Notes:

1. Isometric Vastus medialis
   - Sitting with rolled towel under knee.
   - Turn your foot outwards slightly then straighten your knee.
   - Feel on the inside of your knee for the activation of the inner quad (VMO)
   - Ensure that the inner quad (VMO) activates before the outer quad

   Sets: 3  Repetition: 10  Frequency: 2 x / day  Hold: 5 - 10 sec.

2. Strengthening Quadriceps
   - Position knee over a rolled towel bending to about 30 degrees.
   - Push your knee onto the roll and straighten knee fully by lifting the foot as high as possible.
   - Focus on tightening / squeezing the inner quad (VMO)
   - Slowly lower the leg to starting position and repeat.

   Sets: 3  Repetition: 10  Frequency: 2 x / day

3. Strengthening ASLR
   - Lie on your back with one knee bent and the affected leg completely straight.
   - Lift your leg off the bed to 45 degrees keeping it straight.
   - Focus on squeezing the inner quad (VMO)
   - Lower the leg slowly to starting position and repeat.

   Sets: 3  Repetition: 10  Frequency: 2 x / day

4. Isometric Vastus medialis
   - Sitting at edge of a bed with ankle crossed and a rolled towel between the thighs.
   - Squeeze your legs together and activate the inside of your thighs without contracting the outside of your thighs.
   - Try to extend your leg by pushing your bottom foot against the top foot as much as you can without moving.
   - Relax and repeat the exercise straightening your leg a bit more each time.

   Sets: 3  Repetition: 10  Frequency: 2 x / day  Hold: 5 - 10 sec.

5. VMO strengthening
   - Sit on a chair and place a small ball or a rolled towel between your knees. You want to have your leg at hip width. Extend your legs while squeezing the ball then repeat

   Sets: 3  Repetition: 10  Frequency: 2 x / day
6. Isometric wall squat

- Have your back supported on a wall and feet slightly in front of you.
- Place a small ball between the legs and squeeze lightly as you lower yourself to bend the knees and hips at 90° just as you were sitting in a chair.
- Push through the heels to hold yourself in the position for the required time.

7. Biofeedback VMO

- Stand with the injured leg forward.
- Place one hand over the inside of the knee, just above the knee cap and the other hand over the outside thigh.
- Transfer your weight forward by tightening the muscle under the inside hand and relaxing the outside muscle.
- Return and repeat.

Sets: 3  Repetition: 10  Frequency: 2 x / day

8. Strengthening Vastus medialis

- Stand with your feet apart and facing outwards.
- Slowly drop down into a squat with open legs keeping your knee cap aligned with 2nd toe.
- Slowly return to standing position by pushing through heels to activate your buttock.
- Special Instructions:
  - Maintain proper low back posture (slightly arched) and stability of the knees (avoid any lateral movements).

Sets: 3  Repetition: 10  Frequency: 2 x / day