Just the Facts.

Number 2. Leg ulcers

The second in an occasional series of factsheets covering the epidemiology, costs and consequences of common wound types. This series is produced by the Welsh Wound Network to provide commercial organisations and individual clinicians and researchers with rapid access to recent data both to support funding applications and provide background information for publications.

Definition and Presentation
There are a wide variety of definitions of leg ulcers¹ these can be distilled to loss of skin on the lower leg between the knee and ankle (some definitions include the foot) that has not healed within a defined time period (either 4 weeks² or 6 weeks¹). Given differences in the definition of a leg ulcer it may be anticipated that epidemiological data may vary across studies simply due to the leg ulcer definition adopted.

Leg ulcers can occur for a number of reasons. This factsheet will focus primarily upon those that occur following pathological changes to the venous system within the lower leg, primarily damage to the valves that seek to prevent backflow of blood as the calf muscle pump works to move blood back up the vein against the action of gravity. Where damage to the veins occurs chronic venous hypertension will occur leading to changes in the skin ranging from visible webs of fine superficial veins through to leg ulceration and chronic oedema and its consequences. Venous leg ulcers typically present as shallow, wet wounds located above the ankle, however a full clinical assessment is required for diagnosis rather than dependence upon the visible appearance of a wound.

Leg and foot ulcers also occur through a range of other causes - damage to the arterial system may produce wounds that are dry, punched-out in appearance and located below the ankle (again a full clinical assessment is required to ascertain diagnosis rather than reliance upon the appearance of any wound).

Other factors that can give rise to leg and foot ulcers are conditions that damage small blood vessels (diabetes, rheumatoid arthritis, Raynaud’s Disease, systemic sclerosis), haematological conditions such as thrombocytopenia, pyoderma gangrenosum (and other dermatological conditions) and malignancies.
Numbers of people with leg ulcers.
In the early 1980’s it was reported that ten people from every 1000 of the general population may expect to have a leg ulcer at some point in their lives⁵. Recently various estimates of the point prevalence of people with leg ulcers have been reported - Ireland (community settings only) 2.9% (all leg ulcers, 51/1854 people known to have wounds)⁴, Canada (13 acute care hospitals) 2.7% of 1204 people with a wound, 1.0% of all patients surveyed (n=3099)⁵ and in the UK 482/1735 (27.8%) people with wounds were reported to have leg ulcers across both acute and community services within a single health care district⁶,⁷. In this last survey the majority of people with leg ulcers were found in their own home (189/428; 44.2%) with 140 (32.7% found in acute care settings, presumedly leg ulcer clinics⁸).

Traditionally most leg ulcers have been seen as being venous in origin (60-80% of all leg ulcers), with arterial disease accounting for between 10-30% of all leg ulcers and combined arterial-venous disease (mixed aetiology) covering 10-20%⁶. Recent studies⁵,⁷ suggest a lower proportion of leg ulcers are purely venous in origin (195/345; 56.5%) with 18.8% (n=65) arterial and 15.9% (n=55) of mixed aetiology. Similar trends were also reported in a single specialist clinic in Germany⁸ with 57% and 15% having venous or mixed aetiology ulcers respectively. Arterial leg ulcers were however relatively uncommon (13/354 patients; 3.7%). Across the 354 patients included in the retrospective study there were 16 separate diagnoses for the occurrence of their leg ulcers highlighting the need for appropriate assessment of leg ulcers.

Numbers of people with leg ulcers in Wales.
There is limited information upon the number of people with leg ulcers in Wales. In 2008 across District Nursing teams in Powys that served 140,468 people, 1.44 people per 1000 population were reported to have a leg ulcer. Other data upon numbers of people with leg ulcers is available on a clinic by clinic basis.

The consequences of having a leg ulcer.
People with leg ulcers had significantly reduced quality of life compared with age and gender matched people without leg ulcers⁹. Levels of depression were greater among people with leg ulcers who also had fewer social networks and less social support. However healing a leg ulcer may not necessarily increase an individual’s self-reported quality of life⁸ possibly due to the presence of co-morbidities within the cohort of people with leg ulcers?

The costs of leg ulcers.
Posnsett and Franks¹¹ considered the national cost of venous leg ulcers to the NHS to be between £168 million and £198 million each year with over 100,00 new cases of venous leg ulcers each year.

Sources of information

If you have any news stories or announcements for future newsletters please e-mail them to info@welshwoundnetwork.org

Arterial leg ulcer
Photo courtesy of the Lindsay Leg Club Foundation