**Supplemental Digital Content 3.** Home training program V2\*-V3\*\* (weekly resistance training on the ergocycle & evaluation methods)

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| **D 1: Training session** | **10’ Warm-up (30 Hz)** | **FES-cycling training (60 Hz)**   1. The participant starts arm-cranking to initiate movement with a resistance set to the level determined during the evaluation test 2. The participant gradually increases intensity until autonomous cycling (without arms) is achieved. 3. Initial stimulation intensity should be similar to the initial intensity of the previous session 4. Intensity can be increased to obtain efficient contractions for an active cycling. Intensity is adjusted as required (i.e. if muscular fatigue occurs) up to the maximum. | * If this is not enough to sustain cycling for 20-30min, cycling should be supported by the arms, just enough to maintain movement. The main load should be performed by the legs. * If after 30min of cycling, it is still possible to cycle, increasing the resistance by one level every 5 minutes is recommended. |
| **D 2: Rest** | |
| **D 3: Training session** | **10’ Warm-up (30 Hz)** |
| **D 4: Rest** | |
| **D 5: Training session** | **10’ Warm-up (30 Hz)** |
| **D 6: Rest** | |
| **D 7: Evaluation session** | **5’ Warm-up (30 Hz)** | **Evaluation test (60Hz)**   1. The participant starts arm-cranking to initiate movement with a resistance set up at level 1. 2. The participant increases intensity until cycling without arms is achieved. | After each minute of active cycling,   1. Resistance is increased by one level. 2. Stimulation intensity is adjusted as required (i.e. if muscular fatigue occurs) up to the maximum.   The test stops when active cycling (without arms) is no longer possible. |
| **D 1: …D7 :…** |  |  |  |
| **Warm-up modalities** | | **Devices and parameters used** | **Patient’s positioning: sitting position on a wheelchair attached to the ergocycle)** |
| 1. The participant starts arm-crank training on the ergocycle. 2. The stimulation intensity that triggers a 1/5 MRC muscular contraction is set up. Legs are moved passively during this time, helped by the upper limbs. 3. Resistance and cycling speed are adjusted to meet the targeted HR of 60 to 70% of the HR max (aerobic zone) | | * Ergocycle Berkelbike Fitness® * Portable stimulator BERKELBIKE FES Box® with 8 cables and electrodes (left Q, right Q, left H and right H) * BerkelBike cycling software -Berkelbike BV The Netherlands-.   Parameters of stimulation: Biphasic rectangular current pulses, frequency 30Hz (warm-up) or 60Hz (evaluation test and training), pulse duration: 450µs, Maximal intensity: 120mA. Stimulation steps (button click) = 3mA. Resistance levels: 8,7, 6, 5, 4, 3, 2, 1 (8 = the strongest resistance) Pattern: Original Berkelbike pattern |  |

D, Day; W, Week; HR, Heart Rate; Q, Quadriceps; H, Hamstrings; mA, milliAmperes; MRC, Medical Research Council. \*Phase V2: Three 30-minute resistance training sessions per week with a 48h rest between sessions; \*\*Phase V3: Two to four resistance training sessions per week with a 24 to 48h rest between sessions