

every resident has the opportunity to perform ultrasound on a large number of abnormal patients. One possible solution to this problem is the use of an ultrasound simulator. The recently developed simulator consists of a mannequin and a mock ultrasound machine. The user performs a simulated ultrasound on the mannequin. We have developed multiple cases for the simulator that demonstrate the variety of clinical problems faced in emergency ultrasound practice. We sought to assess the educational value of the simulator as judged by emergency medicine residents. After using the simulator to perform FAST and pelvic ultrasounds, residents were surveyed on the experience. 21 of 25 residents performing transvaginal ultrasound on the simulator felt the simulator was as useful as a live model. 24 of the 25 felt that the use of the simulator would make them more comfortable performing a transvaginal scan on a real ER patient. Of the 21 residents performing FAST exams, 14 felt that the simulator was as useful as a live model as an educational tool. All 21 said that the use of the simulator would make them more comfortable scanning real ER patients. We believe ultrasound simulation is an important addition to the ultrasound curriculum.

25 Simulation of Tele-Trauma Resuscitations for Rural Emergency Physicians and Emergency Medicine Residents

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The aviation industry realized long ago that training, performance, and safety could be enhanced by the use

of flight simulators. The technological developments in computer processing and simulator development have resulted in many examples of high-fidelity simulation that permit students and practitioners opportunities to enhance competence in procedures during life threatening patient care episodes. Victims of trauma in rural areas are nearly twice as likely to die of those injuries than patients with similar injuries in urban areas. Explanations for the differences focus on the capabilities of the rural emergency departments and the emergency physicians staffing the facilities with particular concern for the experiential level for this low volume, high acuity patient problem, the limited numbers of physicians/mid-levels available, and the variable levels of training including specialties other than emergency medicine. Tele-Trauma programs have attempted to address these issues by using real-time videoconferencing to allow emergency and/or trauma surgical attending physician from trauma centers to be virtually present during a trauma resuscitation in a rural emergency department. Experience with these situations are limited at this time including evaluations of performance and detailed analysis of barriers. This presentation will demonstrate the use of Human Patient Simulation (SimMan®) and telemedicine technologies as tools for providing rural emergency physicians and emergency medicine residents in training an increased level of experience working with tele-trauma scenarios and video trauma center attending physicians in real-time. In this scenario, simulation is an important component in the implementation of a regional program of emergency tele-trauma patient care.