

CHARACTERISATION OF PATIENTS WITH CHRONIC WOUNDS: HEALTH SERVICES RESEARCH BY ADMINISTRATIVE DATA ANALYSIS

Schulte T¹, Hildebrandt H¹, Dissemond J², Grabbe S³, Abel M⁴, Rödiger S⁴

¹ Optimedis AG, Hamburg, Germany

² Essen University Hospital, Germany

³ University Medical Centre at the Johannes Gutenberg-Universität Mainz, Germany

⁴ Lohmann & Rauscher GmbH, Rengsdorf, Germany

Introduction:

The analysis strives to characterise insurants who use health services in the German statutory health insurance for the treatment of chronic wounds in order to get further knowledge to optimise care for affected patients.

Methods:

The data used for this retrospective cohort study is administrative data (claims data) from a regional cohort enrolled in statutory health insurance. The study cohort is extracted from 50.620 insured individuals. The investigational group (cases) is identified by diagnoses of ICD-10-GM for the disease entity chronic wounds in the calendar years 2007 – 2009.

ICD-10	Indication	Number of patients	
		Outpatient	Inpatient
L97	Ulcer of lower limb	646	36
T79.3	Post-traumatic wound infection	438	3
I83.0	Varicose veins of lower extremities with ulcer	163	19
I83.2	Varicose veins of lower extremities with both ulcer and inflammation	146	18
E10.7	Insulin-dependent diabetes mellitus with multiple complications	119	18
E11.7	Non-insulin-dependent diabetes mellitus with multiple complications	88	17
L89.2	Stage III decubitus ulcer and pressure area	41	71
T23.2	Burn of second degree	20	5
L89.3	Stage IV decubitus ulcer and pressure area	18	26

Table 1: Number of patients with most common types of chronic wounds in 2009

Results:

On basis of predefined diagnosis the prevalence of chronic wounds was found 4.2 per cent. Most common in the study group was venous leg ulcer (ulcer of lower limb, L97; varicose veins of lower extremities with ulcer, I83.0; varicose veins of lower extremities with both ulcer and inflammation, I83.2) with a point prevalence of 1.9 per cent. Second most were post-traumatic wound infections with a point prevalence of 1.0 per cent followed by and diabetic foot syndrome with a point prevalence of 0.4 per cent. Decubitus was coded in 0.2 per cent, in hospitals mainly as secondary diagnosis.

Insurants with a chronic wound have an average age of 72 years and are 18 years older than the entire study population. Patients with chronic wounds are multimorbid and show a variety of – partly age-related – co-morbidities in which hypertension and arthrosis are the most common. Five per cent of the study population had to be treated in hospital due to a chronic wound per year (discharge diagnosis) with an average duration of a hospital stay of 17.3 days. Hospitalisations because of other reasons in which chronic wounds have been coded as secondary diagnosis were found among 10 per cent of the study group. Incapacity to work due to a chronic wound affected 16 per cent of working insurants in the study population with an average duration of 48.2 days.

Conclusion:

The findings regarding point prevalence of ulcus cruris and diabetic foot syndrome are in concordance with earlier estimates. Surprisingly high were post-traumatic wound infections with 1 per cent of the study population whereas decubitus was only found among 0.2 per cent. For the latter it can be assumed that there are a large number of unreported cases. High rates of hospitalisation and incapacity to work underline the medical and health economical impact of chronic wounds.

ICD-10	Indication	Figures	
		Number	in per cent
I10.90	Essential (primary) hypertension	1962	60,4%
I83.9	Varicose veins of lower extremities without ulcer or inflammation	969	29,9%
H52.2	Astigmatism	784	24,2%
M17.9	Gonarthrosis, unspecified	747	23,0%
E11.90	Non-insulin dependent diabetes mellitus without complications	728	22,4%
H52.4	Presbyopia	693	21,4%
H52.0	Hypermetropia	658	20,3%
I50.9	Heart failure, unspecified	624	19,2%
E78.0	Pure hypercholesterolaemia	622	19,2%
I25.9	Chronic ischaemic heart disease	527	16,2%
E79.0	Hyperuricaemia without signs of inflammatory arthritis	493	15,2%
I73.9	Peripheral vascular disease, unspecified	472	14,5%

Table 2: Co-morbidities of patients with chronic wounds in 2009

Parameter	2007	2008	2009	Average
Number of patients with primary diagnosis	158	160	157	158,3
Number of patients with secondary diagnosis	308	337	338	327,7
Number of hospitalisations patients with main diagnosis	216	194	204	204,7
Ø-duration of hospital stay per patient with main diagnosis in days	18,8	16,6	16,2	17,3

Table 3: Hospital stays of patients with chronic wounds in 2009