Accelerated ACL Protocol

Post Op Day 0 - 3

- CPM 8 hours/day
- Muscle stimulator 4 times/day, 15 minute sessions
- WBAT with brace locked and crutches
- Cryotherapy every 2 hours

Post Op Day 4

Equipment

- Extension brace locked when ambulating, crutches as needed for balance
- Unlock brace for sitting to allow flexion
- Use CPM 6-8 hours/day. Begin with full hyperextension and increase flexion by 10°/day
- Sleep either in CPM or locked brace as tolerated
- Muscle stimulator 4 times/day, 15 minute sessions

First Physical Therapy Session

- Initial measurements and assessment
- PROM as tolerated
- Gait training with necessary assistive device
- Proper exercise technique emphasized during home rehab discussion
- Kinesiotape for quad atrophy or edema

Home Rehab Plan

- Strength
  - Quad sets (with and without stimulator)
  - Straight leg raises (without brace if minimal lag)
  - Mini squats (progress from two legs to one)
  - Weight shifting and balance work
- Motion
  - Knee extension with weight (ice) on knee and heel propped
  - Knee flexion with belt or seated off table w/ uninvolved leg
  - CPM – 4-6 hours/day
  - Stationary Bike if available
- Cryotherapy
  - 15-20 minutes, every 2-3 hours, in full extension

Week 2

Equipment

- Continue to increase CPM range of motion until maximum range
- Hinge the ELS brace for gait when good quad activation and at least 0° extension is achieved
- Continue with quad stimulator as prescribed, progressing to Short Arc Quads with stim.

Therapy Additions

- Biodex PROM for extension as needed
- Treadmill forward/retro for gait training
- Leg Press/Shuttle
- Isometrics (90-60°)
- Terminal Knee extensions with bands
- Beginners balance training – BOSU/Airex

Home Program Additions

- Lateral Step Ups
- Short arc quads
- Patellar mobilizations
- Hamstring/Calf/Psoas stretches

Week 3

Equipment

- Discontinue ELS brace when normal gait is achieved
- Discontinue CPM when full ROM reached comfortably
- Continue with muscle stimulator as needed, increase intensity

Therapy Additions

- Biodex isometrics at 90/60/45 degrees (5-10 sec holds)
- Add eccentric training to leg press
- Stepmill
- Light shuttle bounding/weightshifting

Home Program Additions

- Biking/Elliptical for endurance
- Pool work if available
- Prone hangs with overpressure

Week 4

Equipment

- Discontinue muscle stimulator when good contraction is achieved

Therapy Additions

- Biodex AAROM (slowly progress from quick to slow speeds)
- Hip/Core training (Stability)
- Intermediate balance training – (eg. BOSU ball toss)
- Light footwork (lateral shuttle, line jumps)

Home Program Additions

- Split Squats
- Isotonic leg extension with ankle weights <5#

Weeks 5 -7

Therapy

- Achieve and maintain full ROM
- Focus on quad strength via Biodex A/AAROM, Stairmill, Shuttle
- Agility – shuttle jumps, Medicord drills, ladder drills
- STM/ASTM as needed for knee mobility
- Trial short jogging stints

Home Program Additions

- Cardio training as effusion permits – Elliptical/Stairs
- Focus on quad strength and maintaining motion
- Angled squats

Weeks 8-10

Therapy

- Advanced balance training
- Box Jumps, Plyometrics, Lateral Training
- Biodex testing at high speeds (180/240/300 °/sec)
- Eccentric leg extension training

Home Program Additions

- Introduce sport specific exercise
- Train according to testing deficits
- Increase running speed/distance progressively

Weeks 11-16

Therapy

- Continue all strengthening as indicated by clinical exam
  - Hamstring/Quad ratio of 66% or greater
  - Quad ratio of 85%
  - Jump test ratio of 85%
- Increase endurance with regards to sport specific needs
- Assess and integrate hip/core strengthening
- Assess ankle stability and running biomechanics

Home Program Additions

- Progress sport specific exercise intensity
- Continue all previous exercises with focus on increasing muscular endurance and strength
- Add hip/core strengthening as needed

Weeks 17-24

- Return to sport as instructed by surgeon/therapist per clinical examination
- Continue with all previous ROM and strength training as needed throughout return to activity
- Patient must maintain full ROM without pain and joint effusion prior to advancing to full activity