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Multidisciplinary Teams Care Approach: A Successful Collaboration Model for Comprehensive Joint Replacement Center

Manisha Sheth OTD, OTR/L October 24th 2019

#### continued

#### Learning Outcomes

- After this course, participants will be able to define a multidisciplinary model.
- After this course, participants will be able to describe the value of multidisciplinary team model as it relates to a comprehensive joint replacement surgery center.
- After this course, participants will be able to discuss strategies to develop a collaborative practice with other disciplines such as physical therapy, nursing and physician's assistants across the continuum of care.



#### Background

- By 2030, primary THR is projected to grow 171 percent and primary TKR is projected to grow by up to 189 percent,
- By 2060, primary THR is expected to reach 1.23 million (330 percent increase), primary TKR is expected to reach 2.60 million (382 percent increase)

Centers for Medicare and Medicaid Services (CMS), 2019.

#### continued

Comprehensive care for Joint Replacement (CJR) model



Centers for Medicare and Medicaid Services (CMS), 2019.





## Fast Track Joint Replacement

Regional
Anesthesia(Spinal) With
nerve block

Opioids sparing pain management

Fast Track Joint Replacement

Early mobilization

Length of stay < 3 days

Feng, Novikov, Anoushiravani, & Schwarzkopf, 2018



## Multidisciplinary Team approach

 Definition: Multidisciplinary team approach is when professionals from a range of disciplines work together to deliver comprehensive care that addresses as many of the patient's needs as possible (Mitchell, Tieman, & Shelby-James, 2008)



#### continueD

# Common goals of the multidisciplinary team

- To improve client function or maintain maximum client independence.
- To enhance client well being.
- To increase client satisfaction.
- To reduce use of hospital services.
- To reduce health care costs.
- To optimize work satisfaction of all team members.

Prouty et al., 2006



## Clinical Care Pathway (CCP)

- The Clinical Care Pathway identifies processes and steps that can impact care in four categories:
  - Safety and reliability;
  - Effectiveness;
  - Efficiency;
  - The patient and family experience of care.





# **CCP Stages**

Stage 1

operative surgical visit ~ 4-6 weeks Stage 2

• Preoperative preparation and planning

• ~4-6 weeks

Stage 3a

• Preparation, operation and PACU • ~6 hours

Stage 3b

 Inpatient stay & Discharge process

• ~ 3 days

Stage 4

• Post D/C rehab & Follow up care

• 12 months

Mitchell, Tieman, & Shelby-James, 2008

#### continued

## Preoperative Surgical visit

- Orthopedic surgeon
- Scheduler
- Joint replacement care coordinator
- Pre-op education class



# Pre-operative preparation and planning

- Joint replacement care coordinator
- Pre-op education class



## Preoperative Education Class

Occupational Therapist

Nurse Physical Therapist

Joint Replacement Care Coordinator

Multidisciplinary Team

Case manager



# Role of Joint Replacement Care Coordinator

- Link between the patient and healthcare professionals
- Arrangement with the hospital to schedule a pre-op education class

#### CONTINU ED

#### Pre-op Class Joint replacement care coordinator

- Education on
  - Review of the anatomy of the hip, knee, shoulder
  - Indication & contraindication
  - Sample prosthetic device
  - Preoperative preparation
  - Medications

- Education on
  - Surgical procedure
  - Types of anesthesia
  - Medical devices
  - Pain management
  - Potential complications
  - Prevention of complications
  - Discharge planning



## Role of OT in Pre-op class

Exercises for strength, ROM, and endurance

Diet and nutrition

Alcohol and smoking use

Post-surgery precautions

Mind and body relaxation techniques

continueD

## Role of OT in Pre-op class

Use of adaptive devices for ADL

IADL

Safety at home Fall prevention

Discharge planning

Recommendations for next level of care



CONTINUED .	
Pre-op class	
Role of Physical therapist	
Role of Nursing	
Role of Case manager	
	17

CONTINUED.
Outcomes of Preoperative Education
Class
Better understanding of the surgery and
outcomes
Reduced anxiety
Neduced driviety
Increased compliance and increased knowledge
Avoidance of post-op complications
Decreased length of stay
18



#### Team members in Stage 3a Preparation, operation and PACU

- Surgeon
- Anesthetist
- Physician Assistant
- Anesthesia Nurse
- Operating nurse
- PACU/recovery nurse
- Volunteer

#### continued

- Inpatient stay & Discharge process
  - Surgeon & Physician Assistance
  - Nurse & Nursing aide
  - Joint replacement coordinator
  - OT & PT
  - Case manger/social worker
  - Pharmacist
  - Dietitian
  - Liaison from homecare/outpatient/acute rehab/Skilled nursing facility





#### Team members in 3b stage

- Surgeon
  - During the course of an operation, the surgeon must make important decisions about the patient's health, safety, and welfare.
  - Furthermore, the surgeon must work to ensure cooperation among the other members of the surgical team, which typically includes another surgeon or qualified person who acts as the surgeon's assistant, the anesthesiologist, and operating room nurses

continued

- Physician's assistant
  - Surgical physician assistants (PAs) are highly skilled clinicians who have received didactic and clinical training to function in all areas of the perioperative environment, including pre-admission, testing, intra-operative first assisting, PACU care, SICU care, step-down unit, outpatient clinic, office practice and even home care.



## Team members in 3b stage

- Nurse
  - Monitoring patients
  - Symptom management
  - Discharge instructions
  - Patient/caregiver education

CONTINU ED

- Certified Nurses' Aide (CNA)
  - Take patient vital signs
  - Serve meals, make beds and keep rooms clean
  - Set up medical equipment and assist with some medical procedures
  - Answer calls for help and observe changes in a patient's condition or behavior



## Team members in 3b stage

- Joint replacement coordinator
  - Discharge planning
  - Coordinates services across the continuum of care

continued<sup>1</sup>

- Physical Therapist
- May begin on the day of surgery- Post op day 0
  - In room
    - Education about precautions
    - Out of bed to chair
    - Short ambulation
  - Post–op day -1
  - AM: Individual session
    - Walking, Ascend and descend steps
  - PM: Group session
    - Home exercise program, family/caregiver training



## Team members in 3b stage

- Occupational Therapy
  - Post-op day 1
  - Education on precautions, Weight-bearing
  - Training on adaptive equipment
  - ADL & IADL
  - Patient/caregiver Education

continued

- Pharmacist
  - Home medication regimen
  - Newly prescribed medication after surgery
  - Medication reconciliation
  - Educations about
    - Effects and side effects of medications
    - Dosage, frequency, and time of consumption



## Team members in 3b stage

- Case Manager
  - Discharge planning
  - Transportation
  - Medical equipment
  - Home care
  - Inpatient rehabilitation

continued

- Liaison nurse
  - Provide health education
  - Evaluate the patient's home situation to determine what help is needed
  - Ensure the patient receives follow-up care and services such as RN, OT, and PT



#### Post D/C rehab & Follow up care

- Continuum of care
  - Homecare/Acute rehab/SNF/outpatient
- Follow up at MD office
- Follow up by care coordinator

continued

## Case study

- Mr. Smith is a 76- year old retired fireman who has been diagnosed with OA in his left hip since a year. His pain was managed by medications for few months however has been complaining of severe pain for past two months. The surgeon recommended THA.
- Living situation: Lives with a wife in a single level ranch home. 3 STE. Has walk-in shower in the bathroom.
- PLOF: (I) with ADL and IADL
- Enjoys swimming and playing golf



#### Case study

- Stage 1: Pre registered for Pre-op class
- Stage 2: Attended pre-op class, Followed the preoperative regimen, ordered FWW, hip kit, home modification, diet and nutrition, exercise, alcohol and smoking caseation
- Stage 3a: Posterior lateral approach.
  - Uneventful surgery and recovery
- Stage 3b: PT- Post-op day-0
- OOB, ambulated 50 feet
- Post-op day 1: 1 OT session, 2 PT session

continued

## Case-study

- Education: Pharmacist, nursing, case manager and liaison nurse for homecare
- DME delivered
- OT- Car t/f
- Home care PT for 2 weeks
- F/u with surgeon
- Excellent recovery, staples removed
- Outpatient PT for 4 weeks
- Fit for life program



#### Conclusion

- Creation of clinical and patient pathways
- A user-friendly patient education book
- A multidisciplinary patient education class
- Improvement in outcome measures and
- High satisfaction with their care,
- Significant fiscal and clinical benefits

continued

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