QUICKGUIDE

Using enzyme alginogels in the management of moisture-associated skin damage (MASD)







What is moisture-associated skin damage?

Moisture-associated skin damage (MASD) is classified as irritant contact dermatitis. It develops from prolonged exposure of the skin to various sources of moisture and irritants, such as urine, faeces, intestinal fluids, digestive secretions, mucus, saliva, perspiration and wound exudate, and in more severe cases can lead to superficial skin loss.¹



Best practice shared management principles

Although MASD subtypes vary depending on the cause and presentation, prevention and treatment rely on five consistent management principles¹:

Principle	Guidance	
CLEANSE GENTLY	Use gentle, pH-balanced cleanser; pat skin dry and inspect skin regularly. If erythema or infection risk, use short-term antiseptic as per policy	
CONTROL MOISTURE	Maintain moisture balance with absorbent dressings, wicking fabrics and barrier products. Adjust to moisture level	
TREAT FUNGAL INVOLVEMENT	Consider adjuncts with antimicrobial protection (e.g. enzyme alginogel) when infection and inflammation coexist	
PROTECT THE SKIN BARRIER	After cleansing, apply barrier film, gel or cream. If high-risk or infection suspected, use products with antimicrobial protection (e.g. enzyme alginogel)	
MANAGE ASSOCIATED SYMPTOMS	Reduce irritants (e.g. urine, faeces, exudate); use emollients/ barriers and treat fungal infection first. For severe symptoms, consider short-term topical corticosteroids under supervision	

Pathway for management of MASD using Flaminal®

PREVENT

PROTECT AND REPAIR

PROTECT AND REPAIR

REPAIR

Healthy, intact skin

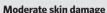


- Healthy, intact skin
- No evidence of ervthema or hyperpigmentation

Mild skin damage



Some areas of superficial skin damage, ervthema or hyperpigmentation, but skin mostly intact





- Areas of superficial skin damage, up to 50% broken down
- Exudate may be present

Severe skin damage



- Areas of superficial skin damage, more than 50% broken down
- Exudate and slough may be present

- Maintain healthy, intact skin
- Cleanse skin daily and check thoroughly for any changes; document findings
- Identify risk factors
- Apply barrier products appropriately for protection according to manufacturer guidelines

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- Apply barrier cream, film or gel according to manufacturer guidelines
- Promote good hygiene

- Cleanse skin daily and check thoroughly for any changes: document findings
- Identify risk factors
- Apply barrier cream, film or gel according to manufacturer guidelines
- Apply Flaminal® to broken down areas to prevent infection, manage exudate and keep the area clean
- Watch for signs of infection, including fungal
- Promote good hygiene

Cleanse and apply Flaminal®

Apply a sufficiently thick layer

(approx. 4-5 mm) to the wound

Flaminal® can remain in place as

long as the gel structure is intact

to broken-down areas

- Cleanse skin daily and check thoroughly for any changes; document findings
- Identify risk factors
- Apply Flaminal® to affected brokendown areas to prevent infection, manage exudate and keep the area clean
- Watch for signs of infection, including fungal (consider swabbing)
- Promote good hygiene
- Consider TVN referral
- Cleanse and apply Flaminal® to
- Apply a sufficiently thick layer (approx. 4-5 mm) to the wound Flaminal® can remain in place as long
- intact superficial skin damage

Follow local formulary guidance for barrier skin protectant products for at-risk areas

Cleanse the area and apply barrier cream, gel or film to protect skin, aid repair and prevent further deterioration



(1-4 days, depending on the level of exudate) Apply a barrier product to areas of intact superficial skin damage



- broken-down areas
 - as the gel structure is intact (1-4 days, depending on the level of exudate) Apply a barrier product to areas of

Appearance

Action

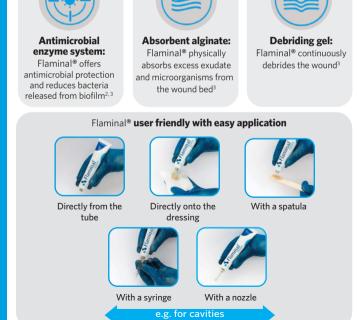
What is Flaminal®?

Enzyme

Flaminal® is a primary wound dressing, categorised as an enzyme alginogel®. Composed of a hydrated alginate matrix alongside its unique GLG antimicrobial enzyme system — glucose oxidase combined with lactoperoxidase and stabilised by guaiacol — it is safe to use on both skin and wound tissue. Its multimodal action eliminates the need for multiple products. Flaminal® can be used to treat moderate to severe types of MASD, as these often come with complications such as infection.

Algino

Gel



Antimicrobial activity of the GLG enzyme system

- Flaminal® protects the wound from infection and biofilm formation^{2,3}
- The antimicrobial GLG system of Flaminal® produces multiple reactive oxygen species that attack and damage the cell walls of microbes absorbed into the gel matrix³
- As all antimicrobial activity occurs within the gel matrix, Flaminal® is non-cytotoxic to healthy cells³, allowing effective antimicrobial protection without harming healthy tissue
- To date, no instances of antimicrobial resistance (AMR) have been recorded with Flaminal^{®4,5}

Broad-spectrum of antimicrobial activity of Flaminal® GLG enzyme system (in vitro)³		
Gram + bacteria	Staphylococcus aureus (MRSA)	Killed within 6 hours
	Enterococcus faecium	
	Enterococcus faecalis	
Gram - bacteria	Escherichia coli	
	Klebsiella oxytoca	
	Enterobacter cloacae	Killed within
	Enterobacter aerogenes	
	Burkholderia multivorans	
	Pseudomonas aeruginosa	6 hours
	Stenotrophomonas maltophilia	
	Pandoraea apista	
	Achromobacter denitrificans	
Fungi	Candida albicans	Reduced within 24 hours

Flaminal® contains an antimicrobial GLG enzyme system. These naturally occurring enzymes are found in milk and in secretions of exocrine glands such as saliva, tears and cervical mucus. They work by producing reactive oxygen species that destroy bacterial cell walls and inhibit fungal growth, similar to our innate defensive mechanisms of white blood cells⁶.

As Flaminal® is presented as a dressing in a tube⁷, it is easy to apply and can contour to wounds of any shape or size, including those in difficult-to-dress areas. This is particularly important in cases of severe MASD, where broken and exposed skin increases the risk of infection in areas prone to contamination.

References

¹Wounds UK (2025) Best Practice Statement. Understanding types of moisture-associated skin damage (MASD): prevention, identification and management Wounds UK. ²Cooper RA (2013) Inhibition of biofilms by glucose oxidase, lactoperavidase and gualacio: the active antibacterial component in an enzyme alginogel Int Wound J 10(6): 630-7. ²De Smet K et al (2009) Pre-clinical evaluation of a new antimicrobial enzyme for the control of wound bioburden Wounds 21(3): 65-73. ²Gottrup F et al (2013) EWMA document: Antimicrobials and non-healing wounds. Evidence, controversies and suggestions J Wound Care 22(5): 51-89. ²Hen Health (2021) Long-term efficacy of GLG antimicrobial properties. Internal data on file. ²Li H et al (2021) Reactive Oxygen Species in Pathogen Clearance: The Killing Mechanisms, the Adaption Response, and the Side Effects Frontiers in Microbiology 12: 685133. ²Gefen A, Weihs D, Fremau A et al (2025) Rheological Assessment for Determining Form Stability of Wound Dressinos. Int Wound 172(8): e70720

