



London North West
University Healthcare
NHS Trust

The relevance of skin tones in the diabetic foot

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Royal College of Podiatry conference 2023



Facts



'A major contributing factor to morbidity and mortality in people with diabetes is inadequate foot care and its associated complication' (NHS England 2017)



Approximately 60,000 people with diabetes present with DFU every year in England (NHS Digital 2023)



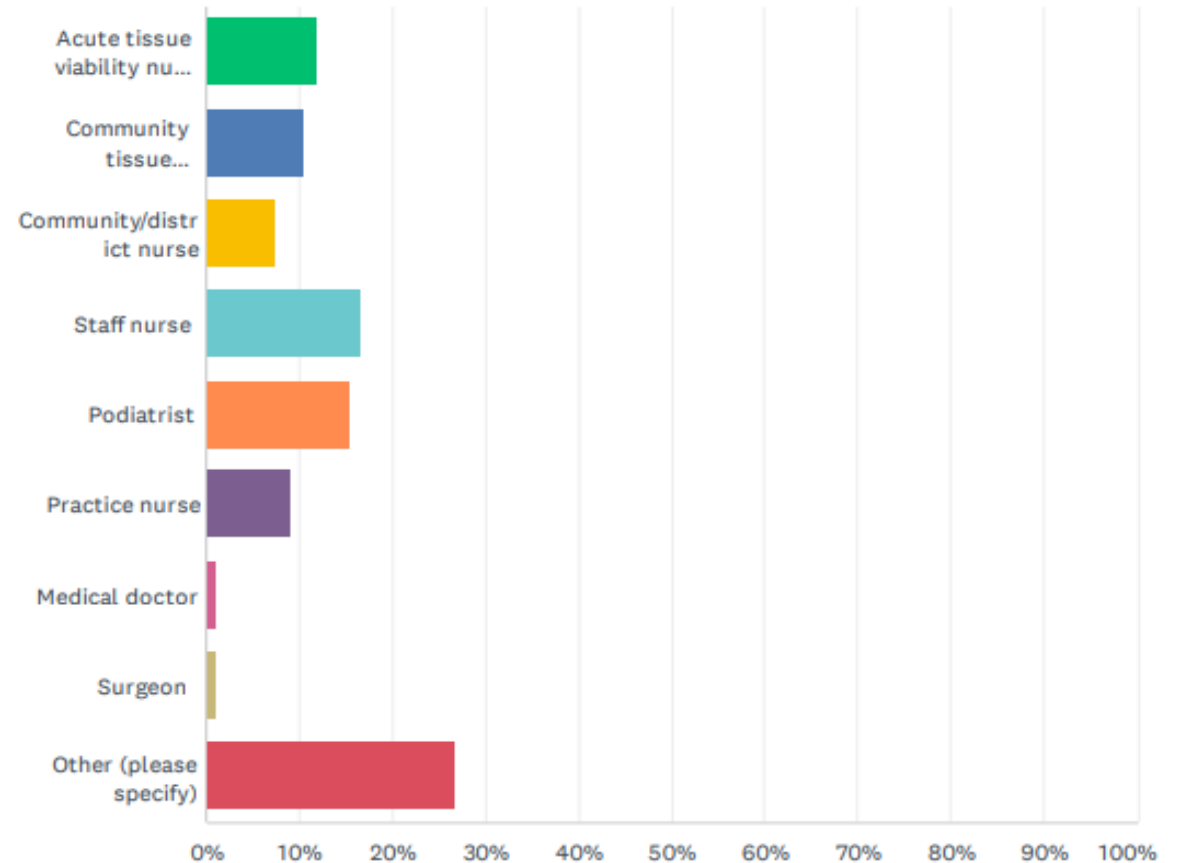
Relevant assessment and proactive foot care has the potential to ease the burden and reduce healthcare costs (Abraham et al 2022)



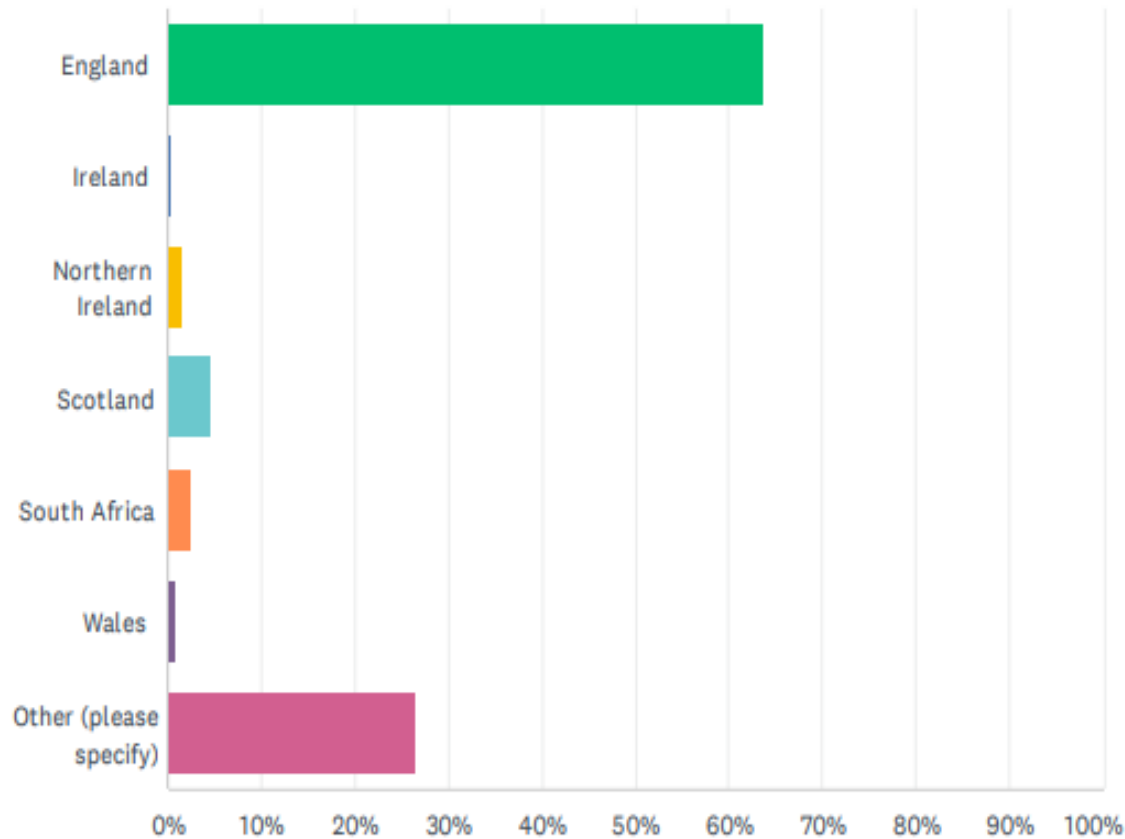
However,... the challenges of assessing the skin of patients with dark skin tones is widely acknowledged

Survey response

- 266 healthcare professionals

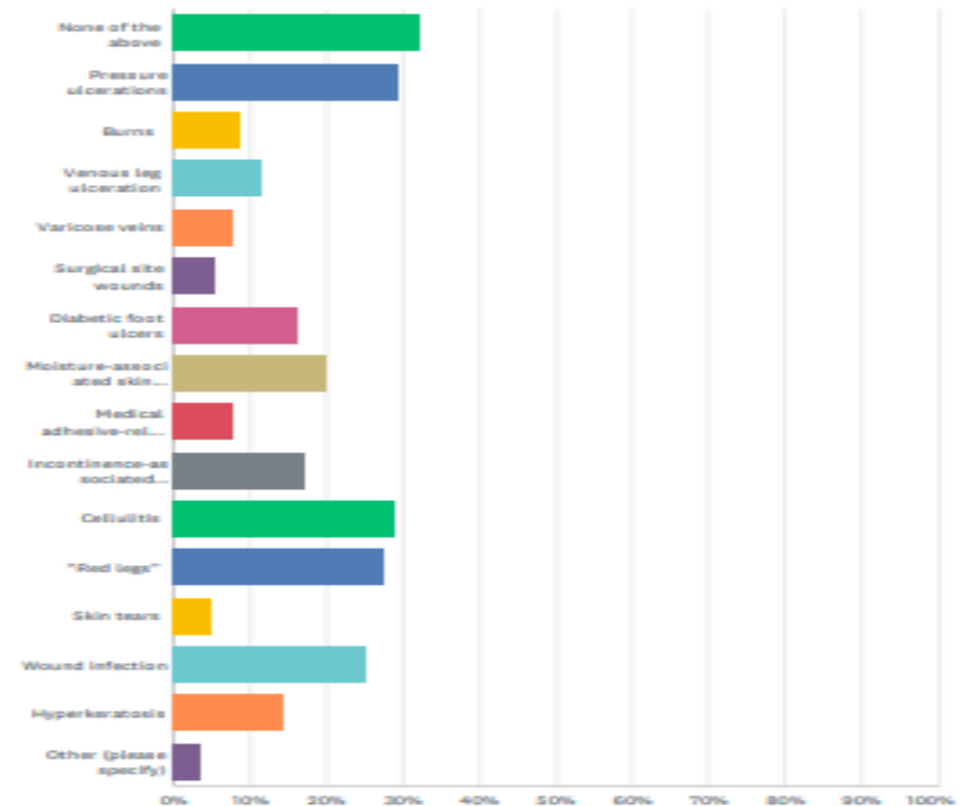
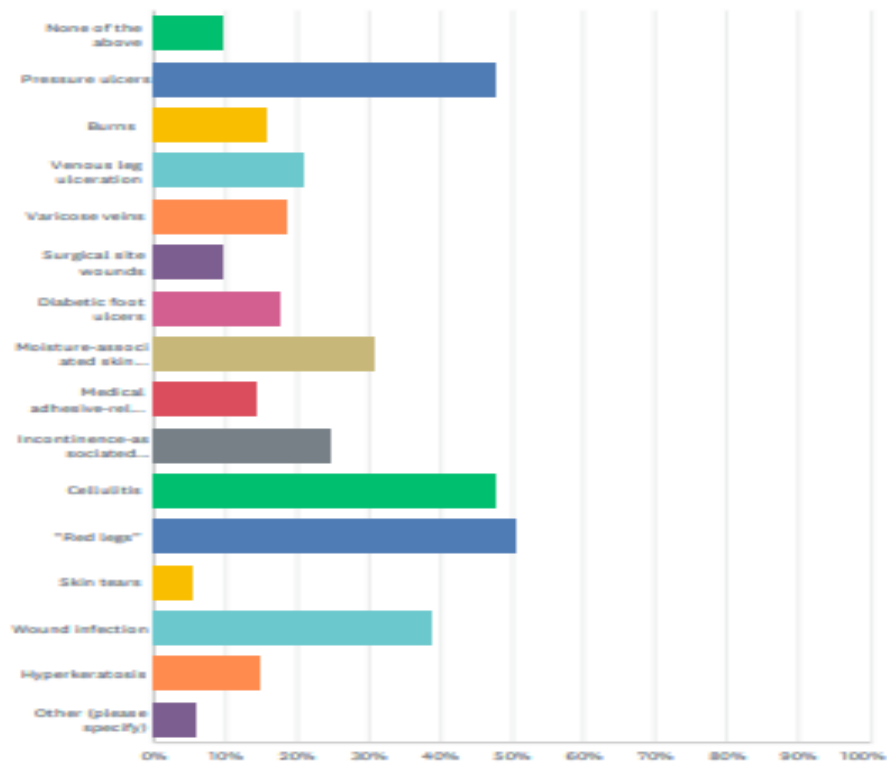


Assessing dark skin tone is not just here.. it is global



Challenges in assessment and management

- Most responded: **Cellulitis**, Red legs, Pressure ulcers and **Wound infection**



Practical aspects and communication

- Recording of skin tone part of current wound assessment- 87% NO
- 17% asked patient to self identify their skin tone
- 70% do not use a colour tool bar
- 79% were comfortable talking about skin tone to patients with different skin from them
- 21% who reported feeling uncomfortable reported the following concerns:
 - Offending the patient (73%)
 - Being politically incorrect (57%)
 - Getting something wrong (51%)
 - Being called racist (37%).

Best Practice Statement

Addressing skin tone bias in wound care: assessing signs and symptoms in people with dark skin tones

2021

Assessment & diagnosis

Common wound types and issue to consider

Product selection

Education and the future

INTERNATIONAL CONSENSUS DOCUMENT



WOUND CARE AND SKIN TONE

SIGNS, SYMPTOMS AND TERMINOLOGY FOR ALL SKIN TONES



Wound Care and
Skin Tone

made
easy



The relevance of skin tones in the diabetic foot

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Pressure ulcers and
skin tone

made
easy



Incontinence-associated dermatitis (IAD)



Skin tone in the management of incontinence-associated dermatitis

Luxmi Dhoonmoon

This article is based on published research, together with the practical experience of healthcare professionals at the Complex Wound Clinic in North West London. The aim is to highlight the importance of considering skin tone when managing IAD.

[View article](#)

Moving away from erythema

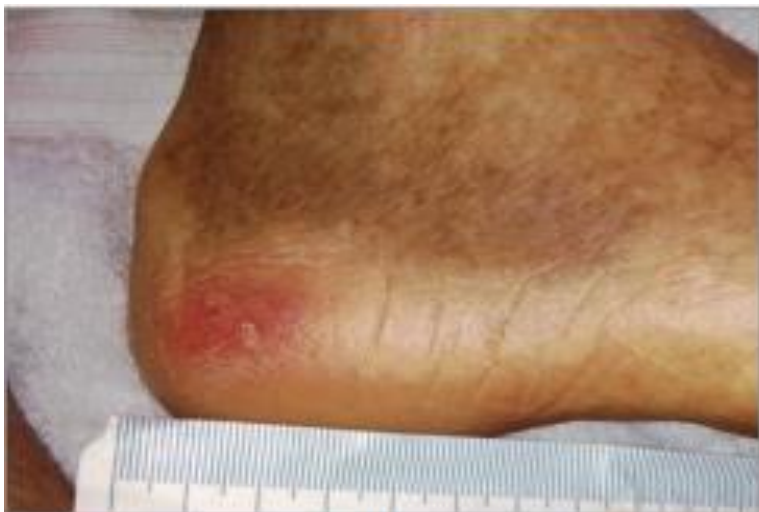


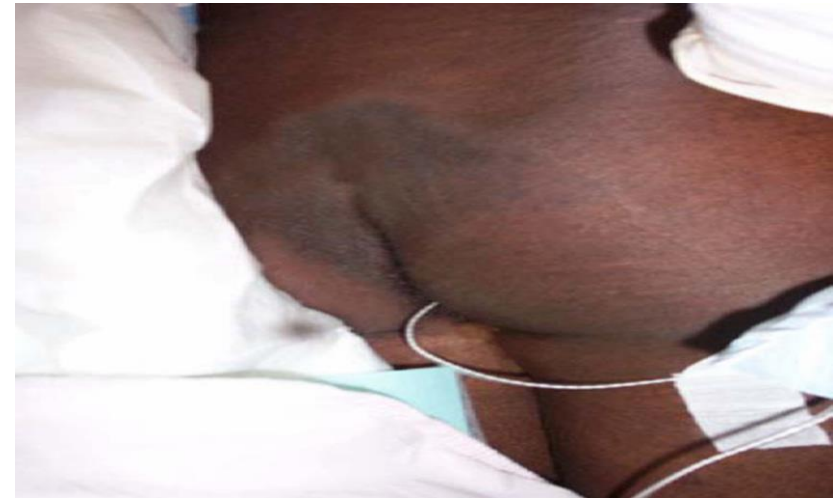
Figure 3. Category 1 PU in dark skin: the erythema is clear on the lighter sole of the foot but harder to detect on the dark skin at the side of the heel (photograph courtesy of Jacqui Fletcher)



Figure 4. Category 1 PU in light skin: the erythema is clearly demarcated across the whole wound (photograph courtesy of Jacqui Fletcher)

Case study: Spot the difference

TO REDUCE THE RISK OF ERYTHEMA (REDNESS) AND CATEGORY 1 PRESSURE ULCERS DEVELOPING INTO FULL THICKNESS WOUNDS IN PATIENTS WITH DARK SKIN TONES, IT IS ESSENTIAL FOR CLINICAL STAFF AND CARERS TO RECOGNISE THE OTHER SIGNS AND SYMPTOMS THAN CAN BE OBSERVED ON THE SKIN AS EARLY INDICATORS OF PRESSURE RELATED TISSUE INJURY



Lower limb eczema

DARK SKIN TONE



LIGHT SKIN TONE



Leg ulcers

- Leg ulcers are a wound type where skin colour changes are often used as part of clinical assessment to identify and diagnose issues such as infection and underlying pathophysiology
- Commonly used descriptors: hemosiderin staining, erythema and 'red legs'
- common complication of lower limb ulceration is cellulitis- accurate diagnosis of cellulitis in all patients can be challenging



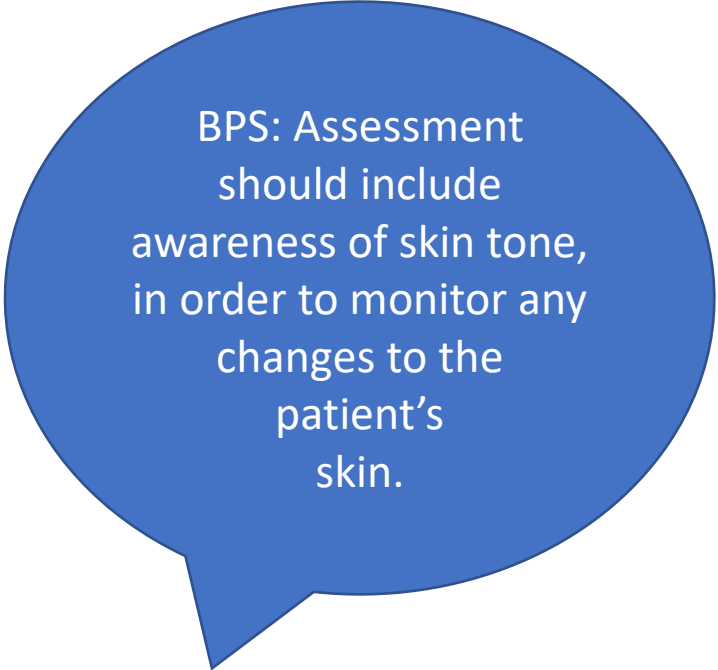
Diabetic Foot Ulcer

- Changes in colour may be difficult to spot, and 'redness' is often used as a descriptor, so any changes in colour should be assessed and monitored
- Diagnosing infection and ischaemia in people with a DFU and dark skin tones
- In patients with dark skin tones, extra care should be taken to ensure that eschar or necrosis are not incorrectly diagnosed.
- Neuropathy may be an issue, which means the patient may not be able to use pain as a sign, making thorough assessment using touch even more important
- Where possible, the affected foot should be compared to the other foot to compare skin tones



Assessment

- Use of senses- touch and feel
- asking the patient direct questions- have you notice any changes in your skin?
- What is the wound/peri-wound skin like in comparison to the surrounding skin?
- Are there any differences in colour?
- Does the skin feel warm/cool? Are there any changes in temperature?
- Does the skin feel spongy or firm to the touch?
- Does the skin look or feel shiny or tight?
- Is there any swelling or inflammation?
- Are there any changes in the texture of the skin and underlying tissue?
- How is the overall condition/integrity of the skin?
- Is there any pain, itchiness or change in sensation?



BPS: Assessment should include awareness of skin tone, in order to monitor any changes to the patient's skin.

Identifying infection

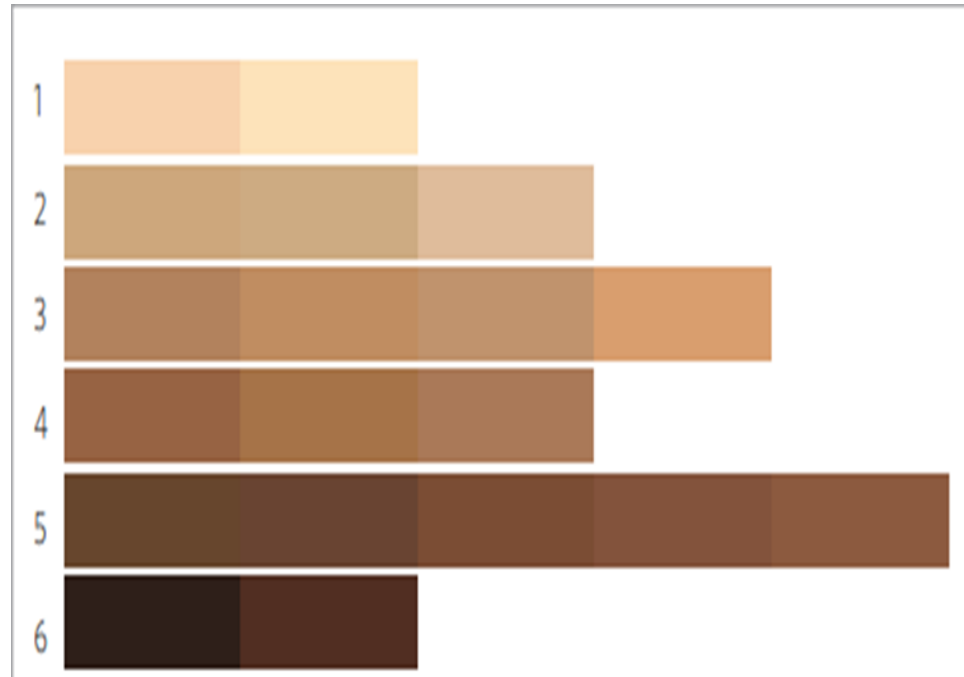
- Early identification is vital in wounds that are infected or at high risk of infection
- Therefore, an **over-reliance on 'redness' as a key symptom** of infection must be avoided.
- Other signs and symptoms of infection may include (IWII, 2016):
 - Local warmth
 - Swelling
 - Purulent discharge
 - Delayed wound healing beyond expectations
 - New or increasing pain
 - Increasing malodour

Look for signs and symptoms

- Change in skin colour: this may present as redness, darkening, lightening or grey/blue/ purple tones
- The skin may feel tight, spongy or appear shiny
- Change in temperature – check if the skin feels cold or hot
- Pain or numbness over the affected area
- ***Ensure that the skin is inspected thoroughly with an awareness of skin tone variance: late identification of skin damage due to skin tone constitutes an omission in care that has led to patient harm***

Do you use the skin tone tool ?

- used to screen for individuals at risk of skin cancer
- to identify those needing sun protection
- more effective than asking the patient to describe their own skin tone.



Skin tone tool (adapted from Ho and Robinson, 2015)

BPS: The skin tone tool should be used to record baseline skin tone for monitoring purposes.

What can be done?

- Risk assessment and prevention strategies are of key importance in diabetic foot ulcers
- Adopting a holistic, integrated approach, focused on prevention strategies and the importance of skin integrity, can have overall beneficial results and help to break down barriers to effective care in practice
- Clinicians must be vigilant, both in maintaining optimal skin conditions and in diagnosing and treating early stages of foot ulcers to prevent progression and skin breakdown
- Advise patients to check their foot- including the underside

Culture and practice

- Be aware of variations depending on local cultural and geographical factors
- Climate can affect wounds and dressings
- many hot and humid countries have a barefoot culture
- encourage patients to wear appropriate, properly fitted footwear
- support patients to familiarise themselves with their own skin, so that they can notice any changes and take action, especially if they are at risk of foot damage

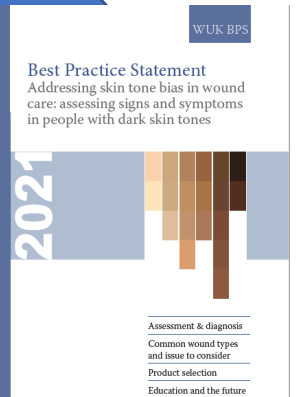
What does it mean for clinicians?

- self-reflection skills to review and reflect in an honest and unbiased way, ensuring that our teaching reflects different skin tones
- All wound care-related training must include pictures of different skin tones
- some patient groups, visibility is a clinical issue as well as a psychological one- discuss clinical rationale for dressing selection
- Most important... listen to your patient's perspective, understand their views and feelings

Communication with patient

- Dark skin should not be seen as a 'challenge' in clinical practice
- Remember: The palest and the darkest person will have the same number of melanocytes in their skin. However, the production and concentration of melanin in the epidermis (top layer of skin) is greater in dark skin
- Be confident to talk about what we can physically see in front of us.

BPS: Clinicians should be aware that skin tone is separate to ethnicity and have the confidence to talk about this in a professional way, treating the patient as an individual.



Thank You

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