Increasing the quality of patient centered care and efficiency of preoperative preparations for posterior spinal fusion patients: The value of a shared clinical timeline.

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Introduction

Improving patient centered care and efficiency of service delivery have been identified as major goals by the Institute of Medicine for the advancement of safety and quality in medicine1. Patient centered care aspires to design processes that identify and satisfy the full range of patients’ and families’ needs and preferences when receiving clinical care.

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Methods

Previous Process

All posterior spinal fusion patients are provided with a 50-page information booklet when they attend a personalized preoperative spine education session with a trained nurse educator in the weeks leading up to surgery. There were no established time or content goals for patients in the SDS process. There was no pre-existing data on patient satisfaction in the SDS experience specific to spine patients.

New Process

The multidisciplinary quality improvement team collaborated to develop a standardized timeline (Figure 1a) of the SDS pre-surgical process to outline an optimal sequence and expected timeframe in which service providers would complete their task. Escalation strategies to overcome common and predicted impediments were identified. These strategies included: assigning an additional nurse to initiate preoperative preparations when there was a late patient arrival, providing an alternative pathway for failed urinary pregnancy testing or failed IV cannulation, and providing a clear contact strategy that explicitly empowers SDS nursing staff to direct their concerns to increasingly senior members of staff.

Given that document was a template for the SDS experience, we decided that it may benefit patients and family if we shared it with them. It was redesigned to be a more family friendly Roadmap for Spine Surgery (Figure 1b).

It is a simplified visual summary of the tasks that need to be completed by patients and families (with some helpful tips) and a description of the role of the various people that they will meet. The use of clock faces gives a clear indication of the time expectations for the process.

Results

The clinical timeline and patient Roadmap was introduced in November 2015, and January 2016, respectively.

Over the course of the interventions, on time case starts increased from 58% to 86%. The average length of start time delay decreased from 6 minutes (95% CI [0 – 25 minutes]) to 2 minutes (95% CI [0-11 minutes]). (Figure 2)

We believe that the clinical timeline acted as a highly transparent, standardized pathway that lead to greater awareness of the need for timeliness in the process. It fostered a higher degree of accountability from the service providers and contributed to the improvements seen with on time case starts.

A satisfaction survey was conducted across March to May 2016 (response rate 57%) to assess patient and family response to the Roadmap. All families indicated an increase in their understanding of the process, and an improved ability to plan their time.

To increase the uniformity in patient information presentation, the Roadmap was further redesigned to mirror the layout of the existing preoperative spine education material (Figure 1c).

Conclusion

As part of a quality improvement initiative, we implemented a standardized clinical timeline to increase transparency and timeliness of the SDS process. This clinical document was adapted to serve as another means by which we could increase patient engagement and satisfaction at this process.

In doing so we reduced the magnitude and variation in start time delays for posterior spinal fusion surgery, and improved our alignment with patient centered care.

References
