Orant Charities’ volunteer medical personnel are currently using a paper based system for triaging at-risk citizens in the rural outskirts of Malawi, Africa. This has posed a challenge in tracking patient history in the field and lends itself to patient miscommunicating their prior visit details. As a result physicians waste valuable time reassessing patients upon each visit.

Furthermore, the living conditions in Malawi as well as the travel arrangements made back to the United States may lend itself to the loss of medical records, hindering medical personnel from properly generating patient statistics and improve the medical care they can provide.

**My contribution to the problem:**
- Provide a means for a doctor to electronically note and save his diagnosis of a specific patient.
- Provide a method to write prescription that will be decremented from current inventory.
- Allow a doctor to view a patient’s previous visit history.
- Provide a nurse or clinic administrator to view patients waiting to see a doctor or pharmacist.

- As a triage nurse or clinic administrator, I want to be able to see which patient’s treatment is complete.
- As a pharmacist, I want to finalize and check out the patient so they can go.
- As a physician, I want to review which patients are waiting to see me.
- As a physician, I want to be able to select medication from a list of current drugs in our inventory.
- As a physician, I want to have the ability to write a prescription to a patient based on my evaluation.
- As a physician, I want to be able to see which patient’s have left the doctor’s office and waiting to see me.
- As a pharmacist, I want to make sure that patient’s chart is complete.
- As a pharmacist, I want to dispense medication and update my inventory.

**System Design**

- Visitation Workflow: One client application supporting multiple stations.
- Allow a doctor to view a patient’s previous visit history.
- Provide a method to write prescription that will be decremented from current inventory.
- Provide a nurse or clinic administrator to view patients waiting to see a doctor or pharmacist.

**Current System**

Currently a triage nurse at these camps uses an outdated paper-based system to manage all their patient visits. Nurses are simultaneously tasked with the responsibility to keep tabs on patients waiting to see a doctor or pharmacist and are seldom able to help improve efficiency of the clinic. Once the patient reaches a doctor, he/she records their observation and writes a separate prescription for the patient. Pharmacists then responsible for reading and dispensing the proper medication as prescribed by the doctor, with no form of inventory control.

These records are later returned to the states and stored at their Houston based office, no longer accessible in the field on subsequent visits to Malawi. Medical personnel could then sifting through over 600 medical records manually to either keep track of medical supplies used on their expeditions or analyze patient information to learn of trends or statistical information relevant to their visit to Malawi.

**Object Design**

- **Patient Object**
- **Doctor/Patient View Controller**
- **Doctor/Vitals View Controller**
- **Prescription Object**
- **Medicine Search View Controller**
- **Patient Queue**

**Implementation**

- **Dashboard**
- **Patient Queue**
- **Screenshots**

**Summary**

Our Mobile Clinic EMR application will provide Orant Charities, and related medical personnel, the ability to:
- administer medical care in an efficient and concise manner, while improving patient processing rate
- gather statistical medical information based on the usage of medication, common and trending diseases
- keep a history of patient visits and outcomes
- streamline record keeping
- reduce workload by reducing the need to manage paper based medical record
- increase retention of patient medical records
- search for patient by means of a biometrics

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