



Taddle Creek

Family Health Team

MEDICAL DIRECTIVE

Title:	Cryotherapy - Treatment for Warts	Number:	TCFHT-MD17
Activation Date:	Mar 5, 2019	Review Date:	Jul 16, 2025
Next Review Date:	Jul 16, 2026		
Sponsoring/Contact Person(s) <i>(name, position, contact particulars):</i>	Victoria Charko, RN 790 Bay Street, Suite 522, Box 58/59 Toronto, Ontario M5G 1N8 Tel: 416-591-1222		
	Dr. Kristy Armstrong 790 Bay Street, Suite 522, Box 58/59 Toronto, Ontario M5G 1N8 Tel: 416-591-1222		

Order and/or Delegated Procedure:	Appendix Attached: ☒ No ☐ Yes Title:
Paring and application of liquid nitrogen for treatment of warts on hands, fingers and feet, in accordance with the conditions identified in this directive.	
Recipient Patients:	Appendix Attached: ☐ No ☒ Yes Title: Appendix A – Authorizer Approval Form
Recipients must: • Be active patients of a TC FHT primary care provider who has approved this directive by signing the Authorizer Approval Form • Meet the conditions identified in this directive	
Authorized Implementers:	Appendix Attached: ☐ No ☒ Yes Title: Appendix B – Implementer Approval Form
Implementers must be TC FHT-employed Regulated Health Care Providers.	
Implementers must prepare by performing/reviewing the following and then signing the Implementer Approval Form:	

- Demonstrate clinical competence and knowledge to supervising physician(s) and/or nurse practitioner and be observed on at least 3 occasions while implementing this medical directive
- Review “Cryotherapy”, “Salicylic acid” and “Duct tape” in *Cutaneous warts (common, plantar, and, flat warts)* on UpToDate, accessible at: https://www.uptodate.com/contents/cutaneous-warts-common-plantar-and-flat-warts?search=cutaneous%20warts&source=search_result&selectedTitle=1~63&usage_type=default&display_rank=1#H3140176
- Review “Salicylic acid” and “Liquid nitrogen” in *Patient education: Common warts, plantar warts, and flat warts (Beyond the Basics)*, accessible at: https://www.uptodate.com/contents/common-warts-plantar-warts-and-flat-warts-beyond-the-basics?search=cutaneous%20warts&topicRef=4029&source=see_link
- Review the Material Safety Data Sheet (MSDS) for liquid nitrogen located in each suite’s Workplace Hazardous Materials Information System (WHMIS) Binder

Indications:

Appendix Attached: ☒ No ☐ Yes
Title:

Patient has a plantar or common wart diagnosed by a TC FHT physician or nurse practitioner and a treatment plan has been established, which involves the application of liquid nitrogen.

Contraindications to paring:

- Wart roots are sufficiently exposed
- There is minimal calloused skin surrounding or covering the wart(s)

Contraindications to application of liquid nitrogen:

- Warts beyond the hands, fingers and feet
- Patient has open wounds or visible signs of infection (redness, swelling, warmth and/or purulent discharge) at the site to be treated
- Sensitivity or past adverse reaction to application of liquid nitrogen

The application of liquid nitrogen treatment can be provided to patients with the following conditions under the direction of the primary care provider:

- Pregnancy
- Compromised circulation
- Neuropathy

Consent:

Appendix Attached: ☒ No ☐ Yes
Title:

The implementer will obtain verbal consent from the patient or legal substitute decision maker and will explain any potential risks (redness, hemorrhagic blistering, pain, tenderness, local hypopigmentation, nail damage if wart near nails) and benefits to treatment, as well as expected sensation.

Guidelines for Implementing the Order/Procedure:

Appendix Attached: ☒ No ☐ Yes
Title:

Safety Precautions

Suites with liquid nitrogen must ensure the primary vessel is in a safe place, away from where patient care is provided and where the vessel could be hit and topple over. When dispensing or decanting the liquid nitrogen from the primary vessel into a smaller vessel, implementers will:

- Wear protective equipment as follows:
 - Double set of vinyl or nitrile gloves
 - Safety glasses with side shields, goggles or face shield
 - Shoes with closed toe and heel
 - Clothing, gown or sheet that completely covers arms and legs
- Dispense in a safe place using ladle provided
- Decant into a decanting vessel specifically designed for cryogenic liquid (i.e. dewar/cryospray) or use a Styrofoam cup and add a green neon sticker (available from Suite 306) indicating:



At no time will the smaller decanting vessel/Styrofoam cup, containing the liquid nitrogen, be left unattended with a patient(s).

After the patient's appointment, the unused liquid nitrogen will be left in a safe place to evaporate. A safe place is defined as a location where no one can find the liquid nitrogen and mistake it for a consumable liquid.

Authorized implementer may pare the wart(s) requiring treatment and administer the liquid nitrogen therapy upon receiving patient consent and confirming appropriateness. Universal precautions will be taken to minimize transmission of bloodborne pathogens and ensure patient safety.

The implementer performs the following:

- 1) If applicable, gently pares the excess and/or calloused skin off of the wart(s) with a sterile surgical blade to reveal the wart's roots
- 2) Applies liquid nitrogen to the wart(s) so that the frozen area extends approximately 2mm beyond the edge of the affected lesion and disappears within 30-60 seconds after application
- 3) Allows the wart(s) to thaw and then repeats this procedure up to 2 times, as tolerated by the patient

A physician or nurse practitioner must be present in the clinic for assessment and decision-making for patients should a patient experience an adverse reaction to the treatment.

This treatment should be repeated, as needed, every 2 to 3 weeks up to a total of 6 treatments. If the patient is still symptomatic after 6 treatments, the patient will be reassessed by their primary

care provider to determine the patient's response to cryotherapy and to discuss further plan of care.

Documentation and Communication:
Appendix Attached: ☐ No ☒ Yes

Title: Appendix C – TCFHT-MD17 Stamp

Implementer will document the treatment and the patient's response to it in the patient's EMR file in accordance with standard documentation practice using the stamp TCFHT-MD17_Cryotherapy_Treatment_for_Warts. Documentation needs to include the name and number of the directive. A physician or nurse practitioner will be alerted if an adverse reaction occurs. Implementer will send a message in the EMR to the patient's primary care provider, notifying him/her that the patient was seen and to review the note in the EMR for details.

Review and Quality Monitoring Guidelines:
Appendix Attached: ☒ No ☐ Yes

Title:

- Review will occur annually on the anniversary of the activation date. Review will involve a collaboration between the authorizing primary care providers and the approved implementers.
- If new information becomes available between routine reviews, such as the publishing of new clinical practice guidelines, and particularly if this new information has implications for unexpected outcomes, the directive will be reviewed by an authorizing primary care provider and a minimum of one implementer.
- At any such time that issues related to the use of this directive are identified, TC FHT must act upon the concerns and immediately undertake a review of the directive by the authorizing primary care providers and the authorized implementers.
- This medical directive can be placed on hold if routine review processes are not completed or if indicated for an ad hoc review. During the hold, implementers cannot perform the procedures under authority of the directive and must obtain direct, patient-specific orders for the procedure until it is renewed.

Reference:

Cutaneous warts (common, plantar, and flat warts), UpToDate. Accessible from:

https://www.uptodate.com/contents/cutaneous-warts-common-plantar-and-flat-warts?search=cutaneous%20warts&source=search_result&selectedTitle=1~63&usage_type=default&display_rank=1#H3140176

Patient education: Common warts, plantar warts, and flat warts (Beyond the Basics), UpToDate.

Accessible from: https://www.uptodate.com/contents/common-warts-plantar-warts-and-flat-warts-beyond-the-basics?search=cutaneous%20warts&topicRef=4029&source=see_link

Authorizer Approval Form

Last Updated 16-07-2025 by Victoria Charko, RN

Appendix B:

Implementer Approval Form

To be signed when the implementer has completed the required preparation, and feel they have the knowledge, skill, and judgement to competently carry out the actions outlined in this directive.

Name	Signature	Date

Appendix C:

TCFHT-MD17 Stamp

S:

- Requires cryotherapy treatment for wart«s» on «foot»«finger»«hand»
- «- Pt has been using OTC treatment «and pumice stone» at home»
- «- Last treated in clinic • ago, no issues with previous LN treatments»

O/E:

- •
- «- No open wounds or signs of infection at site of wart«s»»

A:

- «- Wart»«s»
- Counselling re: benefits, possible risks associated with treatment and expected sensation
- «- Lesion«s» pared gently with scalpel»«Lesion«s» not pared as roots are sufficiently exposed»
- LN treatment applied to «all» wart«s» X • using freeze-thaw method

P:

- «- Advised pt to RTC in • for next treatment»
- «- Pt referred back to PCP for reassessment as 6 treatments have been completed»
- «- Advised to «continue with»«use» pumice stone and OTC treatment in interim»