# Physical Therapy Practice Guidelines for Persons with Bleeding Disorders:

# **Iliopsoas Bleed**

The following practice guidelines were developed through the consensus of the therapists that work with patients with bleeding disorders and edited by the National Hemophilia Foundation's Physical Therapy Working Group. The information contained in the practice guidelines is not intended in any way to be used as primary medical advice or to replace medical advice. They are intended to guide the physical therapist caring for individuals with bleeding disorders in the important factors and elements of quality care.

#### Signs and Symptoms

- Hip held in flexion/pain with hip extension
- Pain in groin/abdominal/low back region/LE; worse with attempted hip extension
- Difficulty with/inability to stand completely erect or lie flat
- Difficulty with/inability to walk
- Painful to palpation over psoas muscle
- Femoral nerve symptoms (L2,3,4): sensory and/or motor impairment of involved lower extremity
- Quadriceps fasciculations
- Diminished/Absence of patellar reflex
- Quadriceps atrophy or muscle inhibition
- Complex fluid visible in muscle tissue on MSKUS

## **Differential Diagnosis**

- Visceral pathology (appendicitis, gallbladder, kidney stones, etc.)
- Hip joint bleed
- Abdominal muscle bleed
- Retroperitoneal bleed
- Lumbosacral pathology
- Hip pathology (arthritis, labral tear, avascular necrosis, tendonitis, bursitis, fracture, etc.)

### **PT Intervention**

Acute Stage: pain present at rest and with all activity

- Factor correction and possible hospital admission per medical team orders
- Bedrest with hip in position of comfort (usually hip flexion)
- TTWB for limited mobility to bedside commode or wheelchair only
- Active range of motion exercises of uninvolved muscles (avoiding pain and activation of iliopsoas)

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- Avoid unsupported sitting
- Discussion of pain management with medical team

Subacute Stage: Pain-free at rest, pain with some activity/pain with hip extension

- Factor correction per medical team orders
- TTWB with assistive device household distances without increase in pain
- Isometric and AROM exercises without increase in pain
- Gradually increase hip extension ROM with positioning in prone over pillows and in supine without increase in pain
- Gradual return to basic ADLs without an increase in pain

Rehabilitation Stage: pain free with basic ADLs, residual musculoskeletal impairments

- Factor correction per medical team orders
- Progress to weight bearing as tolerated, wean assistive devices
- Progress to pain-free ROM, strength, balance and functional mobility
- Postural re-education
- Education regarding proper strengthening and stretching principles, risk for rebleed, signs/symptoms of rebleed
- Gradual return to prior level of function in all domains

### **Treatment Considerations**

- Re-bleeding is common, patients should be closely monitored for increased pain or loss of ROM with medical intervention as needed
- Assess for femoral nerve palsy; consider use of electrical-stimulation and/or bracing as needed
- Specific hip flexor stretching and core stability exercises when appropriate for return to sport/work
- Treatment will vary based on individual needs. Duration of rehab should be determined by resolution of pain and recovery of full hip range of motion.
- With appropriate factor coverage, grade I-II hip joint mobilizations, traction or psoas soft tissue mobilization

### **Precautions/Contraindications**

- Individuals with inhibitors: Please contact the physical therapist at your regional Hemophilia Treatment Center (HTC) for more information on these complex patients
- Avoid use of heat modalities including ultrasound: refer to MASAC Guideline #130
- Avoid passive stretching, joint manipulation greater than grade II and aggressive soft tissue mobilization

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PT – Iliopsoas Bleed PT Guidelines Appendix F



#### **References:**

- 1. A.A. Ashrani, J. OSip, B. Christie, NS Key: Iliopsoas hemorrhage in patients with bleeding disordersexperience from one centre; Haemophilia (2003), 9, 721-726
- 2. Burgess A, Douglas D, Grubish L. Emergency department presentation of iliopsoas hematoma in a severe hemophiliac. *Am J Emerg Med.* 2018;36(3):529.e3-529. doi: <u>http://dx.doi.org/10.1016/j.ajem.2017.12.035</u>.
- Enseki K, Harris-Hayes M, White DM, Cibulka MT, Woehrle J, Fagerson TL, Clohisy JC; Orthopaedic Section of the American Physical Therapy Association. Nonarthritic hip joint pain. *J Orthop Sports Phys Ther.* 2014 Jun;44(6):A1-32. doi: 10.2519/jospt.2014.0302.
- 4. Kameda T, Fujita M, Takahashi I. Diagnosis of traumatic iliopsoas hematoma using point-of-care ultrasound. *Critical Ultrasound Journal*. 2011;3(1):59-61. doi: <u>http://dx.doi.org/10.1007/s13089-011-0065-4</u>.
- 5. Laumonier T, Menetrey J. Muscle injuries and strategies for improving their repair. *Journal of Experimental Orthopaedics*. 2016;3(1):1-9. doi: <u>http://dx.doi.org/10.1186/s40634-016-0051-7</u>.
- 6. R. Beyer, J. Ingerslev, B. Sorenson: Current Practice in the management of muscle hematomas in patients with severe hemophilia: Haemophilia (2010), 16, 962-931
- 7. Torres GM, Cernigliaro JG, Abbitt PL, et al. (1995) Iliopsoas compartment: normal anatomy and pathologic processes. *Radiographics*. 1995:15:1285-1297.

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