
eTrauma

eTrauma.com Corporation, a privately held company based in Deerfield Beach, Florida, has created the first online, interactive orthopedic resource designed to enhance the efficiency of patient care.

eTrauma.com provides a single point of access for viewing time-critical patient information, considering treatment options, and linking to related orthopedic resources. eTrauma's RemotelImage Technology enables physicians to view patient films and images 24 hours a day, seven days a week, from virtually anywhere in the world. Through the power of the Internet, eTrauma links physicians to a comprehensive network of manufacturers from which they can match products, review surgical techniques, and contact local representatives.

The RemotelImage System has been installed in a number of leading hospitals around the country. For more information about eTrauma.com and the RemotelImage System, call 1-877-387-2862 or visit the company's Web site at www.etrauma.com.

The VIDAR Family of Film Digitizers

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VIDAR Systems Corporation offers a family of award winning, high-quality film digitizers designed for a variety of clinical applications. The image quality of VIDAR's digitizers has been proven in clinical studies at leading centers around the world. VIDAR's family of film digitizers serves the PACS, teleradiology, mammography, and oncology treatment planning markets. In addition, its ASSURE™ Quality Control Software is the first system capable of automatically assessing the performance of film digitizers and was designed to improve patient care, quality control, and regulatory compliance efforts of radiology groups and hospitals. For more information about VIDAR's medical imaging products and services, call 1-800-471-SCAN or visit www.filmdigitizer.com.



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eTrauma.com™ Interactive Orthopedic Resource

A new online, interactive medical resource is being used by a number of hospitals and attending physicians to improve medical care. Developed by eTrauma.com Corporation of Deerfield Beach, Florida, eTrauma.com, featuring patent pending RemoteImage™ Technology, allows emergency room physicians to digitize and upload patient medical images (x-rays, CTs, and MRIs) to a secure server

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eTrauma Chief Technology Officer

for immediate review by medical specialists with Internet access. A key requirement of the system, which is gaining the attention of leading orthopedic surgeons across the country, is a high-quality digitized image. To meet its needs for high image quality and affordability, eTrauma selected clinically proven film digitizers manufactured by VIDAR Systems Corporation.

According to Kishore Tipirneni, M.D., an orthopedic surgeon and eTrauma’s chief technology officer, the eTrauma.com Web site and RemoteImage System are increasing efficiency and improving patient care. “Frequently, an emergency room doctor will describe a fracture or some other type of injury to an orthopedic surgeon over the phone, and the surgeon will have to make an initial decision on how to treat the patient,” Tipirneni said. “It’s very difficult to make that decision without looking at the x-ray, and the surgeon often ends up going into the hospital before initiating

a medical treatment plan because he or she can’t get a clear picture of what is being described over the phone. This process often causes delay in beginning treatment for the patient and increases costs for the hospital.”

Now, by logging onto the eTrauma Web site, orthopedic surgeons can view the images from their home or office computers, supplementing the verbal communications that the ER physician provides over the phone. The benefit of having immediate access to the x-ray image is that specialists can make a more-informed initial determination about what treatment is needed. “Before going to the hospital, all the necessary equipment can be ready and all arrangements handled for the patient in advance,” Tipirneni said. “Setting these wheels in motion streamlines the care of the patient, reduces delays, and lowers costs.”

VIDAR Systems Corporation, the leading manufacturer of x-ray film digitizers, is committed to providing high quality, reliable, and affordable digitizers to meet the needs of healthcare providers worldwide. The company also is committed to promoting an exchange of information that helps healthcare providers improve their delivery of care. In keeping with this philosophy, VIDAR has developed the VIDAR Case History Series to relate the experiences of healthcare organizations that have adopted its line of advanced film digitizers. For new and prospective users, these experiences illustrate how VIDAR’s technology brings quality and value to their institutions and helps support the delivery of patient care.

VIDAR Digitizer Fulfills Need for Quality & Affordability

According to Tipirneni, a digital camera initially was used to capture the images for uploading to the system's central server, but the image quality using this method was not acceptable. When evaluating the available film digitizers, Tipirneni said that eTrauma had two key criteria in mind: "We were looking for a digitizer that could satisfy our needs for a good quality image and also was affordable."

After careful evaluation of the options, eTrauma selected film digitizers made by market leader VIDAR Systems Corporation. "VIDAR digitizers meet our needs for very good image quality," Tipirneni said. "They also make sense economically, because they are less expensive than many of the other film digitizers we evaluated. In addition, VIDAR digitizers offer flexibility because their software allows users to make

adjustments to the image, providing a higher level of image quality, when needed."

Reliability and durability also were important considerations, according to Tipirneni. "The film digitizer is an important and hardworking component of our system," he said. "If the digitizer goes down, the whole system may be down. VIDAR's digitizers have performed very well — we've had very few problems with them."

Automation and ease of use also are important features. "The VIDAR digitizer has a film feeder that automatically scans 10 sheets at a time," he said. "This helps the emergency room staff because they don't have to manually feed each film into the digitizer. There's no wasted time, and that's important in a busy ER. The system also is easy for the emergency department staff to use. It comes with a computer preloaded with software, as well as the film digitizer, and it is set up so that everything is done automatically. With the press of one button, the images are automatically digitized and transmitted over the Internet to our secure server. Surgeons can access the images, using a password, on any computer that is equipped with a standard Web browser."

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More Information Means Improved Patient Care

According to Tipirneni, a key benefit of the eTrauma resource is that more information allows physicians to provide better care to patients — often at lower cost. A 1999 study by Steven Raikin et al., published in the *Journal of Orthopedic Trauma*, compared treatment plans developed by physicians based on verbal communication alone with plans based on verbal communication combined with electronic images. The study found that in 74 percent of cases studied, a surgeon's decision to perform surgery would have changed after seeing the digital image, and in 80 percent of the cases the type of surgery planned would have changed.

Tipirneni said physicians using the system are finding that it allows them to have more confidence in the decisions they make. "It's a huge benefit for specialists to have a supplement to the traditional verbal communication from the emergency room doctor," he said. "Seeing is believing."



eTrauma.com service in use at Parkway Regional Medical Center, North Miami, Florida.





<http://www.etrauma.com>

Select sites using the system include:

- Boston Medical Center
- Hospital for Special Surgery, New York
- Tampa General Hospital, Florida
- UCLA Medical Center, Los Angeles

“The system benefits the doctor by providing more information with which to make an initial determination about how to proceed with the patient,” Tipirneni said. “It also benefits the patient, because he or she no longer has to wait 2–3 hours or more for the consulting doctor to come into the emergency department. With this system, patients can be managed in a more expeditious and cost-effective manner.”

Physician Perspective

David Helfet, M.D., professor of orthopedic surgery and director of orthopedic trauma at the Hospital for Special Surgery and New York Hospital, Cornell Medical Center, agrees. “From the perspective of the orthopedic traumatologist, our treatment decisions depend to a large extent on the x-ray,” Helfet said. “Having immediate access to a high-quality x-ray image and being able to determine the diagnosis often sets a different treatment algorithm. It saves time for the doctor, and the sooner we are able to render the appropriate treatment, the better for the patient. For example, in an emergency situation, an orthopedic surgeon can view the x-ray image from his or her office or home using the eTrauma.com resource and initiate steps to have the patient prepared for surgery or other treatment. A picture is worth a thousand words.”

Commenting on the digitizer component of the system, Helfet said the VIDAR digitizer provides excellent image quality. “The quality is more than adequate,” he said. “Image quality is an important part of being able to accurately read the x-ray on the screen. If you have a poor quality x-ray or image, you may make an inaccurate diagnosis.”

Tipirneni said that the eTrauma.com resource, combined with the RemoteImage Technology and the high-quality images provided by the VIDAR digitizers, also will help to improve care for people in medically underserved areas. “Oftentimes, hospitals in rural areas of the country don’t have specialists readily available,” he said. “To be able to transmit high-quality medical images to specialists anywhere in the country is an extreme benefit. It is important that people in rural areas have the same level of care as people in large metropolitan areas. The eTrauma.com resource helps to improve access to care and may ensure that people everywhere are receiving the same high standard of care. There also are important applications in military medicine.”

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Conclusion

eTrauma.com, with the RemoteImage System and the VIDAR film digitizer, is a comprehensive resource for orthopedic surgeons. Not only does it provide a way of transmitting and accessing important medical images, but it also allows ready access to information about orthopedic procedures and products, provides a method for doctors to classify fractures, and facilitates preparation for surgical procedures. A number of leading orthopedic specialists agree that the RemoteImage System is an important advance that will significantly improve the care of trauma patients while reducing costs. ●