

SUPPLEMENTARY FILE 3: Early intervention versions discussed with stakeholders

Possible intervention components discussed with patient and public involvement partners

- **Supervised rehabilitation:** ≤6 physiotherapy sessions over ≤6 months of tailored advice, exercise, and strategies to support exercise adherence
- **Self-managed rehabilitation:** 1 physiotherapy session of advice, exercise, and provision of materials to help participants independently manage their recovery with an optional additional phone/video appointment for participants struggling with their exercises

Possible intervention components discussed with expert physiotherapists

Component	Supervised rehabilitation	Self-managed rehabilitation
Mode	Initial appointment: face-to-face Review appointments: face-to-face or remote (video preferable to phone)	Face-to-face
Assessment	Should we require assessment of: Leg strength objectively Proprioception (if so, how?) 1 leg max hop for distance	¹ N/A
Advice	Covers: Patellofemoral anatomy What a patellar dislocation is What to expect after a patellar dislocation Self-help strategies Role of exercise in recovery Long-term management (staying active and maintaining a healthy weight)	As per supervised rehabilitation plus return to sport advice
Exercise ²	ROM: Knee flexion Knee extension Leg strengthening: Quadriceps and glutes focussed (closed chain) Intensity 4-6 on modified Borg scale Proprioception: Static balance Single leg squat Hop progressions Running progressions Add unstable surfaces? Add exercises incorporating whole kinetic chain?	ROM: Knee flexion Knee extension Leg strengthening: STS STS bias on injured leg Single leg STS Single leg STS add weight with backpack Proprioception: Sing leg stand with/without support Single leg squat with/without support Hops with progressions
Duration	≤6 sessions or require 6 sessions Over max of 6 months Session duration not discussed	1 session Lasting 45-60 minutes
Strategies to support exercise adherence	Exercise planning Goal setting Assess confidence to adhere to prescribed exercise Assess barriers to adherence Exercise diary Exercise sheets with instructions and pictures	Not discussed as none planned
Other modalities	Cold therapy in acute stage Mobilisations, electrotherapy, and taping not part of intervention	As per supervised rehabilitation

¹Had been decided this would follow physiotherapists' normal practice; ²Pictures of the leg strengthening, balance, and running exercises used in our preliminary study were also shown; Max: maximum ROM: range of movement; STS: sit to stand