Safety of High Risk Medications on Discharge for Patients with Hip Fracture

Mackenzie Clark, PharmD
Martha French NP
Anne Thibault NP

UCSF Care Support Program

Office of Population Health

Background

The Care Support Program is made up of a multidisciplinary complex care management team comprised of nurse practitioners, social workers and health care navigators as well as a consultative team including a medical director, psychiatrist and pharmacist. This team focuses on providing care management to the most complex patients at UCSF, including the UCSF Orthopedic Bundle Payment population, specifically those who have sustained a traumatic or pathologic hip fracture and present for repair or arthroplasty.

To support the strategic priority of the UCSF True North Board Pillar 2 *Quality & Safety*, the team oversees transitions of care for this bundle payment population with a focus on medication management, ensuring that the patients have the services and support that they need to recover from surgery, care coordination for appropriate follow-up visits and educating patients on accessing appropriate levels of care. As the team's experience with this patient population grew over the first two years of the program, multiple care gaps were identified with a major focus on significant issues surrounding safe medication management as these high risk patients transition from hospital to post-acute setting and home.

The identified care gaps can be classified into the following categories:

- Lack of consistent medication reconciliation upon hospital admission
- Non-standardized post-operative anticoagulation orders
- Challenges of accurately transmitting post-discharge orders through the electronic health record (EHR) during the transitions of care process to post-acute care facility, home health agency and primary care provider.

PROBLEM STATEMENT

This project is a quality improvement initiative to describe the process of identifying, quantifying and rectifying the medication-related care gaps in Orthopedic Bundle Payment patients, observed by the Care Support team.

Project Goals

The project goals are to:

- Clearly define the scope of the care gaps through systematic chart reviews
- Develop systematic improvement interventions in partnership with the inpatient Orthopedic and Geriatric teams to ensure that discharge documentation for the high risk post-operative hip fracture population contains:
  - An accurate and up-to-date medication list in all views of Apex
  - Complete discharge anticoagulation plan with clear instructions including start and stop dates in all views of APeX

Gaps identified:

- Lack of documented medication reconciliation upon admission in these high risk patients can perpetuate an incorrect medication list throughout the peri-operative and post-discharge period
  - No documentation of eliciting a list of current medications from the patient, family or SureScripts during the admission process can omit critical medications that the patient is taking
  - Inactive historical meds from years prior are left on the Apex list and can continue through post-discharge
- No consistent anticoagulation plan is utilized for this high risk post-operative population
  - 17 different anticoagulation plans were identified on chart review
- Unclear documentation of the post-discharge anticoagulation plan
  - Start and stop dates are not consistently documented
  - There can be contradictory anticoagulation plans for the same patient

Our target state includes:

- Medication reconciliation upon admission by a pharmacist for 20% of high risk OBP patients
- All discharge documentation will include:
  - Standardized postoperative anticoagulation orders with start and stop dates incorporated into all discharge documentation (Discharge Summary, After Visit Summary, Inpatient Transfer Summary to skilled nursing facility or home health)

Project Plan and Interventions

All Orthopedic Bundle Payment patient cases are reviewed weekly as part of a formal Care Support Program interdisciplinary case conference. As time progressed, what started out as isolated anecdotal medication issues became more frequently identified and found to be pervasive. These repetitive medication care gaps prompted the team pharmacist and nurse practitioners to initiate a more formal discussion of the issues to bring clarity to the issues being seen. Once the medication-related care gaps were defined and example cases summarized and documented, a formal meeting between the Care Support nurse practitioners and pharmacist was scheduled with the inpatient orthopedic surgeon, geriatrics consultant, program coordinator and inpatient case management to have a forum to bring these post-discharge medication care gaps to the attention of the inpatient team and to design an action plan for potential interventions.

<u>The shared consensus on interventions to address the care gaps include:</u>

- Coordination with inpatient pharmacy supervisor to assign new inpatient pharmacy technician (not yet hired) to complete medication reconciliation on high risk Orthopedic Bundle Program patients admitted to the Medicine service
- Compliance with the new California State law SB 1254 that took effect 1/1/19 requiring completion of medication reconciliation upon admission for all high risk patients in a hospital with >100 beds by processing a grant-funded pharmacy technician position who will be deployed to the high risk fracture patients in the Orthopedic Bundle Payment Program
- Creation of a "dot phrase" by the inpatient orthopedic surgeon and geriatrician to include concise discharge instructions including the anticoagulation plan
- Implementation of standardized post-operative deep vein thrombosis prophylaxis guidelines (to be contained in the discharge "dot phrase" in the EHR in a drop-down menu) to help prevent medication errors as follows:
  - For CrCl > 31: Enoxaparin 40mg subcutaneously daily for 4 weeks
  - For CrCl <u>≤</u> 30: Aspirin 81mg twice daily for 4 weeks

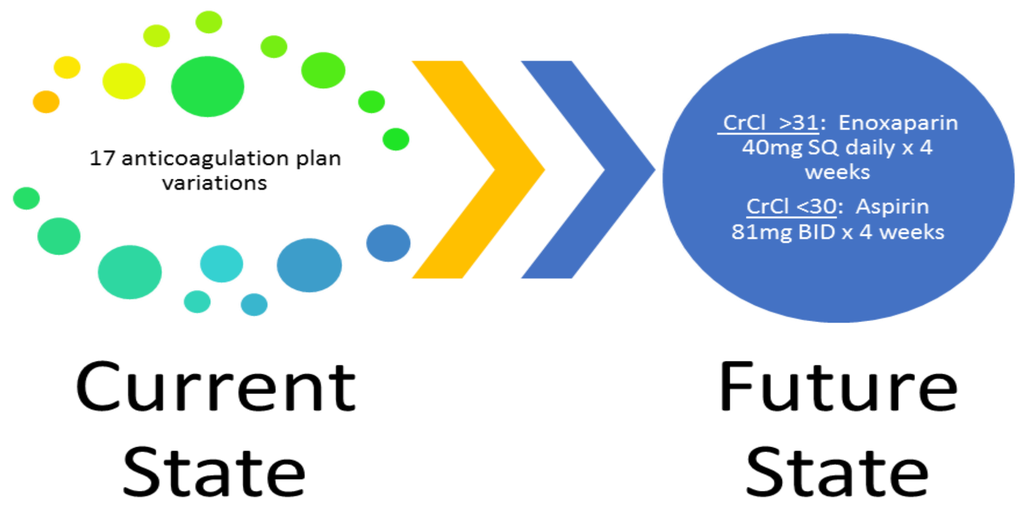
<u>Challenge to implementation identified by the inpatient Orthopedic surgeon and Geriatrician:</u>
Difficult to get all providers (Geriatricians, Orthopedic interns, Orthopedic surgeons, physicians) spread across many services and locations (Orthopedic Surgery, Medicine) to use it consistently

<u>A retrospective review of the 54 patients enrolled in the Care Support OBP program from 10/1/18 – 4/30/19 was completed.</u>

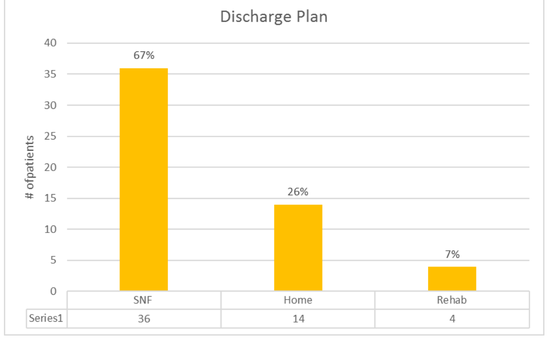
Project Evaluation & Impact

Admission Medication Reconciliation

15%	Pharmacy review of medications on admission (8)
17%	Home meds NOT included in an admission note (9)
46%	Unclear documentation of medications reconciled on admission (25)



48% Discrepancies in anticoagulation plan between discharge summary, AVS, and medication list (26)



Post-Operative Anticoagulation Plan	# OF PATIENTS (%)
Enox 40mg daily x2wks	13 (24%)
Enox 40mg daily x2wks then ASA 325mg x1mo	6 (11%)
Resume home anticoag	5 (9%)
ASA BID x 1mo	5 (9%)
Enox 40mg daily x1mo	4 (7%)
Heparin SQ BID x 2wks	4 (7%)
Enox 40mg daily x2wk ASA 81mg bid x1mo	3 (6%)
Enox BID x 2wks then ASA 81 mg x1mo	3 (6%)
Enox 40mg daily x2 wks then ASA 325mg x2 wks	2 (4%)
Heparin SQ BID x 4wks	2 (4%)
Enox 40mg BID x 2wks	1 (2%)
Enox 40mg daily x8wks	1 (2%)
Enox 40mg daily x2wks then ASA 81mg bid x2wks	1 (2%)
Enox 40mg daily x6wks	1 (2%)
ASA 81mg BID x2wks	1 (2%)
Heparin SQ BID x6wks	1 (2%)
None	1 (2%)

Sample Discharge Checklist

- ✓ Pain regimen
- ✓ Anticoagulation
- ✓ Precautions
- ✓ Weight baring status
- ✓ DME
- ✓ Home Health
- ✓ Follow-up appointments

Next Steps, Dissemination & Lessons Learned

Next Steps:

Collaborate with inpatient Orthopedic team to implement the following:

- Medication reconciliation by pharmacist within 72 hours of admission for high risk patients admitted to the Medicine or Cardiology services
- Standardized postoperative anticoagulation regimens depending on renal function that include start and stop dates
- Strategies in APeX such as dot phrases or smart sets to ensure consistent information across all discharge notes and medication lists in the After Visit Summary, Discharge Summary, and Inpatient Transfer Summary
  - Complete discharge anticoagulation plan (names of medication(s), dose, route, frequency, and duration) in a standardized location

Collaborate with skilled nursing facility nurse practitioner to implement the following:

- Implement a process of medication reconciliation for patients admitted to participating SNFs upon admission to, and discharge from, a skilled nursing facility to ensure the correct anticoagulation plan is followed

Dissemination:

A model that improves the accuracy of discharge instructions could be adopted by other surgical teams who identify similar inconsistencies in their discharge processes.

Lessons Learned:

- Providing clear, accurate, and consistent discharge information, especially around high risk medications, is critical to ensuring patient safety in the bundle payment post-acute 90 day period. Additionally, decrease call volume, confusion and time spent clarifying discharge orders by patients, caregivers, and supporting providers after discharge.
- Co-management of patients by interdisciplinary teams on both the inpatient and outpatient settings offers opportunities to discover and rectify practices that put patients – and institutions – at risk for poor outcomes.

UCSF Health Improvement Symposium 2019