

# **QUICKGUIDE**

## **Flaminal<sup>®</sup>**

**A versatile solution  
to reduce the risk of  
infection in acute  
and chronic wounds**

 **Flaminal<sup>®</sup>**

**WOUNDS | UK**

# Use of Flaminal® in practice

**Flaminal®** is a primary wound dressing, categorised as an enzyme alginogel. Composed of a hydrated alginate matrix alongside its unique GLG — glucose oxidase combined with lactoperoxidase, stabilised by guaiacol antimicrobial enzyme system, it is safe to use on skin and wound tissue. Its various modes of action eliminate the need for multiple products.



**Autolytic debriding gel:** Continuously debrides wound by disrupting slough, devitalised non-viable and necrotic tissue



**Absorbent alginate:** Absorbs debris, bacteria and excess exudate while protecting wound edges from maceration



**Antimicrobial enzyme system:** Reduces bacteria released from biofilm (De Smet et al, 2009; Cooper, 2013)

## Flaminal® is available in two formulations:

**Forte:** Moderately to highly exuding wounds

**Hydro:** Slightly to moderately exuding wounds



**STEP UP**  
to **Forte** when  
wound exudate  
levels *increase*

**STEP DOWN**  
to **Hydro** when  
wound exudate  
levels *decrease*



## Indications:

Due to its unique composition and antimicrobial GLG enzymatic system, Flaminal® can be used on a variety of wound aetiologies, types and conditions, including acute and chronic wounds or wounds at risk of infection\* – such as:

- Leg ulcers
- Diabetic foot ulcers
- Superficial and deep partial thickness burns
- Post-surgical wounds
- Traumatic wounds
- Pressure ulcers
- Skin tears
- Wounds from radiotherapy
- Oncology wounds

\*Flaminal® (Forte and Hydro) can be used on infected wounds under medical supervision only.

How wet is the wound?

Slight to moderate exudate



Cleanse the wound if necessary

Moderate to high exudate



Cleanse the wound if necessary

Apply Flaminal® covering the entire wound bed with a layer of sufficient thickness (e.g. 4-5 mm)



Directly from the tube (e.g. shallow wounds)



Directly onto the dressing (e.g. large wounds, leg ulcers)



With a syringe (e.g. deep wounds)



With a nozzle (e.g. deep wounds)



With a spatula (e.g. large wounds, burns)

Apply secondary dressing depending on the levels of exudate

Slight exudate



Transparent film (polyurethane) or non-adherent dressing

Moderate exudate



Transparent film (polyurethane), non-adherent dressing or absorbent non-adherent dressing

High exudate



Absorbent non-adherent dressing

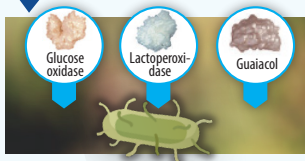
### Best practice

- Cover wound bed with a sufficiently thick layer (e.g. 4-5 mm, or thickness of a pencil eraser)
- In case of doubt over which formulation to use, start with **Flaminal® Hydro**
- If dry, whitish alginate flakes appear in the wound:
  - when using **Flaminal® Forte**, the wound may be too dry. Step down to Flaminal® Hydro
  - when using **Flaminal® Hydro**, then ensure the wound is covered by a moisture-retaining dressing. The flakes will disappear when wound moisture balance is restored
- Flaminal® can remain in place as long as gel structure is intact (1-4 days, based on exudate amount)
- No other primary dressings are needed when using Flaminal®.

### Contraindications

- ✗ Known allergy to any of the ingredients
- ✗ Do not apply to eyelids or in/near the eye.

# Antimicrobial activity of the GLG enzyme system



Within the gel, Flaminal® contains an antimicrobial GLG enzymatic complex. These naturally occurring enzymes are found in milk and secretions of exocrine glands, such as saliva, tears and cervical mucus.

They work by producing reactive oxygen radicals that destroy bacterial cell walls and fungal growth, similar to our innate white cell defences (White, 2006). Flaminal® acts only on bacteria that have been absorbed into the gel matrix and not within the wound bed, preserving essential skin and tissue

Broad-spectrum of antimicrobial activity of Flaminal® GLG enzyme system (*in vitro*) (De Smet, 2009)

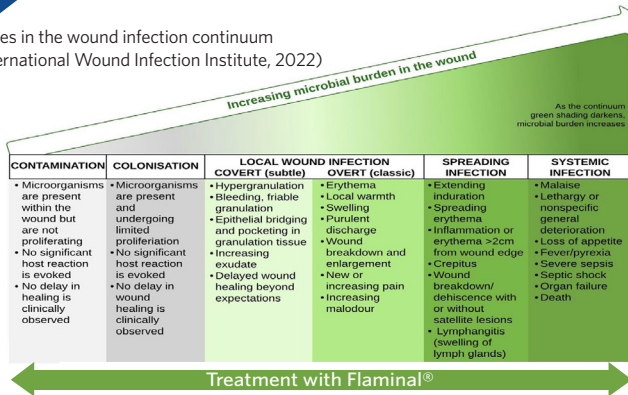
Gram + bacteria		Killed within 6 hours
	<i>Staphylococcus aureus</i> (MRSA)	
	<i>Enterococcus faecium</i>	
	<i>Enterococcus faecalis</i>	
Gram - bacteria	<i>Escherichia coli</i>	Killed within 6 hours
	<i>Klebsiella oxytoca</i>	
	<i>Enterobacter cloacae</i>	
	<i>Enterobacter aerogenes</i>	
	<i>Burkholderia multivorans</i>	
	<i>Pseudomonas aeruginosa</i>	
	<i>Stenotrophomonas maltophilia</i>	
	<i>Pandoraea apista</i>	
	<i>Achromobacter denitrificans</i>	

without cytotoxicity. It also reduces biofilm-released bacteria, protecting wounds from infection (Cooper, 2013).

To date, no instances of antimicrobial resistance (AMR) have been recorded with Flaminal® (Gottrup et al, 2013; Flen Health internal data on file, 2021).

## For all stages in the wound infection continuum

Stages in the wound infection continuum  
(International Wound Infection Institute, 2022)



## Antimicrobial stewardship (AMS)

Widespread, inappropriate antimicrobial use to treat both acute and chronic wounds with spreading and systemic infections has contributed to the rise of AMR. If no action is taken, it is estimated that antimicrobial drug-resistant diseases could cause 10 million deaths each year by 2050 (Interagency Coordinating Group on Antimicrobial Resistance, 2019).

Antimicrobial stewardship (AMS) is an approach that aims to reduce the risk of AMR through education and public awareness. It encourages clinicians to use antimicrobial treatment at the appropriate dose and duration, only when necessary, thereby avoiding unnecessary use in non-infected wounds.

The development of innovative antimicrobial wound care alternatives with minimal cytotoxicity and adverse risks, such as Flaminal<sup>®</sup>, is a key aspect of AMS and important to achieve the best clinical outcomes for patients.

## Infection prevention and AMS considerations

Debridement is key to reducing bioburden and promoting wound healing. See below for additional infection prevention and AMS practices that consider both the patient and their wound, as well as care protocol itself (Wounds UK, 2020).

Patient and wound	Protocol
<p>Implement wound bed preparation to reduce wound or skin microbial load including:</p> <ul style="list-style-type: none"><li>Debriding wound of necrotic tissue, debris, foreign bodies, wound dressing remnants and slough</li><li>Cleansing wound at each dressing change</li><li>Optimising management of comorbidities.</li></ul>	<ul style="list-style-type: none"><li>Routinely review the use of antibiotics and antimicrobials</li><li>Regularly review local policies and procedures</li><li>Remember that AMS is everybody's responsibility throughout the patient journey.</li></ul>

### References

Cooper RA (2013) *Int Wound J* 10(6): 630–7  
De Smet K, van des Plas D, Lens D, Sollie P (2009) *Wounds* 21(3): 65–73  
Flen Health (2021) Long-term efficacy of GLG

antimicrobial properties. *Internal data on file*  
Gottrup F, Apelqvist J, Bjarnsholt T et al (2013) *J Wound Care* 22 (5): S1–S92  
Interagency Coordinating Group on Antimicrobial Resistance (2019) *Report to the*

*Secretary-General of the United Nations*  
International Wound Infection Institute (2022) *Wounds International*  
White R (2006) *Wounds UK* 2: 64 –9  
Wounds UK (2020) *Wounds UK*