

Journal watch

Keast, D. H., Despatis, M., Allen, J. O., & Brassard, A. (2015). Chronic oedema/lymphoedema: under-recognised and under-treated. *International Wound Journal*, 12(3), 328-333 326p. doi:10.1111/iwj.12224

At the end of 2015, *International Wound Journal* published a literature review titled “Chronic oedema/lymphoedema: under-recognised and under-treated” (Keast, Despatis, Allen, & Brassard, 2015). Despite a title that suggests the paper may have persuasive writing tendencies, the article by Keast and colleagues (2015), provides a measured introduction to oedema and lymphoedema of the lower limb and its causes, prevalence, presentations, and treatment. It is an easy general read for those new to the topic.

The paper draws together data available on lymphoedema prevalence; the quantity of which is limited with prevalence data from Australia absent. The authors define chronic oedema, primary lymphoedema and secondary lymphoedema and discuss the basic function of the lymphatic system. Three ways in which the lymphatic system may fail are noted: (1) dynamic insufficiency (or high-output insufficiency) when excessive burden of blood capillary filtrate leads to decreased lymphatic transport; (2) mechanical insufficiency (or low-output failure) due to tissue damage, obstruction, immobility or dependency of the limb; or (3) a combination of the two.

The article limits its discussion of best practice to mentioning the *Best Practice for the Management of Lymphoedema Guidelines* by the International Lymphoedema Framework as the most comprehensive resource to guide best practice. Additionally, six key practice areas are highlighted: compression bandaging, skin care, education, manual lymphatic drainage, exercise and compression (again) for maintenance. Compression therapy is the only area that is discussed in further detail, principally focusing on the biomechanics of how compression supports venous and lymphatic functioning. Pharmacological and surgical interventions are noted as lacking evidence regarding their efficacy. Use of compression therapy peri-operatively to prevent and treat oedema also lacks evidence in comparison to a control or no compression option; only one trial contrasting low compression (18mmHg) to intermittent pneumatic compression found the former to be more effective.

Common or characteristic presentations or consequences associated with lymphoedema are described. Skin changes are overviewed such as pitting oedema and hardening of the skin, cellulitis/erysipelas, folliculitis, fungal infections, ulceration, venous ezema and contact dermatitis. Neoplasms that coincide with lymphoedema diagnoses are noted with Lymphangiosarcoma in particular profiled. Lymphangiosarcoma is characterised as an aggressive

tumour with poor prognosis, the risk of which is 10% for people who have had chronic lymphoedema (> 10 years), and is more common among people treated for breast cancer or who have had radiotherapy.

The authors conclude by advocating for effective models of care that enable early and proactive treatment to prevent, diagnose and treat oedema and lymphoedema. The article is a succinct summary of lymphoedema that is a good introductory read or as a brief update and précis of current evidence. Keast and colleagues (2015) have highlighted the limited evidence base in relation to lymphoedema, suggesting that this condition is ‘under-recognised’. It is promising, therefore, that in 2016 two papers have been published, which provide more insight as to the prevalence of profile of lymphoedema.

Cooper, G., & Bagnall, A. (2016). Prevalence of lymphoedema in the UK: focus on the southwest and West Midlands. *British Journal of Community Nursing*, 21(Sup4), S6-S14 17p. doi:10.12968/bjcn.2016.21.Sup4.S6

The study by Cooper and Bagnall (2016) posits a dearth of knowledge and concern about lymphoedema in the United Kingdom (UK) as being illustrated by its limited representation in national guidelines (Cooper & Bagnall, 2016). The authors also claim that research to date has traditionally focused on single causes of lymphoedema rather than considering the collective impact of the condition. Though some evidence from the literature regarding lymphoedema prevalence in the UK was cited (an estimate of 0.13%–2% was given), their study sought to determine prevalence and the respective causes of lymphoedema in two districts in the UK: the South-West and West Midlands. The authors implemented a survey using a validated tool of all lymphoedema services in the two districts: 11 in each and 22 in total. Each service completed the questionnaire about their patient caseload with a formal diagnosis of lymphoedema and who were either active or discharged within the last 12 months.

The authors reported results in aggregate as well as for both districts separately. Prevalence figures of active cases suggest a lymphoedema prevalence of 2.29–3.59: 1000. The prevalence of both active and discharged cases over a 12 month period was 2.75–4.17:1000. Secondary lymphoedema represented 92–95% of the lymphoedema caseload. The main primary lymphoedema diagnoses varied by region; Idiopathic followed by no diagnosis, and Paecox and Tarda in the South West, the latter two diagnoses the most common seen in the West Midlands. Secondary lymphoedema diagnoses were more consistent; the top two diagnoses were cancer-related lymphoedema (35–37% of all secondary lymphoedema diagnoses) and lymphovenous. The majority of patients were women (77–84%).

A response rate of 59% to this survey was achieved and it is unclear if the results were, therefore, an underestimation of prevalence or if missing data were imputed. The results do not account for people with undiagnosed lymphoedema or those receiving care for the condition via sources other than the lymphoedema services, which would further suggest the study results are underestimated. Nonetheless, this study provides useful data to profile and quantify the epidemiological concern associated with lymphoedema.

Wang, W., & Keast, D. H. (2016). Prevalence and characteristics of lymphoedema at a wound-care clinic. *Journal of Wound Care*, 25(Sup4), S11-S15 14p.

The study by Wang and Keast (2016), rather than targeting lymphoedema clinics, considered the presence of lymphoedema in a wound clinic in Ontario, Canada. The aim of the study was to describe the characteristics of lymphoedema patients, and completed a retrospective chart review (2006–2014) of lymphoedema patients (≥ 18 years) at an outpatient chronic wound clinic (Wang & Keast, 2016). Patients were identified using the ICD-9 code (457: Non-infectious disorders of lymphatic channels); codes were detected from the field that denoted this diagnosis as the most responsible diagnosis for the clinic visit.

Of the clients seen over the audited period ($n=1,539$), 21.2% had lymphoedema recorded as the most responsible diagnosis for the visit ($n=326$). The majority of clients were

diagnosed with lymphoedema at their first visit (65%) or the follow-up visit (23%) to the clinic; few were referred with a diagnosis in place (12%). There was an equal representation of men and women (women=52.1%) and the average age was 66.8 years. Secondary lymphoedema was the predominant type of lymphoedema (96%), with the lower limbs affected in 99.7% of patients, and bilateral effects the most common (82.9%). Staging using the International Society of Lymphology criteria suggest stage II (58.2%) and Stage III (33.7%) were the most frequent.

Common complications identified were open ulcers (64.1%), cellulitis (39.9%), dermatitis (34.7%); with few patients having none of these complications (14.1%). Venous disease was the most common comorbidity (72.7%). Perhaps reflecting the influence that study site had on the patient profile, as compared to the Cooper and Bagnall (2016) study, only 9.9% had received cancer treatment and only 1.2% of the patients had arm lymphoedema. Compression therapy was the principal means of treatment for these patients with skin care and exercise additionally, but less regularly, noted in patient records.

The current study provides an insight in to patients with lymphoedema as their primary reason for visiting one wound clinic in Canada. The influence of lymphoedema as a comorbidity, but not the primary reason for care, is not included in the scope of the study. Thus, the relative

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1: Sibbald RG, et al. *AdvSkin Wound Care* 2011;24(2): 78-84



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