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REHAB PROTOCOL: High Tibial Osteotomy and ACL Reconstruction

Name: _____

Date: _____

Diagnosis: _____

Date of Surgery: _____

Phase I –Immediate Postoperative Phase (Day 1-5)

- **Goals:**
 - o Diminish swelling/inflammation (control hemarthrosis)
 - o Diminish postoperative pain
 - o Initiate voluntary quadriceps control
 - o Independent ambulation
- **Brace:**
 - o Brace for ambulation only (POD 1 to Week 6)
- **Weight-bearing**
 - o Non-weightbearing x 6 weeks
- **Swelling/Inflammation Control**
 - o Cryotherapy
 - o Compression bandages
 - o Elevation & ankle pumps
- **Range of Motion**
 - o Full passive knee extension
 - o Flexion to 45° (day 1-4)
 - o Flexion to 60° (day 5)
 - o PROM and gentle AAROM only
- **Flexibility**
 - o Hamstring and calf stretches
 - o PROM/AAROM within ROM limitations

Phase II –Acute Phase (Week 2-8)

- **Goals:**
 - o Control swelling and pain
 - o Promote healing of realignment tibial tuberosity
 - o Quadriceps strengthening
- **Brace**
 - o Continue brace for ambulation only
 - o Discontinue brace (week 8)
- **Weight-bearing**

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- o Unlock brace for ambulation week 4
- o Non-weight bearing x 6 weeks
- o Partial weight-bearing 6-8 weeks
- o Discontinue Crutches at Week 8
- **Swelling/inflammation**
 - o Continue use of cryotherapy
 - o Compression bandage
 - o Elevation
- **Range of motion**
 - o PROM/AAROM exercises
 - o ROM 0-75° (week 1-3)
 - o ROM 0-90° (week 4)
- **Muscle Retraining**
 - o Electrical muscle stimulation to quads
 - o Quad setting isometrics
 - o Straight leg raises (flexion)
 - o Hip adduction/abduction
 - o Hip extension
 - o GENTLE submaximal isometric knee extension
 - o Week 4
 - § Light leg press
 - § Vertical squats (no weight)
- **Flexibility**
 - o Continue hamstring, calf stretches

Phase III –Subacute Phase “Motion” Phase (Week 9-11)

- **Goals**
 - o Gradual improvement in ROM
 - o Improve muscular strength and endurance
 - o Control forces on extension mechanism
- **Weight-bearing**
 - o One crutch (week 4-6)
 - o Discontinue crutch (week 6)
- **Range of motion**
 - o PROM 0-115°
 - o PROM 0-125°
 - o PROM 0-125/135°
- **Exercises**
 - o Continue electrical muscle stimulation to quadriceps
 - o Quadriceps setting isometric
 - o Hip adduction, abduction, and extension
 - o Vertical squats
 - o Leg press
 - o Knee extension light (0-60°)
 - o Bicycle (week 6-8)
 - o Pool program [walking, strengthening (when able)]
- **Flexibility**
 - o Continue all stretching exercises for LE

Phase IV –Strengthening Phase (weeks 12-16)

- **Criteria to Progress to Phase IV**
 - o ROM at least 0-115 degrees



- o Absence of swelling/inflammation
- o Voluntary control of quads

• **Goals**

- o Gradual improvement of muscular strength
- o Functional activities/drills

• **Exercises**

- o ½ vertical squats (0-60°)
- o Wall squats
- o Leg press
- o Forward lunges
- o Lateral lunges
- o Lateral step-ups
- o Knee extension (60-0°)
- o Hip adduction/abduction
- o Bicycle
- o Stairmaster

Phase V –Return to Activity Phase

• **Criteria to enter Phase V**

- o Full non-painful ROM
- o Appropriate strength level (80% or greater of contralateral leg)
- o Satisfactory clinical exam

• **Goals**

- o Functional return to specific drills

• **Exercises**

- o Functional drills
- o Strengthening exercises
- o Flexibility exercises

Comments:

Frequency: _____ **times per week**

Duration: _____ **weeks**

Signature: _____

Date: _____

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