

# **User Manual**

#### Woulgan

Woulgan Bioactive Beta-Glucan Gel is a treatment for both acute and chronic wounds where wound healing is stalled, or is anticipated to heal slower than normal or is at high risk of becoming stalled. Woulgan has a unique formulation with gel properties and beta-glucan which reactivates stalled healing and accelerates the healing process <sup>1,2</sup>. It is recommended to initiate Woulgan treatment after 4 weeks with standard care when the response is not satisfactory. It has been documented that a diabetic foot ulcer showing less than 40% size reduction in 4 weeks has a 91% risk of not healing in 12 weeks <sup>3</sup>. The initial healing rate of venous leg ulcers has also been shown to predict complete healing. A published algorithm suggests that <40% healing in 4 weeks indicates the risk of non-healing with conservative treatment <sup>4</sup>.

#### Indications

When wound healing is stalled or is anticipated to be slower than expected in:

WOULGAN

- Diabetic foot ulcers
- Leg ulcers
- Pressure ulcers
- Open post-operative wounds
- Partial thickness burns
- Graft and donor sites
- Abrasions and lacerations

## Wound conditions suitable for Woulgan treatment

- Dry to medium exuding.
- Partial to full thickness. Full thickness wounds might not heal with secondary intention.
- Fibrin up to 75 % of the wound surface can be covered with dry or moist fibrin. The hydrogel properties will dissolve the fibrin.
- Necrosis the wound can be covered with up to 75% yellow or black necrotic tissue. Before applying Woulgan debride according to local practice.
- Fistulas Woulgan can be used in fistulas, although some fistulas will not heal without surgery.
- Tendons and bones can be exposed. Woulgan will not harm these structures, but when tendon and bone are visible, the wound might not heal with secondary intention.
- Undermining can be present.

#### **Precautions**

- The effect of Woulgan might be reduced if the patient is treated with systemic steroids or immune suppressive treatment.
- Infection; a clinical infection should be treated according to local guidelines, but Woulgan can be used in conjunction with antimicrobial therapies.

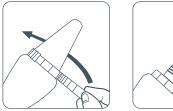
#### Contraindication

Known allergy to any of the components in Woulgan.

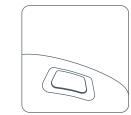
#### www.woulgan.com











#### How to apply

- Wound cleansing according to local practice
- Debride if appropriate
- Protect the wound edges, if applicable
- Cover the wound surface with a thin layer of Woulgan
- Apply a suitable secondary dressing of choice and fixate
  - Any foam dressing or wound contact layer can be used
  - Avoid using superabsorbent dressings
- Apply compression or offloading in indicated
- Apply new Woulgan at every dressing change
  Typically, twice per week

#### Look for these clinical improvements:

- Cleaner wound bed
- Healthier wound tissue
- Smaller size
- Less depth

### **Treatment period**

- Reassess after 4 weeks of Woulgan treatment and holistic patient care
- If none of the above improvements are seen, consider discontinuing Woulgan treatment
- When improvements are evident, continue for a second 4-week period or until healed. After 8 weeks treatment with Woulgan, assess healing and return to standard care if appropriate
- If the healing progression stalls or plateaus again, start another 4-week period of Woulgan treatment, assess and continue with Woulgan if improvements are seen
- If the wound deteriorates, the treatment should be discontinued. Assess possible reasons for deterioration; patient condition, clinical infection, changes in use of compression/offloading or changes in use of cleansing agents or cover dressings

#### Clinical observations when Woulgan is used

- An increase in signs of inflammation can be expected, do not confuse this with infection
- Sometimes an increase in exudate may occur after a few days

#### Woulgan is not:

- A biofilm remover
  - But Woulgan can be used after debridement and may prevent new biofilm formation
- A treatment for infected wounds, if the wound is clinically infected:
  - o Treat the infection according to local practice
  - Woulgan may be used at the same time as long as exudate level is low too moderate

#### References:

- Can activation of body's own key cells in wound healing, wound macrophages, make a positive contribution in the treatment of chronic wounds? Ingrid Skjaevelend and Rolf E Engstad, SÅR, volume 21 no 4.
- 2. Macrophage stimulating agent soluble yeast B-1,3/1,6-glucan as a topical treatment of diabetic foot and leg ulcers: A randomized, double blind, placebo-controlled phase II study. Zykova et al, Journal of Diabetes Investigation Volume 5, Issue 4 2014.
- 3. Sheehan P, Jones P, Giurini JM, et al. Percent changes in wound area of diabetic foot ulcers over a 4 week period is a robust predictor of complete healing in 12 week prospective trial. Plast. Reconstr Surg 2006; 117(7 suppl): 239S-244S
- 4 An evidence based algorithm for treating venous leg ulcers utilizing the Cochrane database of systematic reviews, Howard M Kimmel et al. WOUNDS. 2013;25(9):242-250.

