Muncy Valley Hospital Emergency Department Throughput Optimization

Overview
The Muncy Valley Hospital Emergency Department will be undergoing renovations beginning June 2016 and will require temporary layout and patient flow changes in order to continue to properly function. The main focus of our project was to identify problem areas that the emergency department will experience during Phase I of construction. With the facility being limited with space during renovations, the entrance will be forced to relocate. Additionally, the limited storage constraints that we identified in the hospital will worsen during construction so we found it vital to incorporate as much storage space into the recommended changes.

Objectives
The ultimate goal of the project with Muncy Valley was to solve the emergency department’s patient flow problems and spacial constraints. After analyzing the current problem areas, our team was able to determine an optimal path for both walk-in and ambulance patients entering the hospital in order to minimize congestion.

Approach
- Updated the layout of the current floor plan.
- Determined pathways in which both walk-in patients and patients brought in by ambulance would take upon entering and exiting the hospital.
  - Two separate doorways will be accessible during Phase I, one for walk-in patients, and a wider door for the ambulance to pull up to.
- Recommended a one-way patient flow from the door using the most direct pathway to the waiting room.
  - In order to avoid congestion and patients leaving through this same pathway, it is recommended that a one-way flow is used and that patients’ copays are taken at bedside to allow this to happen.
- Several areas were designated for storage and it was suggested that a moveable storage cart could be utilized.
- Suggested that the current reception area would be cut in half, with half of it blocked off for a new triage area.
- A redesign of the remaining waiting area was made with a room designated for any overflow.

Outcomes
Phase I will run smoothly and patient satisfaction will be preserved based on recommendations.