Thames Valley
Family Health Team

Medical Directive

Title:	**Application of Liquid Nitrogen for Plantar Warts**	**Assigned Number:**	**009**
Activation Date:	**July 1, 2011**	**Review due by:**	**December 2025**

Approval Signature & Date

Medical Director: _____ Date Reviewed: January 13, 2023

Clinical Services Director: _____ Date Reviewed: January 13, 2023

Order and/or Delegated Procedure:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

Application of Liquid Nitrogen for use on plantar warts by Registered Nurses (RN)/ Registered Practical Nurse (RPN).

Recipient Patients:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

All active patients of Thames Valley Family Health Team physicians, identified on the Authorizer Approval Form, who require application of Liquid Nitrogen by Registered Nurses/ Registered Practical Nurse.

Authorized Implementers:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

Thames Valley FHT Registered Nurses/Registered Practical Nurse (RN/RPN)*

- The implementing RN/RPN must receive orientation with regards to the task by completing the Implementer Performance Readiness Form(s), (+/- quiz). The RN/RPN must sign the Implementer Performance Readiness form electronically, via HR Downloads (Appendix 8) after successful completion of the orientation (and quiz, if applicable). Following review of this directive and successful educational orientation, the Implementer Approval form must be signed electronically via HR Downloads by the RN/RPN indicating acceptance of this medical directive.

Indications:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Verbal consent received from the patient for the implementer to apply liquid nitrogen for the treatment of wart(s) on the plantar surface of feet.
2. Patient has no visible signs of infection, including redness, swelling, ulceration, blistering or purulent drainage around area to be treated with liquid nitrogen.
3. Initial diagnosis has been made by a physician or nurse practitioner and a treatment plan has been established which involves application of liquid nitrogen.

Contraindications:

1. No verbal consent from patient or substitute decision maker for implementer to implement this medical directive.
2. Patient presents with **signs of infection**, including redness, swelling, ulceration, blistering or purulent drainage around the area to be treated with liquid nitrogen.

   For these patients the symptoms are reviewed and documented by the implementer. The implementer then books the patient for an urgent appointment with the physician or nurse practitioner and/or consults with the physician or nurse practitioner for further direction on patient care in a timely manner as per usual practice.

Consent:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Patients of Thames Valley FHT family physicians
2. Implementer obtains verbal patient consent prior to the implementation of care.

Guidelines for Implementing the Order/ Procedure:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

For assessment and treatment of patients who meet the indications described above.

1. Collect all supplies: Liquid Nitrogen, Gloves, Band-Aids, Surgical Blade, Cotton-Tipped Swabs or Nozzle, and Vaseline.
2. The implementer completes an appropriate assessment of the site, in addition to collecting the appropriate health history.*
3. The implementer documents the assessment in the EMR as per the documentation guidelines below.
4. The implementer provides education to the patient around the process of treating with liquid nitrogen, the necessity of retreatment every 1 – 2 weeks until condition resolved, and the requirements of care between visits including:
   - Covering warts on feet only when required to prevent exposure of others.
   - Periodic debridement of callous and application of OTC solution: e.g. Duofilm liquid or patch, Duogel, Compound W. Soluver Original or Soluver Plus etc.
   - Keeping the area clean and dry
5. Scrape excess callous off wart using a clean surgical blade.
6. Apply liquid nitrogen to the area being treated using nozzle or cotton-tipped swab until there is a 2-mm white halo around the lesion for 10 to 20 seconds. Repeat procedure once or twice more after the white halo completely disappears (freeze-thaw-freeze technique) as needed and as can be tolerated by patient.
7. Advise patient of schedule for next appointments.
8. Patient should return for treatments every 1 – 2 weeks until the condition is resolved, or 8 treatments have occurred with no improvement necessitating referral back to the physician for review.
9. Patient response is documented by the implementer according to standard documentation practices.*

* Potter, P.A. & Perry, A.G. (2006). Fundamentals of Nursing. St. Louis: Mosby.
College of Nurses of Ontario (2008). CNO Practice Standard: Documentation

Documentation and Communication:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Documentation in the patient's medical record needs to include name and number of the directive, name of the implementer (including credential), and name of the physician/authorizer responsible for the directive and patient.

2. Information regarding implementation of the procedure and the patient's response should be documented in accordance with standard documentation practice.*

* Potter, P.A. & Perry, A.G. (2006). Fundamentals of Nursing. St. Louis: Mosby.
College of Nurses of Ontario (2008). CNO Practice Standard: Documentation

Review and Quality Monitoring Guidelines:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**
The Directive remains in force until and unless amendment occurs. Review will occur biennially or if the following situations occur: 1. In the case the Medical Director identifies the need to change the Medical Directive, at least one TVFHT member of the implementing discipline will be consulted. 2. At any such time that issues related to the use of this directive are identified, the team must act upon the concerns immediately by identifying these concerns to the Medical Director. The Medical Director will review these concerns and consult with at least one TVFHT member of the implementing discipline, before necessary changes are made. 3. If new information becomes available between routine renewals, and particularly if this new information has implications for unexpected outcomes, the directive will be reviewed by the Medical Director and a minimum of one implementer.	
Approving Physician(s)/Authorizer(s):	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**
TVFHT Family Physician Authorizer Approval Form signed in HR Downloads.	