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## Electronic Trauma Health Record App Premieres at Trauma Center



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Established as standard practice across North America's healthcare centers and hospitals, the Electronic Health Record (EHR) is not commonly used in countries with fewer resources, where patient data is still collected on paper, if it is even collected at all.

A study published in the January issue of the Journal of the American College of Surgeons reports how a group of surgeons from Vancouver, British Columbia, have created an iPad app that will allow their South African peers at a Level I trauma center to record and analyse trauma care patient data.

According to the U.S. Centers for Disease Control and Prevention, traumatic injuries rank among the world's top public health problems with at least nine people dying from an accidental or violent injury every minute and 90% of trauma deaths occurring in low- and middle-income countries where injury surveillance is not accurately performed.

As per Morad Hameed, MD, MPH, FACS, FRCSC, associate professor of surgery and critical care medicine at the University of British Columbia, and a trauma surgeon at Vancouver General Hospital, traumatic injuries are the cause of more deaths than tuberculosis, HIV and malaria combined, yet the global medical community has been more focused on infectious diseases.

Dr Hameed explained that the general perception is 'injuries are accidents', hence people believe little can be done to prevent them. Most injuries are preventable though, and a favourable impact can be made by using the correct data and adequate health care standards.

Access to the right data requires having the right tools. Groote Schuur Hospital in Cape Town, South Africa, is the provider of excellent clinical care for over 10,000 patients seeking trauma services every year, yet admissions data was collected on paper, without further registration of procedures or patient outcomes.

After redesigning the hospital's one-page patient admission record into a Trauma Health Record record (eTHR) to include additional fields and a carbon copy to be sent to the hospital's data collection office, Dr. Hameed and his team returned to Cape Town in 2011. By then, the Groote Schuur surgeons had collected 10,000 admissions records, representing a full year's worth of patient data. It took a grad student three months to transcribe all the forms into the created database.

Working with an advisory group of trauma clinicians, data ethnographers and medical software designers to convert the form into an iPad app, Dr. Hameed and his team achieved an iPad record that captured important information usable for later analysis, such as past medical history, demographics, residence, the cause and severity score of the injury, and the patients' alcohol and drug use.

Instead of using the full-sized iPad, Groote Schuur surgeons opted for the iPad mini, which could fit in their lab coat pockets and reduce the risk of theft. Usability testing showed the iPad record completion lasted 10 to 12 minutes, compared to 10 minutes or less on paper.

The iPad patient record has now become standard practice at Groote Schuur. The first expansion was to include a patient operations procedure record, with a further inclusion for a surgical outcomes record planned for this month.

This eTHR study has been awarded the first place for clinical research at the 2013 American College of Surgeons Committee on Trauma meeting. Since then, other uses for the iPad patient record are being investigated, with natural disasters being a good example. In that scenario, humanitarian medical brigades would be able to collect more definitive data on injury and death tolls. As Dr Hameed specified, the only requirement would be to set up portable Wi-Fi or access the Internet through cell phone towers and subsequently, the uses of such an application would be limitless.

Source: [Science Daily](#)

Image credit: Google

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