Rehabilitation Following ORIF Patella

I. Immediate Postoperative Phase (Days 1-7)

**Goals:**
- Restore full passive knee extension
- Diminish pain and joint swelling
- Restore patellar mobility
- Initiate early controlled motion
- *Controlled forces on repair site

**Postoperative Days 1-4**

- **Brace:** Drop locked brace locked at 0° extension with compression wrap
  - Sleep in brace.

- **Weight bearing:** Toe touch WB with two crutches.

- **Range of motion:** Passive knee flexion 0-30°
  - * NO Active knee flexion

- **Exercises:**
  - Ankle pumps
  - Quad sets
  - Patellar mobilization
  - Hip abd/adductions
  - EMS to quads during active contractions

- **Ice and elevation:** 20 minutes of each hour at elevate

**Postoperative Day 4-7**

- **Brace:** Continue use of brace (sleep in brace locked)

- **Weight bearing:** Locked brace two crutches, WBAT

- **Range of motion:** Passive knee flexion 0-45°
  - * NO Active knee flexion

- **Exercises:** Continue all listed exercises
  - Initiate gravity eliminated SLR flexion (assisted)

- **Ice and elevation:** Continue ice and elevation

II. Maximum Protection Phase (Weeks 2 to 6)

**Goals:**
- Control forces on healing tendon
- Gradually increase knee flexion
- Restore full passive knee extension
- Restore patellar mobility
- Retard muscular atrophy

**Week 2:**

- **Brace:**
  - Continue use of locked brace (6 weeks)
  - Sleep in brace (4 weeks)
• **Weight bearing:**  WBAT (usually 50-75% BW)

• **Range of motion:**  PROM knee flexion 0-45°
  * No active knee flexion
  Full passive knee extension
  Patellar mobilization

• **Exercises:**  Electrical muscle stimulation to quads
  Quad sets
  Ankle pumps
  Hip abd/adductions
  Gravity eliminated SLR flexion

• **Ice and elevation:**  Continue ice, elevation and compression

**Week 3:**

• **Exercises:**  Continue above mentioned exercises

• **Range of motion:**  PROM: 0-60°-75°

• Continue use of two crutches – 75-80% BW with locked knee brace.

**Week 4:**

• Continue all exercises listed above

• **Weight bearing:**  Progress to one crutch (at 28 days)

• **PROM:**  0-75°-90°
  * NO Active knee flexion

• **Exercises:**  Initiate mini-squats (0-45°)
  Initiate weight shifts

**Initiate proprioception drills**

**Weeks 5-6:**

• Discontinue use of crutch at 5 weeks postop

• **Brace:**  Unlock brace for ambulation at 6 weeks

• **Range of motion:**  AROM, AAROM
  Week 5: 0-90-100°
  Week 6: 0-115°

• **Exercises:**  Initiate pool exercise program
  Active knee extension 90-30°
  Multi-angle isometrics knee extension (submax)
  Continue all exercises listed above

**Initiate anti-gravity SLR flexion**

• Continue ice, compression and elevation as needed
III. Moderate Protection Phase (Weeks 7-16)

**Goals:**
- Control forces during ambulation and ADL’s
- Progress knee flexion ROM
- Improve lower extremity muscular strength
- Restore limb confidence and function

**Weeks 7-10:**
- **Brace:** Use postop brace unlocked for ambulation until 7-8 weeks (or until determined safe)
  - Discontinue sleeping in brace

- **Range of motion:**
  - Week 7: 0-115/120°
  - Week 8: 0-125°
  - Week 10: 0-125°

- **Exercises:**
  - *Gradually increase muscular strength*
  - Straight leg raises (flexion)
  - Hip abd/adduction
  - Knee extension 90-0
  - ½ squats
  - Leg press
  - Wall squats
  - Front lunges
  - Lateral lunges
  - Calf raises
  - Hamstring curls (restricted ROM) (Week 10-12) MD decision
  - Proprioception drills
  - Bicycle
  - Pool program

**Week 8:** Initiate Active Knee Flexion (NO Isotonics)

**Weeks 12-16:**
- **Range of motion:** Week 12: 0-125°

- **Exercises:**
  - *Continue all exercises listed above*
  - Initiate lateral step-ups
  - Initiate front step-downs
  - Initiate backward lunges
  - Walking program
  - *No sports!

IV. Light Activity Phase (Months 4-6)

**Goals:**
- Enhancement of strength, endurance
- Initiate functional activities
- Improve tensile strength properties of tendon

- **Exercises:**
  - Continue strengthening exercises
  - Continue emphasis on eccentrics and functional exercises
  - *May initiate plyometrics (month 5)
*May initiate agility drills (lateral shuffle) month 5
*If appropriate!
*May initiate light running months 5-6

V. Return to Sport Activity Phase (Months 7-9)

Criteria to Return to Activities:

1. Satisfactory clinical exam
2. Satisfactory strength
3. Proprioception test 80% > of opposite leg
4. Appropriate rehab progression

Goals:

Gradual return to full-unrestricted sports
Continue strength program
Continue functional/agility drills

Exercises:
Continue strengthening exercises
Continue agility program
Continue sport specific training