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Objective: To meet clinical, financial and regulatory necessities, hospitals must continually work to improve flow, discharge patients early and maintain efficient and safe care. Observation in lieu of admission is a proven method to accomplish many of these goals. Although observation status can occur in any clinical location, the position of the American College of Emergency Physicians (ACEP), is that observation occur in a dedicated area. However, it's estimated that only one-third of hospitals have designated observation units in place. Logistics of planning and implementing an observation unit are often time and resource intensive. Here we describe the use of lean management principles in the planning and development phases of an ED observation unit.

Implementation: 2P, process and preparation, events focus on the design, creation and implementation of critical processes. Flow, staffing, cost, volume, and turnaround are commonly addressed in a 2P event. A multi-disciplinary team including clinicians, nursing, finance, facilities, administration and care management, were selected to participate in the week long 2P event that would work out the flow of the newly developed unit. Box 1-3, Reason for action, current state and target state were provided to the team for review. Collaboratively the team developed the patient primary flow. To achieve acceptable levels of flow, different versions of the physical configuration was created. Each layout was then graded on patient and staff safety, quality of care, patient privacy, bed turnover, space utilization and cost. After concluding on one optimal process to achieve the best flow, barriers between the current state and target state were analyzed. The root cause of these gaps were broken down further into basic parts and possible solutions to solve the issue were formulated. Simulations of patient rooms, care delivery and transfer to the observation unit were then conducted. A detailed document with completed and pending deliverables, owners and due dates was produced and provided to leadership for implementation.

Results: Four months after the 2P event, the ED observation unit officially opened. As initially planned the unit was closed, protocol driven and operated by the Department of Emergency Medicine. The unit was opened with only four clinical guidelines and expanded to nine one month later. Metrics were chosen based on the observation unit's impact on the emergency department. Within one month of opening, the ED Triage to First Provider metric decreased more than 10 minutes improving ED efficiency.

Conclusion: Lean methodologies have been successfully utilized in healthcare for over a decade. Lean has proven to be a valuable tool in increasing efficiency and reducing waste while simultaneously improving the quality of patient care. Advanced lean techniques, such as a 2P, are appropriate when rolling out a new product or service design. It requires participation of every stakeholder in the process to develop an organized and functional method that delivers on productivity, cost, quality, and timely delivery of services. Although an intensive process, the benefits are more to the hospital and customer, the patient.

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