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# A regional root cause analysis of major diabetes-related lower limb amputations in the North East of England

**Dr Simon Ashwell**

Consultant Diabetes & Endocrinology

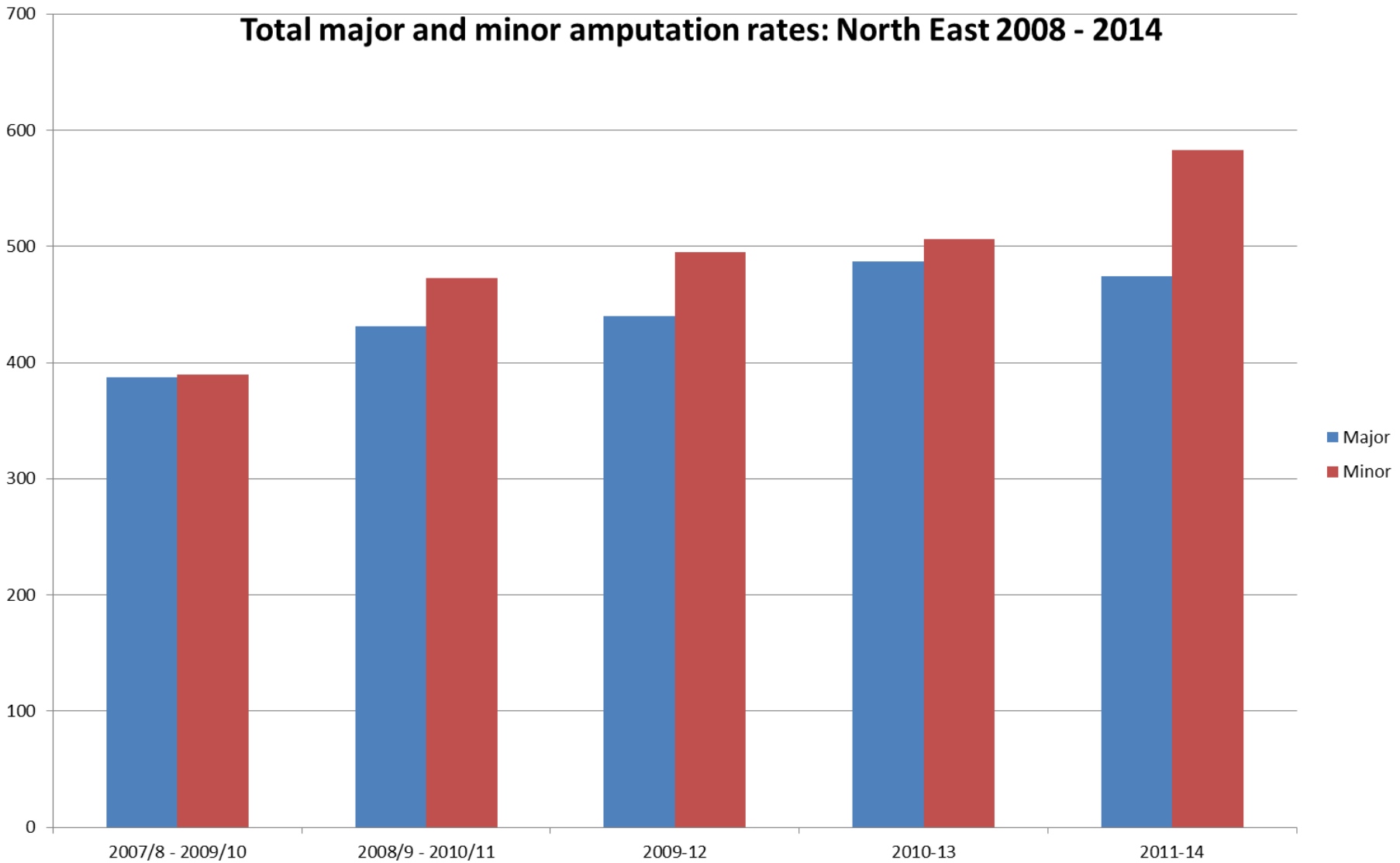
The James Cook University Hospital

Middlesbrough



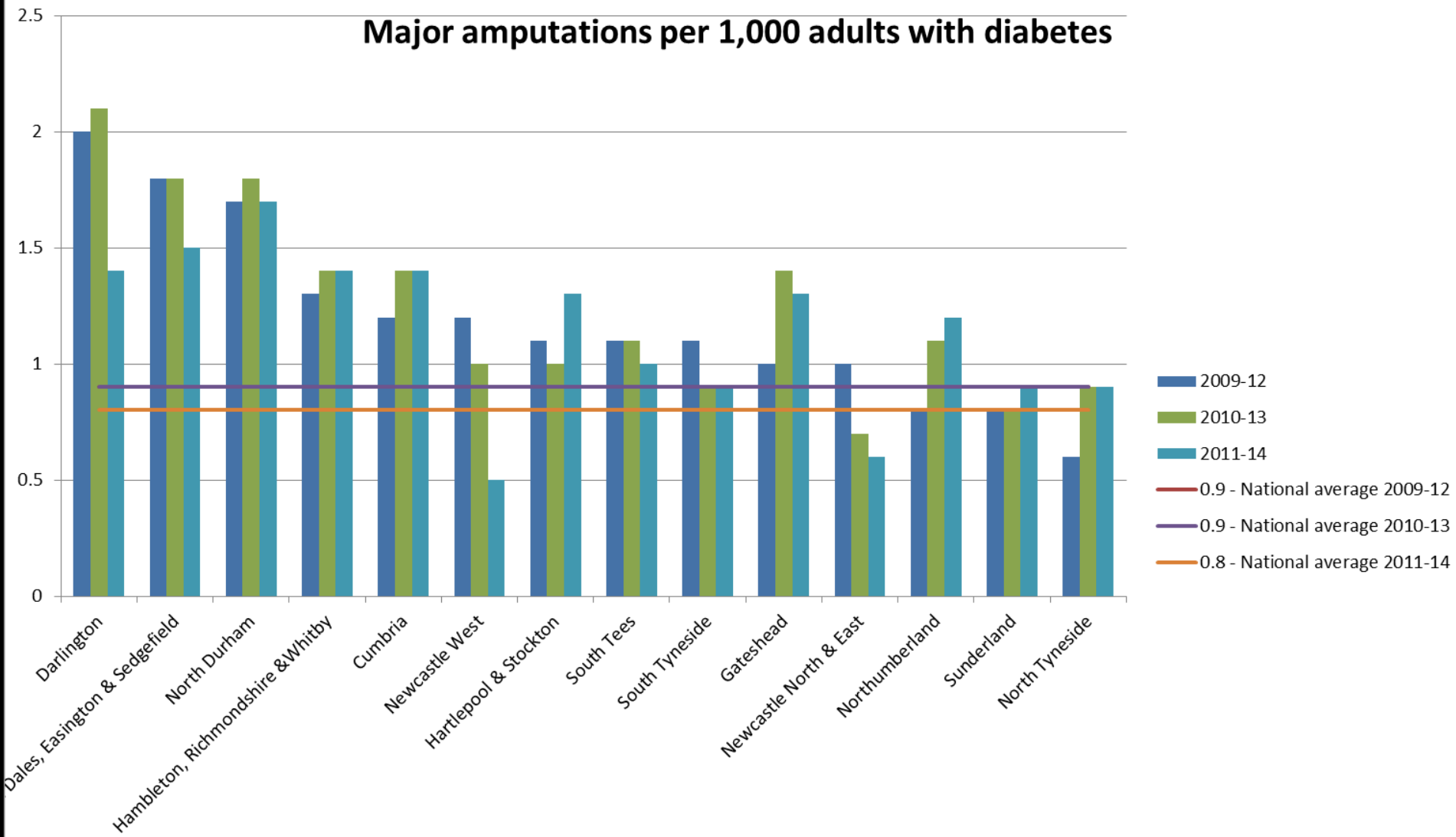
**NORTHERN DIABETES  
FOOT CARE NETWORK**

# Total major and minor amputation rates: North East 2008 - 2014



Note: Incomplete data for 2007/8

# Major amputations per 1,000 adults with diabetes



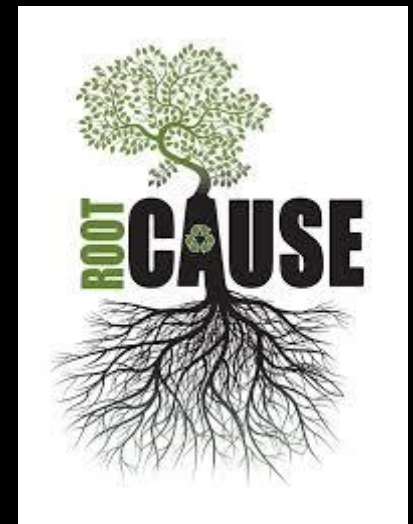
Network CCG

Major amputation - surgical removal of the leg above the ankle (usually below, through or above the knee)



# Aims

- Perform a root cause analysis of all diabetes related major lower limb amputations in the North East of England
- To examine the factors contributing to major diabetes-related lower limb amputation
- Investigate preventable causes of amputation
- Reduce major diabetes related amputations
- Long-term project



# Methods

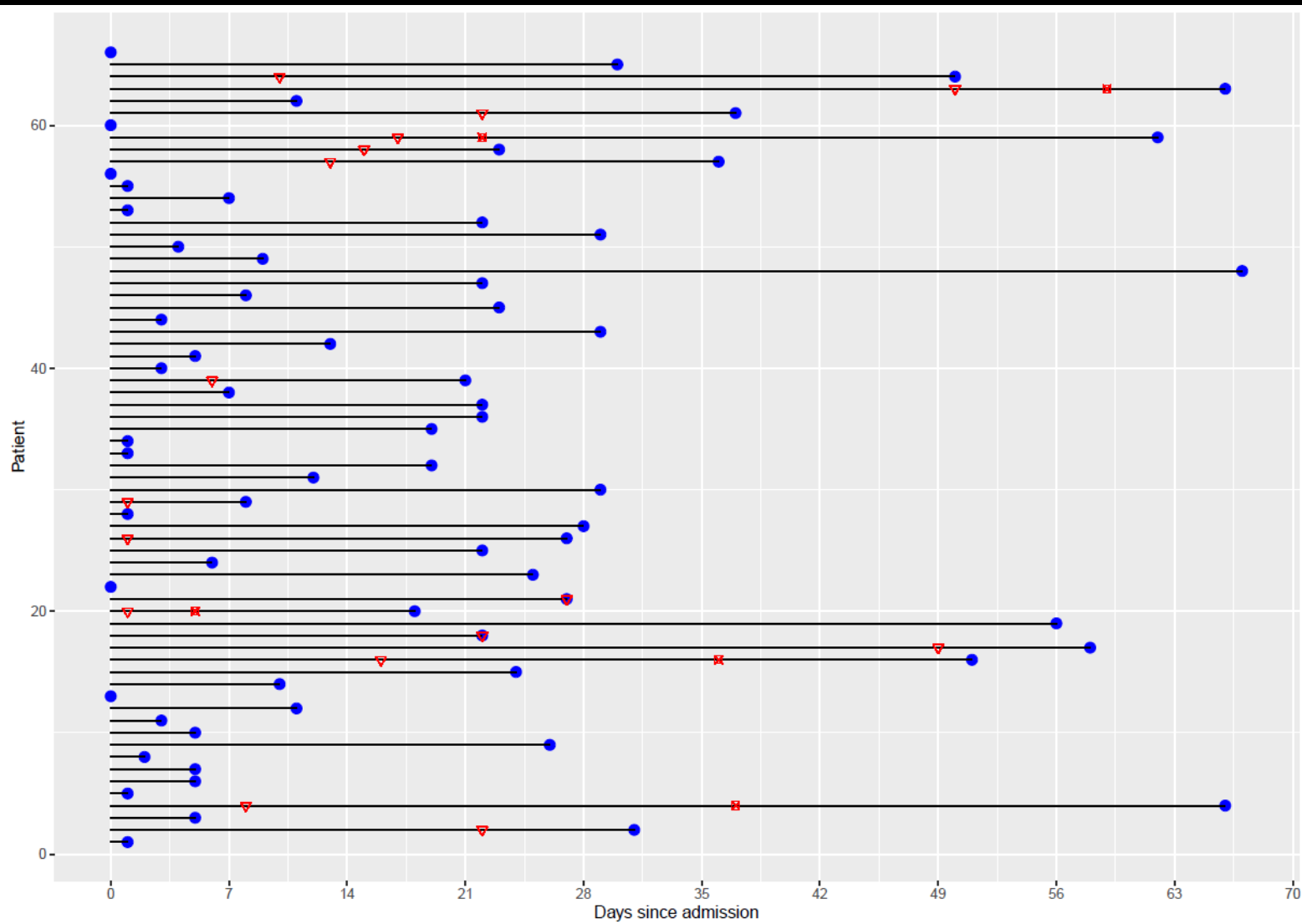
- Northern Diabetes Foot Care Network
- Trialled, developed and agreed data collection tool
- MDT case note review of all major amputations ASAP following amputation
- First interim analysis
- 1 November 2013- 31 October 2014

# Results - demographics

<b>Amputations (n)</b>	<b>84</b>
BKA (%)	63
Male (%)	78
Type 2 diabetes (%)	86
Renal Failure (%)	27
Partially sighted (%)	12
Non-elective admission (%)	64
Previous minor amputation (%)	34



# Results – treatment timeline

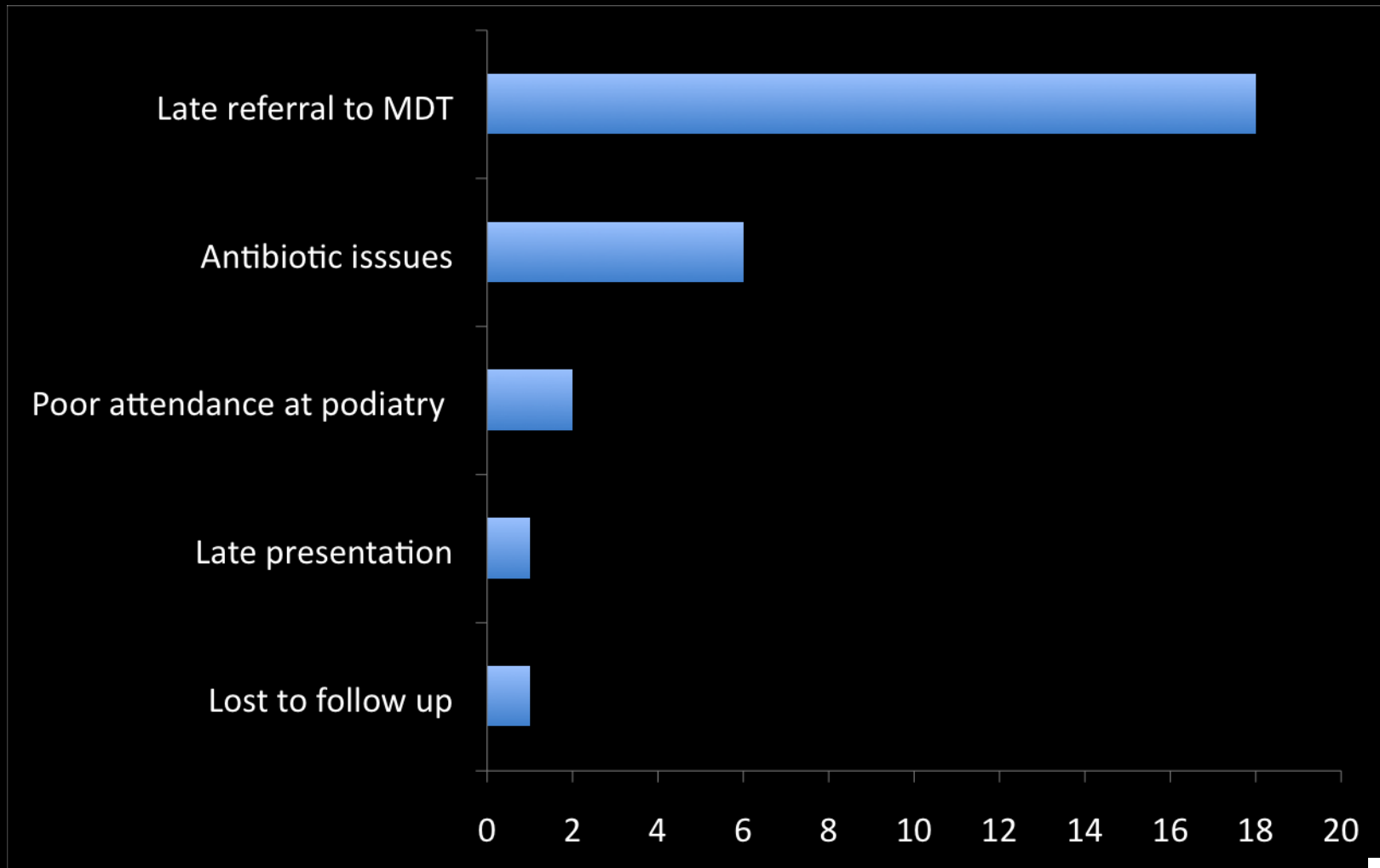


Median 18.5 (5-33) days

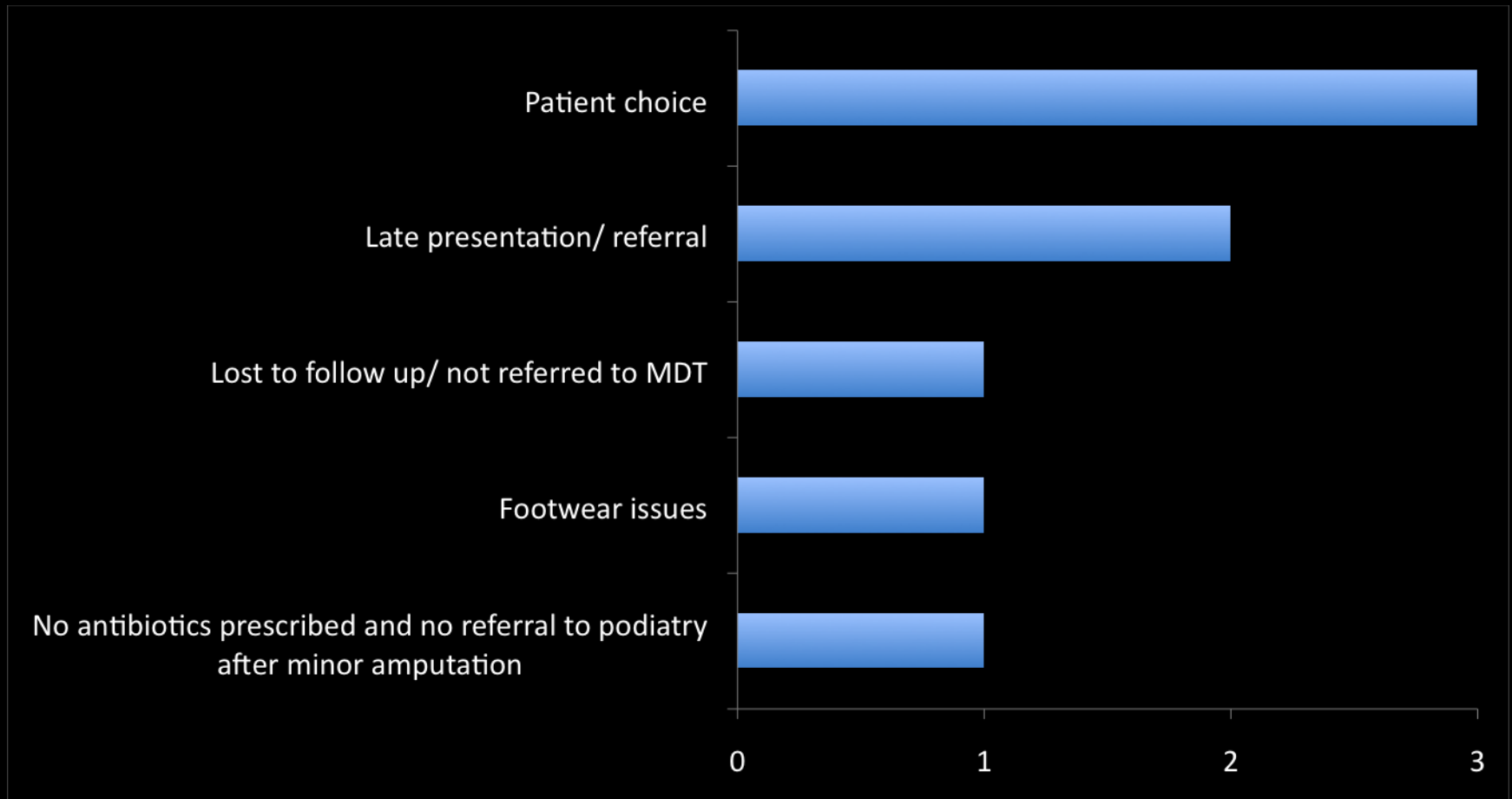
# Results – process of care

- 19% not seen by diabetes foot MDT within 6 months of major amputation
- 21% antibiotics not given in accordance with trust protocol/ microbiological sensitivities
- 26% not seen by member of diabetes foot MDT within 24h
- 10% not seen by member of diabetes foot MDT within 1 week
- 36% no foot imaging performed
- 38% patient concordance contributed

# Areas in which care thought to be suboptimal



# Preventable amputations (n=8, 14%)



# Conclusions

- Proof of feasibility
- Local & regional lessons
- Early referral to MDT
- Antibiotics
- Ongoing process

# Collaborators

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