

Stage	Objectives	Treatment Details
Pre-operative		Restore full knee range of motion (ROM), maximise lower limb strength (focus on VMO and gluteal complex) Educate on post-operative rehabilitation; Fit and supply PF brace; teach PF taping techniques
Weeks 0-2	Soft Tissue Strengthening Mobility ROM Bracing	Swelling reduction & regular icing (20 min. every 2-3 hours) Compression with tubigrip, regular rest and elevation, encourage calf and quads contractions Hamstring, calf and ITB stretches Static and inner range knee contractions (0-30°), calf pumps, hip coronal and sagittal resistance exercises Full Weight Bearing with crutches until balance and gait pattern normalises Active and passive ROM (0-90°) PF brace over tubigrip from day 1
Weeks 2-6	Soft Tissue Strengthening Mobility ROM Bracing	Medial PF glides to commence (no lateral glides) Daily scar massage Progress to eccentric WB quads sets (with hip in neutral and internal rotation only) Employ biofeedback when appropriate Stationary bike Low resistance squat and leg press (0-45°) Gait re-training aiming to optimize heel strike and toe off Gradual restoration of full active and passive ROM PF brace over tubigrip
Weeks 6-12	Soft Tissue Strengthening Aerobic Bracing	Commence lateral, superior and inferior PF glides Foam roller for ITB, gluts, calf and HS releases Progress to gym-focused program Leg press and squat (0-60°), calf raises, hip abduction, hip adduction, hip flexor, HS curls Proprioceptive re-training eg wobble board and mini-tramp No open chain exercises, deep lunges Add elliptical trainer / stepper machine / rower machine Freestyle swimming to commence PF taping during rehabilitation; PF brace during all other activities
Weeks 12+	Strengthening Bracing Sports-specific activities	Progression of gym-based rehabilitation as above with increased resistance Discard PF brace during normal activities; PF taping during sports for minimum 1-2 years Commence jogging and swimming with flipper 2 -3 months PEP program including lateral movements, single leg hops and landing techniques Return to sports once all mile stones met and cleared by SKS surgeons