
Title: Management of Hypergranulation tissue**Department:** District Nursing Services and PSRACS**DEFINITION**

Silver Nitrate – Silver nitrate is available in the form of a caustic applicator stick, the tip of which contains 95% silver nitrate and 5% potassium nitrate. Silver nitrate is used as a cautery. It causes a reaction that oxidises organic matter, coagulates tissue and destroys bacteria, causing the excess tissue to slough off.⁽⁴⁾

Hypergranulation tissue - An excess of granulation tissue that becomes proud or protrudes from the wound. It is commonly known as hyper or over granulation tissue (also termed 'proud flesh').⁽⁸⁾

SCOPE

District Nursing Services, Palliative Care Services and Public Residential Aged Care Services
Registered nurses or Enrolled nurses who have had appropriate the education and training

CLINICAL ALERT

- Assess patient allergy to silver
- Note that any tissue that comes in contact with silver nitrate will turn grey in color
- Do not use if infection present
- Exclude malignancy

PRECAUTIONS WITH USE SILVER NITRATE

- Requires consultation with a Clinical Nurse Consultant (CNC) prior to application. Expertise is required to ensure the area is not suspected to be malignant tissue. If any suspicion then a biopsy should be attended first
- Silver nitrate directly reduces fibroblast proliferation and therefore is not recommended for prolonged or excessive use. As a general rule silver nitrate should only be used to treat areas less than the size of a thumb nail.
- Do not to be used on infected sites
- Silver Nitrate is not to come in contact with healthy tissue or catheter or tube
- If you accidentally touch or it drips onto healthy tissue flush the area well with Normal Saline to cease the caustic action

POLICY

Hypergranulation tissue in wounds prevents epithelialisation and arrests the healing process. Prevention of hypergranulation by early recognition of risk factors and early treatment is the goal of wound management. Factors that signal the start of hypergranulation tissue need to be monitored and recorded. The following should be assessed;

- Any increase in exudate volume
- Infection or critically colonised (biofilm) wound
- Location of the wound (granuloma occur commonly at umbilicus, stoma edges)
- Concomitant treatments such as negative pressure; use of totally occlusive dressings, or ill-fitting dressings or garments.

Main factors associated with hypergranulation tissue are;

- Excess moisture

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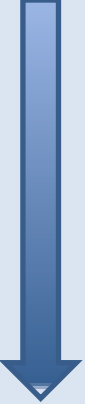
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- Critical colonisation or true infection
- Friction/movement at wound/site interface
- Foreign material
- Occlusive dressings
- Malignancy

Wound management must address the factors contributing to hypergranular tissue development to prevent recurrence.

MANAGEMENT OPTIONS

Management of hypergranulation tissue should commence with the most conservative treatment options. Conventional regimes ranging from conservative to complex include the use of;

<p>Conservative</p>  <p>Complex</p>	<p>Non-occlusive dressings –Occlusive dressing can promote growth of hypergranulation tissue. Changing to a non –occlusive dressing that has a high water vapour transmission rate reduces this risk.</p>
	<p>Hypertonic saline dressings – Mesalt[®] and Curasalt[®] use oncotic pressure to draw moisture from cells in effect having a mild anti-microbial affect.</p>
	<p>Low dose cortisone cream – The anti-inflammatory effects of cortisone promote collagen breakdown and can decrease inflammation.</p>
	<p>Conservative Sharp Wound Debridement (CSWD) – CSWD removes hypergranulation tissue and requires the clinician to have skill and competence in debridement.</p>
	<p>Silver nitrate – Silver nitrate causes a reaction that oxidises organic matter, coagulates tissue and destroys bacteria, causing the excess tissue to slough off.⁽⁴⁾</p> <p>Ensure consultation with a Clinical Nurse Consultant prior to application of silver nitrate.</p>

PROCEDURE FOR USE OF SILVER NITRATE

PREPARATION

Prior to any wound procedure ;

- Explain the treatment to the person
- Ensure the person is in a comfortable position and is able to maintain the same position throughout the procedure.
- Ensure the person has taken any pain relief medications (if required)
- Ensure privacy can be maintained for the duration of the wound procedure.

EQUIPMENT

- Basic dressing pack
- Sterile/Distilled water

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- Clean gloves
- Silver Nitrate stick
- Gauze
- Normal Saline to deactivate the action of silver nitrate on healthy skin
- Secondary Dressing
- Emollient cream eg.zinc cream

PROCEDURE

- Remove dressing and assess site for suitability
- Clean site thoroughly with sterile/distilled water
- Apply emollient cream or ointment to surrounding skin to protect if necessary
- Moisten tip of silver nitrate with minimal amount of sterile water,
- A moist or bleeding wound will be wet enough to activate the stick
- Ensure the tip is not dripping
- Carefully apply to hypergranulation tissue using a gentle rolling action,
- Ensure not to make contact with healthy surrounding skin (Patient may complain of slight burning sensation.)
- Redress with patient's usual dressing product
- Each application must be documented in the clients notes

Note that hypergranulation tissue will turn grey in color once treated.

ONGOING CARE

- The procedure may need to be repeated daily for up to 3 consecutive days maximum, then reviewed
- Assess site regularly and document in nursing file.
- Over a few days the hypergranulation tissue should darken in color, form a scab and eventually fall off (five to ten days)
- Manage contributing factors (Excess moisture; Critical colonisation or true infection; Friction/movement at wound interface; Foreign material)
- If the hypergranulation tissue remains after the scab falls off, a further course of treatment with silver nitrate may be indicated

PATIENT INFORMATION

- Careful explanation of this procedure needs to be given to the patient to ensure that they know what to expect in the coming days following treatments.
- Inform the patient that there may be some pain at the site during and after the procedure and that the tissue will turn grey in colour.

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EXPECTED OUTCOME

Use of silver nitrate will rapidly decrease hypergranular tissue and promote epithelialisation

A wound assessment chart will be completed;

- At the time of the initial assessment and following all silver nitrate application
- At any dressing change
- Following any change in treatments with rationale for such change recorded. (Eg. Change in dressing products)

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VALIDATION

Gippsland Regional Wound Management Steering Committee