

Insights on Diabetic Foot Management in UK

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KEC POD I / TKOH POD i/c**

**2015/16 Overseas Corporate Scholarship Program
for podiatrists in Diabetic Foot Management
London / Leicester, United Kingdom
Sept 2015**

International Diabetes Federation 2015

Diabetes Atlas 7th edition

- **416 million** people with diabetes
- Nearly half of those with diabetes are undiagnosed
- Diabetes caused 5.1 million deaths in 2013, one death every 6 seconds
- 12% of global health expenditure is spent on diabetes (\$673 billion)
- Estimated 642 million people with diabetes by 2040 (1 in 10 adults)

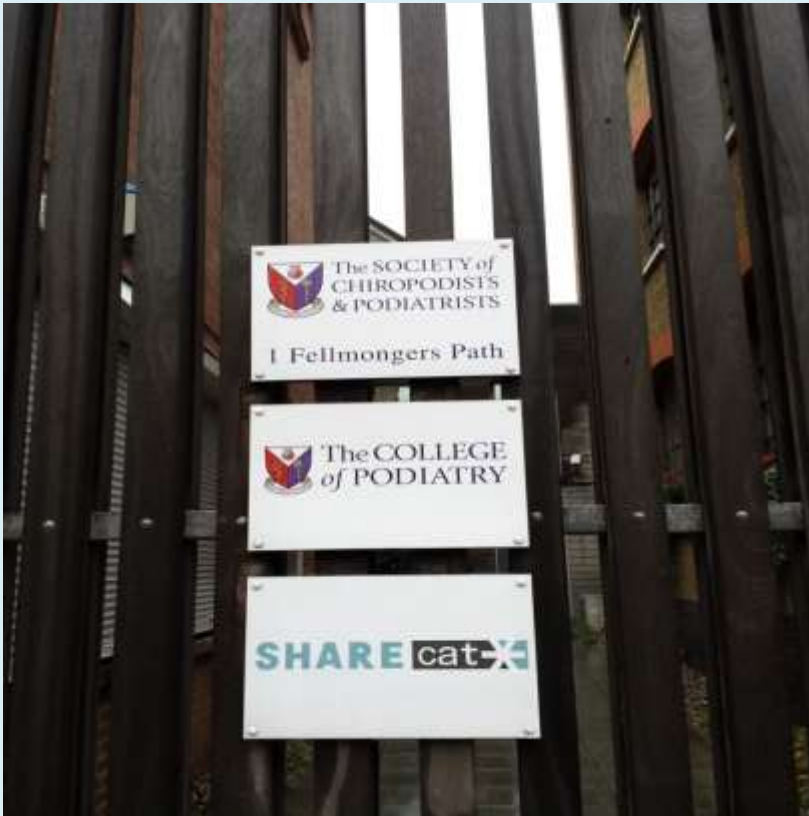
Other Diabetic related complications

- 5% develop a foot ulcer in any year
- 20-40% have neuropathy
- 23 times more likely to have an amputation than someone without diabetes
- 1 in 12 of all foot ulcers result in some form of amputation

Program Run down

Part 1

The Diabetic Foot Module



Part 2

Clinical attachment in Leicester



The Diabetic Foot Module

- A specialist course for Podiatrists in UK
- 5 days lectures, group work and demonstration
- An examination, which is an integral part of the course with the passing mark must be above 50%.



Topics covered

- **General Diabetes**
- **Psychological/ psychosocial and nutritional advice**
- **Effects on major body systems**
- **Classification of foot lesions**
- **Vascular problems of lower limb**
- **Normal and impaired wound healing and microbiology**
- **Management of the diabetic foot**
- **Vascular surgery and interventional radiology**
- **Podiatric surgery**
- **Off-loading strategies**

Lecturer's Profile

- **Diabetologist & endocrinologist**
- **Lecturer / lead / specialist podiatrists**
- **Vascular surgeons**
- **Radiologist**
- **Dietitian**
- **Orthotist**
- **Wound care nurse**
- **Footwear specialist**
- **Lecturer Pharmacist**



Mortality Rates and Diabetic Foot Ulcers

Is it Time to Communicate Mortality Risk to Patients with Diabetic Foot Ulceration?

Jeffrey M. Robbins, DPM*

Gerald Strauss, PhD*

David Aron, MD*

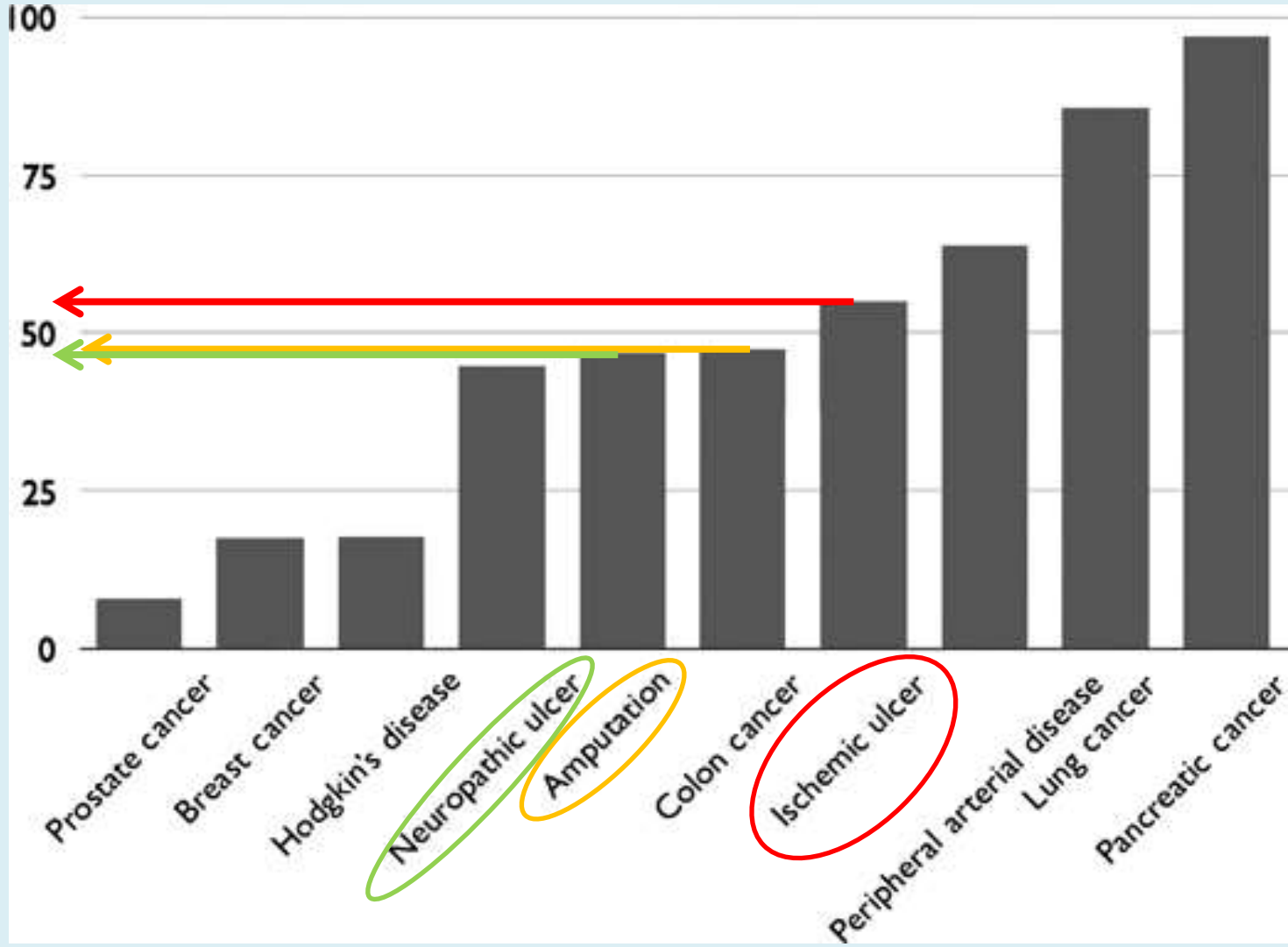
Jodi Long, DPM*

Jennifer Kuba, DPM*

Yelena Kaplan, DPM*

Five-year mortality rates after new-onset diabetic ulceration have been reported between 43% and 55% and up to 74% for patients with lower-extremity amputation. These rates are higher than those for several types of cancer including prostate, breast, colon, and Hodgkin's disease. These alarmingly high 5-year mortality rates should be addressed more aggressively by patients and providers alike. Cardiovascular diseases represent the major causal factor, and early preventive interventions to improve life expectancy in this most vulnerable patient cohort are essential. New-onset diabetic foot ulcers should be considered a marker for significantly increased mortality and should be aggressively managed locally, systemically, and psychologically. (J Am Podiatr Med Assoc 98(6): 489-493, 2008)

Fig. Five-year mortality (%).



NICE guideline (NG19) Published Aug 2015

Diabetic foot problems: Prevention & Management (<https://www.nice.org.uk/guidance/ng19>)

Recommendations:

- *Care within 24 hours of admission*
- *Care across all care settings*
- *Referral for diabetic foot problems*
- *Investigating and managing diabetic foot ulcer, diabetic foot infection and Charcot arthropathy*

NICE guideline (NG19) Published Aug 2015

Diabetic foot problems: Prevention & Management (<https://www.nice.org.uk/guidance/ng19>)

1.2.2 The foot protection service should be led by a podiatrist with specialist training in diabetic foot problems, and should have access to healthcare professionals with skills in the following areas:

- **Diabetology.**
- **Biomechanics and orthoses.**
- **Wound care.**

NICE guideline (NG19) Published Aug 2015

Diabetic foot problems: Prevention & Management

(<https://www.nice.org.uk/guidance/ng19>)

1.2.3 The multidisciplinary foot care service should be led by a named healthcare professional, and consist of specialists with skills in the following areas:

- Diabetology
- Podiatry
- Diabetes specialist nursing
- Vascular surgery
- Microbiology
- Orthopaedic surgery
- Biomechanics and orthoses
- Interventional radiology
- Casting
- Wound care

1.3 Assessing the risk of developing a diabetic foot problem

Frequency of assessment

1.3.3 For adults with diabetes, assess their risk of developing a diabetic foot problem at the following times:

- When diabetes is diagnosed, and at least annually thereafter (see recommendation 1.3.11).
- If any foot problems arise.
- **On any admission to hospital**, and if there is any change in their status while they are in hospital.

King's College Hospital, London

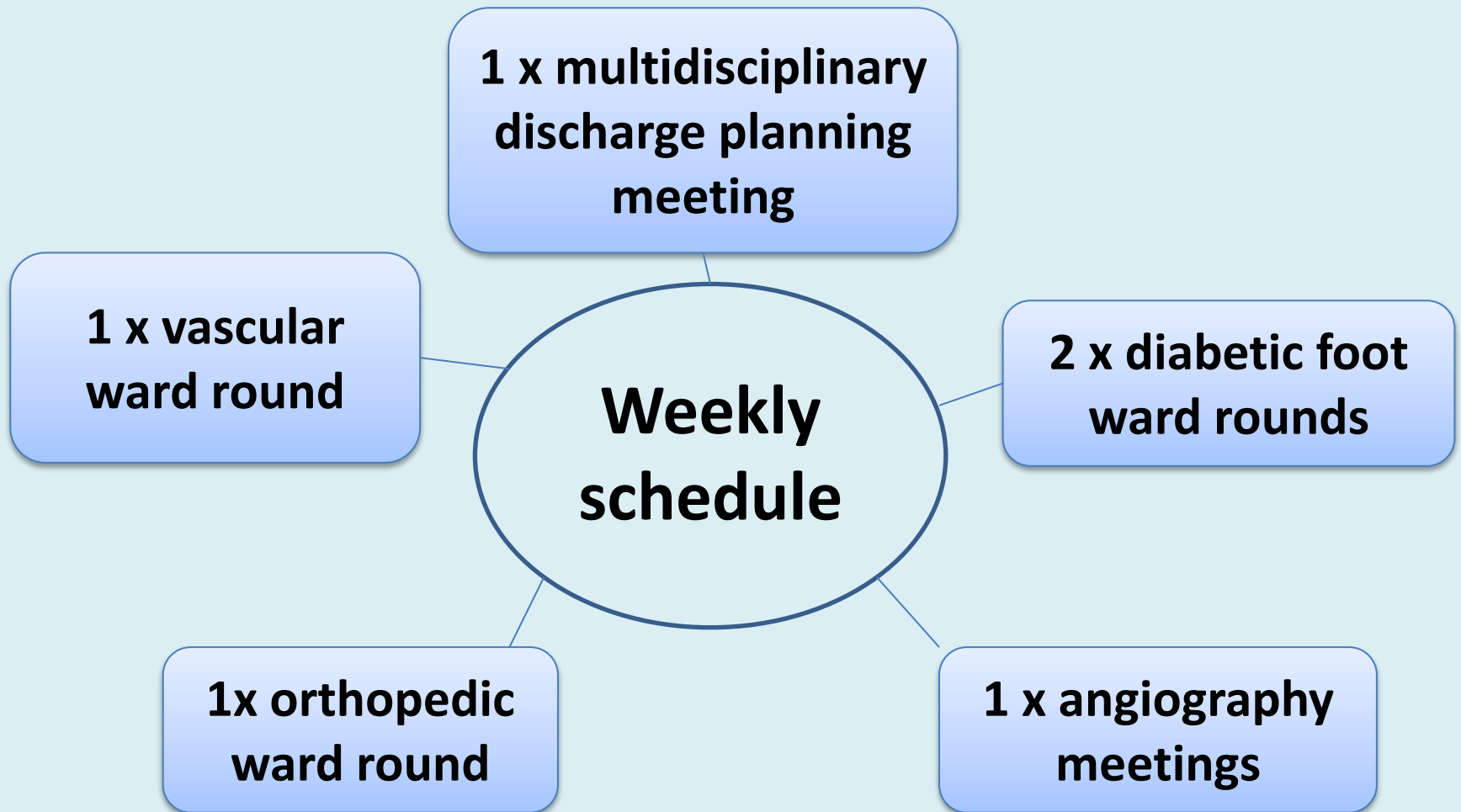
Background

- Large Out patient department
- Large inner city, ageing, ethnic population
- High incidence of Diabetes
- High no. of acute Diabetic Foot admissions
- Designated Hospital Beds for admission of Diabetic Foot Problems

Multidisciplinary team in Diabetic Foot Management

- Diabetologist
- Vascular surgeon
- Orthopaedics
- Microbiologists
- Podiatrists
- Interventional Radiologists
- Nurses
- P&O
- Bed managers
- Plastic surgeons
- Physiotherapists
- Occupational therapists

The multidisciplinary DM team in Kings college Hospital



Diabetic Foot Practitioner

- Designated inpatient Podiatrist
- Aim to provide seamless admission for diabetic foot patients

Role:

1. Closely supervise the diabetic foot inpatients
2. Co-ordinate all aspects of multidisciplinary care
3. Implement strategies to reduce hospital LOS

Initial wound assessment

- Require admission
- Surgical debridement
- Blood tests (CRP, WBC etc)
- Vascular studies (ABI, Duplex, Angiograms, TCPo2)
- Microbiology and antibiotics
- Radiology (X-ray/ ultrasound /MRI)



Close supervision of the Diabetic foot

- Comprehensive assessment of the lower limb (wound, vascular, neurological, m/sk, skin)
- Multidisciplinary team Liaison
- Intensive wound care
- Detection and surveillance of infection
- Construction of pressure relieving devices
- Education

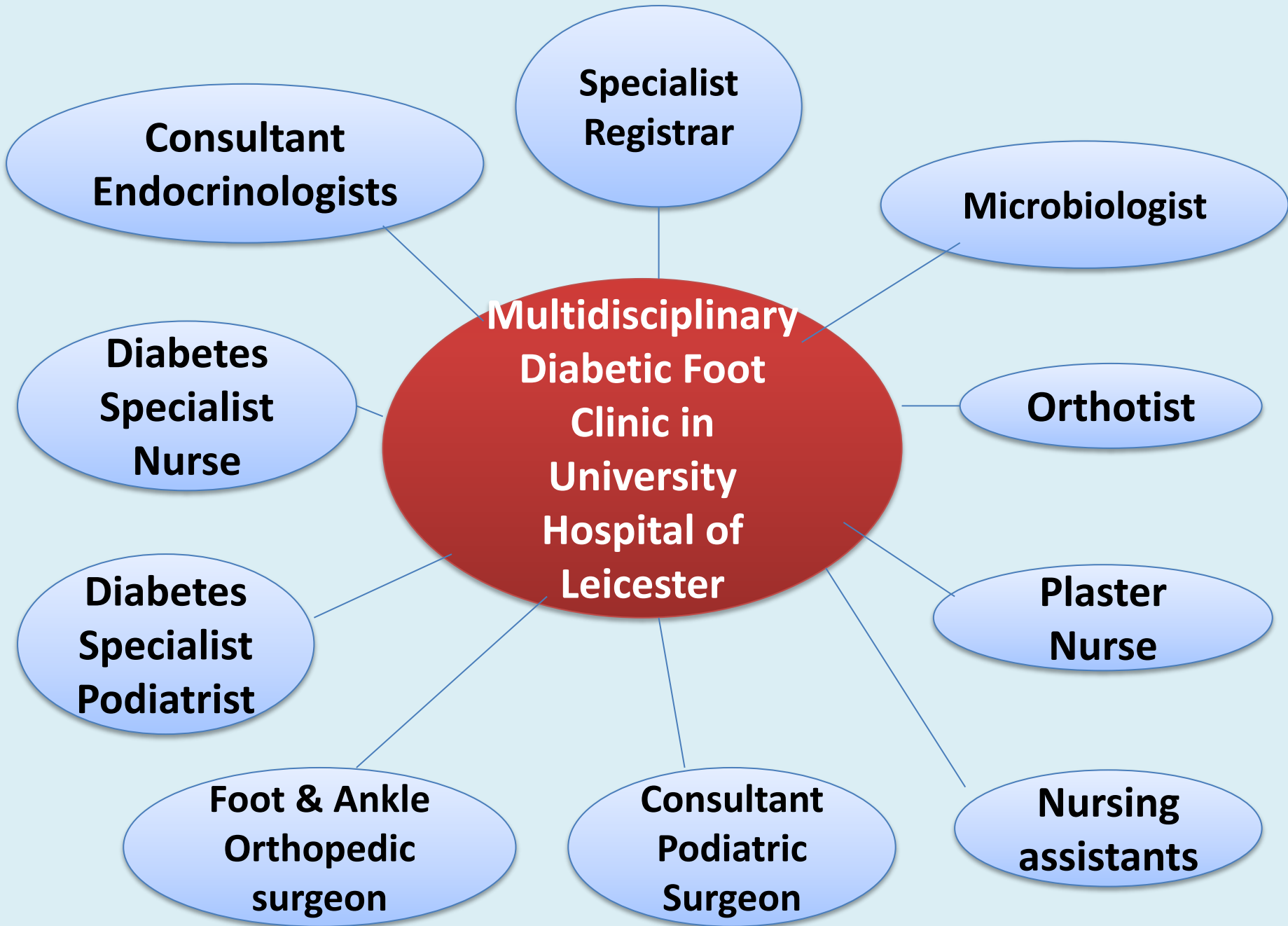


Program Rundown – Part 2

7 days Clinical Placement in **Leicester**

- **Clinic / Theatre with Consultant Podiatric Surgeon**
- **Multidisciplinary diabetic foot clinic**
- **Inpatient endocrinology ward round**





DM foot joint clinic consultation

Benefit

- ✓ Immediate specialist opinion / input
- ✓ One stop consultation for patient (Review of medication / assessment of foot ulcer / orthotic intervention / casting etc)
- ✓ Timely management
(e.g. admission / x-ray / antibiotics /surgery)
- ✓ Professional knowledge exchange /sharing platform
- ✓ Medical student must attend as part of training curriculum
- ✓ Essential part of registrar training for doctors

New Rx For Diabetic Foot Ulcer

Biodegradable antibiotic-loaded calcium sulphate

Calcium sulphate

+ Gentamicin 80 mg

+ Vancomycin 1 g

➔ Absorbable topical antibiotic beads



Vancomycin-impregnated calcium sulphate tx for DM foot ulceration



Benefit:

- ✓ Direct target of infected tissue → Avoid prolonged oral or parenteral antibiotics tx
- ✓ Improves wound healing time and result
- ✓ Effective treatment for osteomyelitic wound
- ✓ Preserve limb, avoid further amputation
- Vancomycin – active against most Gram+ bacteria e.g. MRSA
- Combine with gentamicin → synergistic effect (enhance its spectrum of activity)



Reflections

- ✓ **Well established guideline / clinical pathway**
- ✓ **Strong and closely coordinated multidisciplinary relationship**
- ✓ **Extended Podiatrist's scope of practice in UK**
- ✓ **Our role in DM foot management**
- ✓ **?Gaps of existing service**

Back in HK...

**Together, How can we
enhance the care of our
diabetic patients?**