PHYSIOTHERAPY GUIDELINES FOR MR PIMPALNERKARS PATIENTS FOLLOWING ACL RECONSTRUCTION

Hamstring graft

0 - 14 days

Goals:

- 1. Maintain passive straight knee
- 2. Minimise swelling
- 3. Ensure patella remains mobile

Action:

- 1. Splint worn at all times except when showering
- 2. Weightbearing as tolerated with splint start at 50% and increase as tolerated to full weightbearing.
- 3. Cryo cuff applied for 20 minutes every 2 hours
- 4. Remove tubigrip after 48 hours
- 5. Advise no driving for 6 weeks
- 6. Arrange physio appointment at 14 days post-op and provide contact number

Exercises:

- 1. Static Quads
- 2. No active knee flexion
- 3. Perform patella mobilisations as instructed

14 - 28 days

Goals:

- 1. $0-90^{\circ}$ range of movement active flexion
- 2. Maintain passive straight knee
- 3. Minimise swelling
- 4. Ensure patella remains mobile

Action:

- 1. Begin weaning off splint as instructed by consultant
- 2. Weightbearing as comfortable with elbow crutches
- 3. Cryo cuff applied 20 minutes every 2 hours
- 4. Begin soft tissue mobilisation to hamstring donor site

Exercises:

Mobilising: 10 reps x 5 daily

- 1. Active knee flexion $0 90^{\circ}$ Heel slides supine
- 2. Passive knee extension rolled towel under ankle
- 3. Perform patella mobilisation as instructed.

Strengthening 10 reps x 5 daily

- 1. Static Quads
- 2. Hamstring curl in prone

4 - 6 weeks

Goals:

- 1. Maintain knee extension at 0°
- 2. Range of movement 0° 110°
- 3. Full weightbearing without crutches
- 4. Hamstring strength achieve 2 sets of 10 reps hamstring curls with theraband
- 5. Quads strength achieve 1 set of 15 reps 1/3 double leg squats

Action:

- 1. Continue weaning off splint if necessary
- 2. Aim for full weightbearing
- 3. Monitor and control swelling, use ice as appropriate

Exercises:

Mobilising

- 1. Passive knee extension rolled towel under ankle
- 2. Prone knee hangs
- 3. Heel slides in supine
- 4. Wall slides lie supine on floor with foot on wall and let gravity assist flexion
- 5. Hamstring stretches
- 6. Calf stretches

Stengthening: 2 x 10 reps 3 x daily

- 1. Hamstring curls in prone
- 2. Seated hamstring curls with Theraband
- 3. Floor bridges, progress to single leg as appropriate
- 4. Weight transference exercises in standing
- 5. ½ double leg squats
- 6. ¹/₄ double leg squats with ball between knees
- 7. Posterior gluteus medius in side lying
- 8. Resisted hip adduction with Theraband in standing
- 9. Calf raises

Proprioception:

1. Single leg stands

Additional Options

Stepper/x-Trainer/Stationary bike (low resistance)

6 - 8 weeks

Goals:

- 1. Improve proprioception and balance
- 2. Range of movement $0 130^{\circ}$
- 3. Up to 20 30 minutes aerobic activity
- 4. Hamstring/gluteal strength 1 set of 20 double leg bridges on gym ball
- 5. Quads strength -1 set of 20 1/3 single leg squats

Exercises:

Mobilising

Exercises 1 - 6 plus quads stretch

Strengthening: 3 x 10 reps 3 x daily

- 1. Prone hamstring curls plus resistance
- 2. Double leg bridging on gym ball progress to single leg as able
- 3. Single leg 1/4 squats progressing to single leg 1/3 squats
- 4. Double leg squats with Theraband under feet
- 5. Double leg squats with gym ball against wall
- 6. Single leg calf raises

Proprioception:

1. Single leg stands on trampette/sit-fit.

Additional options As for 4 – 6 weeks plus

- 1. Leg press
- 2. Hamstring curls (machine)
- 3. Pool walking program and flutter kick

9 – 14 weeks

Goals:

- 1. Full range of movement
- 2. Up to 40 minutes aerobic activity
- 3. Quads strength achieve 3 sets of 10 controlled step downs
- 4. Hamstring / Gluteal strength 1 set of 20 single leg bridges on ball
- 5. Proprioception 10 single leg squats on trampette

Exercises:

Continue with all stretches

Strengthening: Progressing to 3 sets of 20, aiming for 4-7 sessions per week.

- 1. Progress to single leg 1/3 squats to deep single leg squats (+/- ball against wall)
- 2. Controlled step downs
- 3. Static lunges progressing to dynamic lunges
- 4. Sustained bridge on ball with closed chain knee flexion/extension
- 5. Machine hamstring curls

Proprioception:

- 1. Single leg stand on trampette/sit-fit/throw and catch ball/eyes closed
- 2. Single leg dips on trampette/sit-fit
- 3. Dynamic lunge onto sit-fit

Plyometric:

At 12 - 14 weeks, if patient has necessary control, progress them gradually onto plyometric work.

- 1. Speed skating
- 2. Jogging on trampette
- 3. High knees against resistance
- 4. Hopping 2 forward, 1 back (+ Theraband)
- 5. Side/side step work
- 6. Forward hops and skips
- 7. Jump dips between cones
- 8. Slalom hopping

Additional options:

At 9 weeks Begin biking outdoors

Jogging in water

At 12 weeks Progress jogging on level ground

Return to sport class if appropriate

15 weeks onwards

- Progress to normal swimming and progress gym work as appropriate.
- ♦ Start sports specific training eg: for racquet sports. Start lunge/pivot activities or running/dribbling drills for footballers.

6 months onwards

• Return to sports training wearing a brace as advised.

12 months post-op

• Return to contact sports if indicated by consultant