**Negative determinants of diabetic foot ulcer healing: 6-month follow-up of a large multicentre cohort**

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**Aim**: Knowing the determinants that negatively influence diabetic foot ulcer (DFU) healing is crucial for improving DFU care. We identified negative determinants of DFU healing in diabetic foot clinics (DFC) participating in a quality improvement (QI) initiative with periodical audits and feedback (anonymous benchmarking). [1]

**Methods**: In 2011, 32 Belgian DFCs followed 1528 patients with a DFU of Wagner grade 2 or more for six months or until healing, major amputation or death, whichever occurred first. Cumulative incidence functions were studied and Cox proportional hazards regression was used to identify determinants of healing by using a forward selection method, taking into account competing risks (major amputation and death), missingness of covariates and clustering of outcomes in DFCs.

**Results**: At 6 months, the overall probability of healing, major amputation and death was 60.1, 4.3 and 4.4% respectively. 31.3% of patients had a DFU that was not healed. Multivariate analysis identified 6 significant (P<0.05) negative determinants of healing: presence of contralateral ulcer(s) at presentation reduced predicted 6-month healing probability by 27.1%, presence of peripheral artery disease by 21.1%, presence of midfoot/heel ulcers (vs. toe) by 19.7%, presence of additional ipsilateral ulcer(s) by 14.4%, presence of renal insufficiency by 13.5% and referral delay by 5.6% per additional 3 month delay. Notably, plantar vs. dorsal location was not significantly associated with DFU healing.

**Conclusions**: Presence of bilateral DFUs is particularly detrimental for healing. Compared to previous observational studies and especially Eurodiale [2], our data, collected routinely for QI purposes, yielded a similar set of negative determinants of healing, thus highlighting their external validity. Our findings could be incorporated in a useful QI tool in which risk-adjusted outcomes of DFCs are benchmarked to each other and over time.

[1] Doggen K, Diabetes Metab Res Rev. 2014;30:435-443.

[2] Pickwell K, Diabetes Metab Res Rev. 2013;29:377-383.