Early Mobility for Primary Total Hip and Total Knee Arthroplasty Patients

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Background

Same-day discharge for total hip arthroplasty (THA) and total knee arthroplasty (TKA) is becoming more common, made feasible by perioperative advances such as minimally invasive surgical approaches (Bodrogi et al., 2020; Stambough et al., 2015). Given the frequency of these procedures rapidly increasing over the past decade due to an aging population, same-day discharge arthroplasty appears to be a safe and feasible solution (Iorio et al., 2016). Additionally, the literature has demonstrated improved patient satisfaction, decreased perioperative morbidity, reduced costs, improved functional outcomes, and no subsequent increase in readmissions in comparison to non-same day of surgery discharge patients (Larson et al., 2009; Ljungqvist et al., 2020; Wainwright et al., 2020).

Physical therapy is a crucial element in the pathway for safe and successful same-day discharge of patients. At Salinas Valley Health Medical Center, the Rehabilitation Department goal is to assess and ambulate patients within 2 hours of arrival to the unit. The Rehabilitation Department provides physical therapy (PT) and occupational therapy (OT) services. The purpose of this performance improvement initiative was to determine what percentage of primary THA and TKA patients were able to ambulate within 2 hours, as well as determine potential barriers to mobility.

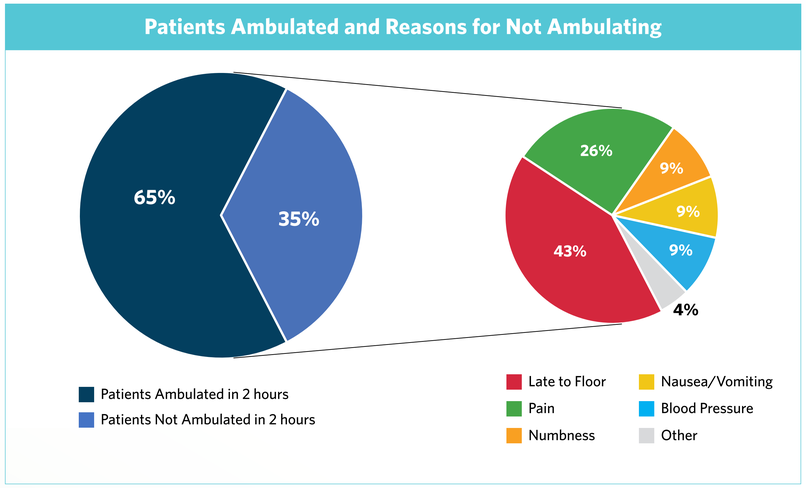
Methods

This performance improvement project began in February 2024 and ended in July 2024. The first step was creating an Excel spreadsheet to collect and save data. The following data were collected: date and time of surgery, date and time of physical therapy consult, date and time of discharge from physical and occupational therapy, documentation of ambulation status, and barriers to ambulation. Data were aggregated and analyzed to determine the percentage of patients who were successfully ambulated within the 2-hour timeframe, as well as the barriers to ambulation. Findings were presented to the Quality Interdisciplinary Committee as well as to stakeholders involved in the Joint Committee.

Results

From February 26, 2024, to June 28, 2024, 129 THA and TKA procedures were collected in our database and reviewed. Revision surgeries, to correct or improve an outcome from a previous surgery, were excluded to allow for a homogenous sample. Sixty-five percent of patients were evaluated and ambulated within the 2-hour time frame. Thirty-five percent of patients were categorized as unable to ambulate due to barriers including late to floor, pain, numbness, nausea/vomiting, blood pressure, and other (see Figure 1). Of the 35% of patients whom were unable to ambulate within 2 hours of arrival to the unit, all were evaluated by physical therapy except the 43% of patients that were late to the floor due to late cases. Patients who arrived late to the floor was defined as arrived after therapists had seen their last patients at 5:30 pm. Clinicians had an option to enter “other” as a reason to not ambulate within the specified timeframe, but in the majority of cases additional detail was not provided; thus, we were unable to determine what factors impacted this percentage of patients. Patients with a scheduled operating room (OR) time of 12 pm or earlier were 80% likely to be discharged by a PT or OT from rehabilitation, whereas 44% of patients with a scheduled OR time of 1 pm or later were discharged by a PT or OT. When surgery was performed after 2 pm, this dropped to 33%.

Figure 1



Note. Total joint replacement patients

Conclusions

This initiative demonstrated that overall, PTs and OTs were able to evaluate patients within 2 hours; however, they were limited in the ability to ambulate patients due to symptoms that impacted their ability to mobilize safely. These barriers included late to floor, pain, numbness, nausea and vomiting, and blood pressure. Additionally, late operative time was a barrier as well. These factors present potential targets for improving the delivery of immediate postoperative physical therapy to allow for same day discharge.

References

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