

Lean Six Sigma Black Belt Project Discharge Scheduling Executive Summary

Project Objective – North Atlanta Hospital (NAH) treats over 28,000 inpatients per year. Patients stay at NAH for an average of five days. On the day of their discharge, patients depart the hospital on average at 3:00 in the afternoon. Unfortunately, most patients are admitted to the hospital at 9:00 in the morning, leading to a situation where patients are being admitted in the morning, while beds are not being freed up until the afternoon. When the hospital's census is full, this leads to a backup of patients coming from surgery and the emergency department. Some patients are turned away.

From both a patient satisfaction perspective (Voice of the Customer) and from the hospital's financial perspective (Voice of the Business), the hospital decided to embark on a program to improve average discharge times from mid afternoon to late morning.

Focus – Using a number of data analysis tools, including surveys, direct observations, and analysis of systems information, the project team identified six root cause issues: 1) late physician rounding, 2) multiple physician consults, 3) late patient transportation home, 4) late labs, 5) high paperwork loads, and 6) high nurse to patient ratios. The team focused its efforts on the three causes that it could most immediately effect – late doctor rounding, late labs, and late transportation home.

Improvement – The team implemented two pilot programs designed to improve patient discharge times. The first, called the Gold Star program, determined likely discharge candidates, and through a new communications tool, ensured that these patient's labs would be prioritized so that the results would be available when the doctors rounded. The second program, called discharge scheduling, provided patients with a predetermined time slot around which they could make their transportation plans. The patient's doctors were notified of the discharge schedule so they could plan their day around discharging patients on time.

Benefits – With pilot program discharge times now averaging approximately 11:30 AM with a standard deviation of less than one hour, both patients and the hospital are enjoying the benefits of this improvement. Surveys indicate that patients leave the hospital with a more favorable attitude,

The hospital has reduced variable costs by almost \$200.00 per patient. Opportunity costs, due to lost revenue when patients are turned away when the census is full, have been reduced, leading to high profitability.

Overall, an element of predictability has been established in the discharge process. Care is now provided based upon a schedule, not when the pieces randomly fall together. Patients are happier about their stay at NAH, and the non-profit hospital has the funds to continue its mission of serving the local community.