

Microbiological flora in osteomyelitis complicating diabetic foot ulceration

Poster ID 228

Department of Diabetes and Endocrinology

Presented by Dr Chloe Uffendell

C. Uffendell, S. Dwarampudi, K. Larsen, S. Dwarampudi, S. Miller, L. Wang, C. O'Dowd, U. Srinivas-Shankar

Introduction

- Diabetic foot ulceration (DFU) is associated with infection, cellulitis and osteomyelitis.

Aims

- To identify the microbiological flora in patients with DFU complicated by osteomyelitis
- To determine the correlation between organisms and treatment outcome.

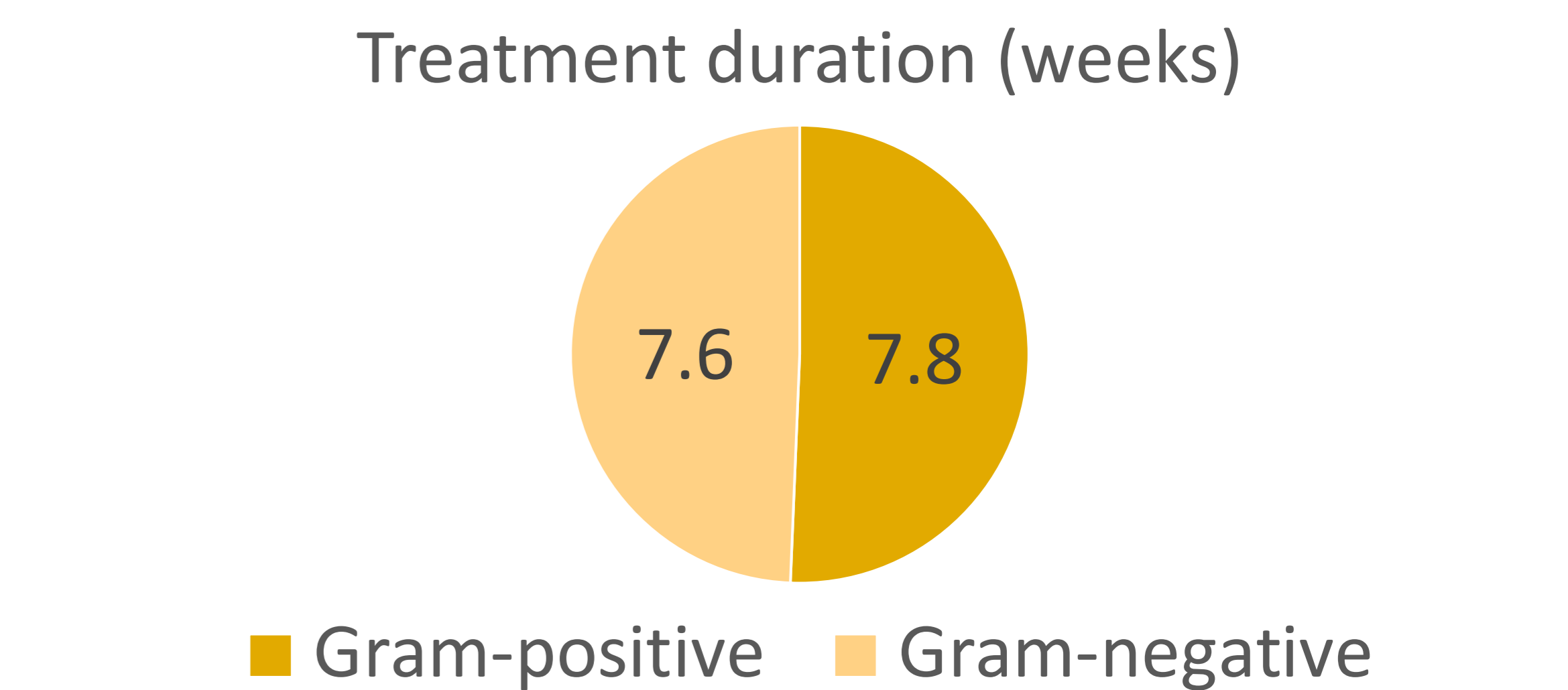
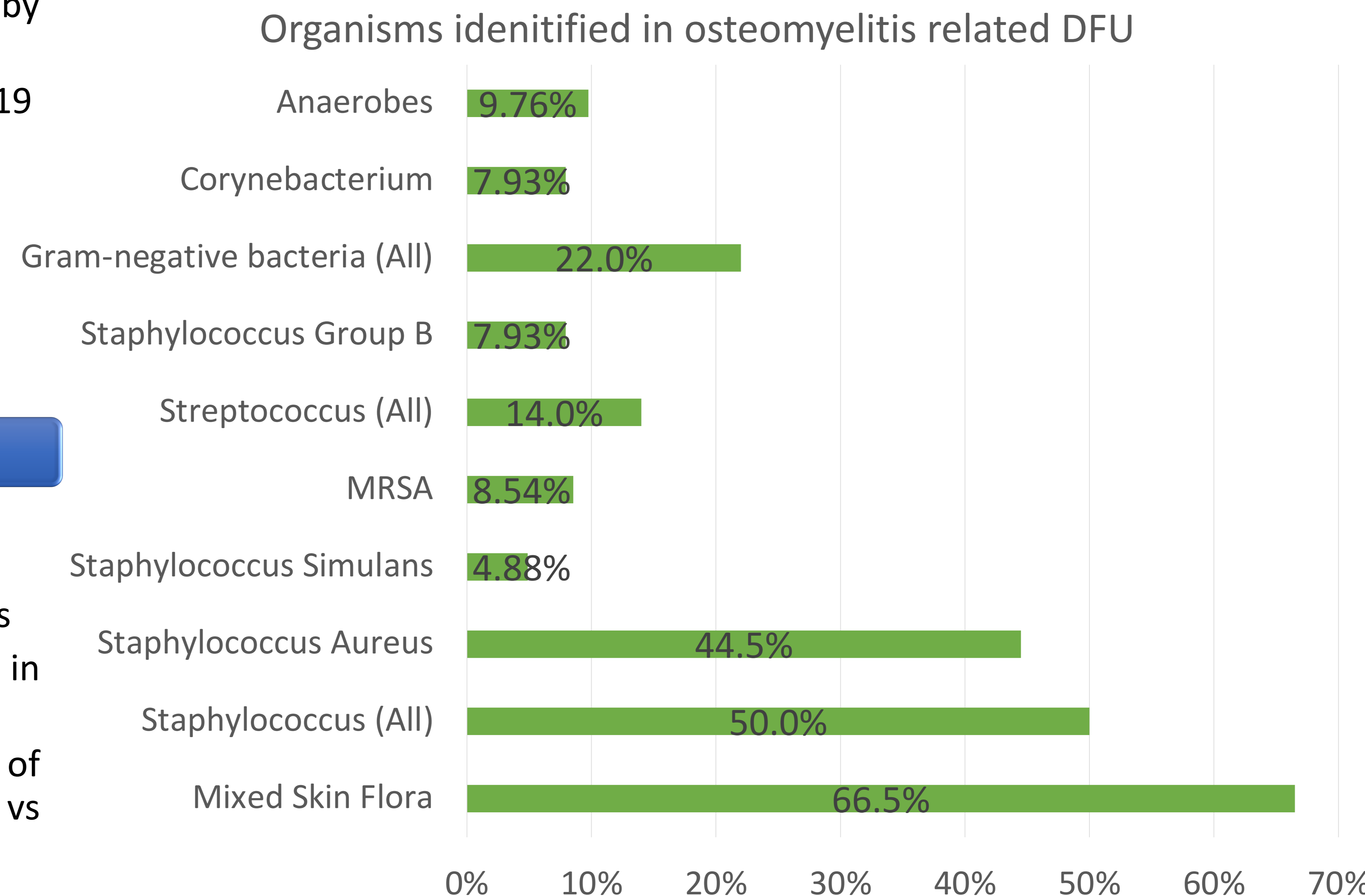
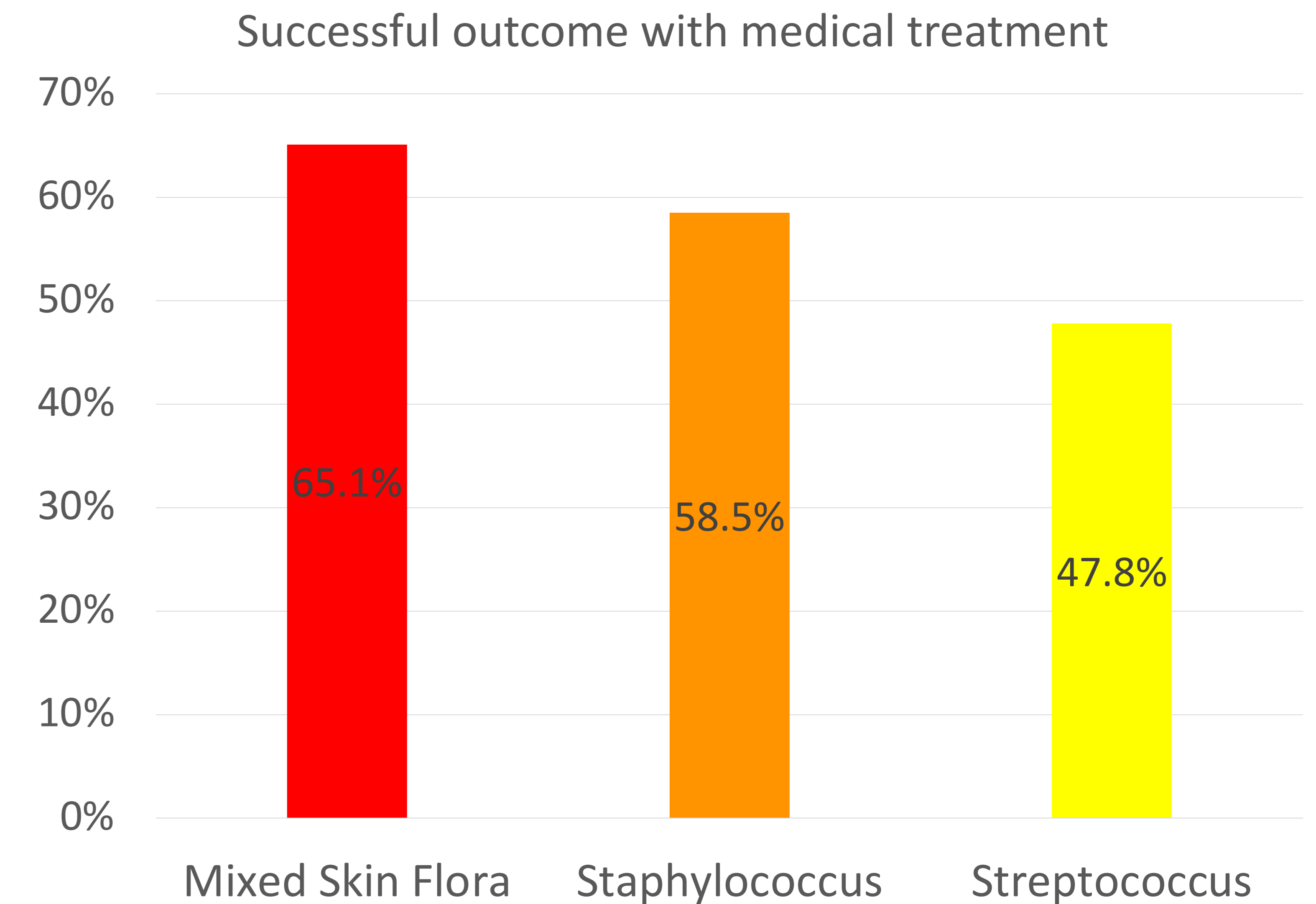
Materials & methods

- Observational study of patients reviewed by multidisciplinary diabetes foot team
- Study period: December 2017 to September 2019
- Data collected included
 - Baseline characteristics
 - Clinical features present
 - Imaging performed

Results

- 1006 episodes of DFU in 771 patients
- 180 episodes were complicated by osteomyelitis
- Wound swab or tissue culture was performed in 164/180 (91%) episodes.
- There was no difference in treatment duration of osteomyelitis in the presence of Gram-positive vs Gram-negative organisms (7.8 vs 7.6 weeks)

Baseline characteristics and co-morbidities	
Age (Mean, SD, years)	67.4 (13.4)
BMI (Mean, SD, kg/m ²)	30.1 (7.9)
HbA1c (Mean, SD, mmol/mol)	65.9 (23.2)
Smoker (%)	15.0
Ischaemic Heart Disease (%)	29.4
Hypertension (%)	81.7
Cerebrovascular accident (%)	13.9
Hyperlipidaemia (%)	73.3
Chronic Kidney Disease (%)	35.6
Peripheral Neuropathy (%)	88.3
Peripheral Arterial Disease (%)	59.4
Male (%)	74.4
Female (%)	25.6



Conclusion

- Staphylococcus aureus is the commonest organism associated with osteomyelitis complicating DFU
- Identification of a Gram-positive organism is associated with a lower incidence of osteomyelitis resolution.