

Identifying barriers to standardizing trauma care using an electronic medical record platform (T6) in Havana, Cuba

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Background

Access to standardized trauma care following a traumatic injury plays an important role in reducing the number of accident related deaths worldwide. Standardized trauma care ranges from access to reliable transport, to having polytrauma protocols in place, and hospital infrastructures that facilitate interpersonal communication for specialized care¹.

With over two million people living in the capital city of Havana, our Cuban neighbors face additional and distinct health care barriers because of the embargo². Despite the proximity to the United States we know little about the social, political, and technological state of trauma and acute care surgery in its principal level one trauma center. Identifying the challenges of standardizing trauma care at Calixto-García in Havana requires close partnership with higher income countries and should be a global health priority².

Hypothesis

The challenges of using an electronic medical record platform (T6) to standardize trauma care in a low resource setting are identifiable and feasible to overcome.

Methods

Using the T6 platform as a framework, we assessed the social, political, and technological challenges to using an electronic medical record system at Calixto-García. In addition, to better understand cultural and bureaucratic infrastructure, we interviewed chief of trauma surgery Dr. Martha Larrea and chief of staff Dr. Susana Celestrín for their input on the feasibility of implementing standard trauma protocols.

Image 1: T6 user interface with built in ATLS guidelines



Results

Figure 1: Major categories to identified challenges

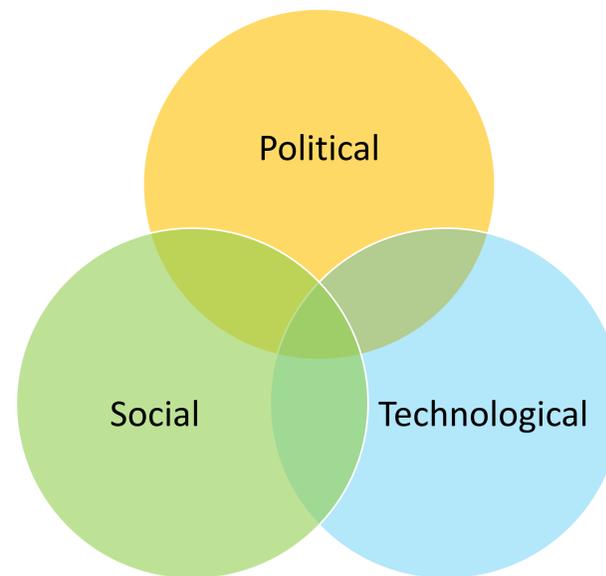


Table 1: Barriers to standardizing trauma care at Calixto-García and possible interventions

Barrier	Tasks to overcoming barrier
Research interests are under government control	Use partnership to demonstrate public health officials the importance of standardized trauma care
Internet access is under government regulation	Encourage the sharing of open access journals through email
No reliable transportation	Implement a first response team to and from level one trauma centers
Lack of interest in challenging status quo	Stimulate physicians and researchers to collaborate with global partners to continue quality research
Need for standardized polytrauma protocols	Encourage development of hospital infrastructures that adhere to standardized protocols
Lack of trust in foreign doctors	Increase exposure with foreign medical professionals to build trust
Products more than 15% US made cannot be used	Consider using non-US made products and technologies as an alternative
Language barrier	Set electronic medical record platform (T6) language settings to Spanish
Need for WIFI network and a secure database	Provide resources for the development of stable WIFI systems and a database framework

Discussion

This eight-week collaboration provided valuable insight of the unique challenges Cuban physicians must face and the difficult decisions they make with limited resources. Certain barriers are more feasible of overcoming than others. Enabling public health leaders to developing self sufficiency goals could potentially reduce the scarcity of vital supplies like antibiotics, enabling trauma centers to work more efficiently.

Access to reliable transport remains a huge issue. For first response posts and responders to be dispatched, we will need to demonstrate public health officials the importance of reliable transportation for standardizing trauma care. More importantly, encouraging the development of hospital infrastructures that adhere to standard ATLS guidelines could set this foundation and yield significant results.

Future Work

We believe our summer collaboration was fruitful in helping us identify the categories and principal challenges to standardizing trauma care in Havana's principal trauma center. Future work will require close partnership between both institutions and Cuban public health officials for carrying tasks forward.

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Citations

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