



SILVER BASED DRESSINGS

EVIDENCE INFORMED PRACTICE TOOLS

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PURPOSE AND INTENT

To provide healthcare teams with guidance, information and a consistent approach to consider regarding the use of silver based dressings within the sites of the Winnipeg Regional Health Authority (WRHA)

1. Practice Outcomes

To facilitate consistency and support clinical decision making for the use of silver based dressings based on current evidence, expert opinion and clinical judgment in the management of wounds.

2. Background

The purpose of a silver based dressing is to reduce wound bio-burden, treat local infection, prevent systemic spread of infection, and reduce inflammation.

3. Levels of Evidence

There is limited evidence to support the use of silver based dressings. To date, only nanocrystalline silver dressings have sufficient evidence from *in vitro* studies to support their use in burn care¹, and therefore extending the use of these products to care of conventional wounds is difficult

4. Guidelines

4.1 Indications for silver based dressings

- Burns¹
- Toxic epidermal necrolysis syndrome (TENS)
- Wounds with high bio burden and delayed healing e.g. Pilonidal Sinus
- Wounds that have failed to improve with conventional therapy despite optimal care for a minimum of four weeks (dressings, debridement, pressure off loading, optimal peripheral perfusion)

4.2 Authorization

Those authorized to order silver are: Physicians and the following clinicians with advanced wound care preparation: Advanced Wound Care Clinicians, Clinical Nurse Specialists, Nurse Practitioners and Wound Care Champions.

4.3 Wound assessment

- Prior to the application of silver based dressings conduct a comprehensive wound assessment. See Evidence Informed Practice Tool: Wound Bed Preparation <http://www.wrha.mb.ca/extranet/eipt/files/EIPT-013-003.pdf>
- Provide clear rationale for use of silver based dressing and method proposed to measure outcomes.

4.4 Method

- It has been recommended that antimicrobial dressings should be used for two weeks initially. After two weeks the wound, the patient and the management approach should be re-evaluated.
- Document the start date of the dressing the patient's medical record to facilitate a review no later than two weeks after the commencement date.
- If after two weeks:
 - There is improvement in the wound, but there are continuing signs of infection, it may be clinically justifiable to continue the silver dressing with further regular reviews.
 - The wound has improved and the signs and symptoms of wound infection are no longer present, the silver dressing should be discontinued.
 - There is no improvement, then the silver dressing should be discontinued, conduct a comprehensive the wound assessment for the cause of the wound infection including the possibly of untreated comorbidities.
- Once the bio burden is under control and the wound is improving by a continuous reduction in size, an appropriate dressing without antimicrobial properties should be considered.

4.5 Dressing changes

- Refer to following links for dressing application and indications for dressing changes:

WRHA Advanced Wound Care Formulary:

<http://home.wrha.mb.ca/prog/clinicalinitiatives/woundcare/files/AdvancedWoundCareProductFormularyUPDATENov2017.pdf>

Home Care Product Reference Guide:

http://home.wrha.mb.ca/prog/homecare/files/wc_ProductReference_guide.pdf

4.6 Contraindications to use of silver based dressings

- Clean surgical wounds at low risk of infection, e.g. donor sites, closed surgical wounds
- Small acute wounds at low risk of infection

- Sensitivity to silver or dressing components
- During pregnancy or lactation
- When contraindicated by the manufacturer, for example, some manufacturers recommend that their silver dressings are not used during magnetic resonance imaging (MRI), or on/near body sites undergoing radiotherapy.

5. References

1. Canadian Agency for Drugs and Technologies in Health. (7 Jul 2010). Silver dressings for the treatment of patients with infected wounds: A review of clinical and cost-effectiveness. Retrieved from: <http://cadth.ca/en/products?q=silver+and+wounds>
2. International consensus. Appropriate use of silver dressings in wounds. An expert working group consensus. London: Wounds International, 2012. Available to download from: www.woundsinternational.com
3. Joanna Briggs Institute. Nanocrystalline silver dressings for wounds other than burns and donor sites. *Wound Practice and Research*. 2014; 22(2):116-118.
4. Fong J, Wood F. Nanocrystalline silver dressings in wound management: a review. *International Journal of Nanomedicine*. 2006; 1(4): 441-449.

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