Standards of Physiotherapy Care
for Persons with Bleeding Disorders

2021
Introduction: These Standards were originally developed in 2018. Revisions to this 2020 version include:

- Updated references
- New section on Physiotherapy before and after MSK surgery
- Revisions to the discussion points for each standard

Additional modifications were made to align these guidelines with the 2020 Canadian Hemophilia Society *Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders*. [https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/](https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/)

Key revisions to the integrated comprehensive standards included:

- The standards apply to “the entire family of inherited bleeding disorders”, not only to hemophilia
- The standards apply to all Persons with a Bleeding Disorder (PWBD) regardless of gender at birth
- The term Hemophilia Treatment Center (HTC) has been replaced with Treatment Center (TC)

Finally, in light of the new products coming available we have changed “factor replacement/coverage” to *Hemostasis Management*, which could also include non-infused products like DDAVP, and non-factor products such as Emicizumab.

2020 Working group members:
Kathy Mulder, Winnipeg
JoAnn Nilson, Saskatoon
Erin McCabe, Edmonton
Standards:
1. The physiotherapist as a core team member
2. Physiotherapy assessment of acute bleeds
3. Physiotherapy treatment after acute bleeds
4. The annual assessment
5. Physiotherapy treatment of MSK complications of bleeding disorders
6. Physiotherapy before and after MSK surgery
7. Consultation with other care providers
8. Education and health promotion
9. Continuing competence
**Standard 1: Each Canadian integrated and comprehensive bleeding disorders care team includes a physiotherapist.**

**Discussion:**

Each Treatment Center (TC) physiotherapist will have:
- protected time dedicated specifically to PWBD
- sufficient training and clinical skills to provide care to the patient population served by the TC
- a designated back-up physiotherapist.

As the MSK expert on the core team, the Physiotherapist will participate in the assessment, treatment and education of each PWBD throughout the person’s lifespan. [See CLINICAL GUIDELINES for more detailed description of Assessment, Treatment and Education.]

**References:**

Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
Accessed December 14-2020

Accessed Jan 10-2021


**Standard 2: The Physiotherapist participates in the assessment of acute musculoskeletal bleeds.**

**Discussion:**
A detailed physiotherapy assessment will differentiate between MSK bleeding and MSK pain that is NOT from bleeding. This is imperative to ensure proper management and follow-up.

The TC physiotherapist should be notified of any suspected muscle or joint bleeds, either by the PWBD or the TC team member who is first contact.

PWBD who require hospital admission must be referred to Physiotherapy, and should be assessed within 24-48 hours.

The TC physiotherapist will have access to electronic communication tools, such as CBDR or iChip.

**References:**
Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/
Accessed December 14-2020


Standard 3: The physiotherapist will become involved as soon as possible after acute bleeds to assist the individual to regain pre-bleed status while preventing new injury or re-bleeding.

Discussion:
The primary goal of Physiotherapy treatment following any musculoskeletal injury is to regain pre-bleed status as soon as possible. This includes measures to:

- Promote healing
- Reduce pain
- Reduce swelling
- Restore joint range of motion
- Restore muscle length
- Restore muscle strength
- Return to regular activity, including sports

In PWBD, specific attention must be paid to the prevention of new bleeding. Therefore, the physiotherapist must be familiar with contraindications and safety precautions applicable to treating PWBD.

See CLINICAL GUIDELINES for more detailed description of treatment of acute bleeds.

References:
Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/
Accessed December 14-2020


Standard 4: The Physiotherapist will perform a complete musculoskeletal assessment annually on each patient, regardless of severity of the bleeding disorder.

Discussion:
Repeated musculoskeletal bleeding can cause altered movement patterns in the early years, and chronic hemophilic arthropathy over time.
The annual physiotherapy assessment will be guided by the ICF model, and will include a review of:
- bleeding history and
- assessment of body structures and function
- review of activities, participation
- assessment of pain

Regular assessment allows early identification of new problems before they become serious, and findings will guide treatment planning.

See CLINICAL GUIDELINES for more detailed description of Annual Assessment.

References:
Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/
Accessed December 14-2020


Standard 5: The TC physiotherapist will arrange for the provision of PT treatment (in-house or elsewhere) to address the MSK complications associated with bleeding disorders.

Discussion:
MSK complications of bleeding disorders include joint pain and stiffness, contracture and deformity, muscle imbalance and atrophy, and alterations in the individual’s ability to function and participate normally.

Physiotherapists can use their full repertoire of treatments with PWBD, according to the usual clinical indications and precautions, as long as there is no active bleeding.

The PWBD (and caregivers) and the physiotherapist will determine treatment goals and plan.

The physiotherapist will document the plan and discuss with the care team, especially if changes are being recommended to the hemostatic management plan.

Ideally, the TC physiotherapist provides the necessary PT services, but this may not always be possible. When necessary, the TC physiotherapist will facilitate referral to and consult with the treating physiotherapist.

In order to meet treatment goals, the physiotherapist will also recommend referral to Extended Team Members, such as Occupational Therapists, Pain Management Specialists, and Orthopedic Specialists.

See CLINICAL GUIDELINES for more detailed description of Treatment of Musculoskeletal Complications, and Section 7, Consultation with other Care providers)

References:
Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/
Accessed December 14-2020


Standard 6: The TC physiotherapist must participate in discussions with the core team, the surgical team and the PWBD about optimal timing, pre-operative planning and post-operative rehabilitation for all MSK procedures.

Discussion:
Prior to considering any surgical intervention, the HTC team members should ensure that all available non-invasive treatment options have been utilized, especially for people with Inhibitors.

Once it has been determined that surgery will proceed, the TC physiotherapist should establish communication with the physiotherapist from the surgical team.

The TC physiotherapist should be available as a resource to other therapists who may be involved pre-operatively, post-operatively, and during the rehabilitation period.

See CLINICAL GUIDELINES for more details regarding Physiotherapy before and after MSK surgery.

References:

Standard 7: The TC physiotherapist will be available for consultation with other care providers.

Discussion:
The TC physiotherapist will be available to consult with:
- Physiotherapists outside the TC who may be providing care for PWBD
- Other members of the core team regarding MSK assessment and management
- School personnel, sports coaches and others who may be responsible for the safety of PWBD, regarding safe and appropriate activities

The physiotherapist will also recommend and facilitate referral to other professionals as indicated - e.g. extended team members.

See CLINICAL GUIDELINES for more detailed description of Consultation.

References:
Canadian Integrated and Comprehensive Care Standards for Inherited Bleeding Disorders 2020
https://www.hemophilia.ca/integrated-and-comprehensive-care-standards/
Accessed December 14-2020

http://www.ukhcdo.org/haemophilia-associations/physiotherapy-information/
Standard 8: Physiotherapists will encourage PWBD of all ages to lead active, healthy lifestyles.

Discussion:
An active healthy lifestyle promotes cardiovascular fitness, healthy body weight, psychological well-being, and ability to maintain independence.

Fear of injury and bleeding, recent bleeding, or history of recurrent bleeding may limit a person’s ability to participate in physical activity. The physiotherapist will work with the PWBD to assist in selecting sports and activities that consider personal preferences, personal abilities and health status, and relative risks.

See CLINICAL GUIDELINES for more detailed description of Education and Health Promotion.

References:

Standard 9: The TC physiotherapist will maintain clinical competence

Discussion:
Bleeding disorders are rare, and their management is specialized and evolving quickly. Core team members must maintain and update their knowledge and skills.

In-person and on-line educational opportunities are available via World Federation of Hemophilia, Canadian Hemophilia Society, Canadian Physiotherapists in Hemophilia Care, National Hemophilia Foundation (USA), European Association for Haemophilia and Allied Disorders (EAHAD, and others.

See CLINICAL GUIDELINES for more detailed description of activities and resources to maintain Clinical Competence.

References:
Accessed December 14-2020

Canadian Alliance of Physiotherapy Regulators Core Standards of Practice for Physiotherapists in Canada – Updated December 2019
Accessed January 22, 2021

http://www.ukhcdo.org/haemophilia-associations/physiotherapy-information/

Accessed Jan 10-2021