Improving Postoperative Right Care: Utilizing a Pain Management Bundle

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Background

- **Enhanced Recovery After Surgery (ERAS) programs focus on optimizing pain management by utilizing multimodal analgesia for postoperative pain control [4]**
- **Multimodal analgesia is defined as the use of more than one analgesic modality to achieve effective pain control while reducing opioid-related side effects like over sedation, nausea and vomiting, urinary retention, ileus, and respiratory depression [4]**
- **More than half of patients who undergo surgery report inadequate pain relief -- affecting quality of life, functional recovery, and the risk of post-surgical complications [1]**
- **The most recent clinical practice guidelines recommend opioids, NSAIDs, Acetaminophen, regional nerve block/local anesthetic, cognitive modalities, and transcutaneous electrical nerve stimulator (TENS) for a multimodal regimen in total knee replacements [1]**
- **Right care has been shown to improve outcomes and show quality results by providing effective care where the appropriate level of services based off scientific knowledge is provided [4]**
- **Patients who participate in perioperative education including pain management have better functional outcomes and increased patient satisfaction [2]**
- **Teach-back method is effective to engage patients and families in realistic goal settings and provides a safer hospital-to-home transition [3]**
- **In a sample of 20 patients who underwent total knee arthroplasties at Hoke Healthcare, only 17% received complete multimodal treatment recommendations (NONE utilized correctly) ; plus, NO stepwise approach to treat pain or NO standardized patient-centered teaching or discharge existed**

Aim

Improve the mean score of right care among knee replacement population to 40% within 90 days by implementing a Pain Management Care Bundle, encompassing pharmacological and nonpharmacological therapies, along with patient-centered education and teach-back regarding pain management

Planned Improvement

Four primary interventions were initiated with small tests of change over time

(Four Plan-Do-Study-Act Cycles)

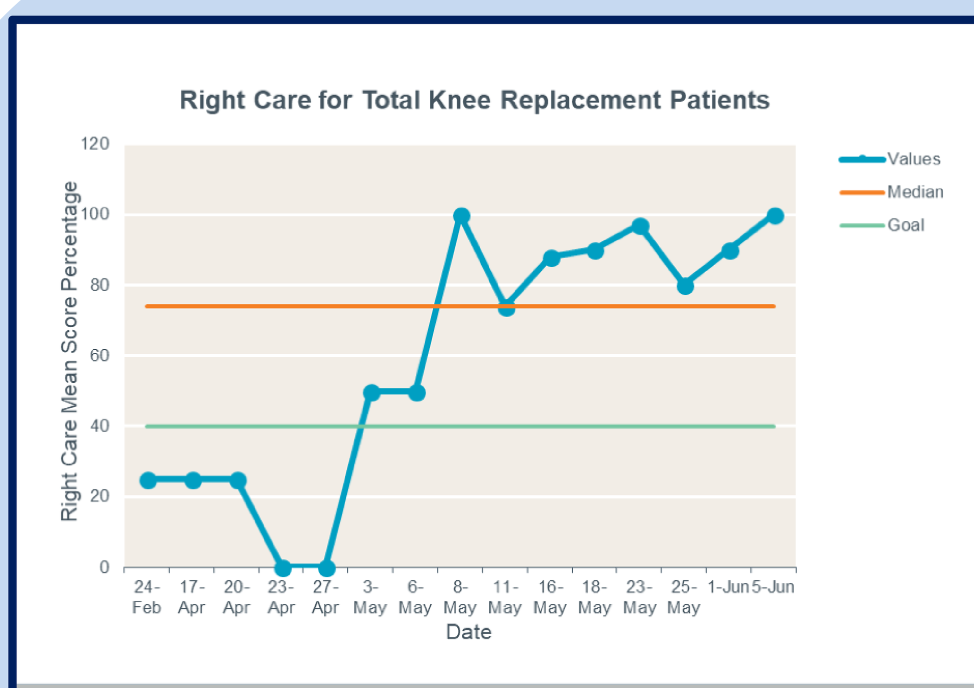
Pain Management Checklist

Audit and Feedback Process

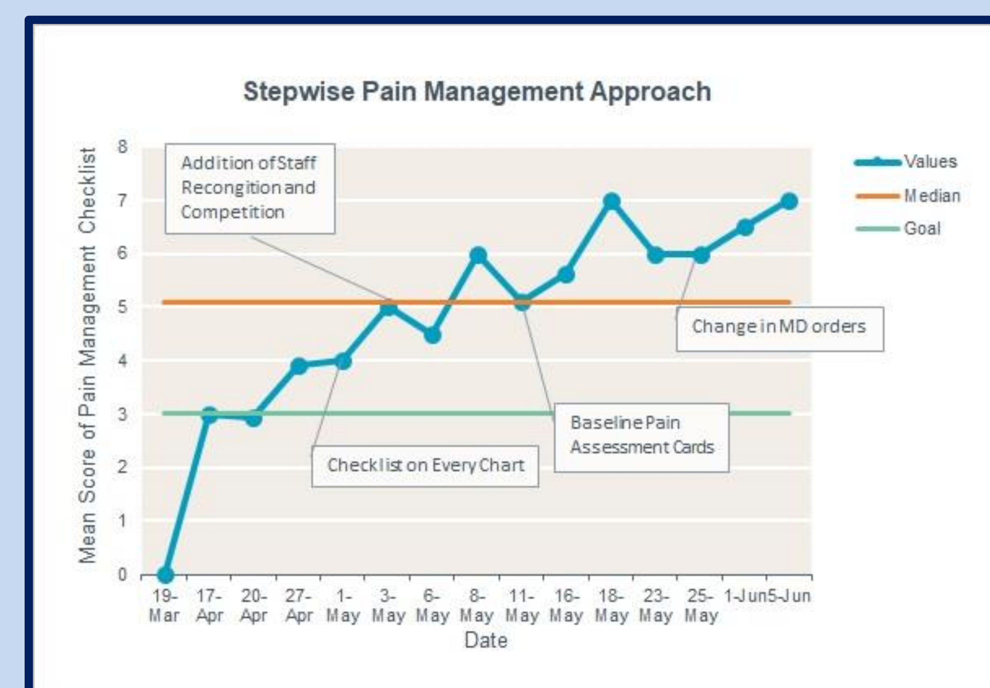
Integrated Educational, Teach-Back Discharge Checklist

Class Presentation with Reinforcement

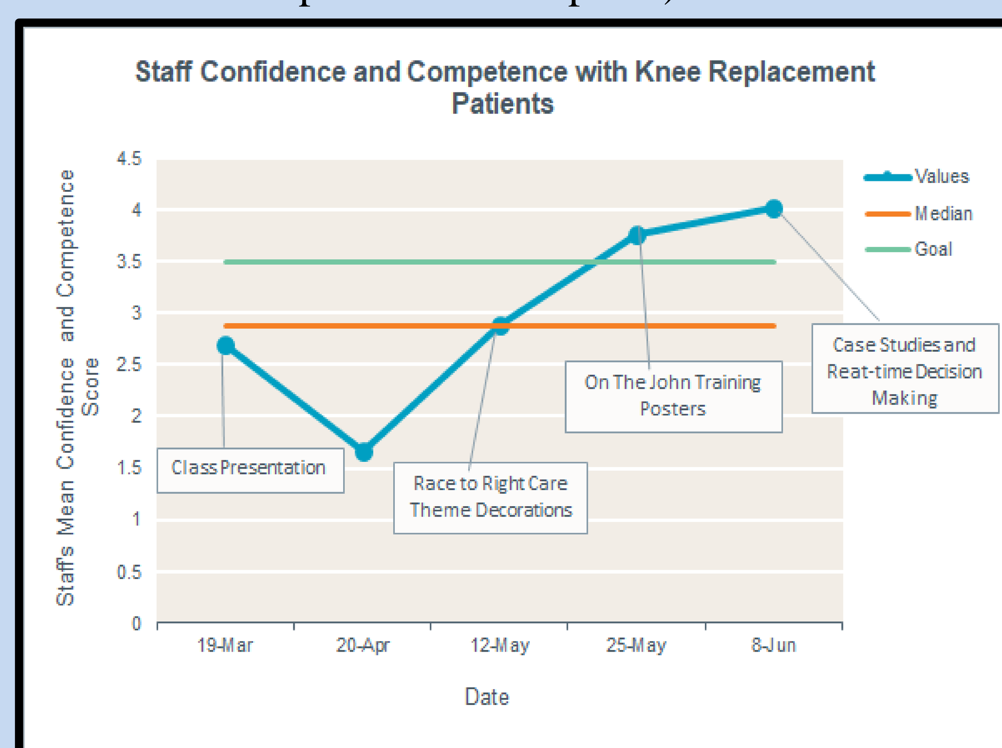
Results



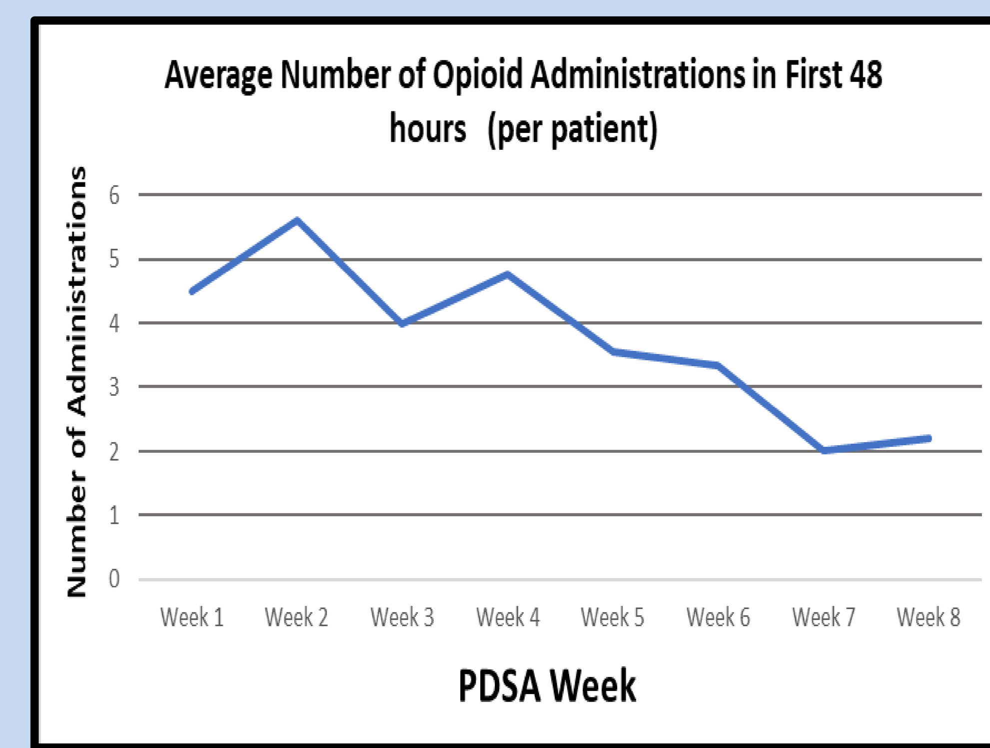
Increased Right Care to 100% within 90 days (**Right Care Standards** = 1.) Around-the-clock nonopioid and nonpharmacological therapies; 2.) Applicable medications - Acetaminophen and NSAID; 3.) Peripheral regional anesthetic; 4.) Education and Teach-Back regarding pain treatment plans)



Increased the mean score of the pain management checklist to 100% within 90 days



Increased the mean of staff confidence and competence scores to 4.02 out of 5 on the Likert scale within 90 days



First 48 hours postoperative - Decreased the average number of opioid administrations per patient from 5.6 (highest) to 2 (lowest) within 90 days

Measures

Primary Intervention	Measure	Operational Definition
Pain Management Checklist	Process:	(Number of tools used/Total number of patients with verbal pain score of >3/10)
	Outcome:	Mean score of pain management tool utilized where applicable
Audit and Feedback of Right Care	Process:	(Number of times audit tool was used/Total number of patients that qualified)
	Outcome:	(Number of patients that met Right Care based off clinical practice guidelines/ Total number of patients audited)
Integrated Educational, Teach-Back Checklist	Process:	(Number of completed checklists /Total number of patients discharged per day)
	Outcome:	Mean score of completed checklists
Team Training	Process:	(Number of staff trained/Total Number of staff)
	Outcome:	The mean staff confidence and competence score
Balancing A Daily Educational Checklist could decrease staff satisfaction due to increasing time spent educating the patients		This will be monitored by biweekly nurse survey scores that include perceptions on daily patient teachings

Conclusions

- The project goal to improve right care mean score to 40% in knee replacement patients excelled to 100%
- Standardization of Care = simple, easy to replicate tools systematically hardwires right care
- Stepwise approach to pain management + patients utilizing teach-back = improved patient care
- Right Care Standards = improved patient experience and efficacy of the discharge process
- Evidence-based care using multimodal treatments regimens for pain control = decrease opioid consumption and length of stay
- Audit and Feedback process = promotes and sustains right care standards
- More research is needed on effective team building and patient engagement methods in the inpatient setting
- Project is easily spreadable to various patient populations to help translate elements of ERAS programs into practice

Lessons Learned

- Classroom environment ≠ success and sustainability
- Train staff → **what's the "WHY"** in the nursing processes
  → ***Simulation-based teaching*** significantly improves nurses ability to perform in the clinical setting
- Standard communication via email ≠ effective
- Finding creative ways to communicate with staff, like posters in bathrooms or creative text messaging → increase staff knowledge of changes and department successes
- Creative, visual cues prompt utilization of processes
- Recognition and staff competition increase staff engagement

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