**Annex 1.**  **Our accelerated rehabilitation program**

Necessary conditions for hospital discharge

Swelling and pain control

Full passive extension of the knee

Active ROM 0° to 90°

Good leg muscles control

Full weight-bearing without postoperative brace

Weeks 2 to 4 after surgery

Full passive and active extension

Minimal swelling

Active flexion up to 1200 - 1300

Physiological gait pattern

Prevention of muscle atrophy

Closed kinetic-chain exercises

Proprioception exercises

Weeks 5 to 8 after surgery

Full active ROM

Open kinetic-chain exercises

Muscle endurance exercises

Muscle power exercises

Isokinetic training

Advanced proprioception exercises

Coordination training

Weeks 8 to 12 after surgery

Muscle power training for all muscle groups with maximum load

Gradual explosiveness muscular contraction training

Outdoors cycling with maximum load

Jogging

3 months after surgery isokinetic Endurance test is performed on the Biodex Pro 4 with angular velocity of 180°/s in the range of motion from 200 to 900 flexion in the knee, 25 repetitions. Based on the test results the patient is allowed to start with more complex functional activity.

Postoperative month 3 to 4

Muscle power gain of all muscle groups

Athletic training

Jumping activities

Sports specific training

Avoiding forced rotational movements and uncontrolled jumps

Postoperative month 5 to 6

Muscle power gain of all muscle groups

Accelerated preparation to the full loads in sports

Sprint, shuttle run cutting maneuver, running with change in direction, running between obstacles, weights

Sports specific training

At 6 months after surgery isokinetic Endurance and Power tests measurements, measurements with KT - 1000 arthrometer and functional tests are performed. Based on the results of measurements the evaluation is given either patients are ready for full sports activity.