**Abstract**

The objective of the project is to develop a system which helps hospitals to provide better service to their patients with respect to critical patient care, interaction checking, medication reminder.

The hospital ecosystem consists of interactions between physician, nurse, pharmacist, patients and administration. This application will help all roles to give proper medical care to patients by considering the five rights of medication which are "the right patient, the right drug, the right dose, the right route, and the right time".

The workflow includes physician placing an order against a patient after diagnosis. We will be performing interaction checking while the physician places the order for Drug-Drug interactions. This can happen if the prescriber doesn’t have proper or complete information about the drug history of patients. Application will help physician prescribe correct order to avoid adverse drug events.

Critical patient care will involve defining of high risk categories which will serve as the criteria for qualifying patients which require intensive care. This helps nurse to get updated data on patients at high risk, provide intensive care in timely manner and manage their time efficiently.

Medication Reminder ensures that the patient takes the right medicines at the right time for his right treatment. Around 50% of the patients in critical care forget to take medication, this is the reason around 10-20% of them are admitted to the hospital. It is extremely important to address this issue since it results into $100-289 billion economic loss in United States. Poor adherence to medical treatment severely compromises patient outcomes and increases patient mortality. Application will send message/email to patient and it’s care taker for reminder of medication.

Future scope:

Application will have feature of JW Modifier which will allow to track the medication of any patient and its efficient use by scheduling patient requirement of similar drugs on the same day. Wastage of the any medication which paid by patient should be refunded by the hospitals. Application will track all the medication for a patient and help them to do proper scheduling of the medication to avoid any drug wastage.