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**TOTAL KNEE ARTHROPLASTY REHABILITATION PROTOCOL**

Phase	Restrictions	Therapeutic Exercises
Phase 1: Weeks 0-2 Goals: Reduce swelling and edema, minimize pain, retard muscle atrophy, improve pain-free ROM, DVT prevention, independent ambulation	-WBAT -Ted hose to be worn at all times -Do not remove Aquacel dressing unless compromised or saturated until day 14 -No driving until d/c narcotics -Wean from assistive device as tolerated -Goal of 0-90 degrees ROM by 14 days s/p -Focus on full extension	-Edema control -Restore full ROM -Must achieve full extension by 14 days s/p -NMES -Isometric quadriceps strengthening -Heel slides, SAQ, LAQ, SLR, ankle pumps -Stationary bike for ROM – no resistance -Core strengthening program -Manual patellar mobility, manual tibiofemoral mobility -Modalities PRN
Phase 2: Weeks 3-6 Goals: Reduce swelling and edema, minimize pain, retard muscle atrophy, range of motion restoration, independent with ADLs	-WBAT -No driving until d/c narcotics -Goal of 0-120 degrees ROM by 6 weeks s/p -Maintain full extension Criteria for progression: -Normalized gait pattern -Knee extension normalized, knee flexion to at least 120 degrees -SLR 2x10 without quad lag -Minimal to no reactive pain and swelling with ADLs and PT exercises -Muscle activation and isolation are normalized	-Restore full ROM -Progress exercise program -SL balance, step ups (fwd & side), prone HS curls, heel raises -Aquatic therapy once incision is healed (~4 weeks s/p) -Focus on knee ROM, normalizing gait, hip strengthening and stability -Can return to easy lap swimming – no flip turns, no breaststroke -Stationary bike or recumbent stepper with minimal resistance -Core strengthening program

Phase 3: Weeks 7-12 Goals: Full range of motion, minimal pain, increase resistance exercises, normalize postural/pelvic and LE control with DL and SL activities	-OK to progress to strengthening exercises and functional tasks as appropriate pending no reaction pain or effusion -Increase aerobic conditioning/endurance related tasks monitoring reactive edema Criteria for discharge: -Surgeon clearance -Hamstring strength index >90% as compared to contralateral limb -Quadriceps strength index >90% compared to contralateral limb -Y-Balance anterior reach < 4cm -No complaints of pain or instability	-Wall squats, mini lunges, step-ups progress to single leg, step downs, 4-way hip, leg press with low resistance high reps, open chain knee exercises -Week 8: Full squat to 70 degrees, side steps with band, heel taps, resisted walking, advanced bridges, SLS and balance progressions (unstable surface, ball toss, etc.) -Core strengthening program -LE strengthening tasks progressed to multi-planar movements emphasizing core stability and hip/knee control -Proprioception progressed with variability of surfaces, perturbations, UE or trunk movements -Progression towards sport-specific tasks as indicated -Functional progression including but not limited to: • Cutting, crossover, carioca, etc. • Plyometric exercises as appropriate to patient goals: med ball work, sled drills • Agility drills: shuffles, ladder footwork, cone drills, z-cuts, w-cuts, multi-planar sport specific drills
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