Debridement

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Learning Outcomes

- Understand what debridement is from intact skin to wound debridement, and why is it so important
- What is the role of a Podiatrist in debridement
- Understand what skills you need to safely debride the foot in diabetes
- Understand the need to debride the foot in diabetes the importance of this
- What happens when you don’t debride enough?
- When to refer on and how you would find out to whom to refer to

Amputation and Diabetes

- 85% of amputations start with a single foot ulcer

Ref: https://*www.diabetes.org.uk/resources-s3/2019-02/1362B_Facts%20and%20stats%20Update%20Jan%202019_LOW%20RES_EXTERNAL.pdf*

- Here to aim to improve outcomes

Debridement in the Diabetic Foot

- Why is the Diabetic Foot different?
- Cautions
- When you can, when you can’t
- What you can, what you can’t

The Principles of Debridement

- All debridement of the lower limb must be carried out within an individual's scope of practice as defined by his/her role, functions and responsibilities and decision-making capacity with the person's professional practice (TRIEPoD-UK, 2012).

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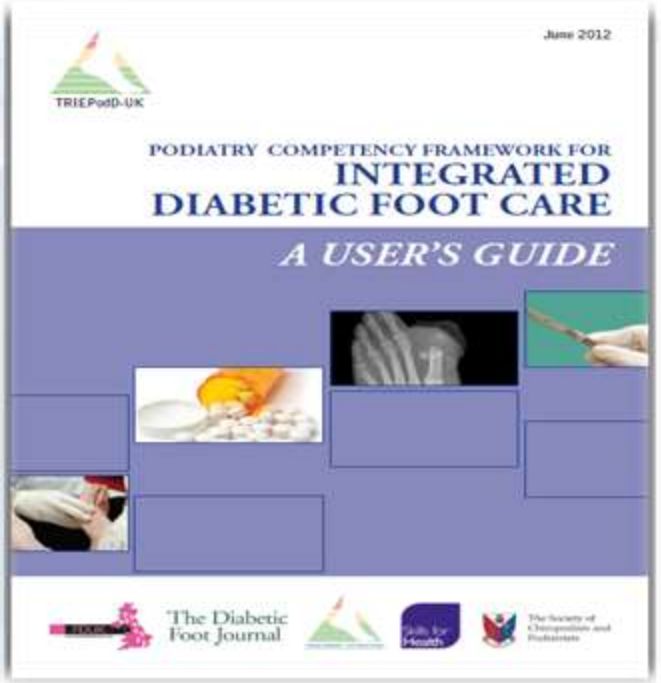

Debridement in the Diabetic Foot

- The presence of callus, which may surround or ‘roof over’ an existing ulcer and/or necrotic tissue in the wound bed, warrants special consideration in the diabetic foot (Edmonds and Foster, 2006)
- Extravasation of blood in callus is a **high risk factor**

Non-wound debridement (callus)

- Abnormal stresses caused by pressure and/or friction to areas of the foot with loss of protective sensation can lead to thickening of the stratum corneum.
- Hyperkeratotic lesions (callus) that develop on the plantar aspect of the foot further increase pressure and may carry a high risk for ulceration and infection (Murray et al, 1996).

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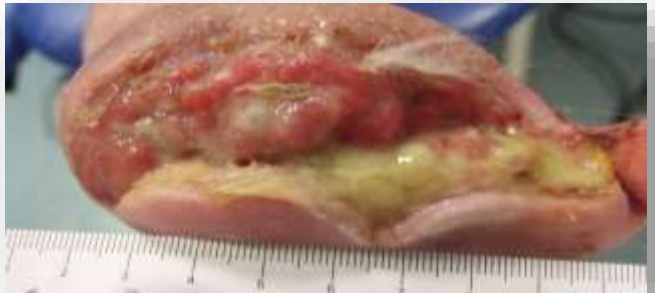
When to debride a foot in diabetes?

- Aetiology and history of the ulceration?
- Adequate blood supply as I may make it bigger
- Adequate pain relief if indicated?
- I am in an appropriate location to debride?
- Be prepared for any outcomes
- Consent?
- Yours skills and knowledge
- What are you going to use?
- Know what you are debriding down to / is bone involved ?
- Is there clinical signs of infection?
- Any red flags i.e. malignancy
- **Document, document and document....Pictures…**

Debridement in the Diabetic Foot

- The clinician cannot properly assess or document the status of a diabetic wound until he or she has removed all necrotic, hyperkeratotic and devitalized tissue. Dead tissue acts as a medium for bacterial growth



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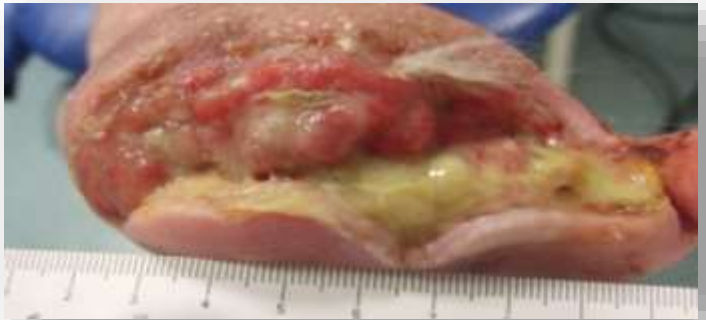

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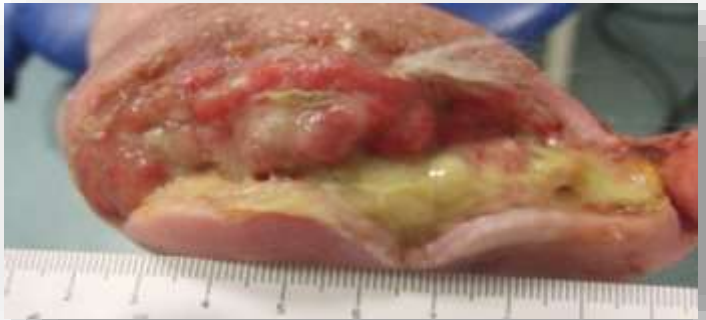


NICE NG 19 (2017): Diabetic foot problems: prevention and management

Treatment

1.5.4 Offer 1 or more of the following as standard care for treating diabetic foot ulcers:

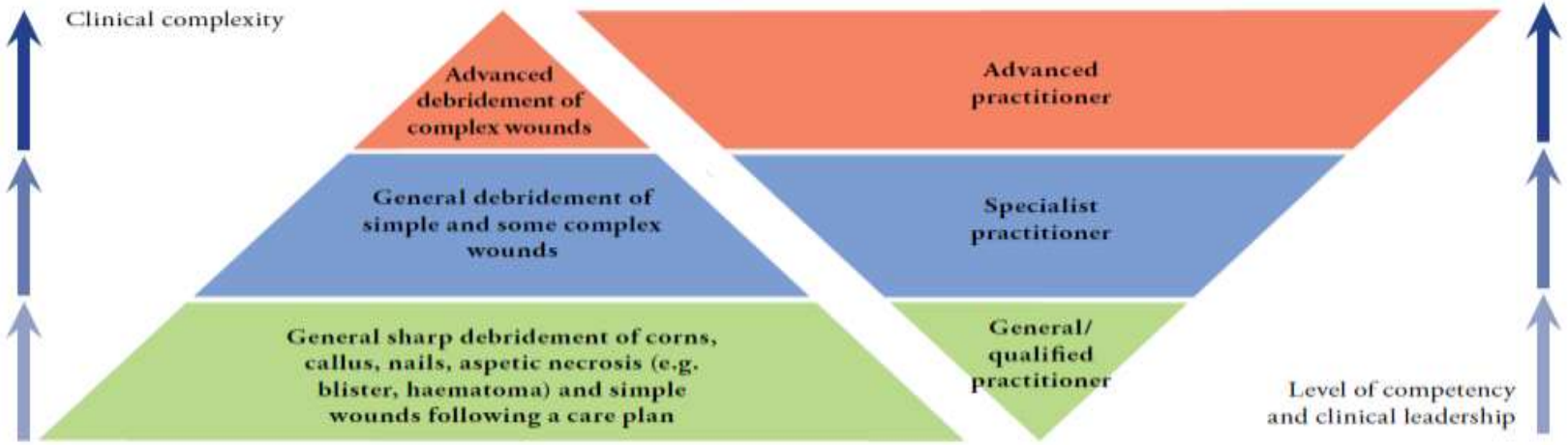
- Offloading
- Control of foot infection (if required)
- Control of ischaemia (if required)
- ✓ **Wound debridement**
- Wound dressings

NICE NG 19 (2017): Diabetic foot problems: prevention and management

- 1.5.7 When treating diabetic foot ulcers, debridement in hospital should only be done by **healthcare professionals from the multidisciplinary foot care service**, using the technique that best matches their specialist expertise and clinical experience, the site of the diabetic foot ulcer and the person's preference.
- 1.5.8 When treating diabetic foot ulcers, **debridement in the community should only be done by healthcare professionals with the relevant training and skills**, continuing the care described in the person's treatment plan

Competency/ Capability

Figure. 1. Roles and defined level of competency and skill in managing the diabetic foot



The Aim of Debridement

Remove necrotic/sloughy tissue and callus

✓ Reduce pressure on the tissues

✓ Allow full inspection of the underlying tissues/bone

The Aim of Debridement

- ✓ Help optimise the effectiveness of topical preparations
- ✓ Allow as deep as possible samples to be collected for microbiological examination

The Aim of Debridement

Remove necrotic/sloughy tissue and callus

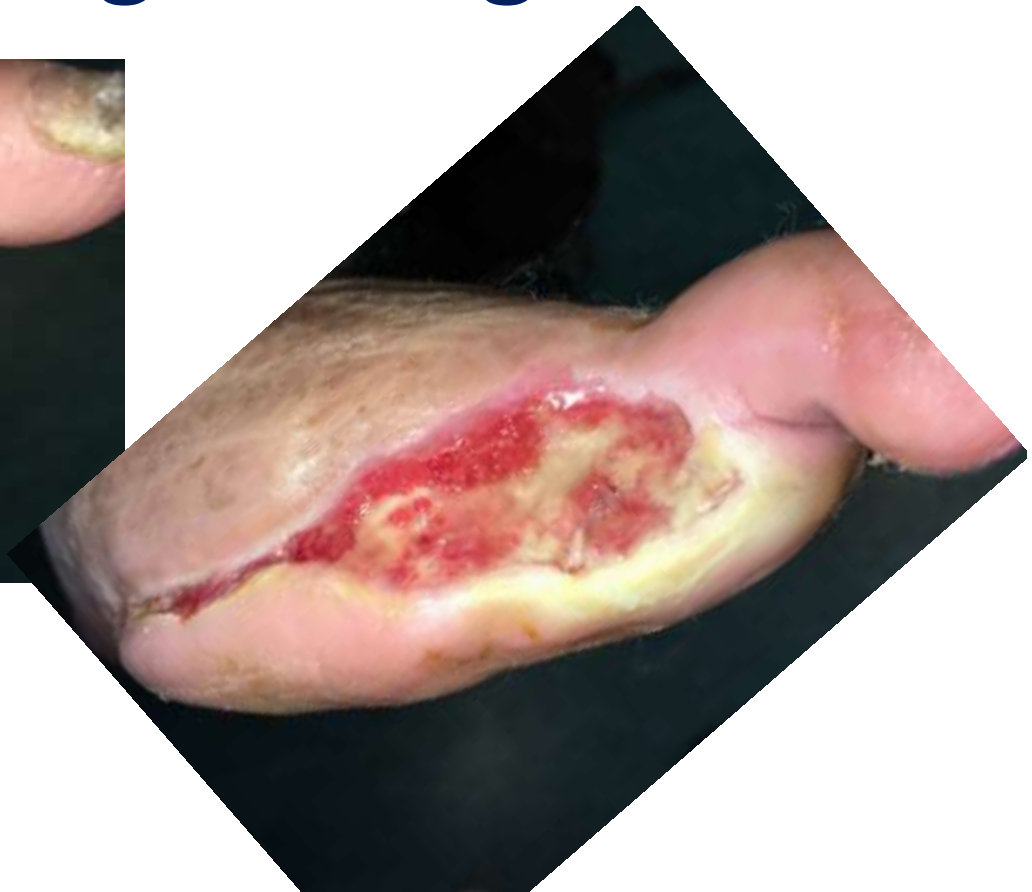
✓ Help drainage of exudate or pus.

✓ Potentially reduce risk of infection

The Aim of Debridement

- ✓ Stimulate wound healing by converting a chronic wound into an acute one.

Promoting healing



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If a person has a diabetic foot ulcer, assess and document the size, depth and position of the ulcer.

- 1.5.2 Use a standardised system to document the severity of the foot ulcer, such as the **SINBAD** (Site, Ischaemia, Neuropathy, Bacterial Infection, Area and Depth) or the University of Texas classification system.
- 1.5.3 **Do not use** the Wagner classification system to assess the severity of a diabetic foot ulcer.

SINBAD

Jeffcoate et al

SINBAB	0	1	Score
Site	Forefoot (0)	Rearfoot (1)	0 /1
Ischaemia	At least on Pedal pulse (0)	Clinical evidence of reduced blood supply (1)	0 /1
Neuropathy	Intact (0)	Not intact 8/10 and less (1)	0 /1
Bacterial Load	None (0)	Present (1)	0 /1
Area	Ulcer < 1cm2 (0)	> 1cm2 (1)	0 /1
Depth	Texas 0 or 1 (0)	2 or 3 (1)	0 /1

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SINBAD score	Time to Heal
0-2 (Moderate)	**Up to 77 days (£4,000 per annum)**
3-6 (Severe)	**126-577 days (£17,000 per annum)**

Diabetic Foot Classification

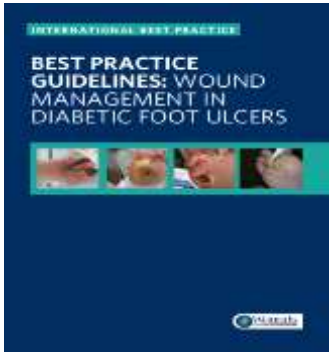
TEXAS	0	I	II	III
A	Pre or post ulceration	Superficial *not to tendon / capsule or bone*	Tendon / capsule *but not bone*	Probe to bone
B	Infected	Infected	Infected	Infected
C	Ischaemic	Ischaemic	Ischaemic	Ischaemic
D	Ischaemic & infected	Ischaemic & infected	Ischaemic & infected	Ischaemic & infected

Infection

Bacteriological swabs should only be taken when there is clinical evidence of infection in a wound

Superficial tissue lesion with at least two of the following signs:

— **Local warmth**
— **Erythema >0.5–2cm around the ulcer**
— **Local tenderness / pain**
— **Local swelling / induration**
— **Purulent discharge**



- Other causes of inflammation of the skin must be excluded

Infection

- Antibiotics / resistance
- MDT – review fast
- Admit in to hospital – clear pathways

Osteomyelitis

Osteomyelitis

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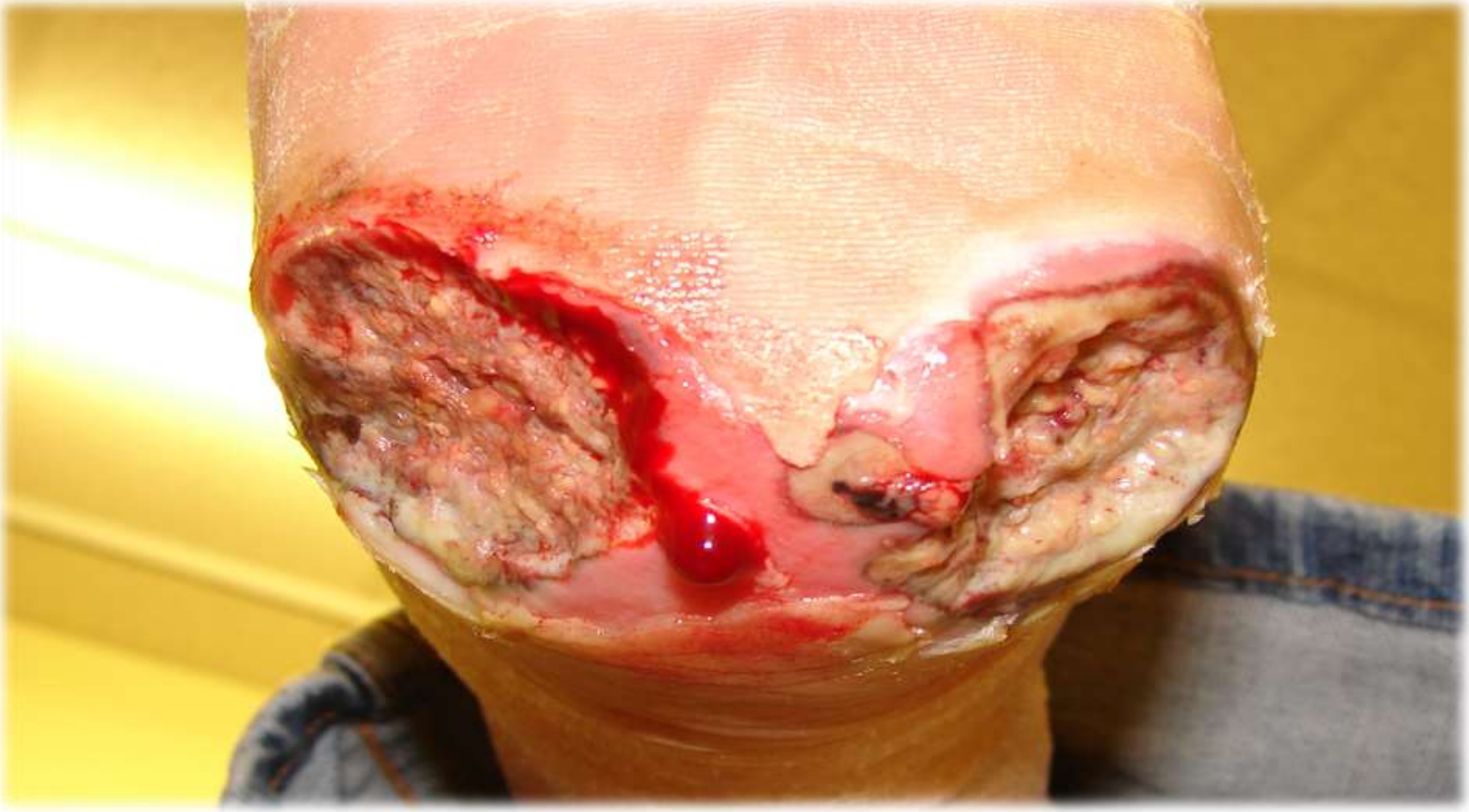
Debride?

Osteomyelitis



Referral

Prompt referral of an acute diabetic foot to a diabetic foot pathway is key

Offloading / Protection

- **NICE NG 19 (2015)**

Offer non-removable casting to offload plantar neuropathic, non-ischaemic, uninfected forefoot and midfoot diabetic ulcers. Offer an alternative offloading device until casting can be provided

Removable Devices

OPTIMA DIAB (MOLLITER)

OPTIMA CLHELL (MOLLITER)

WPS

BAROUK

TERA DIAB

SANITAL

TERAHEEL

VACODIAPED (OPED)

WALKER DIAB (AIRCAST)

SANIPOST

ORTHO WEDGE

RANSART BOOT

Red flags

Conclusion

- Safety – yours and your patient
- “Safer sharps”

Conclusion

- Debridement works to heal wounds as part of the standard of care
- Document what you debride / pictures before and after
- Only debride within your competency
- Record adverse events
- If in doubt, seek help
- “Share the risk”