IMPLEMENTING FAST ELECTRONIC MEDICAL RECORD IN THE RURAL AREA OF CUSCO, PERU

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Introduction

Fast Electronic Medical Record (fEMR) is a free and open-source electronic health system designed specifically for short-term medical relief teams volunteering in resource limited environments. Electronic health records (EHR) are defined as digitally stored healthcare information through an individual's lifetime with the purpose of supporting continuity of care, education and research[2]. Information technology has the potential tool to improve patient safety and the quality of care, as well as reduce healthcare costs[1].

Healing Peru is an American-based nonprofit with the goal of providing healing and relieving suffering in the remote Andean communities in Peru. In the past years, LSU Health Science Center in New Orleans and other volunteers from the USA joined this mission. In 2017, the decision was made to implement fEMR software to effectively collect and store patient's health information.

The following is a discussion of the challenges, advantages and disadvantages of this EHR in a remote, rural setting and ideas for possible improvements in the future.

Method

FEMR was implemented in Andahuaylillas and Huaro, Cusco, Peru and surrounding communities over a 4 week period in February/March 2017.

A local network was setup daily at multiple clinic sites using laptops, wi-fi hardware, and personal devices that supported the proprietary software.

Demographic information was collected and SOAP notes were created for each of the patient care encounters throughout the 4 week endeavor.

Discussion

The EHR has been proposed to significantly improve the quality and continuity of health care. It will help in better tracking the changes of health status of the community and implement preventive measures and interventions.

We identified challenges, advantages and disadvantages in the implementation and use of EMR. The use of information acquired will help to improve quality and efficiency of our short term clinic for us to be able to take full advantage of EHR in the future.

Advantages and Disadvantages

Advantages	Disadvantages
Be able to acquire essential demographic and medical information.	Decreased or limit in number in consults per day.
Provide the patients with a copy of their medical record.	Increased length of consult.
Improved referrals in patients.	

Challenges

There were multiple challenges faced during the implementation of electronic medical records including:

- Resource and infrastructure limitations[1]: Limited electricity.
- Lack of use of common interoperability standard[1]: Not having a specific standard for collection of data.
- Regional integration[1] : No previous implementation of EMR in the same area or interface with local patient data or facilities.

Going Forward

- Establish a standard collection of data to improve interoperability and future research.
- Initiating a discussion with community leaders and health care providers to share acquired health information and its analysis to improve individual and public health.
- Follow up referrals into local health care resources for patients with chronic medical conditions.

References

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