

The Newcastle upon Tyne Hospitals NHS Foundation Trust

Department of Dermatology

Direction for the administration of Liquid Nitrogen via Cry-ac Spray/Swab by nursing staff

1. Clinical Condition

Clinical Condition	Treatment of warts and mollusca
Maturity of patient	All ages
Criteria for inclusion	All patients with warts or mollusca
Criteria for exclusion	Plane Warts
Action if excluded	Patient should be referred back to referring doctor
Action if patient declines treatment	Document patients refusal in the patients medical notes and refer patient back to referring doctor
Circumstances when further advice should be sought	If there are any adverse reactions to the treatment seek advice from referring doctor

2. **Characteristics of staff**

Class of health care professional to whom PGD applies	Named Nurse
Qualifications required	Qualified as a first level registered nurse working within Dermatology
Additional requirements	The qualified nurse must have worked within the Dermatology Department Treatment area for a minimum of three months
Continuing training requirements	Attend courses relating to dermatology and a commitment to continuing updating of skills in discipline area Adhere to NMC recommendations on professional development, scope of practice and conduct

3 Description of Treatment

Name of Medicine	Liquid Nitrogen
Route of administration	Applied topically to the lesion via a cry-ac spray or cotton bud for a freeze time of between 10/25 seconds The shorter times are appropriate for warts at critical body sites e.g. the dorsum of the fingers and posterior nail folds. Mollusca can be frozen effectively with a 5 second freeze time
Pharmaceutical form and strength	Liquid Nitrogen is stored in a Dewar flask and decanted into the Cry-ac spray by the nurse wearing protective gloves and goggles
Dose	A freeze time of 10-15 seconds is appropriate for common warts Shorter times are appropriate for warts at critical sites A 2 second freeze time for Mollusca
Frequency	Applied weekly or fortnightly as prescribed by the referring doctor
Maximum period which treatment should be administered	6 treatments
Common adverse effects	Blistering may occur

Description of Treatment

Guidelines for application	<ul style="list-style-type: none">• Identify the patient as per hospital protocol• Explain the procedure to the patient using the word 'burn' to describe the effect of the treatment• Do not treat warts that are painful unless specifically requested to do so by the doctor• Liquid Nitrogen should be applied using a cotton bud or via a Cry-ac spray• All warts should be pared prior to treatment• Include a narrow rim of normal skin around the wart within the freeze zone• When applying liquid nitrogen begin the timing of the application when the entire freeze zone (i.e. the wart and rim of normal skin) turns white• Mollusca can be frozen in 5 seconds• Only use a single freeze• When using liquid nitrogen on the extensor aspects of the fingers be aware of the risk of extensor tendon rupture This will occur when the freeze extends too deeply and damages the extensor tendon To avoid this direct the Cry-ac spray at an oblique angle or manipulate the frozen wart to ensure that it is not become attached to any deeper structure• When applied to the posterior nail fold excessive freezing can cause nail dystrophy• Plane warts are largely resistant to cryotherapy
Information to patients	<ul style="list-style-type: none">• Use the word 'burn' to describe the action of the liquid nitrogen treatment• Give the patient an explanation sheet and describe how to treat any blister which may develop after treatment• Explain the pigmentation changes, which occur in the skin especially if the treatment area is of an exposed nature• Inform the patient that 25% of warts do not respond to cryotherapy and having had 6 treatment with no response to the treatment they will be considered as treatment failures and will be discharged

3 Treatment continued

Action to take if adverse effect	Treatment stopped, refer the patient to the referring doctor and record the adverse reaction in the patients notes
Records to be kept	Record all treatment details in the patients nursing kardex
Audit	Practice to be reviewed each year

Author Angela Reed

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Development Group Directorate of Dermatology

Clinical Director Dr J Mclelland

Matron/Director Manager Ms M Gray