

Understanding the factors influencing clinicians' adoption of Moisture-Associated Skin Damage (MASD) Best Practice Guidance: A qualitative interview study

Background: Moisture-associated skin damage (MASD) is increasingly recognised as a significant cause of patient harm, and the 2025 Best Practice Statement was developed to support clinicians in identifying, preventing and managing it. Implementation of best practice guidance across healthcare settings remains inconsistent, influenced by terminology confusion, gaps in dissemination and competing clinical pressures.

Aim: To explore clinicians' perceptions and use of the 2025 MASD Best Practice Statement, identify barriers and facilitators to its implementation.

Methods: A qualitative study using semi-structured interviews was conducted with 13 clinicians from acute, community, teaching and specialist services. Interviews were recorded, transcribed and analysed using reflexive thematic analysis to identify patterns of meaning. Participants included tissue viability nurses, specialist clinicians and generalist practitioners.

Results: Five themes were identified: (1) MASD terminology is widely misunderstood, with many clinicians equating MASD solely with incontinence-associated dermatitis; (2) best practice documents are valued but underused due to time pressures and document length; (3) dissemination beyond specialist teams is limited and inconsistent, resulting in siloed knowledge; (4) clinical practice is often driven by experience rather than evidence-based guidance; and (5) there is strong demand for simplified, visual and layered resources to support rapid decision-making.

Conclusion: Implementation of the MASD best practice guidance is often hindered by terminology confusion, education gaps and fragmented dissemination processes. Strengthening organisational support, enhancing multidisciplinary education and developing accessible, visual resources are essential to improving MASD recognition and promoting consistent, evidence-based care.

Karen Ousey

PhD, Professor of Skin Integrity, University of Huddersfield

Key words

- Barriers
- Best practice
- Moisture-Associated Skin Damage (MASD)
- Skin integrity
- Solutions
- Wound care

This article presents findings from semi-structured interviews with healthcare professionals and explores the factors that support or hinder clinicians in implementing the 2025 MASD Best Practice Statement within clinical settings.

MASD is an umbrella term used to describe skin damage that occurs when the skin is exposed to excessive or prolonged moisture. It has gained recognition in the International Classification of Diseases (ICD) 11th edition (ICD-11) under the umbrella of irritant contact dermatitis due to friction, sweating or contact with body fluids (code EK02.2; Best Practice Statement, 2025).

There are four categories of MASD:

- Incontinence-associated dermatitis (IAD)
- Peristomal complications associated with colostomy, gastrostomy (PEG tube), ileostomy/ileal conduit, urostomy, suprapubic catheter or tracheostomy
- Intertriginous dermatitis (intertrigo) where two skin areas touch or rub together
- Periwound moisture-associated dermatitis (Best Practice Statement, 2025).

This moisture may come from urine, faeces, wound exudate, sweat, saliva or other bodily fluids. When the skin remains wet for too long, it becomes softer, more fragile and more vulnerable to damage.

Declaration of interest

The article has been supported by an educational grant from Flen Health®. Flen Health® had no input into the study design, data collection or data analysis.

The 2025 Best Practice Statement, Understanding Types of Moisture-Associated Skin Damage (MASD): Prevention, Identification and Management, was published in November 2025 to support healthcare professionals in the early recognition, assessment and treatment of MASD. Best practice documents are intended to help clinicians deliver care that is consistent, evidence-based and aligned with recommended standards.

Although clinical guidelines are widely valued as a source of support for decision-making, adherence remains variable across healthcare settings and clinical conditions (Milchak et al., 2004; van de Klundert et al., 2010). Whether guidance is accepted and used depends on a range of factors (Smith et al., 2019), including the behaviour of clinicians and patients, as well as organisational influences. These influences may reflect healthcare professionals' knowledge and skills, or an organisation's ability to gather, adapt, disseminate and apply evidence effectively (Kilsdonk et al., 2017). As a result, developing high-quality guidance alone does not guarantee that it will be used in routine care.

Active and targeted implementation strategies are therefore required to support adoption in practice (Straus et al., 2009). In wound care, however, clinicians may face barriers to fully implementing guidance and, in some cases, may not even be aware that such best practice documents exist.

Aims

The aims of the study were to explore:

- How best practice documents are perceived and used
- Specific attitudes towards the 2025 MASD Best Practice Statement
- Barriers and facilitators to implementation
- Opportunities to improve dissemination and engagement
- How MASD is understood, recognised and managed in real clinical practice.

Methodology

Semi-structured interviews were conducted via Microsoft Teams and audio-recorded with consent by a trained researcher with qualitative research methods expertise. All recordings were stored on an encrypted server and deleted after data analysis. Analysis followed Braun and Clarke's (2006) reflexive thematic analysis approach, which allowed themes to be developed iteratively and reflexively. Ethical approval was applied for and granted via the Research and Ethical Panel, OmniaMed Communications.

Data collection

Purposive sampling was used to ensure representation from key opinion leaders and clinicians involved in the care of people with MASD. Email invitations, together with a participant information sheet and consent form, were sent to all participants before the interview, and additional clarification about the study was provided where needed. A mutually convenient time and date were agreed between the interviewer and interviewee.

Participants represented acute hospitals, community services, teaching hospitals and specialist centres, including oncology, vascular and lymphoedema services. Although up to 15 participants were originally identified, data saturation was reached by participant 13. All data were stored on an encrypted secure server, and raw data were destroyed after transcription and analysis.

Data analysis

Interviews were transcribed by the interviewer, and reflexive thematic analysis (Braun and Clarke, 2006) was used to identify patterned meanings across the data. Interviews lasted 40 to 55 minutes. Five themes were identified.

Themes

Theme 1: MASD terminology is misunderstood and a major barrier

Participants explained that MASD is commonly associated with terms such as IAD, "moisture lesions" on the buttocks or general "bottom care". This narrow understanding contributes to the perception that the MASD best practice document has limited relevance outside continence and skin integrity-related issues. As a result, several participants reported that the guidance is often viewed as unrelated to leg ulcer management, unsuitable for oncology settings and disconnected from lymphoedema care. This reinforces the assumption that MASD is not a recognised priority for the wider multidisciplinary workforce.

Across all interviews, participants consistently emphasised that clinicians tend to equate MASD almost exclusively with IAD, overlooking the broader MASD spectrum. They noted that documentation templates rarely include MASD terminology and that MASD affecting skin folds, periwound areas, peristomal sites and lower limbs is frequently missed.

Participants also described confusion around terminology and coding, which can reduce visibility in records and create difficulty during governance reviews. Some suggested that clinicians avoid using MASD terminology

because it may trigger extra reporting, or because current systems do not support it well.

This misunderstanding leads to poor recognition, inconsistent documentation and inappropriate categorisation of moisture damage. Participants commented that:

- Nurses immediately think of IAD when they hear MASD
- Periwound and peristomal MASD are rarely recognised
- MASD may be understood conceptually, but it is rarely documented
- Leg ulcer maceration is almost never labelled as MASD in practice.

It was interesting to note that only two participants highlighted they only recognised the relevance of MASD after reading the document in more depth. All participants noted that the emphasis on pressure ulcer prevention has contributed to a strong focus on IAD, particularly the need to explain that buttock damage is not necessarily a pressure ulcer. Many also felt that MASD can seem less relevant to staff in vascular, surgical, stoma, paediatric, oncology and lymphoedema services, as well as to teams outside tissue viability. This terminology gap was identified as the single most significant barrier to wider implementation.

Despite these barriers, participants who engaged with the MASD document reported practical changes in care, including:

- Rethinking the management of MASD around wounds
- Changing product selection
- Greater confidence in using dressings for severe moisture damage
- Improved assessment of mixed-aetiology MASD, including fungal, bacterial, sweat, lymphorrhoea and exudate-related causes.

Clinicians gave examples of cases in which the document changed decision-making, particularly around the use of enzyme alginogels (Flaminal®, Flen Health) for moderate to severe MASD, in cases where the risk of fungal infection is high, and when selecting other types of primary dressings. These accounts showed that the best practice document could influence real-world clinical practice when it was read and applied.

Theme 2: Best practice documents are valued but sometimes underused

Participants universally praised best practice documents as:

- Evidence-based
- Helpful for training

- Useful for standardising care and supporting junior staff
- Concise compared with major guidelines
- TVNs and junior TVNs use them all the time.

However, many participants felt that the documents are not read in full, particularly by time-pressured generalist staff, because they are often perceived as long PDF files. Common concerns included:

- The documents are too long for busy clinical environments.
- Staff tend to skim only the sections relevant to them
- District nurses are unlikely to read them because of workload pressure
- Many clinicians only hear about new documents if someone explicitly tells them
- The content is good, but the length puts people off.

This creates an implementation gap. The documents exist, are freely available online and in hard copy, but they do not consistently influence everyday practice because awareness is limited outside tissue viability teams, specialist wound care interests and academic settings.

Theme 3: Dissemination beyond specialist teams is limited and inconsistent

Dissemination was described as inconsistent, informal and largely dependent on a small number of motivated individuals. Many participants said they shared best practice documents during link nurse meetings or via the local intranet, but there was no formal organisational process for systematic distribution. As a result, generalist teams, care homes, general practitioners and allied health professionals often did not receive the documents, either because they were unaware of them or had not subscribed to relevant alerts.

Participants highlighted that:

- People do not know the documents exist unless someone tells them
- Dissemination efforts vary greatly between services
- A lack of cross-specialty sharing results in siloed knowledge
- Awareness remains local unless a tissue viability nurse actively promotes the document.

Many participants suggested that publishing houses should broaden their dissemination strategies to reach a wider multiprofessional audience, including medical staff, podiatrists, AHPs and others. They also proposed that best

practice documents could be strengthened through endorsement by professional societies beyond those aligned with tissue viability, for example, the British Geriatrics Society, oncology organisations or continence related groups, to increase visibility and use. Additionally, several clinicians advocated for a more formal, cross-organisational dissemination process, comparable to the distribution of NICE guideline alerts, to ensure consistent awareness across clinical services.

Most interviewees worked across multidisciplinary teams, but involvement and understanding of MASD varied widely. For example:

- Therapists (occupational therapists/ physiotherapists) complete skin bundles in some organisations but not others
- Nutrition services contribute to skin health in certain pathways
- Lymphoedema and GP services often overlook MASD despite its high relevance
- Paramedics encounter MASD but have minimal formal training
- Oncology, haematology, plastics, radiography, orthopaedics and geriatrics are rarely included in dissemination efforts.
- Allied health professionals often require greater confidence and more comprehensive training to contribute effectively to MASD-related care
- Allied health professionals see MASD first but don't feel able to assess it.

They also highlighted considerable regional variation in the degree of multidisciplinary team integration, noting that some areas benefit from cohesive collaboration while others experience fragmented working practices. Importantly, participants emphasised that earlier involvement of MDTs could help identify issues sooner and prevent deterioration demonstrating the value of proactive, coordinated assessment.

The consensus from all interviews was that effective MASD management requires coordinated MDT awareness, but this is currently inconsistent and siloed.

Theme 4: Clinical practice is driven by experience

Several participants noted that the prevention of MASD is not consistently prioritised in clinical practice. They reported that clinicians frequently intervene only once tissue damage has become advanced, reflecting a tendency for healthy skin care to be undervalued and insufficiently resourced. Participants also highlighted that preventive strategies lack a compelling business case, largely because the

benefits of avoided harm are difficult to quantify and therefore challenging to justify within current service pressures and funding models.

Participants highlighted that much real-world MASD management is guided by clinical judgement, habit and product familiarity. They praised the MASD document's inclusion of images showing diverse skin tones and that the visuals strongly influenced engagement, especially among busy clinicians. Several participants described how reading the MASD document directly changed their practice, especially in cases involving multiple moisture sources, fungal components or complex lower limb wounds.

Clinicians who had engaged with the MASD Best Practice Statement described several notable changes in their clinical practice. They reported increased confidence in selecting and using dressings for severe MASD, alongside a more systematic approach to categorising different MASD types. Participants also described enhanced ability to distinguish between fungal, sweat-related, exudate-related and urine-related skin damage.

Across all interviews, education emerged as one of the strongest facilitators of adoption. Effective strategies include:

- Study days
- Ward-based teaching
- Regular MDT sessions
- E-learning modules
- Visual quick-reference resources
- Patient education materials.

The group consensus was that education bridges the gap between theory and practice, ensuring clinicians understand MASD beyond IAD and can apply guidance confidently.

Theme 5: Strong need for simplified, visual, multi-format resources

This emerged as one of the strongest and most unanimous themes. All participants recognised that the best practice documents were both much needed and highly valuable and they particularly welcomed the inclusion of myths and truths sections, algorithms and flowcharts.

However, they also advocated for a range of layered, complementary resources, including:

- One-page pathways
- Made Easy versions to accompany the best practice document, supported by a QR code linking to the full guidance
- Patient and carer information leaflets to facilitate distribution during clinics and home visits.

Participants stated:

- One page of A4 – that's what people will

- actually use
- Layered resources: full document + Made Easy + patient leaflet
- Visual tools support rapid decision-making
- AHPs and carers require simple, accessible explanations
- Layered tools help bridge knowledge gaps in overstretched teams.

One participant noted their trust had already created colour-coded, single-page MASD pathways because the full documents were too long for ward nurses to reliably use.

Discussion

The analysis revealed a tension; although best practice documents are widely regarded as credible and evidence-based, they do not consistently translate into routine clinical practice. This implementation gap appears to be driven by a series of underlying barriers, including limited dissemination of guidance across multiple clinical areas and specialties, significant time constraints within clinical workflows, persistent misconceptions with a narrow understanding of MASD and insufficient organisational support for implementation. Facilitating change into practice can be challenging but embedding implementation science methods can be useful. Implementation science is commonly described as the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services and care (Eccles and Mittmann, 2006).

Wensing and Grol (2019) exploring knowledge translation in health, highlighted that decades of research suggest individuals are more likely to engage with and apply interventions when they feel a sense of ownership over them and can adapt them to suit local circumstances and preferences with local ownership being critical for long-term sustainability (Rogers, 2003). When teams are actively involved, they are better equipped to oversee implementation and adjust to evolving conditions such as new policies, shifts in funding, staffing changes or variations in the populations they serve (Chambers et al., 2013).

The challenges faced in healthcare improvement substantially vary, for example, system-level considerations are likely to be decisive in the centralisation of services, whereas individual level factors such as clinicians' habits, knowledge and behavioural patterns may be most influential in medication-related changes (Wensing and Grol, 2019).

Strategies employed to manage change do not always align well with the nature of the problem. In practice, organisational or system-level barriers are often overlooked even when identified, with a tendency to favour individually focussed solutions such as educational or psychological interventions instead (Bosch et al., 2007).

Wang et al. (2023), in their systematic review, highlight that effective use of clinical practice guidelines can provide substantial benefits for patients, clinicians and healthcare systems. These benefits include improved quality of care, reduced costs, decreased unwarranted variations in practice and fewer preventable errors and adverse events (Wang et al., 2023; Kredo et al., 2016). Providing sufficient education and training helps healthcare professionals understand the value of evidence-based recommendations, developing more positive attitudes towards guideline use. Increased familiarity with guideline content can strengthen clinicians' confidence and promote higher adherence to recommended practices (Boltin et al., 2016). Enhanced knowledge and skills also support more productive discussions between clinicians and patients, which is essential for delivering high quality care and building therapeutic relationships. Digital technologies can facilitate these educational efforts by offering online learning materials and virtual training sessions, which are particularly useful for clinicians and patients who have limited access to face-to-face sessions.

The recommendations generated through this study highlight the need for a coordinated, system-wide approach to improving implementation of best practice documents within wound care. Participants emphasised that barriers to implementation are not solely attributable to individual clinicians, but instead reflect structural, educational and organisational limitations. Strengthening accessibility and usability emerged as a key priority, with calls for publishers and authors to provide clearer, more concise resources including Made Easy summaries and one-page easy to read and understand overviews of documents which can be given to patients and their families/carers.

At the clinical team level, particularly within Tissue Viability and Wound Care services, proactive dissemination strategies, enhanced education on MASD, including clarification of its four subtypes and the development of localised care pathways were seen as essential mechanisms for improving consistency of practice. Organisational and ICB level actions

were also viewed as integral to closing the evidence–practice gap; embedding MASD training into mandatory programmes, structured review processes and promoting cross-specialty engagement were identified as strategies that could reinforce accountability and ensure sustained implementation. Finally, the incorporation of MASD and best practice guidance into undergraduate nursing and AHPs curricula was regarded as critical for establishing foundational competence and avoiding misconceptions, particularly the tendency to view MASD solely with IAD.

What can be undertaken in practice to make a difference?

The interviews indicated that best practice documents are valued as important educational and clinical resources; however, a number of barriers limit their effective implementation and the evaluation of associated outcomes. To address these challenges a series of practical strategies aimed at enhancing knowledge, clinical skills and patient outcomes in the management of MASD are presented below including:

- Engaging with local and neighbouring teams to adapt existing pathways to the local context, to avoid duplication of effort
- Adoption of a phased implementation approach, beginning with pilot wards or teams prior to broader rollout, enables identification and resolution of practical challenges before wider dissemination
- Identification of clinical champions to lead adoption of tools and educational initiatives, ensuring that responsibility is not solely placed on tissue viability nurses, lead wound care nurses or lymphoedema specialists
- Establishing clarity and consistency in terminology through the development of glossaries and targeted training is essential to support accurate identification and reporting of MASD
- Implementation of multidisciplinary educational initiatives to enhance awareness and understanding of MASD across all relevant professional groups
- Collaboration with industry partners may provide valuable support in the development of business cases, delivery of quality improvement initiatives and provision of educational resources.

Collectively, these approaches offer a pragmatic framework to support effective translation of best practice guidance into routine clinical care.

Future considerations

Future research should focus on practical, clinically relevant questions that support prevention and management of MASD. There is a need for longer term follow up to assess sustained skin integrity and recurrence of MASD. Economic evaluations would support clinicians and services to demonstrate the value of prevention including reduced rates of severe MASD and fewer escalations to specialist care. Further work is needed to evaluate whether simplified, layered resources (such as Made Easy summaries and one-page tools aimed at patients and carers) improve understanding, confidence and consistency of practice. Research exploring the impact of embedding MASD education into mandatory training and undergraduate nursing and allied health curricula is essential to address ongoing misconceptions, particularly the tendency to view MASD only as IAD. Finally, studies examining effective dissemination strategies, multidisciplinary collaboration and patient and carer experiences would support more consistent, proactive MASD care across acute, community, primary care and care home settings.

Conclusion

This study revealed barriers to the use of the MASD best practice document, stemming from misinterpretation of MASD and challenging dissemination infrastructure. Despite these challenges, clinicians value the document and express a strong desire for layered, accessible resources that can be integrated into everyday care across diverse settings. It highlights a clear opportunity of strengthening education, improving dissemination pathways, expanding MDT involvement and creating simplified, visual tools which can enhance MASD recognition and management.

Acknowledgements

I would like to thank all participants for their time, expertise and honesty. Your engagement made this study achievable.

References

- Best Practice Statement (2025) Understanding types of Moisture-Associated skin damage (MASD): prevention, identification and management. London: Wounds UK. Available to download from: www.wounds-uk.com
- Boltin D, Kimchi N, Dickman R, et al (2016) Attitudes and practice related to *Helicobacter pylori* infection among primary care physicians. *Eur J Gastroenterol Hepatol* 28:1035–40.
- Bosch M, Van der Weijden T, Wensing M, Grol R. Tailoring quality improvement interventions to identified barriers: a multiple case analysis. *J Eval Clin Pract*. 2007;13:161–8.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Chambers DA, Glasgow RE, Stange KC. The dynamic

- sustainability framework: addressing the paradox of sustainment amid ongoing change. *Implement Sci.* 2013;8(1):117. <https://doi.org/10.1186/1748-5908-8-117>.
- Eccles MP, Mittman BS. Welcome to Implementation Science. *Implement Sci.* 2006;1:1.
- Kilsdonk E, Peute LW, Jaspers MWM. Factors influencing implementation success of guideline-based clinical decision support systems: a systematic review and gaps analysis. *Int J Med Inform.* 2017;98:56–64
- Kredo T, Bernhardsson S, Machingaidze S, et al. Guide to clinical practice guidelines: the current state of play. *Int J Qual Health Care* 2016;28:122–8.
- Milchak JL, Carter BL, James PA, Ardery G. Measuring adherence to practice guidelines for the management of hypertension: an evaluation of the literature. *Hypertension.* 2004;44(5):602–8.
- Rogers EM. Diffusion of innovations. New York: Free Press; 2003.
- Straus SE, Tetroe J, Graham ID. Knowledge translation in health care: moving from evidence to practice. 2nd ed. Chichester, UK: Wiley-Blackwell/ BMJ; 2009. p. 1–318.
- van de Klundert J, Gorissen P, Zeemering S. Measuring clinical pathway adherence. *J Biomed Inform.* 2010;43(6):861–72.
- Wang T, Tan J-YB, Liu X- L, et al. Barriers and enablers to implementing clinical practice guidelines in primary care: an overview of systematic reviews. *BMJ Open* 2023;13:e062158. doi:10.1136/ bmjopen-2022-062158
- Wensing, M., Grol, R. Knowledge translation in health: how implementation science could contribute more. *BMC Med* 17, 88 (2019). <https://doi.org/10.1186/s12916-019-1322-9>