DARIN W ALLRED M.D.
ORTHOPEDIC SURGERY AND SPORTS MEDICINE

TOTAL KNEE REPLACEMENT
PostOperative Rehabilitation Protocol

General considerations:

- All times are to be considered approximate, with actual progression based upon clinical presentation.
- Patients are weight bearing as tolerated with the use of crutches, a walker or a cane to assist walking until they are able to demonstrate good walking mechanics, then full weight bearing.
- Early emphasis is on achieving full extension equal to the opposite leg as soon as able.
- No passive or active flexion range of motion greater than 90 degrees until stitches are removed.
- Regular manual treatment should be conducted to the patella and all incisions so they remain mobile.
- Early exercises should focus on recruitment proper quadriceps set.
- No resisted leg extension machines (isotonic or isokinetic) at any point in the rehab process.

Week 1:

- PT visit after hospital discharge to review home exercise program. Icing, elevation, and aggressive edema control (i.e. circumferential massage, compressive wraps).
- Manual: Soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.
- Exercise: Initiate quadriceps/ gluteal sets, gait training, balance/ proprioception exercises. - Straight leg raise exercises with proper quad set (standing and seated).
- Passive and active range of motion exercises. Well leg cycling and upper body conditioning.
- Goals:
    - Decrease pain and edema.
    - Range of motion <90 degrees (until stitches removed).

Week 2-4:

- PA visit at 10-14 days for dressing change and checkup.
- Manual: Continue with soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.
- Exercise: Continue with home program, progress flexion range of motion, gait training, soft tissue treatments, and balance/proprioception exercises.
- Incorporate functional exercises as able (i.e. seated/standing marching, , hamstring carpet drags, hip/gluteal exercises, and core stabilization exercises).
- Aerobic exercise as tolerated (i.e. bilateral stationary cycling as able, upper body ergometer)
- Goals:
    - Decreased pain and edema.
    - Range of motion < 10 degrees extension to 100 degrees.

Week 4-6:

- M.D. visit at 6 weeks.
- Manual: Soft tissue treatments and gentle mobilization to the posterior musculature, patella, and incisions to avoid flexion or patella contracture.
- Exercise: Increase the intensity of functional exercises (i.e. progress to walking outside, introducing weight machines as able).
- Continue balance/proprioception exercises (i.e. heel to toe walking, assisted single leg balance). Pool work outs once incisions completely closed.
- Goals:
    - Patients should be walking without a limp. Range of motion should be 0 to 115 degrees .

Week 6-8:

- Manual: Continue soft tissue treatments, joint mobilizations, patellar glides to increase range of motion.
- Exercise: Add lateral training exercises (i.e. lateral steps, lateral stepups, step overs) as able. Incorporate single leg exercises as able (eccentric focus early on).

Week 8-12:

- Manual: Continue soft tissue treatments, joint mobilizations, patellar glides to increase range of motion.
- Exercise: Begin to incorporate activity specific training (i.e. household chores, gardening, sporting activities). Low impact activities until week 12.
- No twisting, pivoting until after week 12.
- Patients should be weaned into a home/gym program with emphasis on their particular goals