Increasing Hospital Bed Capacity by Optimizing Outpatient Surgical Discharges

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Background
In a time of national healthcare system consolidation and declining reimbursement, we must challenge ourselves to optimize the care we provide to patients. One of the greatest challenges our organization faced recently is patient flow and hospital bed saturation.

As we experienced increased hospital bed saturation, we saw this as a patient safety concern, contributing to Emergency Department crowding, significant growth in surgical volumes and outpatient surgical cases that transition into inpatient hospital beds. This is concerning as Hospital System (OPPS) bundles payments for all surgical outpatients who stayed in a hospital bed overnight. Through this analysis, the team identified several opportunities to safely improve the number of surgical outpatients discharged the same day after their surgical procedure that was not on the inpatient-only surgery list (i.e. outpatients-in-a-bed). With the help of the workgroup, several best practices and opportunities for improvement were developed.

Objective
Increase hospital bed capacity by optimizing same-day outpatient surgical discharges through the development of a quality improvement program that evaluates all outpatients-in-a-bed.

Planning and Research Methods
Six Sigma and Lean principles were used throughout this project, following the DMAIC (define, measure, analyze, improve, control) model (see Figure 1) and Prosci ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) models. Having defined the challenge in our background statement, a multi-disciplinary workgroup was formed to measure and guide this work. This group was comprised of administrators, physicians, nurses, finance analysts, internal quality consultants, and care managers.

Data was gathered with focus on the total inpatient census as well as the number of outpatients-in-a-bed; the measurement phase of the project. The patients were sorted by type of procedure as well as surgical service. The program then began to analyze all surgical outpatients who stayed in a hospital bed overnight. Through this analysis, the team identified several opportunities to safely improve the number of surgical outpatients discharged the same day after their surgical procedure that was not on the inpatient-only surgery list (i.e. outpatients-in-a-bed). With the help of the workgroup, several best practices and opportunities for improvement were developed.

Implementation Methods
To help diffuse the process improvement across the organization, the workgroup developed an implementation toolkit and accompanying communication plan for each department, that could be easily customized and shared with all departments and hospital locations. The intervention safety increases the ratio of surgical outpatients who are discharged home versus those who stay overnight in a bed.

We met regularly with key stakeholders and leaders to build relationships, ensuring awareness, desire, and knowledge throughout the project. Following the PROSCI – ADKAR change management model, we ensured practice leaders had the ability to facilitate change. For dissemination within department and divisions, dyad leaders were supplied with a set of slides to educate their department/division, a quick-reference guide with key messages, and timely data for their department/division which included individual surgeon performance. Clinical staff received one-on-one presentations, a toolkit for safely improving their outpatient-in-a-bed ratio, and the accountability methods that would be used. The accountability or control phase was in the form of a transparent quarterly report on the rates of outpatients-in-a-bed and readmission by department/division, by individual surgeon, and by individual type of operation sorted by surgeon. Education was conducted outlining CMS’s Inpatient Only Surgical List as well as the OPPS.

Results
Across the hospital, outpatients in a bed decreased from 4.0% of total census in 2015 to 3.3% by 2017. By November 2018 YTD, outpatients in a bed made up only 2.7% of total census. See Figure 3.

Some departments saw greater individual improvements. In orthopedics for example, we saw a 30.5% reduction. See Figure 2.

Conclusions
Surgical outpatients-in-a-bed provide an opportunity for optimization of patient flow within healthcare facilities. With appropriate education and tools, surgical practices can significantly and safely improve the rate of same-day discharges of surgical outpatients-in-a-bed.

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