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Autologous Chondrocyte Implantation (Trochlea/Patella)

Name: _____

Date: _____

Diagnosis: _____

Date of Surgery: _____

Phase I (Weeks 0-12)

Weightbearing:

- o Weeks 0-2: Non-weightbearing
- o Weeks 2-4: Partial weightbearing (30-40 lbs)
- o Weeks 4-8: Continue with partial weightbearing (progress to use of one crutch at weeks 6-8)
- o Weeks 8-12: Progress to full weightbearing with discontinuation of crutch use

Bracing:

- o Weeks 0-2: Hinged knee brace locked in extension- remove for CPM and rehab with PT
- o Weeks 2-4: Locked in extension for weight bearing - Can open brace for NWB ROM 0-30°
- o Weeks 4-6: Open brace to 30° for ambulation
- o D/C brace at 6 weeks post-op

Range of Motion - Continuous Passive Motion (CPM) Machine for 6-8 hours per day for 8 weeks

- o Set CPM to 1 cycle per minute - set at 0-30° for first 3 weeks
- o Starting at week 3 increase flexion 5-10° per day until full flexion is achieved
- § Should be at 90° by week 6 and 120° by week 8
- o PROM/AAROM and stretching under guidance of PT

Therapeutic Exercises

- o Weeks 0-4: Straight leg raise/Quad sets, Hamstring isometrics
- § Perform exercises in the brace if quad control is inadequate
- o Weeks 4-10: Begin isometric closed chain exercises
- § At week 6 can start weight shifting activities with operative leg in extension
- o At week 8 can begin balance exercises and stationary bike with light resistance
- o Weeks 10-12: hamstring strengthening, theraband resistance exercises 0-30°, light

open-chain

knee isometrics

Phase II (Weeks 12-24)

Weightbearing: Full weightbearing with a normal gait pattern

Range of Motion - Advance to full/painless ROM

Therapeutic Exercises

- o Gait training/treadmill use at slow-moderate pace
- o Progress balance/proprioception exercises
- o Start sport cord lateral drills

Phase III (Months 6-9)

Weightbearing: Full weightbearing with a normal gait pattern

Range of Motion - Advance to full/painless ROM

Therapeutic Exercises

- o Advance closed chain strengthening/Start unilateral closed chain exercises
- o Progress to fast walking and backward walking on treadmill (add incline at 8 months)
- o Start light plyometric training

Phase IV (Months 9-18)

Weightbearing: Full weightbearing with a normal gait pattern

Range of Motion - Full/Painless ROM

Therapeutic Exercises

- o Continue closed chain strengthening exercises and proprioception activities
- § Emphasize single leg loading
- o Sport-specific rehabilitation - jogging/agility training at 9 months
- o Return to impact athletics - 16 months (if pain free)

Maintenance program for strength and endurance