facility connect to? Does teletrauma dictate referral patterns?***

The practitioner at the local facility will choose to engage the trauma center that is likely to receive the patient utilizing his or her discretion. The site can connect to any participating trauma center in the state. Teletrauma is a communication tool only, much like a video extension of the telephone. Initiating teletrauma does not change referral patterns or expectations placed on the site about where they should refer patients. If the local practitioner connects to one center then determines he/she needs to send the patient to another facility, it is the local practitioner's decision to do so.

In the future, the Nebraska Statewide Telehealth Network will be working with surrounding states to determine how to best make teletrauma connections to tertiary care centers located outside of Nebraska if a hospital wishes to do so.

***Who is responsible for the trauma patient? Who issues orders?***

The local practitioner always maintains responsibility for the patient, the care the patient receives and the decisions made about that care while that patient is in the local facility regardless of any input by the trauma center. The local practitioner is the only practitioner involved who will issue orders for the trauma patient at this time.

***What are the advantages of teletrauma to the local trauma team?***

The local practitioner and trauma team are able to communicate with the trauma center without leaving the bedside to initiate a telephone call to the trauma center for consultation, questions, to arrange for transport, to discuss the patient's statistics, to arrange for bed acceptance, etc... Once the system is on, the local team can continue caring for the patient without disruption. If needed, the local practitioner can consult with the trauma center practitioner about the care at the site, better preparing both practitioners. By improving the communication medium, teletrauma can decrease transfer time, improve the continuum of care and improve relationships between the two facility teams.

***What are the responsibilities of the trauma center?***

The trauma center staff serves to provide practitioner to practitioner consultation, much like a video extension of the usual telephone consultation that may take place. The trauma center practitioner does not give direct orders and, therefore, typically does not need to be credentialed or have privileges at the local facility. Again, teletrauma differs little in purpose from the telephone consultation.

***What are the advantages to the trauma center?***

The advantages of teletrauma to the trauma center include the ability of the trauma center to visualize the patient they are likely to receive as well as obtain more complete information about the patient without asking the local practitioner to leave the bedside for telephone conversations. They can also continue to visit with EMS when they arrive and continue to visit with local staff after the patient has left the facility to gather additional background information, if needed. Good Samaritan Hospital has also found that teletrauma allows the trauma center to better understand local capabilities.

***Does the trauma center physician need to be credentialed at the local facility?***

As stated above, the trauma center practitioner does not give direct orders, therefore, the trauma center practitioner should not need to be credentialed or privileged at the local facility. Trauma center practitioners give recommendations/suggestions to another practitioner, if requested. If the nursing staff initiates teletrauma before the arrival of the local practitioner, the trauma center practitioner can help remind staff of assessments and protocols until the practitioner arrives without giving any direct orders.

***How does documentation at the trauma center change with teletrauma?***

At Good Samaritan Hospital, there is no change in documentation when the trauma center practitioner consults with one of Good Samaritan Hospital's critical access hospitals; Good Samaritan Hospital does not create a patient chart unless and until the patient enters the Good Samaritan Hospital facility. However, each site may do something different. Sites should contact their legal counsel for guidance.

***Has anyone received legal consultation about teletrauma?***

The Partnership has information from obtained by a hospital from their attorney about various issues related to teletrauma. This can be shared if requested.

***Is there a charge to the patient for teletrauma? Is there a facility-to-facility charge?***

Trauma centers utilizing this technology have not traditionally assigned a charge to the local facility or the patients. They consider teletrauma an extension of the

telephone practitioner-to-practitioner consultation that takes place routinely in trauma situations.

### ***Can teletrauma be used for other types of situations?***

Teletrauma is typically called “tele-ER” or “tele-emergency” because it can be used beyond the trauma situation. Sites have used it for baby blues, behavioral health/psych and cardiac situations. There is also interest in using it for stroke consultations.

The Rural Nebraska Medical Response System Partnership expanded teletrauma for its use in support during a disaster situation.

### ***How does the interaction work?***

The local facility initiates a teletrauma consultation at their discretion. Choosing an IP address from the camera menu, the facility dials the trauma center directly. At Good Samaritan Hospital, the teletrauma receiving monitor is always “on” with the lens cap covered and the microphone muted. When a critical access hospital calls, the Good Samaritan unit will ring and the site will immediately be able to announce their need for a call. Good Samaritan then un-mutes the microphone, uncovers the lens cap and answers the call. The local site is then responsible for determining when they wish to engage the practitioner at the trauma center. For example, they may dial in and ask to visit immediately or they may say that they have a patient they are assessing and that they don’t need the trauma center immediately but wish the trauma center to standby just in case they wish to discuss the patient before transfer. At times, the local site may need very little assistance and only ask for interaction occasionally while connected. The two are connected until the local site determines it is time to disconnect at which time, it can.

### ***What if the trauma center staff is busy?***

The trauma center staff’s first responsibility is the patients in their hospital. A practitioner at the trauma center should continue to run their emergency department as he or she normally would and communicate to the sending facility that he or she is not available at the time. Often there is not a need for continuous interaction anyway and the practitioner may be able to “check in” as time allows.

### ***What if more than one call comes in at once?***

Thus far, the trauma centers have not had this issue. The volume of calls has not been so great as to cause issues. If this occurs, depending on the staffing availability at the trauma center, the trauma center practitioners can deny one call, revert to the telephone for one call or access another telehealth system within the facility to allow video connection to both facilities at once.

***How does one exercise teletrauma to ensure proficiency?***

Good Samaritan Hospital tests the system each month with each site – one test in the morning and one in the evening. This allows testing of the technology to ensure proper audio, video and visualization of the patient bed. Trauma centers may want to initiate dry runs with hospitals if they feel it would be helpful.

***Are there specific protocols that all are expected to follow? Are all regional trauma centers expected to operate the same way?***

At this time, the regional trauma coordinators and trauma coordinators at each trauma center are working together to discuss how this should be approached. There are no specific protocols delineated by the Rural Nebraska Medical Response System Partnership. Development of such will be at the discretion of those involved in the above discussions; it may be that each center determines its own guidelines/protocols, which are then communicated to referring facilities.

***Has practitioner acceptance of teletrauma at the rural facility been an issue?***

When first initiated, some practitioners were concerned that there was a perception that they could not handle their own trauma and that the trauma center was going to act as “big brother” evaluating the care they provided. Once assured that this is not the case, many have found that it is a very helpful communication tool and method for consulting with a colleague and enhancing the patient’s continuum of care.

***Are the interactions recorded?***

Interactions are not recorded.

***What is the long term role of the Rural Nebraska Medical Response System Partnership in teletrauma?***

The Partnership has no role in requiring any use of the teletrauma system by any partner. Its role is to help facilitate the provision of the technology and to help facilitate communication between partners and other stakeholders (trauma system, telehealth network, etc...).

***What hospitals in Nebraska have teletrauma?***

A list of all hospitals with teletrauma capabilities can be found in attachments on this website. The Nebraska Statewide Telehealth Network will be using congressionally mandated funding to facilitate provision of teletrauma at five additional sites in 2009 - 2010. These sites will be in the eastern part of the state. The Network hopes to facilitate additional funding for other sites in future grant programs. Several hospitals have expressed interest in this technology.

***Can I witness a teletrauma interaction?***

Yes! The Rural Nebraska Medical Response System Partnership, with the assistance of Good Samaritan Hospital in Kearney, Nebraska, Jennie M. Melham Memorial Medical Center in Broken Bow, Nebraska and VanHoosen Video, has produced a video showing a mock teletrauma. This reenactment was developed to demonstrate how teletrauma technology can be employed as a communication medium in a trauma situation. It is not designed to provide a clinically accurate depiction of evaluating and caring for a presenting trauma patient. Teletrauma can also be used in situations that are not trauma related and is sometimes referred to as “Tele-ER” or “Tele-emergency”.

***How can I obtain more information about teletrauma?***

For more information about teletrauma, please contact:

Laura Meyers, DKG Consultants, Incorporated  
(308)-293-0623  
[laurameyers@charter.net](mailto:laurameyers@charter.net)

Laura can help answer your questions or refer you to the hospital clinical and technology staff responsible for implementing and employing this technology for patient care.

The Rural Nebraska Medical Response System wishes to recognize the following organizations and their staff for their significant contributions to this project:

- Good Samaritan Hospital, Kearney, Nebraska
- Jennie M. Melham Memorial Medical Center, Broken Bow, Nebraska
- Regional West Medical Center, Scottsbluff, Nebraska
- Nebraska State Trauma System
- Nebraska Statewide Telehealth Network