Proposed Rehab Protocol for Total Knee Replacement
Make sure you check with the surgeon before you start using any protocol. Also, obtain a copy of the operative report from the surgeon

Post-Operative Instructions for Total Knee Replacements

Post-op
Make sure that your patient has a follow up appointment for a wound check about 2 weeks after your surgery.

Medicine
- **Lovenox** is one injection every 12 hours for 4 weeks. The injections begin the morning after surgery. The nurse will show the patient how to inject the **Lovenox** before discharge from the hospital.
- Some patients may be on **Coumadin (Warfarin)** instead of **Lovenox**. This medicine is to be taken at the same time every day. Blood work must be done twice a week to make sure the patient is on the right dosage. Patients stay on this medicine for about 4 weeks unless otherwise instructed by their physician.
- **Vicodin** or other pain medications are to be taken as directed

Home Care:
The nurse for a health care agency will contact the patient within the first 24 hours after they arrive home.
Again, if the patient is on Coumadin, then blood needs to be drawn twice a week. The home care agency will also set up home physical therapy to come in three times a week

Showering:
- Cover the incision with saran wrap while showering until the wound is completely dry without any drainage.
- Do not scrub the incision, let water/soap run over it and then pat it dry.
- Do not soak in a tub or go swimming.

Extension:
- Place a rolled towel under your ankle to help with extension. Never put anything under your knee.
- Getting your knee fully straight (fully extended) is one of the most important things for a successful total knee replacement.
- Inform the surgeon if you and your patient have significant problems with this.

Ice: the knee as needed for 20 minute intervals on/off as needed. Be sure to ice it after your physical therapy sessions.
The knee is going to be warm and swollen for a long time (9 months to 1 year)

Call the surgeon’s office immediately
- if the wound site is red
- if there is excessive drainage or pus
- if there are red streaks on the patient’s leg
- if the patient has a fever over 101.5°F
- if the patient is experiencing severe pain.
Proposed Rehab Protocol for Total Knee Replacement
Total Knee Arthroplasty Physical Therapy Protocol

Phase I
Immediate Postoperative Phase (Day 0 – 10)
Goals:
- Active quad contraction
- Safe independent ambulation with walker or crutches as needed
- Passive knee extension to 0 degrees
- Knee flexion to 90 degrees or greater
- Control of swelling, inflammation, bleeding

Day 0-2:
- Weight bearing as tolerated with walker/2 crutches as needed starting on Day 0-1
- Cryotherapy immediately and continuously unless ambulating
- ROM of knee to begin immediately post op
- Exercises
- Ankle pumps
- Passive knee extension to 0 degrees
- SLR
- Quad sets
- Knee flexion to at least 90 degrees
- Instruct in gait training - safe transfers

Day 3-10:
- Weight bearing as tolerated with walker/2 crutches as needed
- Cryotherapy
- Exercises
- Ankle pumps
- Passive knee extension to 0 degrees
- SLR
- Quad sets
- AAROM - Knee flexion to at least 90 degrees
- Hip adduction/abduction
- Instruct in gait training – safe transfers
- Start stationary bike, low resistance

Proposed Rehab Protocol for Total Knee Replacement Phase II:
Motion Phase (Week 2-6)
Goals:
- Improve ROM
- Enhance muscular strength, endurance
- Dynamic joint stability
- Diminish swelling/inflammation
Establish return to functional activities

Criteria to enter Phase II:
- Leg control, able to perform SLR
- AROM 0-90 degrees
- Minimal pain/swelling
- Independent ambulation/transfers

Weeks 2 - 4:
- WBAT (weight barring as tolerated) with assistive device as needed. Wean from walker to cane or from 2 crutches to 1 by 2 weeks. Wean off all assistive devices by no later than 4 weeks.

Exercises:
- Quad sets
- SLR
- VMO recruitment during quad sets and SLR
- Knee extension 90-0 degrees
- Terminal knee extension 45-0 degrees
- Hip abduction/adduction
- Hamstring curls
- Knee flexion to at least 115 degrees

Stretching:
- Hamstrings
- Gastroc/soleus
- Quads
- Passive knee extension stretch
- Continue stationary bike and advance resistance as tolerated
- Continue cryotherapy
- Patellofemoral mobilization
- Incision mobilization

Patients may begin to drive if they are no longer using assistive devices for ambulation (about 2 weeks post op)

Weeks 4 - 6:

Exercises:
- Continue previous exercises
- Initiate front and lateral step ups
- Advance resistance on stationary bike
- Initiate progressive walking program
- Initiate endurance pool program, swimming with flutter kick

Return to functional activities
- Continue compression, ice, elevation as needed for swelling
- Patients should be walking and driving independently at this point

Phase III: Intermediate Phase (Weeks 7-12)

Goals:
- Progression of ROM to greater than 115 degrees
- Enhancement of strength and endurance
- Eccentric/concentric control of limb
Cardiovascular fitness
Functional activity performance

**Criteria to enter Phase III:**
- ROM 0-115 degrees
- Voluntary quad control
- Independent ambulation
- Minimal pain

**Weeks 7-12:**
**Exercises:**
- Continue previous exercises
- Continue pool activities
- Continue walking
- Continue stationary bike
- Aggressive AROM 0-115 degrees
- Strengthen quad/hamstrings

**Phase IV: Advanced Activity Phase (Weeks 12 and beyond)**
**Goals:**
- Allow patients to return to advanced level of function such as recreational sports
- Maintain/improve strength and endurance of lower extremity
- Return to normal life and routine

**Criteria to enter Phase IV:**
- Full non painful ROM 0-115
- Strength 90% of contralateral limb (if contralateral limb is normal)
- Minimal pain and swelling
- Satisfactory clinical examination

**Exercises:**
- Quad sets
- SLR
- Hip abduction/adduction
- Step ups
- Knee extension
- Stationary bike
- Swimming
- Walking
- Stretching 0-115 degrees

Return to pre op activities and develop HEP to maintain function of leg.

**NO SQUATS OR LUNGES AT ANY TIME!**