

TELEMEDICINE BURN PROJECT AT THE TEXAS
TECH UNIVERSITY HEALTH SCIENCES CENTER

Debbie Voyles, M.B.A.
*Administrative Director/Telemedicine
Coordinator
Center for Telemedicine
Texas Tech University
Health Sciences Center
Lubbock, Texas*

ABSTRACT

Many people, whether young or old, will be affected by a burn injury at some point in their lives. This article discusses the telemedicine burn project at the Texas Tech University Health Sciences Center (TTUHSC). It addresses some of the challenges that rural patients face when seeking treatment and discusses solutions through telemedicine.

Key words: burn project, rural patients, telemedicine, TTUHSC. (Texas Journal of Rural Health 2003; 21(3): 15-18).

INTRODUCTION

The seriousness of the injury is determined by a variety of factors such as the type of burn, the location of the burn, and the actual location of the patient. According to the American Burn Association (2003), there are approximately one million burn injuries per year. Furthermore, 4,500 of these injuries will result in death and another 45,000 will result in a hospitalization for treatment. Effective burn treatment helps to reduce the amount of damage and complications and at the same time promote the healing process. Depending on the severity of the burn, some patients can be treated on an outpatient basis; others with more serious burns may require hospital

admission or advanced treatment at a special burn center (SkinHealing.com, 2003). Rural patients have a disadvantage as their access to care is often delayed by sheer physical distance to a treatment facility. After patients are released from the hospital, they will need follow-up visits in order to monitor their progress. The follow-up visits will last up to two years with weekly or bi-weekly visits during the first two months. The frequency of appointments after the first two months will depend on the patients' improvement. (Massman, Dodge, Fortman, Schwartz, & Solem, 2002). Many aspects can make these follow-up visits a challenge for a burn patient, especially those who live in a rural area.

RECOGNIZING A PROBLEM

Imagine traveling 350 miles to spend 15-20 minutes with a burn specialist and then having to drive the 350 miles back home. This is what happens to many patients who live in rural areas. In Texas, with a population of 5,713,350, there are only eight burn care centers (Winkelblech, 2003; American Burn Association, 2003). The majority of these centers are on the eastern side of the state. University Medical Center (UMC) in Lubbock has the only burn center between Dallas and Albuquerque. It services patients throughout the southwest including parts of New Mexico, Oklahoma, and Colorado.

John Griswold, M.D., Chair of the Department of Surgery at Texas Tech University Health Sciences Center (TTUHSC) oversees many of the patients that are sent to UMC for treatment. After seeing a patient fall asleep in the waiting room, Dr. Griswold discovered that the patient, from the El Paso area, left at 4:00 a.m. to drive to Lubbock for a scheduled appointment. As soon as the check-up was

over, the patient planned on driving six hours back home. Dr. Griswold decided that something had to be done. There had to be a better way for these patients to receive their follow-up care. Since TTUHSC was already using telemedicine to see over 2500 patients a year throughout the western side of Texas, it was a logical step to see if this technology could be used to link the patients in the El Paso area with Lubbock for their follow-up care.

SOLUTIONS THROUGH TELEMEDICINE

On October 17, 2001 Dr. Griswold saw the first burn patient from El Paso via the telemedicine system. Since then, over 63 patients have received follow-up care with Dr. Griswold over the telemedicine system. The equipment, known as TeleDoc, includes video conferencing software and cameras that can zoom in to see specific areas of the skin and body. All clinics are live interactive video. According to Dr. Griswold, the equipment allows him to see everything that is needed to monitor the patient's progress (Voyles, 2003a). A competent presenter at the remote site is vital to the success of a telemedicine consultation. It is important that the burn specialist and the presenter have a good working relationship. The specialist has to have confidence in the presenter's understanding of burn patients as well as an understanding of how the TeleDoc works. Lydia Ramos, R.N. and nurse manager of the TTUHSC El Paso surgery clinic, is that person. She and Dr. Griswold worked together when he would travel to El Paso to see patients there. According to Ms. Ramos, working with the burn patients and this project "is a lot of work," but she also finds it to be "the most satisfying work" she has ever done (Voyles,

2003b). Ms. Ramos indicates that the patients love the ability to see Dr. Griswold without having to travel the 350 miles to Lubbock. Being on television does not seem to bother any of the patients, despite their age. In fact, as Ms. Ramos stated, “the patients see it as an extension of our care here” (Voyles, 2003b). The only improvement she believes is necessary is to have more personnel to assist in the whole process, “but for now we will take it one clinic at a time” (Voyles, 2003b). Dr. Griswold sees this project as a way to improve both “physical and psychological outcomes,” because the patients get to stay in their own communities where they have friends and family (Voyles, 2003a).

PLANS FOR EXPANSION

Dr. Griswold would like to see the Telemedicine Burn Project expand by setting up a telemedicine system in the Thomason ER at the TTUHSC El Paso campus and a system here in Lubbock at the UMC ER. This would allow round the clock access to burn specialists for those living in the El Paso area. According to Dr. Griswold, some patients that are airlifted from the El Paso area to Lubbock could possibly stay in El Paso for treatment. This would save \$2200 for the air flight to Lubbock and another \$200 for the commercial trip back to El Paso. By having the system set up in the ER, the patients could first be evaluated in El Paso by the trauma doctors. If they had questions regarding the seriousness of the burn(s), they could consult Dr. Griswold or other burn specialists at UMC via live interactive video. The second opinion that this would provide just might save someone a trip to Lubbock. Dr. Griswold sees this as a way to keep the patients close to

home where family and friends would be there for support without the added burden of being away from home. In addition to the Thomason ER, Dr. Griswold would like all of the hospitals in El Paso as well as other rural areas to be tied into the telemedicine network. As someone once said “a picture is worth a thousand words.”

CONCLUSION

The advent of telemedicine brings people in rural areas to the doctor without having to spend long hours in a vehicle. The technology is here and every day there are more and more willing participants. The goal of the telemedicine department at TTUHSC is to continue to develop additional telemedicine programs that will enable individuals in rural West Texas easier access to care.

REFERENCES

- American Burn Association (2003). Burn incidence and treatment in the United States: 2000 fact sheet. [On-line]. Available: <http://ameriburn.org>.
- Massman, N. J., Dodge, J. D., Fortman, K. K., Schwartz, K. J., Solem, L. D. (2002). Burn follow up: An innovative application of telemedicine. [On-line]. Available: <http://www.regionshospital.com>.
- SkinHealing.com (2003). Burn Treatment. [On-line]. Available: <http://www.skinhealing.com>.
- Voyles, D. (2003a). Personal interview with Dr. John Griswold, January 2003.
- Voyles, D. (2003b). Personal interview with Lydia Ramos, R.N., August 2003.
- Winkelblech, P. (2003). *Population estimates 2003*. Arlington, TX: Research and

TELEMEDICINE BURN PROJECT

Information Services. North Central
Texas Council of Governments.