Utilization of Advanced Practice Providers Innovative Approach to Caring for Trauma Patients Leads to Increased Productivity, Faster Time to Discharge Order and Improved Staff Satisfaction

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**Purpose:** Integration of advanced practice providers (APPs) in the medical care team has been shown to be safe and effective at trauma centers. At Grant Medical Center, a verified Level 1 Trauma Center in Columbus, Ohio, there are over 6000 trauma evaluations performed each year. The medical care team consists of trauma surgeons, residents, and APPs. In order to better utilize APP and surgeon time, as well as improve patient and staff satisfaction, a new care model was developed to promote more autonomous delivery of care by APPs to lower acuity trauma patients in dedicated trauma and observation units. We hypothesized that autonomous APP care would improve patient discharge times, improve staff satisfaction, and have no adverse effect on quality or safety of care.

**Resources:** The main resources for this project were already existing, which included Advanced Practice Providers (APPs) on the Trauma Service and our electronic documentation system through EPIC. We also transitioned our daily multidisciplinary meeting from a physical space to a teleconference via WebEx. One dry erase board was purchased to aid in the communication of APP assignments to the multidisciplinary team.

**Description:** Three distinct areas were restructured to accomplish the goals of this project. These areas are: 1) how APPs are assigned to the patients they will see for the day; 2) which provider (surgeon or APP) needs to see the patients; and 3) how this information is communicated to the multidisciplinary team.

First, we moved from “cherry-picking” patients to a geographic-based assignment. This meant that APPs would be assigned to an entire hallway or floor of patients. We also asked the night shift APP to make the daily assignment prior to the start of each day shift.

Next, we evaluated which patients would be seen by both the surgeon and APP, and which would be seen by only the APP. It was decided that patients housed in the Stepdown unit would continue to be seen by both the APP and trauma surgeon during rounds, while the patients in medical/surgical unit or observation unit would be seen by only the APP. A trauma surgeon remained available to discuss all patients being primarily cared for by APPs.

Lastly, we updated the way in which patient assignments and disposition are communicated with the team. We changed our daily physical meeting to a teleconference via WebEx. We also placed a dry erase board in a centralized location with daily APP assignments.

**Effectiveness:** The areas we hoped to improve with this project were APP productivity, patient discharge time, and staff satisfaction, all while having no adverse effect on quality of care.

APP productivity was measured by RVUs. After implementation of this project, an increase in APP-generated RVUs by 155% was demonstrated as APPs were now coding and billing for their own patients in medical/surgical and observation units rather than shared billing with the surgeon.

Patient discharge time was the next area we hoped to affect. After this project was implemented, we noted a decrease in time to discharge order by 51 minutes.

Improved staff satisfaction was another goal of this project. Trauma surgeons and APPs were overall pleased with this process change. Staff reported that they liked having more productive time during mornings. APPs also reported increased satisfaction with managing medical/surgical and observation patients on their own schedule rather than being limited by the surgeon’s schedule.

Additionally, we set out to meet these goals while having no adverse effect on patient safety or quality of care. We determined through our peer and readmission review processes that there were no quality or safety concerns regarding patients cared for primarily by an APP.

**Lessons Learned:** We learned with this process change that APPs can safely and effectively manage the care of low-acuity patients in medical/surgical or observation units without an increase in rate of readmission or quality of care. We also found that time saved by changing the way assignments are made and by teleconferencing our daily multidisciplinary meeting led to an increase in productive time for APPs as well as an overall improvement in satisfaction.
The main challenge with this project was getting buy-in from the staff, which is common with any new process change. The leads of this project consistently communicated the goals and expectations of the process, and, eventually, all staff were on board and participating as expected. Additionally, we found that even though our time to discharge order had improved, the actual time of patient discharge had not changed. This detail is being investigated further through nursing and hospital process improvement initiatives.

**Conclusions:** This project proved to be a success. We found that APPs deliver the same high standard of care to trauma patients admitted to medical/surgical and observation units when they are providing the majority of care autonomously compared to in constant conjunction with the trauma surgeon. This also allows the trauma surgeons to focus on more acutely ill patients and their myriad other duties. This process also increased APP-generated RVUs by 155%, decreased time to discharge order by 51 minutes, and overall improved APP job satisfaction.