

## Health-related quality of life predicts major amputation and death, but not healing in people presenting with diabetic foot ulcers; the Eurodiale study

M. Kars<sup>1</sup>, V. Siersma<sup>2</sup>, H. Thorsen<sup>2</sup>, P. Holstein<sup>3</sup>, on behalf of the Eurodiale consortium

<sup>1</sup>Dept of Internal Medicine, Div of Endocrinology, Maastricht University Medical Center, The Netherlands <sup>2</sup>The Research Unit for General Practice and Section of General Practice, Dept of Public Health, University of Copenhagen, Copenhagen, Denmark <sup>3</sup>Copenhagen Wound Healing Centre, Bispebjerg University Hospital, Copenhagen, DK

**Background and aims:** Low health-related quality of life (HRQoL) has been consistently reported to be associated with poor prognosis for a variety of health outcomes in various settings. We aim is to evaluate whether HRQoL in patients presenting with new diabetic foot ulcers has prognostic significance for ulcer healing, amputation and death.

**Materials and methods:** The analysis follows 1088 patients with new diabetic foot ulcers presenting for treatment at one of the 14 centers in 11 European countries participating in the Eurodiale study, until healing (76.9%), major amputation (4.6%) or death (6.4%) up to a maximum of 1 year. At baseline, patient and ulcer characteristics were recorded as well as EQ-5D; a standardised instrument consisting of five domains for use as a measure of HRQoL. The prognostic influence of the EQ-5D domains was evaluated in multivariable Cox regression analyses on the time to event data, adjusting for baseline clinical characteristics of the ulcer and co-morbidities. **Results:** While the adjusted effects of HRQoL were statistically insignificant for healing, notably the physical domains were statistically significant for major amputation (Mobility, Self-Care, Usual Activities) and death (Self-care, Usual Activities, Pain/Discomfort). See Table A below **Conclusions:** low HRQoL appears to be predictive for poor outcome, but high HRQoL does not seem to appear advantageous for good outcome.

**Table A:** Adjusted Cox regression analyses on time to healing, death or major amputation. A hazard ratio (HR) < 1 indicates a lower rate of healing, a lower mortality rate, or a lower rate of amputation, respectively, in the corresponding category as compared to the baseline category.

EQ-5D	Healing			Death			Major amputation		
	HR	95%CI	p-value	HR	95%CI	p-value	HR	95%CI	p-value
Mobility			0.7851			0.1419			0.0025
Some problems vs No problems	0.98	0.82 - 1.18		2.71	1.00 - 7.34		3.60	1.81 - 10.97	
Severe problems vs No problems	1.13	0.74 - 1.74		2.90	0.69 - 12.29		17.09	3.43 - 85.01	
Self-Care			0.5398			0.0217			0.0012
Some problems vs No problems	0.90	0.72 - 1.13		1.86	0.86 - 4.02		4.28	1.93 - 9.49	
Severe problems vs No problems	1.11	0.71 - 1.74		4.03	1.49 - 10.91		4.41	1.15 - 16.96	
Usual Activities			0.8124			0.0053			0.0008
Some problems vs No problems	0.97	0.81 - 1.16		2.72	1.06 - 7.00		5.80	2.24 - 15.06	
Severe problems vs No problems	1.06	0.78 - 1.46		5.69	1.98 - 16.34		2.14	0.57 - 7.97	
Pain/Discomfort			0.9232			0.0164			0.0571
Moderate vs No	1.03	0.86 - 1.23		2.94	1.23 - 7.02		3.01	1.20 - 7.53	
Extreme vs No	1.05	0.77 - 1.44		4.63	1.56 - 13.77		3.03	0.88 - 10.44	
Anxiety/Depression			0.7055			0.2851			0.1151
Moderate vs No	0.99	0.82 - 1.19		1.28	0.64 - 2.55		1.77	0.88 - 3.59	
Extreme vs No	1.15	0.81 - 1.65		2.36	0.81 - 6.89		0.25	0.03 - 2.60	