Total Knee Arthroplasty Protocol

Acute: Physical therapy will be initiated the first day following surgery per doctor referral. Once initiated, patient will be seen daily and weekends as appropriate. Consultation with case management and nursing will be done throughout patient’s length of stay to coordinate patient needs and discharge plans. MD referral should include patient weight bearing status and any deviations from standard protocol.

Post-Operative Day 0-1:

Begin lower extremity TKA exercise program, these may include:

- Ankle dorsiflexion/plantar flexion
- Quad set
- Hamstring set
- Gluteal set
- Short arc quad
- Hip abduction
- Heel slides
- Long arc quad
- Active knee extension/flexion
- Straight leg raise
- Posterior knee stretch (pillow under heel)
- Seated self assisted knee flexion/extension
- Knee/flexion stretches
- Encourage the patient to perform these exercises every two to three hours while awake

- Begin assisted bed-to-chair transfers using an assistive device to a chair of appropriate height. Weight bearing status is dependent upon physician specifications
- Begin assisted ambulation on level surfaces using an assistive device, weight bearing status dependent upon doctor specifications
- Encourage patient to ice 20 minutes as needed and elevate with knee in extension. Pillow or towel roll under heel – NOT KNEE
Post-Operative Day 2:

- Continue Day 1 exercise program.
- Continue to work on transfers and bed mobility.
- Begin assisted ambulation on level surfaces using an assistive device, weight bearing status dependent upon doctor specifications.

Post-Operative Day 3 – Discharge:

- Continue comprehensive exercise program with emphasis on increasing knee range of motion and general muscle strength in the operative extremity. Range of motion goal of 0-90°
- Refine gait pattern and instruct in stair climbing if appropriate
- Review home instructions/exercise program
- Finalize discharge plans. Assess for equipment needs. Patients may require an assistive device for ambulation and follow-up physical therapy

Outpatient Therapy

A comprehensive treatment program should be implemented based upon each individual patient’s needs and within established therapy restrictions. Suggested PT treatment/activities are listed below

Modalities for Pain Control and Edema Reduction:
- Moist heat
- Interferential
- Ice
- TENS
- FES (functional electrical stimulation)

Therapeutic Exercises:
- Passive, active-assisted, and active lower extremity ROM
- Closed Kinetic chain activities
• Stationary biking
• Lower extremity strengthening exercises using Theraband/weights
• Stretching: hamstrings, gastrocnemius, soleus, quads
• Nustep (seated stepper)
• Scar massage/mobility – may be instituted after suture removal when the incision is clean and dry
• Goal of knee range of motion 0-110° within 8 weeks
• Patellar Femoral mobilization if restricted

Endurance Training:
• UBE
• Ambulation activities

Balance/Proprioception Training:
• Lateral stepping over/around objects
• Obstacle course
• Weight-shifting activities
• Closed kinetic chain activities
• Lunges
• Squats

Gait Training: assistive device will be discontinued as per MD specifications
Level surface
• Forward walking
• Sidestepping
• Retro walking
• Uneven surfaces

Functional Training:
• Standing activities
• Transfer activities
• Lifting
• Stair climbing

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