Rehab Practice Guidelines for:  
Proximal Realignment Surgery

Assumptions: Soft tissue healing for the proximal repair (4-6 weeks)

Primary surgery: Medial re-alignment of the VMO  
Secondary surgery (possible): Limited lateral release

Precautions:  
- WBAT in immobilizer first 4 weeks  
- No NMES over the VMO (Protect suture repair)  
- Perform protected electrical stimulation program  
- No restrictions on passive knee ROM

Expected # of visits: 20-36 visits

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Treatment</th>
<th>Milestones</th>
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| Early Post-Op Phase | Protected Electrical Stimulation Program  
Knee stabilized isometrically at 30 degree knee flexion  
**Patella taped medially**  
Electrodes over proximal and distal quad (Do not place stim over the VMO, go proximal)  
10 second on/50 second off  
10-15 contractions | Full active quadriceps contraction with superior patellar glide  
Full passive knee extension  
WBAT in immobilizer (use crutches until safe without) |
| In immobilizer and using crutches for ambulation  
2-3 times / week | Treat impairments  
- Improve quadriceps strength and control  
- Active superior patellar glide | |
| TOTAL VISITS 2-3 visits | Prevent lateral scarring  
Include ITB stretching in clinic and home  
Modalities for pain control of distal ITB/Lateral PF ligament (PRN) | |
| TOTAL VISITS 2-3 visits | | |
| Weeks 2-6 | Intermediate Post-op Phase | Full knee extension and flexion to 90° by week 2  
Knee flexion > 120° by week 6  
SLR without quad lag by week 6  
Ambulating without an immobilizer by week 6 |
|-----------|-----------------------------|-----------------------------------------------------------------------------------|
|           | In immobilizer or locked knee brace until week 4 for ambulation  
2-3 times / week |  |
| **TOTAL VISITS** | 12-18 |  |
|           | Incision Site Desensitization (PRN)  
Restore patellar mobility (clinic and home program), active and passive superior glide  
If flexion ROM is a concern, can use a hinged knee brace, locked during ambulation |  |
|           | Gait training:  
+ quad lag need to be in immobilizer or locked knee brace and/or crutches  
- quad lag can DC the immobilizer |  |
|           | 4-6 weeks: Begin closed chain activities: i.e.-partial wall squats |  |

| Weeks 7-16 | Late Post-Op Phase | Full ROM  
Ambulating without a brace  
Running progression initiated when: quadriceps index ≥ 80%, ROM is full and patient is ≥ 12 weeks post-op |
|------------|-------------------|-----------------------------------------------|
| 1-3 times / week | Resistive quad exercise may progress to angles greater than 30-40 degrees of knee flexion  
NMES may progress to angles greater than 30°  
No MVIC until 8 weeks |  |
| **TOTAL VISITS** | 20-36 |  |

**Considerations:**
1. Full functional return for ADL’s expected in 3-4 months
2. No Burst testing and Functional Hop testing until 16 weeks post-op
3. Return to Sports expected in 4-6 months