**Laboratory Automation**

After we observed and engaged with the patients to discover their frustrations and needs in the emergency room. We began to realize their unnecessary stay in the emergency room waiting for their labs, MRI, CT scan, and X-ray reports to start their proper treatment. Every time they asked the clinicians, the only answer they got was, "we are waiting for the labs' report." Hours and hours of waiting in the emergency room provoke frustration and uncomfortable situations.

           We visited the lab to find out the root cause of the delay in the lab reports. We found out that the lab has over ten standalone analyzers in Chemistry, special chemistry, Hematology, Urinalysis, Coagulation, and Blood bank areas. They are performing all requested laboratory tests on individual analyzers one by one. It is a 24 hours operation in three shifts. Specimens come from different areas of the hospital in the accessioning area of the laboratory to be processed. The entire process to complete the testing and deliver the test results back to the concerned clinicians takes about 2 to 3 hours. This time-consuming process to diagnose and treat the patients are very disruptive and disturbing.

           We all agree that it is the time to go live with Automation, a system that delivers the solutions designed to relieve Healthcare System Pressure. We begin to solidify the existing problem. Ideation begins when companies start to leverage different techniques to come up with solutions to the problem. Siemens, Beckman coulter, and other automation companies got contacted to get their quotations and the required time frame. We are looking for a system that will expedite patient care, enhance laboratory efficiency, and deliver rapid and consistent results to facilitate diagnosis and treatment, potentially improving patient care, emergency room times, and patient/clinician satisfaction. Experience solutions that deliver excellence for today and expandability for tomorrow.

          After all the sequence of events, we have decided to go with Beckman Coulter Inc. Automation System. The System will be delivering solutions designed to relieve Health System Pressure. This System will be connecting all standalone analyzers to one track system that will expedite patient care and enhance laboratory efficiency. It will deliver rapid and consistent results to facilitate diagnosis and treatment. The System can expedite stat samples from the emergency room and all ICUs by prioritizing the workload, improving patient care, reducing the emergency room times, and enhancing patient/clinician satisfaction. The processing time will cut to 30 minutes for all emergency and ICU patients and routine samples to one hour. A substantial decrease in turnaround time. Employees will experience the solutions that deliver excellence for today and expandability for tomorrow by allowing the laboratory to:

* Scale laboratory systems for optimized throughput without increased burden.
* Synchronize testing workflow to deliver comprehensive, cost-effective, and timely reports.
* Streamline patient management through advanced clinical information services to facilitate accuracy, data flow, and laboratory performance.