Total Joint Home Recovery

Spread of the Best Practice of Same Day Discharge in a Large, Diverse, Integrated Health Care Delivery System

Regional Total Joint Team
The Permanente Medical Group

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Overview

- A little about Kaiser Permanente
- Review how we designed and implemented our initiative for same day discharge or “Home Recovery” in Northern California KP for TJ
- Look at safety and patient satisfaction after implementing our Home Recovery program
- Describe specific tactics have worked for us to achieve about 80% same day discharge in a large, inpatient population over the last few years
Kaiser Permanente - Northern California

4.3M MEMBERS
21 HOSPITALS
242 MEDICAL OFFICES
8,955 PHYSICIANS
78,254 EMPLOYEES
Kaiser Permanente Northern California—Orthopedics and Arthroplasty Service

- 230+ Orthopedic Surgeons
- >12,000 TJ per year (over 8500 have been discharged home the same day in last year) in Northern California
- Robust National Registry (add about 30,000 patients per year)
- Centralized, dedicated data, patient education, and research support shared across all 21 Med Centers
Kaiser Permanente Arthroplasty

How we are different

- Prepaid model, not fee-for-service, results in different incentives
- Capitated, predominantly Medicare Advantage
- Less affected by Inpatient-Only rules, Bundles, etc.
- Nearly all arthroplasty done in inpatient setting

How we are similar

- Surgeons with variable skills and training
- Variable practice settings--small community hospitals as well as large academic medical centers
- TPMG is an independent medical group, physicians not employed by a hospital

Contact: Sharon Deshpande, QOS
Enough about KP—what did we do over last 4 years to get from zero to 80% HR for TJ patients?

- KP Northern California Home Recovery Performance: LOS

20,000 patient hospital days per year saved, 2018 vs 2014
KP NCAL Total Joint Redesign Journey

**EFFICIENCY**
- LOS Reduction (to 3 days!)
- Clinical Pathways/Order Sets

**QUALITY**
- Propective OR Planning Tool/QOS Metrics
- Arthritis Pathway
- 23 Hour Stay
- Fontana visit (Eric Cain)
- Home Recovery

**STRATEGY**
- TJ Registry
- Periop Medicine Clinics
- Hospitalist Co-management
- MMP/ TXA (Bini)
- PA Peer Group
- ERAS (TJ Pilot)
- *TJ Site Leads
- TJ Playbook*
- Center of Excellence Redesign--Consolidation/specialization/standardization

**ACADEMICS**
- JOJ Meeting (Bini)
- EPIC
- PA Peer Group
- Center of Excellence Redesign--Consolidation/specialization/standardization

Contact: Sharon Deshpande, QOS
Why TJ Home Recovery?
We convinced staff and members that this was a good idea and better for patients, following on full court press ERAS implementation.

What if we could offer patients joint replacement surgery that gets them walking within hours instead of days, allowing them to the ability to recover in the comfort of their own home?

Advances in surgical technique, patient optimization and improved anesthesia and pain protocols can make this a reality.

Adapted from: American Academy of Orthopaedic Surgeons
How did we do?
Total Joint Home Recovery at medical centers across Northern California: 80% Same Day

Rolling 2 year global project trend for TJ Service Line: All

* *
Regional Home Recovery Performance

HIP

% Same Day Discharge

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<th>Year</th>
<th>STP Year</th>
<th>Normal Statistical Variation</th>
<th>Statistically Significant Variation</th>
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Contact: Veronica Clarkson

73% Average

KNEE

% Same Day Discharge

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76% Average
Is it high quality and safe? Measure return to care

Statistical Process Control Chart: Average Surgical Home Recovery

Statistical Process Control Chart: Return to the ED within 30 Days for All Patients

Statistical Process Control Chart: Return to the ED within 7 Days for All Patients

TPMG Quality and Operations Support

Contact: Sharon Deshpande, QOS
Perhaps not surprisingly, patients who stay over one or more nights have a HIGHER return to care rate.
Do patients like it?
KP National TJ Survey Results for NCAL

Overall Satisfaction, Scale 1-10

Overall, how satisfied are you with the results of your Total Joint replacement surgery (0-10)

Facility | Number of Records
---|---
San Leandro | 179
Antioch | 161
Roseville | 151
Santa Clara Homestead | 93
Vacaville | 92
Santa Rosa | 87
Sacramento | 69
San Jose | 60
Modesto | 51
South San Francisco | 47
San Francisco | 45
South Sacramento | 45
San Rafael | 44
Fresno | 37
Redwood City | 29

Dark green is strongly agree, Dark red is strongly disagree
Do patients like it?
KP National TJ Survey Results for NCAL

Felt ready to leave, Scale 1-10

I felt ready to leave the facility on the day I was discharged.

- Dark green is strongly agree, Dark red is strongly disagree
Higher percentage of patients who had shorter length of stay reported feeling ready to go home.
Overall Strategy

- Created a Strategic Playbook: Optimization protocols, roles outlined for all stakeholders
- Shared best practices across 21 hospitals—Operational Surgeon Site Lead peer group
- Built on previous successful implementations (e.g., ERAS, Periop Med Clinics)
- Assumed all patients are HR, except when they fail (Santa Clara)
Key personnel and resources

- Optimization by defined team (for us the POM clinic) using consensus guidelines
- Total Joint Coordinator (PA or RN or Nonclinical) at each center
- Data support: measuring for success and providing revealing reports
- Same day or next day Home Health PT visit
- Staff/PA to make post op phone calls
- Enhanced patient education, pre-op class, online resources/app

There is a cost shift here to outpatient setting both Pre and Post-op, but overall cost savings and improvement in service (and we think quality)
Tactics—Things we stopped doing

- PCA
- Preop narcotics
- Foleys
- Drains
- Routine use of warfarin or enoxaparin—use ASA for almost everyone
- Blood transfusion and pre-donation
Tactics: Things we started doing

- Proactive discharge team in recovery area--RN discharge coordinator + PA. Written schedule for nurses—given to patients, too.
- MMP/Dalury cocktail/short-acting spinal (chloroprocaine)/nerve block for knees (most use adductor canal catheter)
- Fluid bolus on arrival to RR
- TXA

OR: Finish early!
  - Earlier start
  - Streamline trays, reduce TOT
  - Smart scheduling (last patient is least likely to leave).

- Physical Therapist till 8pm
- Same day SNF in rare cases.
Study the fallouts as you go: understand your barriers

Top reasons patients stay overnight may be different than you think

1. Social support lacking
2. Patient expectations/education
3. Finish OR too late
4. Narcotic dependent pre-op
5. Comorbidities (not as important as you may think—KP Registry showing ASA >2 patients discharged same day, return to care at no higher rate if optimized)
Still working on . . .

- Predictive analytic model for who is likely to benefit from overnight stay
- Integrate Patient Reported Outcomes to measure how we are doing in taking care of patients
- Patient engagement apps
Conclusion

With proper program design and preparation, same day arthroplasty surgery can safely be achieved with excellent patient satisfaction in an inpatient community or academic hospital setting.

At least 80% patients are appropriate for this in the Kaiser Northern California population.

Almost all patients can be considered for Home Recovery, if properly optimized.