

VALUE-BASED HEALTHCARE CONFERENCE 2024

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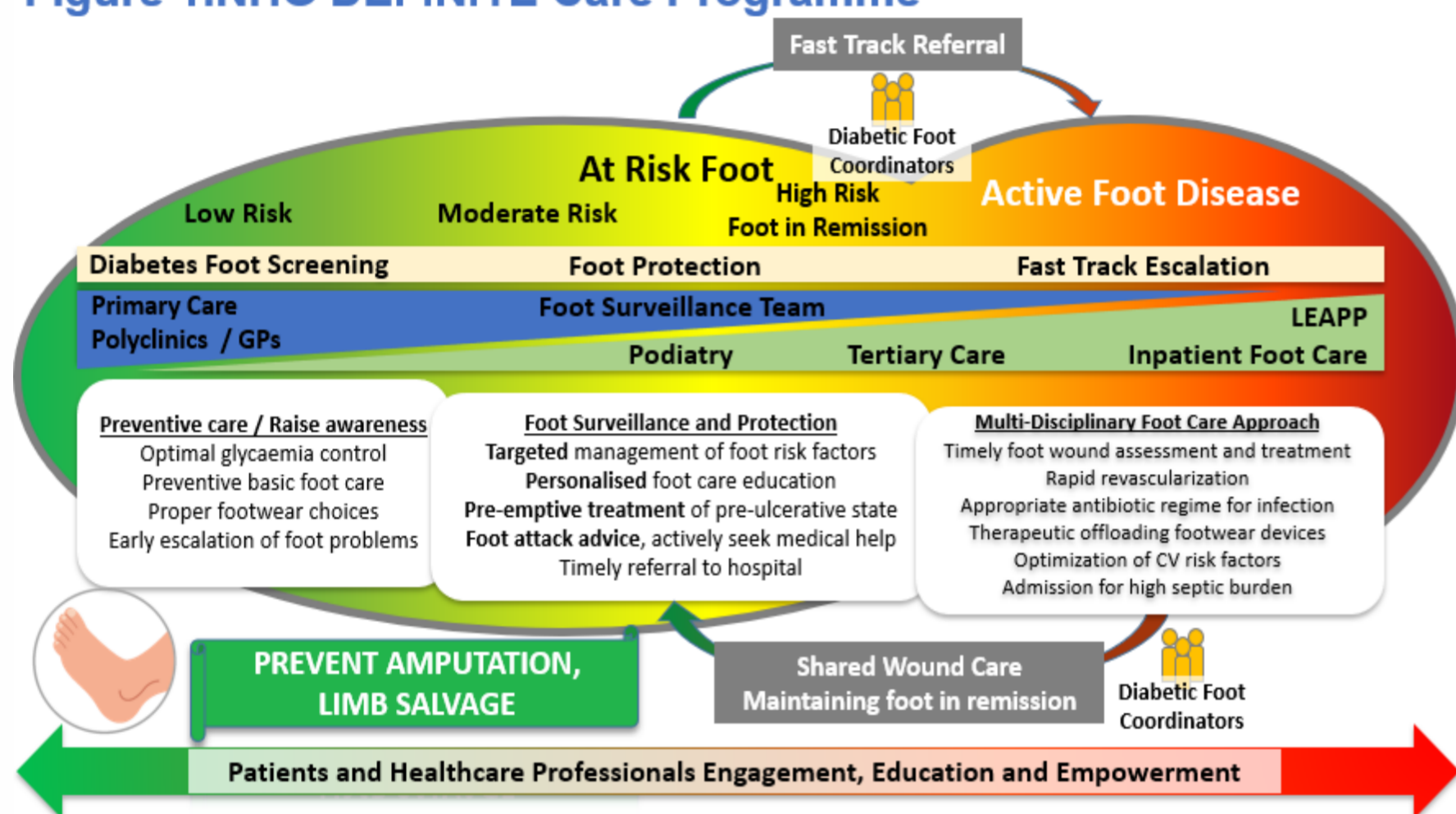
IMPACT OF PODIATRY SERVICES IN AN INTEGRATED DIABETIC LIMB SALVAGE PROGRAMME (DEFINITE) ON HEALTH OUTCOMES AND HEALTHCARE UTILISATION

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Background & Aim

Podiatrists are essential in managing diabetic foot ulcers (DFUs) through timely interventions and continuous monitoring. However, the impact of podiatry services within the Diabetic Foot in Primary and Tertiary (DEFINITE) Care programme, an integrated diabetic limb salvage programme (Figure 1), on DFU outcomes has not been well studied.

Figure 1. NHG DEFINITE Care Programme



This observational study evaluated the differences in one-year outcomes, including lower extremity amputation (LEA) rates, mortality, LEA-free survival, and healthcare utilisation between DEFINITE patients with and without podiatry follow-ups.

Methods

Study participants

- 2,798 patients with DFUs were enrolled in the DEFINITE programme between June 2020 and June 2021.
- Exposed group: 1,212 (43.3%) DEFINITE patients with podiatry follow-ups; unexposed group: 1,586 (56.7%) DEFINITE patients without podiatry follow-ups.

Outcome variables

- Clinical outcomes: incidence of minor and major LEAs, mortality, and LEA-free survival within one year.
- Healthcare utilisation: one-year utilisation at inpatient wards, emergency departments (ED), specialist outpatient clinics (SOC) and polyclinics; cumulative length of stay (LOS).

Covariates

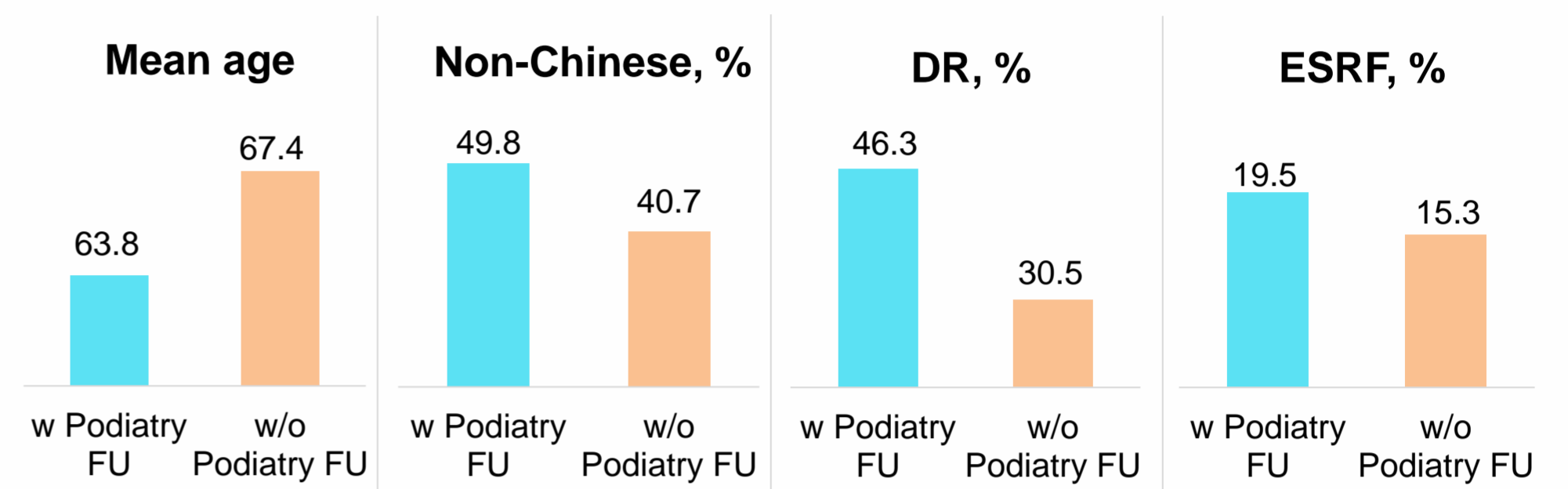
- Demographics: age at enrolment, gender, ethnicity.
- Clinical factors: medical history of IHD, stroke, ESRF, and diabetic retinopathy (DR); history of LEA in the past year; use of medications for diabetes, hypertension, platelet aggregation inhibition, anticoagulation, and lipid lowering.

Data analysis

- Statistical methods: multiple logistic regressions for clinical outcomes; Zero-Inflated Poisson or Zero-Inflated Negative Binominal regressions for utilisation, adjusting for covariates.
- Reported metrics: adjusted odds ratios for clinical outcomes, and adjusted incidence rate ratios for healthcare utilisations, with 95% confidence intervals (CIs).

Results

Patient profiles



Impact of podiatry services in the DEFINITE Care programme

Compared to programme patients without podiatry follow-ups, those with podiatry follow-ups experienced:

- **Twice** the odds of minor LEA but **27% lower** odds of major LEA,
- **69% lower** odds of mortality,
- **26% higher** odds of LEA-free survival (Figure 2).
- **28% more** inpatient admissions but **17% shorter** cumulative LOS,
- **54% more** SOC visits and **11% more** ED visits,
- Similar number of polyclinic visits (Figure 3).

Figure 2. Clinical outcomes with vs. without podiatry follow-ups

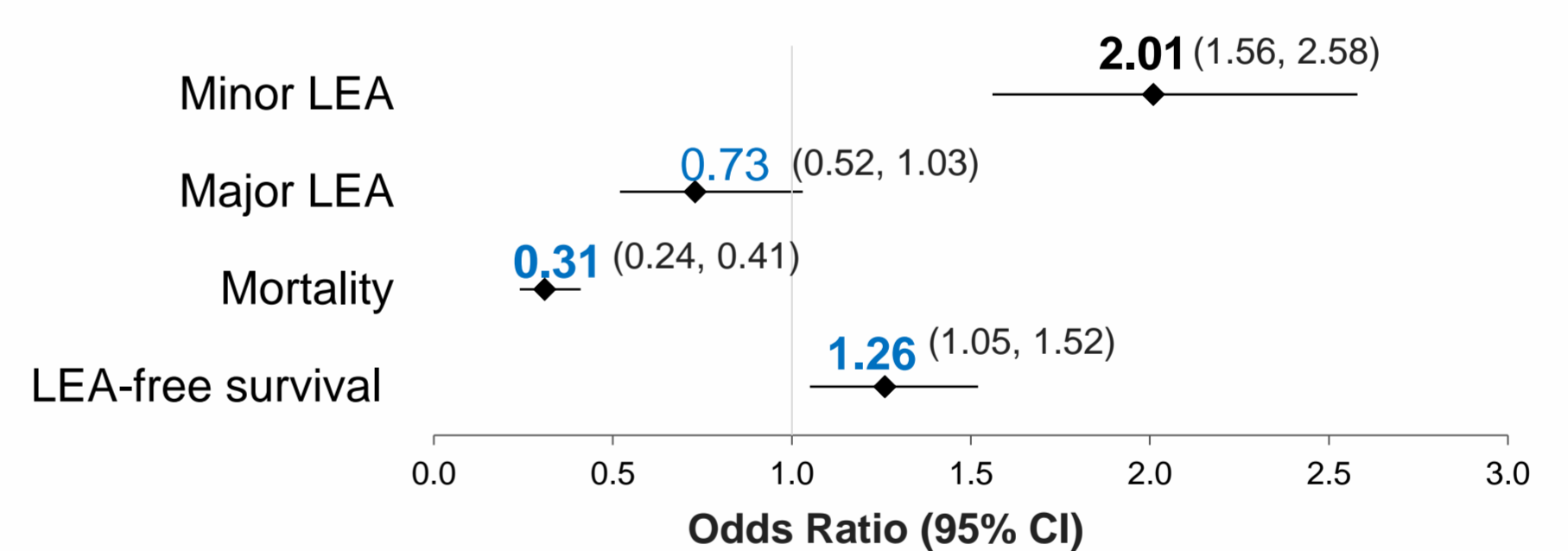
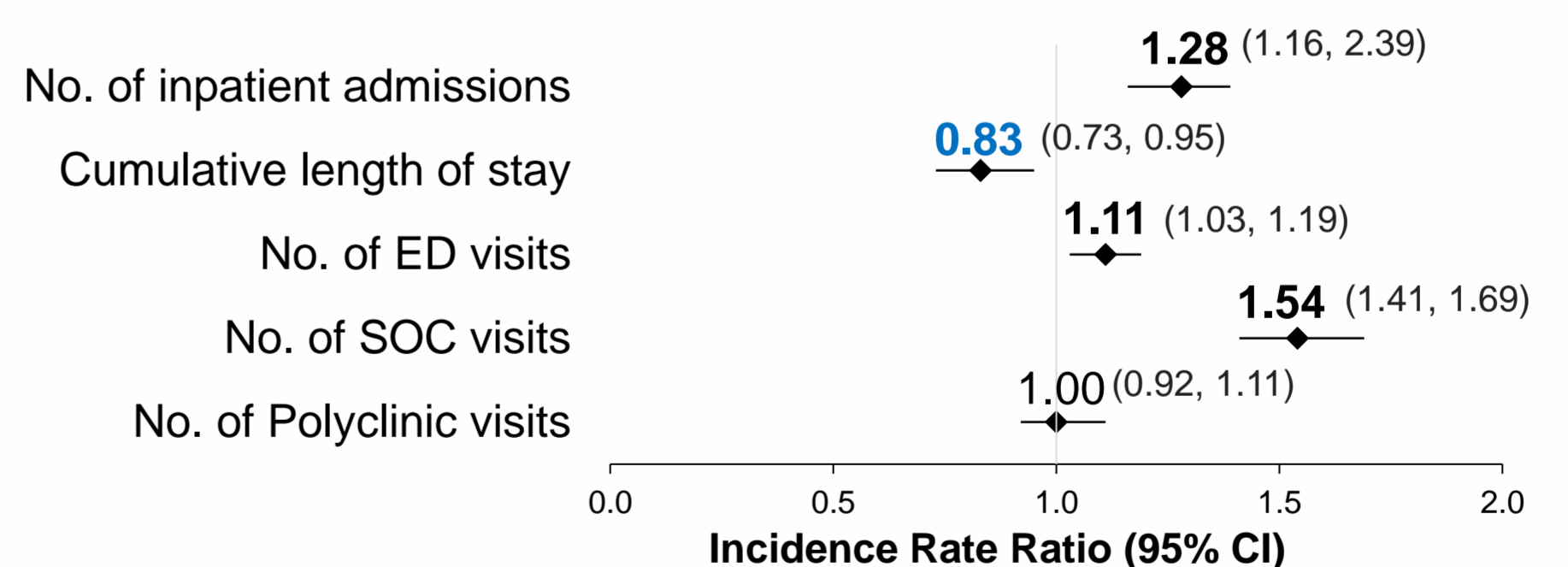


Figure 3. Healthcare utilisation with vs. without podiatry follow-ups



Conclusion & Implication

- Podiatry services within the DEFINITE Care programme are associated with improved one-year LEA-free survival and reduced mortality rate.
- Although patients with podiatry follow-ups exhibited higher healthcare utilisation in secondary and tertiary care settings, the benefits in limb salvage, reduced mortality, and shortened LOS underscore the critical role of podiatry services in DFU care.
- Future research should focus on optimising healthcare resource allocation to enhance patient outcomes while maintaining efficiency.