Regional Diabetes Foot Pathway

Jennifer Madden

Consultant Podiatrist in Diabetes

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Why can the foot develop problems for patients living with diabetes?

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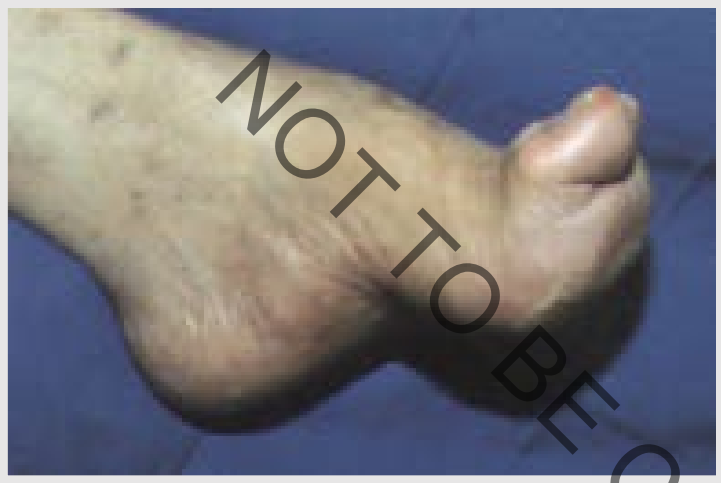
The Diabetic Foot

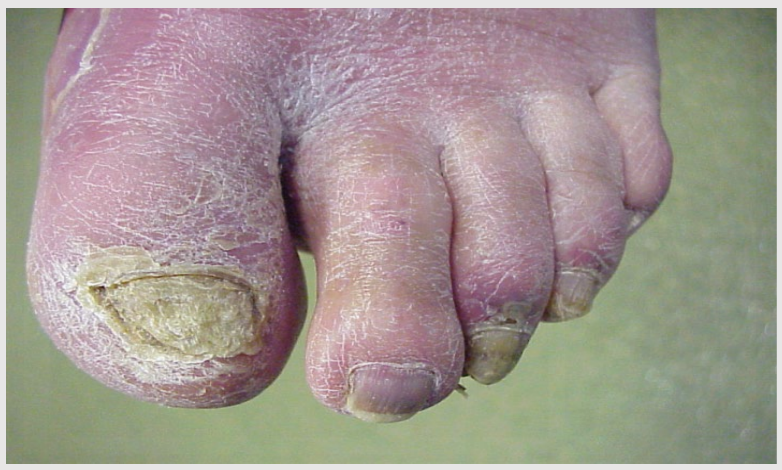
Triad of:

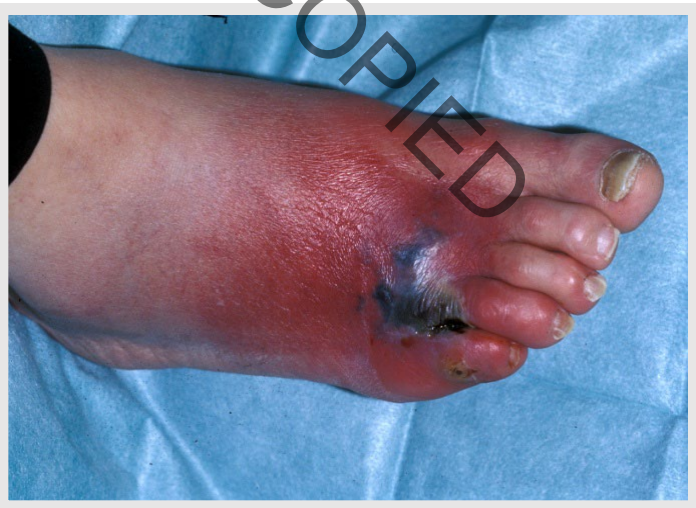
Neuropathy

Ischaemia

Infection







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Foot Assessments

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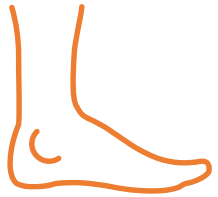
Neurological Assessment



motor **autonomic** **sensory**

Sensory assessment involves testing these sites

With 10 g Monofilament and Neurotip

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Vascular Assessment

PULSE PALPATION.

DOPPLER ABPI ASSESSMENT

SIGNS AND SYMPTOMS.

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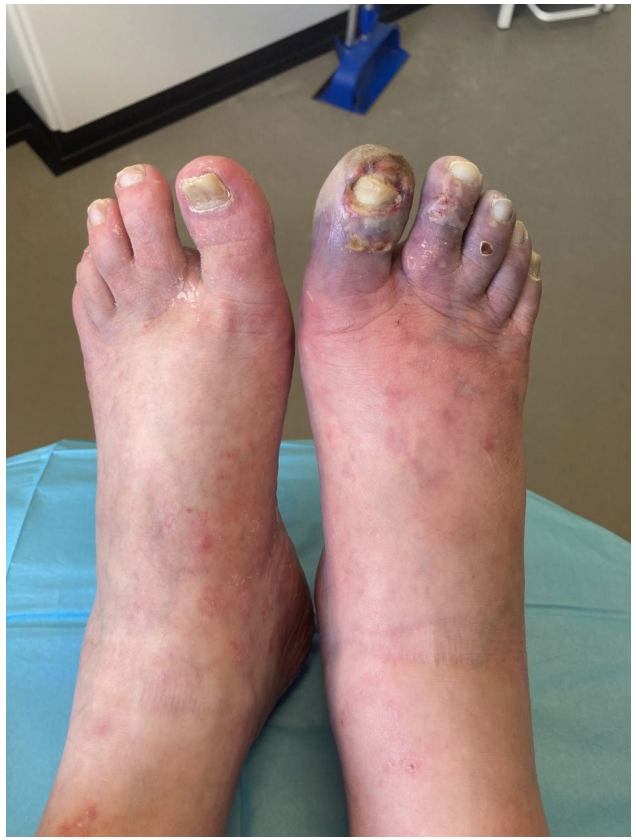
Important to check both feet…



- PAD/CLI can occur unilaterally:

- Left foot palpable and Biphasic DP & PT

- Right foot Non palpable Monophasic PT and a Non-palpable and non-audible DP. Severe rest pain.

- Patient required a DSA and the hallux went necrotic and is waiting amputation, necrosis on 2nd dorsal aspect PIPJ hopeful to save this toe

Risk tool

Low Risk

No Risk Factors

Refer to podiatry for annual diabetes screening

Moderate Risk

One Risk Factor

Refer to podiatry for 6 monthly reviews

High Risk

Two or more Risk Factors

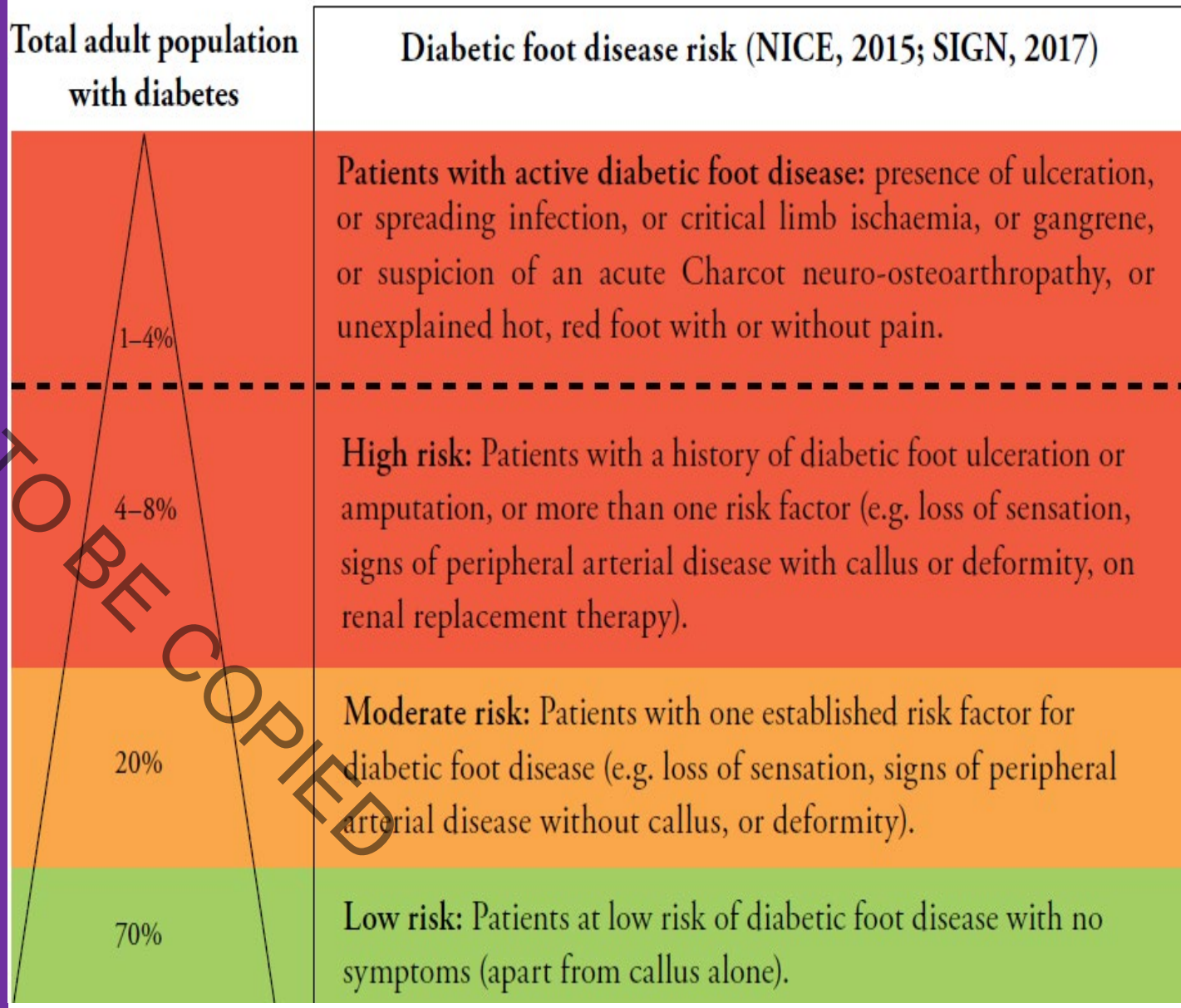
Refer to podiatry for regular review and routine care where needed usually 3-4 months

Active Risk

Ulcer, Charcot, Infection, Hot Red Swollen Foot

Urgently refer to podiatry for urgent assessment, active management and onward referral to MDFT by podiatry

Proportion of population to foot risk



RISK ASSESSMENT

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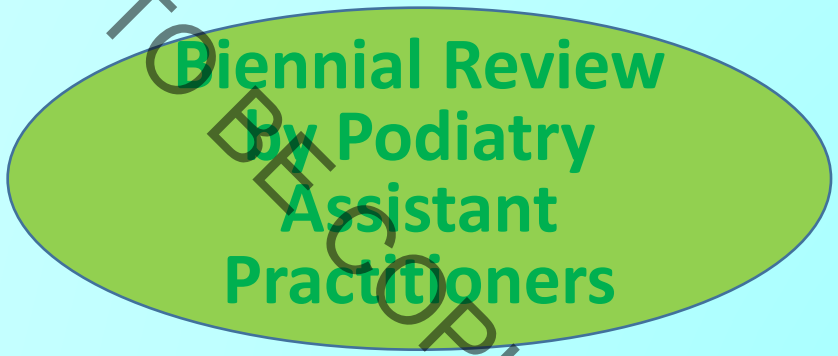
Low risk of foot ulcers and amputation

- ✓No PAD
- ✓Normal Sensation
- ✓No foot deformity
- ✓NO RISK FACTORS



- ➢Use leaflet and educate risk
- ➢Record risk
- ➢GP or Health professional referral required

Low risk of amputation and ulceration

- Advised on how diabetes may impact their feet
- Personal foot care does not need provided by podiatry. They can self-care for feet. Educate regarding their current foot risk
- Provided with contact of local podiatry foot protection team
- Enable to monitor feet or have carers monitor feet
- This is the majority of patient living with diabetes
- Made aware of what is urgent/emergency to contact podiatry or seek emergency advice over a weekend
- Currently biennial screening.

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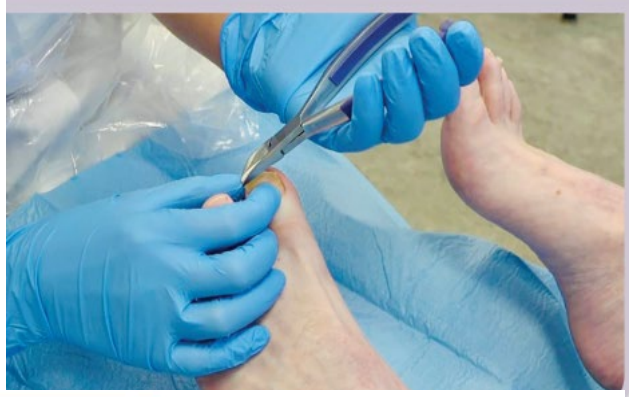
Example of advice given

Tips for promoting healthy feet:

- Wash feet with soap and water and dry thoroughly
- Keep toenails trimmed and filed
- Apply moisturising cream daily
- Ensure the feet are clean
- Encourage good fitting shoes to be worn daily
- Avoid soaking the feet or applying moisturising cream between the toes as this can cause the skin to dry out or lead to cracks and cuts



Footwear should be:

- Worn daily
- Well fitting
- Have a supportive heel counter and secure fastenings
- Checked regularly for a good fit, and any wear and tear
- Slippers should only be worn for short periods

If you notice any of the following foot health issues please speak to a healthcare professional e.g. Podiatrist, Medical Staff and/or Nursing Staff:

- Skin breaks that are not healing
- Pus or discharge
- Any redness, discolouration, heat or swelling
- If a foot is colder and or paler than normal

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Moderate Risk foot ulceration or amputation

✓**Signs of Neuropathy or PAD**

To be seen 3-6 months by Foot Protection Team

- **Patient educated regarding risk to foot & foot health plan.**
- **Record Risk**
- **Pt can self refer to Podiatry Service**

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High Risk

- ✓ **History of ulceration or amputation**
- ✓ **PAD and neuropathy**
- ✓ **Callous or Deformity in presence of PAD and/or neuropathy**

- ➢ **Educate Patient regarding foot risk & foot health plan**
- ➢ **Record Risk**
- ➢ **Patient can self-refer to Podiatry service**

Active foot risk – all tiers of pathway

- **Foot ulceration**
- **Infection**
- **Charcot neuroarthropathy**
- **Red hot swollen foot**
- **Wound care classification SINBAD**
- **Management of mild and moderate infection with oral antibiotics**
- **Offloading**

Why the regional diabetes foot pathway?

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Diabetes – Northern Ireland

All the people with diabetes in Northern Ireland could fill Windsor Park

more than five times over

There are over 108,000 people living with diabetes in Northern Ireland and this number is set to continue to rise.

Diabetes prevalence in Northern Ireland is growing around 4% year on year and with an estimated 376,000 people living here at risk of type 2 diabetes

(Diabetes UK 2022)

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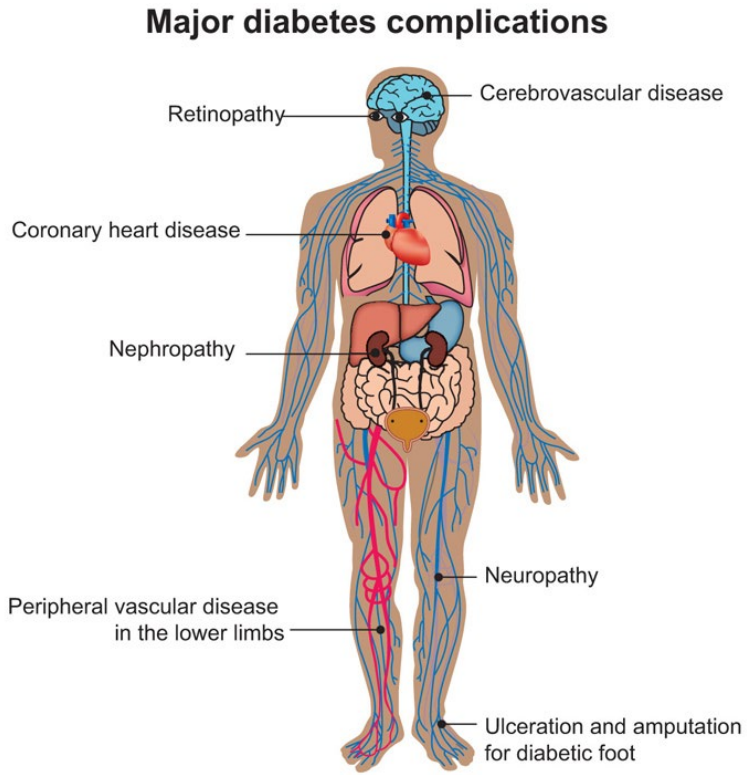
Diabetic complications estimated costs



COMPLICATION	COST
Stroke	£288 M
Kidney failure	£514 M
Ischaemic heart disease	£510 M
Myocardial Infarction	£603 M
Foot ulcers and amputations	£986 M

- Kerr,2012

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Foot complications in diabetes

In the United Kingdom, people with diabetes account for more than 40% of hospitalisations for major amputations and 73% of emergency room admissions for minor amputations.

We need to ensure that people access or are referred for treatment in and the right time, at the right place, and with the appropriate healthcare professional.

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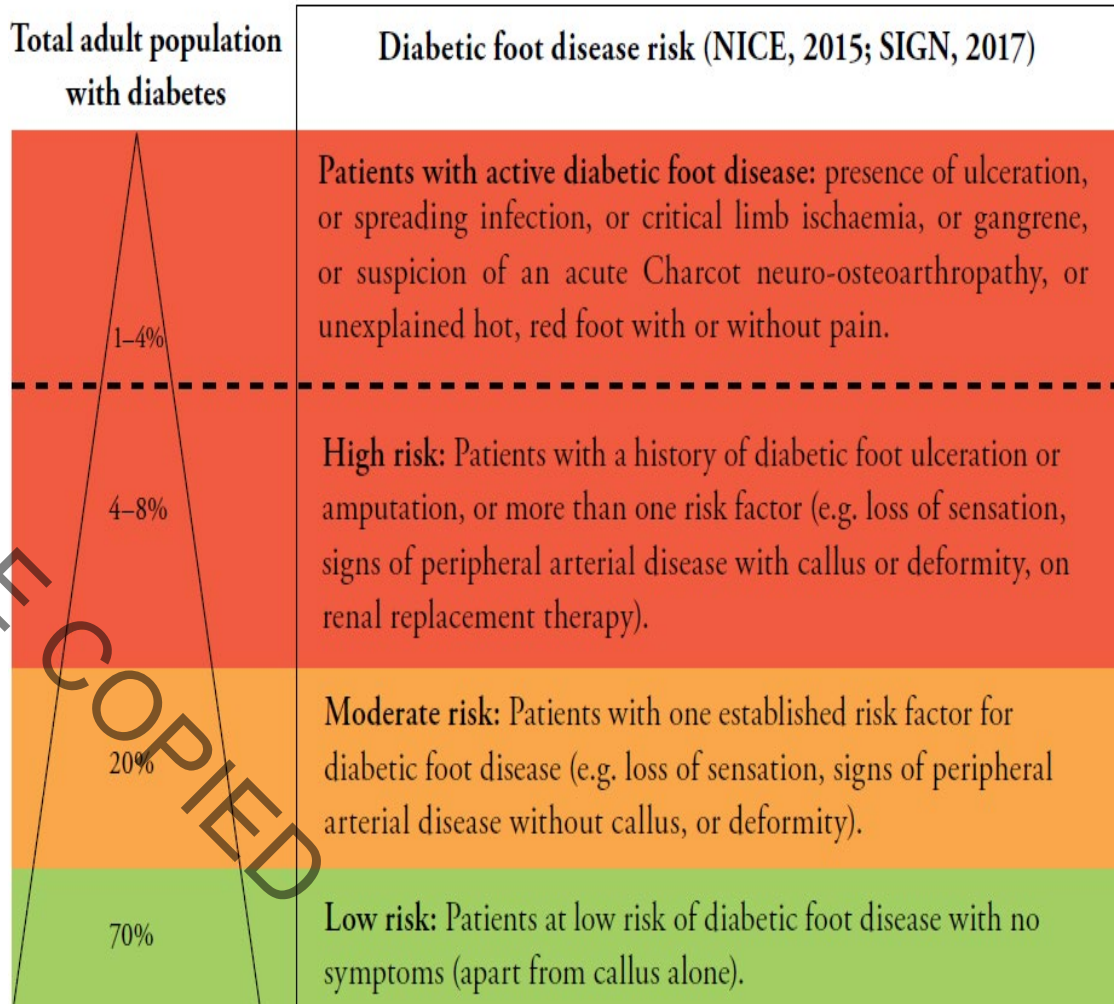
Proportion of population to foot risk



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Aim of Diabetic foot care pathway

- **Better Outcomes for the Person Living with Diabetes**
- Integrated and seamless
- Strengthen already established services
- Reflect regional strategic change
- Strong user voice
- Deliver NICE guidance

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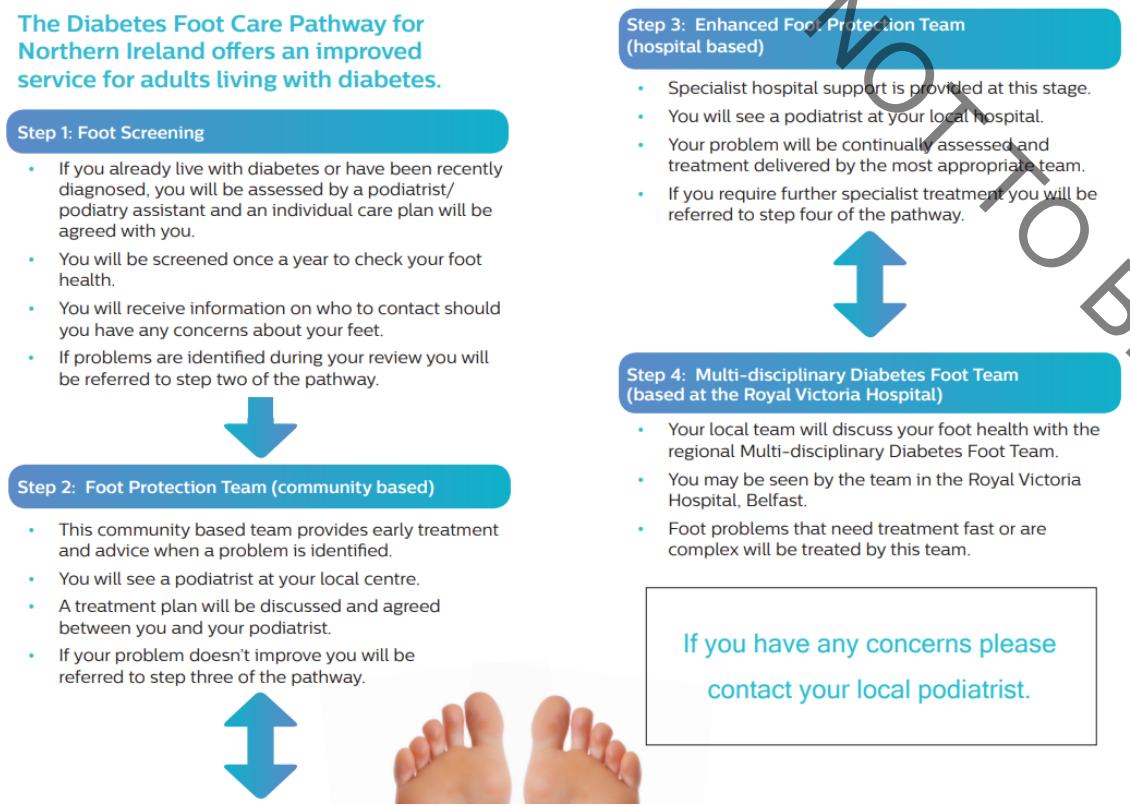
Northern Ireland Diabetes Foot Care Pathway



The Diabetes Network as an action from the Diabetes Strategic Framework for Northern Ireland launched a new Foot Care Pathway to improve services for adults living with diabetes in November 2019.

- The new Diabetes Foot Care Pathway enables all adults with diabetes to access the same services no matter where they live in Northern Ireland.
- The pathway encompasses routine screening, early treatment and care, specialist hospital support, and care when a person needs it from the Multi-Disciplinary Diabetes Foot Team based in the Royal Victoria Hospital in the Belfast HSC Trust.
- [Diabetes Foot Care Pathway - HSCB (hscni.net)]

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The Journey

November 2019

Launch of diabetes foot pathway

March 2020 COVID19

Pathway continued to see patients with active foot risk

Including foot emergency/MDFT need

May 2021

Rebuild starts – starting to tackling waiting list, restarting screening

2022

Continues rebuild and waiting list management

MDFT rebuild

2023

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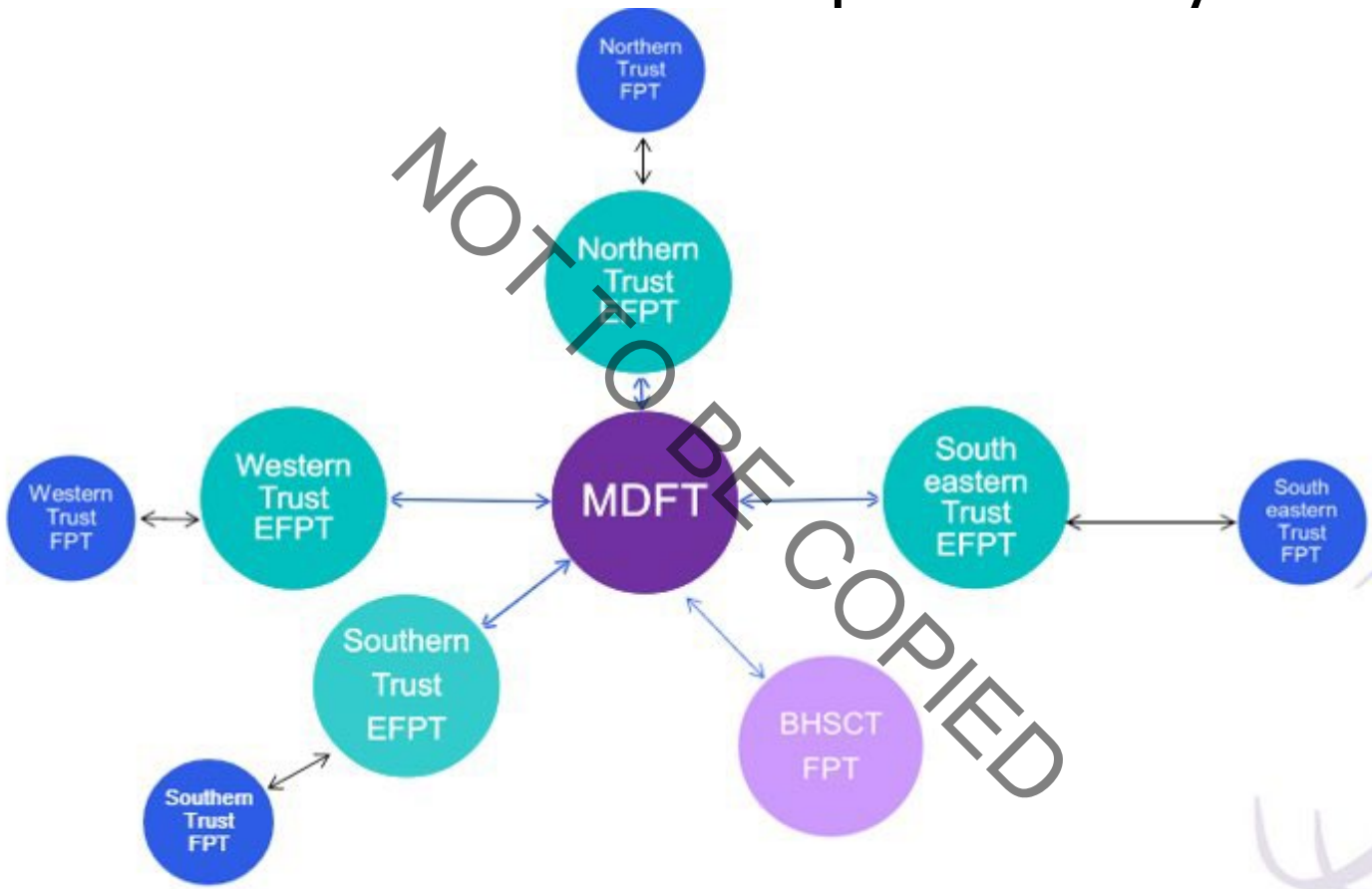
Structure of pathway



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Community foot protection role

Biennial screenings for everyone with diabetes

Offload at risk areas of the foot

Education

Onward referrals e.g. footwear, GP for CV or Diabetes, Refer further up pathway as needed

Podiatry treatment for high-risk patients

Management of active risk patients

ALL 5 trust within N Ireland have a community foot protection team

Referral via CGG accepted as well as self referral.

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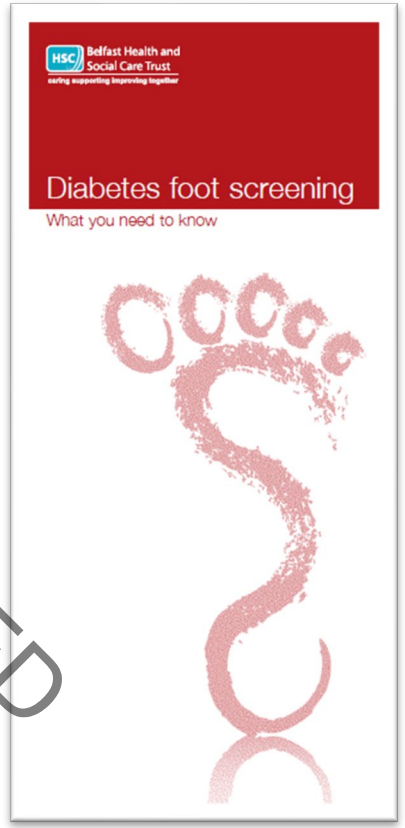
Biennial Foot Screening



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Screening 2 year assurances requested from SPPG/DOH

Safety; amputation data and SAIs/HCAIs relevant to the change in screening arrangement.

Experience; the experience of PLWD when accessing the new model of care. This work will be a coproduction with Diabetes UK, as part of a research project.

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Screening 2 year assurances requested from SPPG/DOH

Impact; the number of PLWD who are low risk and develop active foot disease within 12 or 24 months of their screening appointment.

Equity; the number of PLWD who when offered an appointment do not reply to a partial booking letter or who DNA their appointment.

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Moderate risk of foot ulceration or amputation

Attends foot protection team at a minimum every 6 months (always a discussion with patient)

Footwear advice and offload any pressure areas with insoles

Aware of urgent/emergency advice

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High Risk of foot ulceration or amputation

- Recalled to podiatry for intervention every 4-12 weeks. Discussed with patient
- Footwear discussed and offloading with insole if agreeable
- Referral to footwear clinic as needed
- Advice on emergency/urgent issues and how to contact

EFPT

Based or Linked to local N Ireland Hospitals.

Antrim Area, Altnagelvin Area, Causeway, Craigavon Area, Daisy Hill, South Western Acute and Ulster Hospital.

First contact for FPT and GP if urgent issue.

Will assess non healing wounds

Can immediately refer to MDFT if emergency

Can admit and start IV antibiotics

For Belfast HSC FPT-MDFT fufils this element for patients

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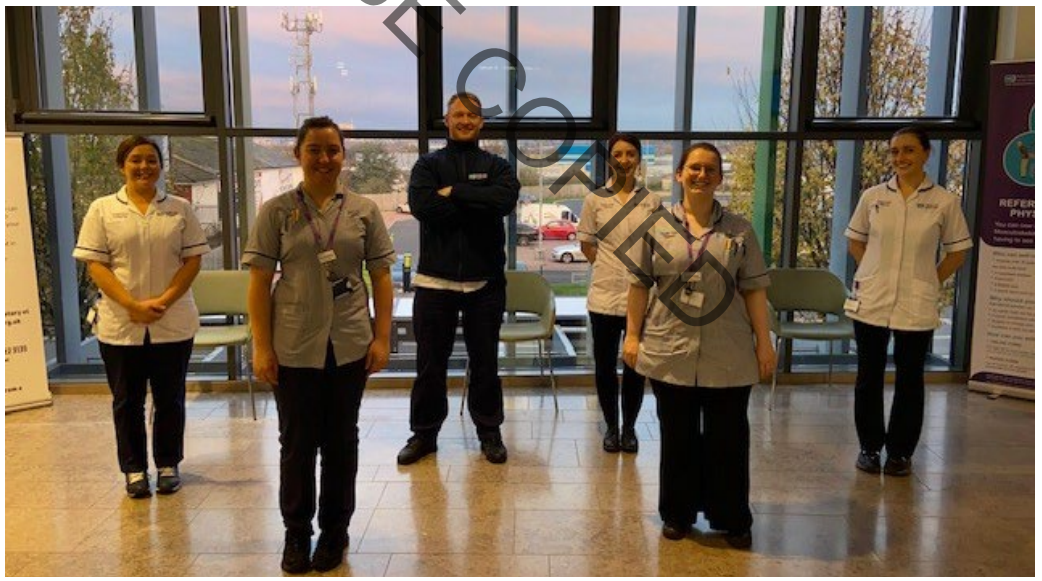
Foot Ulceration

- Foot ulceration is a major complication of Diabetes
- Approximately 15% of all people with diabetes will be affected by a foot ulcer during their lifetime – 36.9m today and 57m by 2025 – conservative figures.
- Lifetime incidence rate of foot ulceration estimated between 19- 34%
- After healing recurrence rate of DFU is 40% within a year and 65% within 3 years
- 80% of amputations are preceded by foot ulceration
- Between 100-200 major/minor Amputations are carried out in NI every year

Regional Foot Protection Teams



Enhanced Foot Protection Teams

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MDFT

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Early ulcer management

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Time is our Enemy

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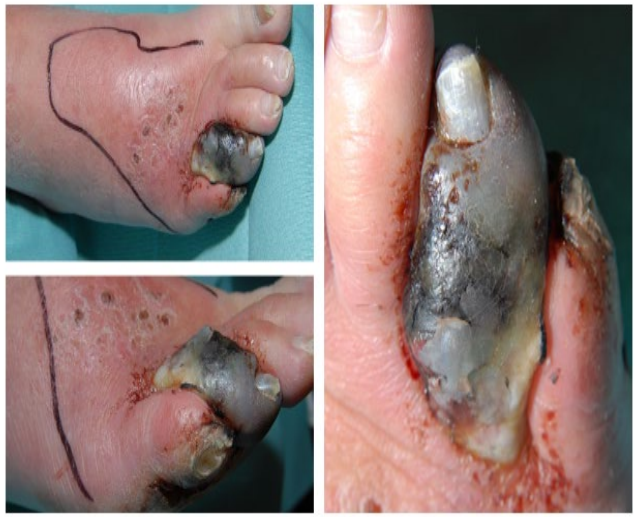
MDFT, Level 1 regional diabetes foot unit. RVH



Capacity to see emergency on same working day

Referral via Podiatry, GP and Emergency Department.

Ward round and beds within RVH

Endocrinology, Vascular, Orthopaedics, Podiatry, Nursing, pharmacy, orthotist

Emergency and Urgent active foot risk patient seen by the team.

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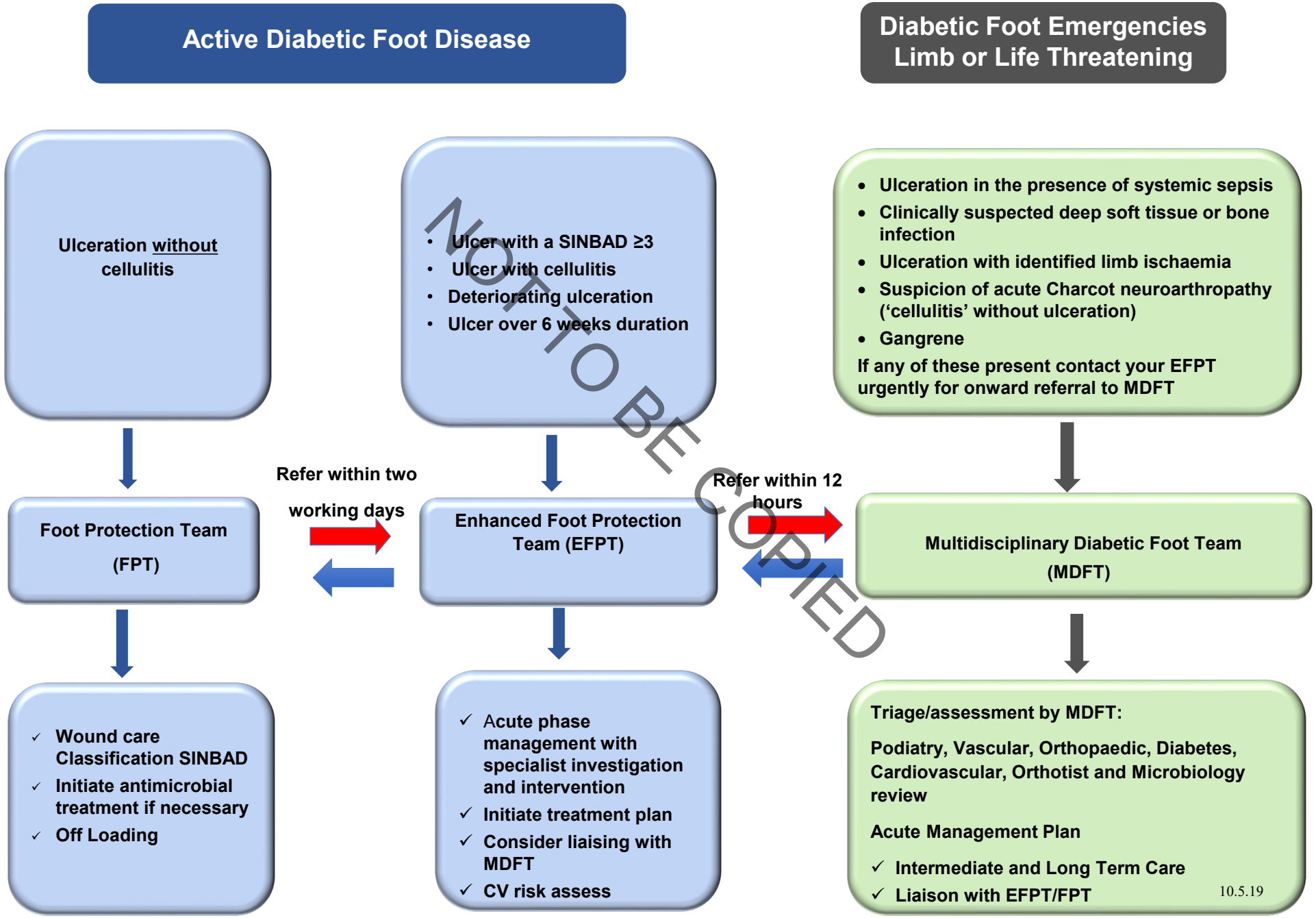

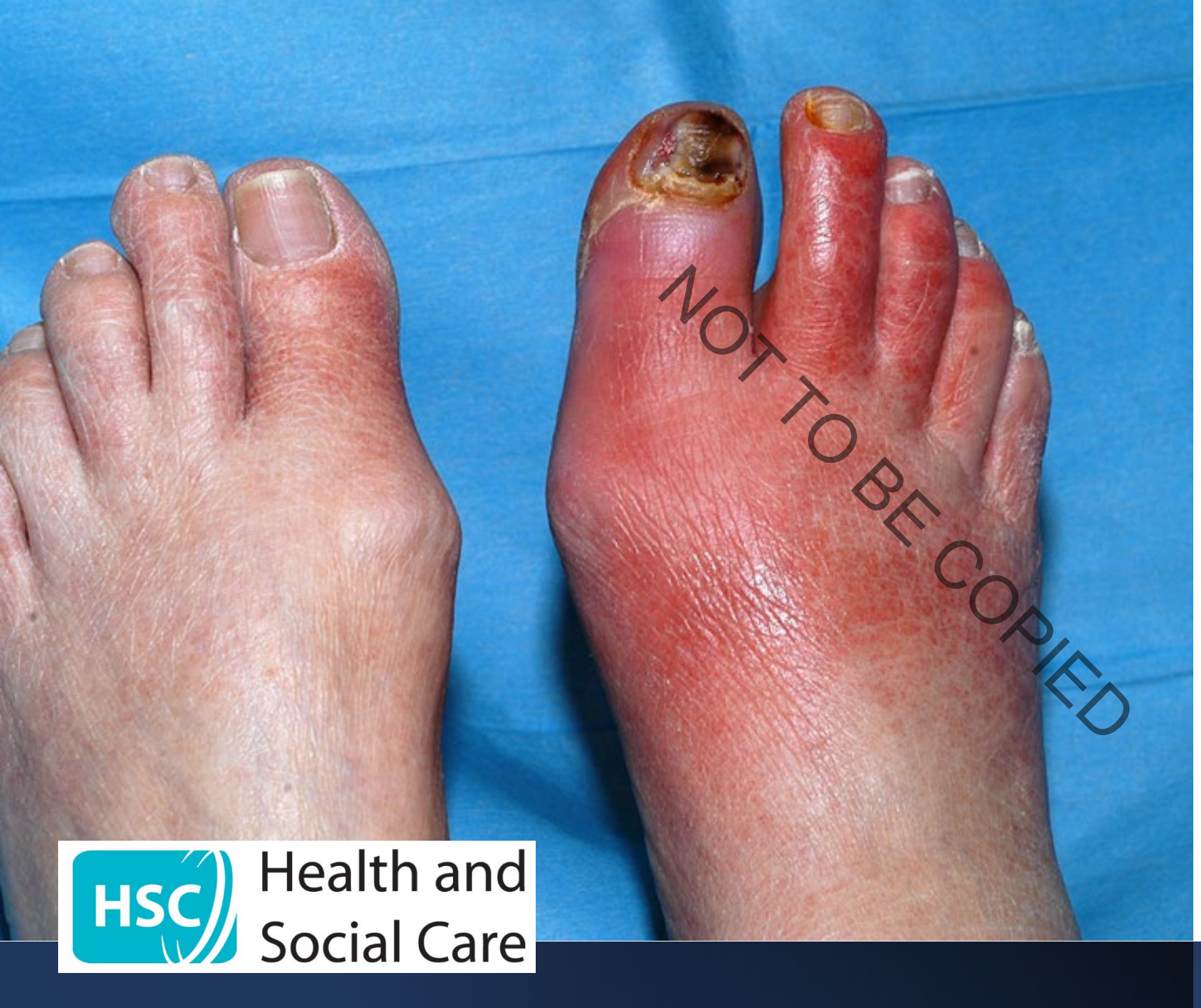

EMERGENCY CRITERIA:

- Abscess,
- gas in tissue,
- wet gangrene,
- rapidly deteriorating CLI
- and/or systemic sepsis secondary to foot infection.

- Any individual with foot cellulitis that may need infection managed.

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Urgent Criteria

- Ulcer with PAD,
- Ulcer with suspected osteomyelitis,
- Suspected Charcot
- Also included in urgent referral are those patient with re-ulceration with deformity
- (Consolidated Charcot)
- stable dry gangrene
- and/or non-healing ulcer greater than 12 weeks if seeing EFPT (6 weeks Belfast FPT).
- These may initially be discussed at virtual MDFT/FPT huddle dependent on severity.

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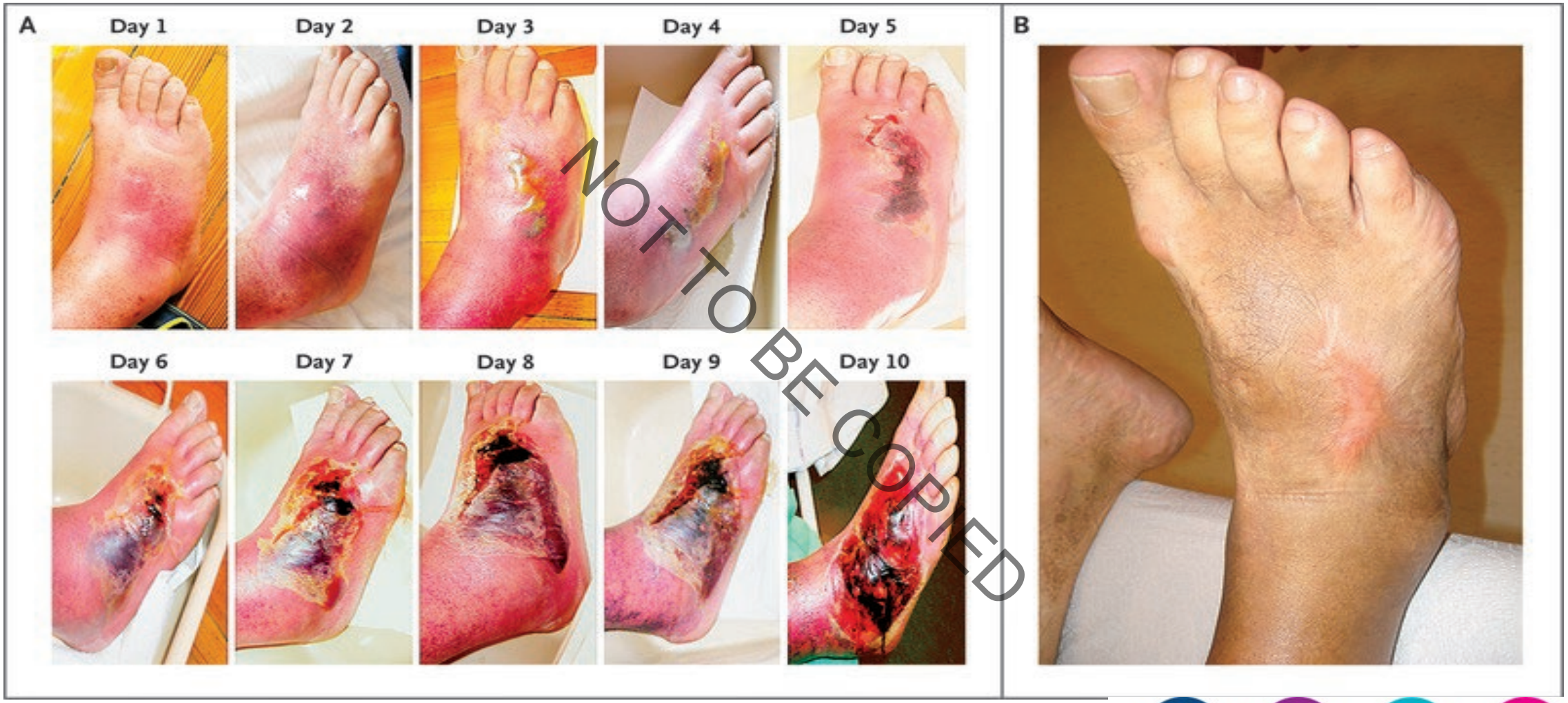
Evolution of a Diabetic Foot Infection

Tobalem & Uçkay, (2013)



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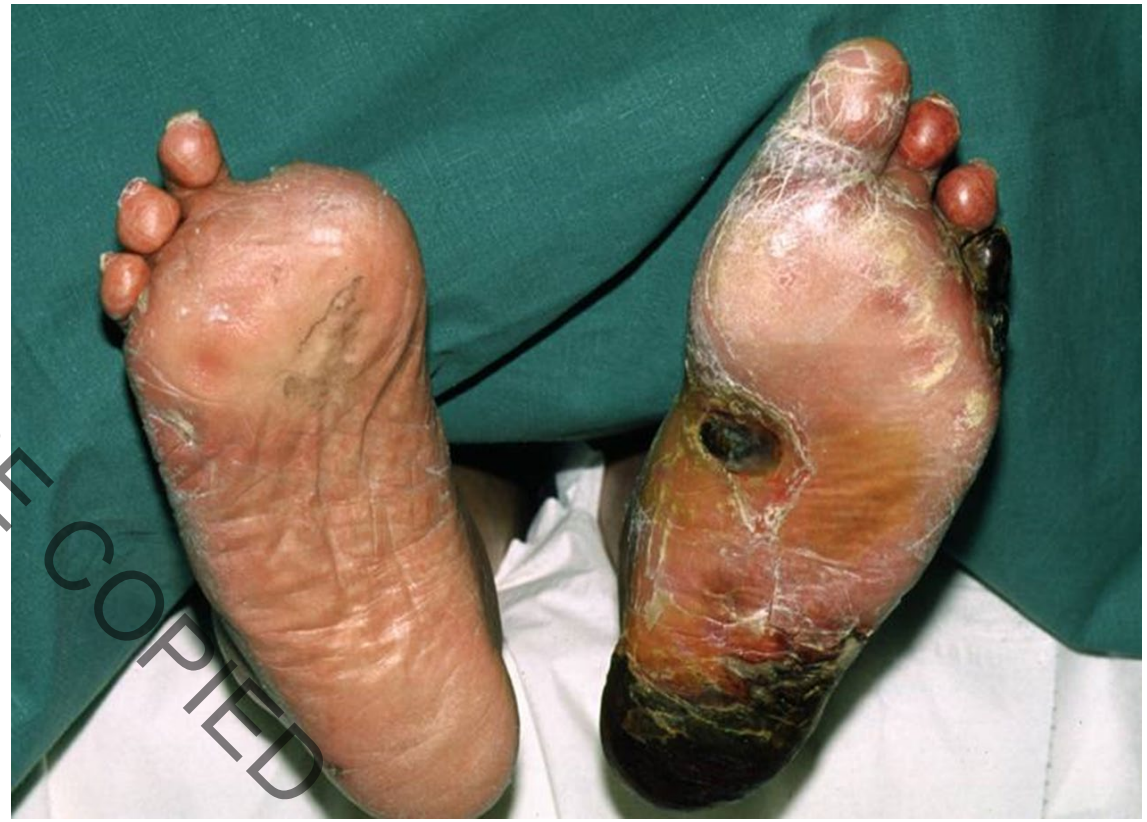
Palliative/End of life care

- Opinion can be sought regarding patient
- Sending to Emergency department is to be avoided
- Advice from Enhanced Foot protection or in most cases MDFT can be sought and recommendation placed on ECR/Encompass
- Virtual clinics on complex frailty cases being piloted.



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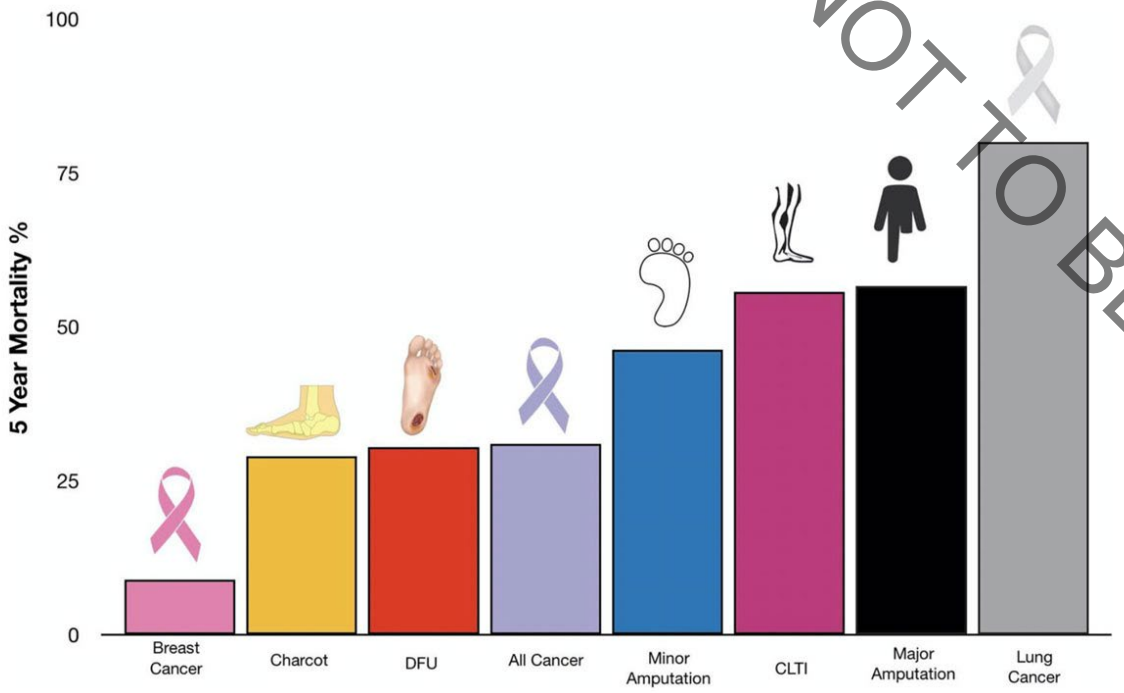
Foot complications in diabetes



Five-year mortality and direct costs of care for people with diabetic foot complications are comparable to cancer

The mortality rate for people who undergo lower extremity amputation due to a DFU remains alarming:

More than half of people with a major amputation will be dead in 5 years . 5 year mortality for Charcot (29%), DFU (30.5%), minor (46.2%) and major amputations (56.6%)
(Armstrong 2020)

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- Every **20** seconds a leg is lost to diabetes somewhere in the world.

Or in the time I have been speaking to you

90 major amputations!

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Take home message

Advocate	Highlight	Empower
Advocate for people living with diabetes to attend podiatry if and when invited to attend podiatry.	Always highlight what the urgent/emergency issues can be with their foot.	Empower people living with diabetes. The majority will be at low risk. Personal foot care is not required via a podiatrist.

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REFERRAL

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Belfast HSC Trust Foot protection team

BHSCT accept referrals from all health care professionals, family members, carers and the person themselves. Referral is made by telephone. Numbers listed below

South and East Belfast Area 02896158200

North and West Belfast area 02896158100

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Northern HSC Trust Foot protection team

NHSCT accept referrals from all health care professionals, family members, carers and the person themselves. The person making the referral should contact their nearest clinic. Their name and address is taken and a referral form will be posted to them for completion. Clinic contact numbers listed below

Larne Health Centre 028 28 261971
Carrickfergus Health Centre 028 93315811
Whiteabbey Health Centre 028 90808263
Glengormley Health Centre 028 90831410
Ballyclare Health Centre 028 93322575
Ballymena Health & Care Centre 028 25635672Thompson House, MUH Site 028 79300165
Cookstown Health Centre 028 86723811
Coleraine Community Services 028 70344831

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South Eastern HSC Trust Foot protection team

Self-referral is open to everyone. The process requires completion of a form that can be downloaded from the Trust's website or collected from the person's local clinic. When completed it is returned to the clinic or emailed to the central booking office. CBO.podiatry@setrust.hscni.net

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Southern HSC Trust Foot Protection team

SHSCT accept self-referral for new patients. Referral forms can be accessed by contacting CBU- Central booking Unit, 02837563444 and returned to CBU by email: AHP.CBU@southerntrust.hscni.net

Or post: AHP Central Booking Unit, Magowan West, 11,West Street, Portadown, BT62 3PG

New patient referrals can also be made by GPs, nursing and the allied health professions.

Western HSC Trust Foot Protection team

All persons self-refer by completion of an application form. The form is emailed or posted to the person on request. Clinic contact numbers listed below

Woodview, Gransha - 02871865100

South West Area Hospital 02866382000

Omagh Hospital and Primary Care Complex 02882833100

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Enhanced Foot protection Team –EFPT Monday to Friday 8.30 to 4.30 pm

Northern

Antrim EFPT – 028 94424026

Causeway EFPT – 028 70346070

South Eastern

Ulster - 07713008194

Southern

Central booking Unit ,02837563444

Western

Woodview, Gransha- 02871865100

South West Area Hospital- 02866382000

Omagh -02882833100

Belfast

MDFT covers EFPT component of pathway

For Emergency 8.30 to 4.30 pm Monday to Friday

MDFT

02896151444

Redirect to RVH Vascular specialist registrar out of hours (including bank holidays) and at weekends

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