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Special Edition

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## Risk reduction and early identification of breast cancer related breast lymphoedema

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### Background

Lymphoedema is a common consequence of breast cancer treatment, which can develop in the hand, arm, breast and chest wall (DiSipio et al., 2013). Whilst the main focus of patient information is on arm lymphoedema, an audit of lymphoedema services in Cornwall reported an estimated incidence of breast lymphoedema of 16% (Underwood et al., 2021). Breast lymphoedema is associated with increased breast volume, peau d'orange, skin thickening, redness, pain, and heaviness (Verbelen et al., 2014) and can have a significant impact on the patient's mental health (Fu et al., 2013) and quality of life (Young-Afat et al., 2019). Risk reduction and early intervention advice has the potential to reduce symptom burden of this potentially chronic condition but following restrictive risk reduction guidance can have a negative psychological impact on patients (Asdourian et al., 2016). It is important, therefore, to identify patients at high risk of developing breast cancer related breast lymphoedema (BCRBL) to ensure, information is correctly targeted.

### Review of the evidence

A comprehensive literature search was performed in Medline, CINAHL and PubMed databases from 2011 onwards (English, Full Text) using the search terms 'Risk Factors AND Breast Lymphoedema' and Google Scholar and Trip Database using the search term 'Breast Lymphoedema'. The literature predominantly refers to arm lymphoedema with very little literature on breast lymphoedema, demonstrating the need for more robust evidence.

Following a review of the evidence, a potential risk factor and symptom profile was developed, informed by clinical experience, and ratified by the steering group including radiotherapy, breast surgery and lymphoedema specialist clinicians. This will be used to inform an audit of patients presenting with breast cancer related lymphoedema and develop a risk factor and symptom profile. This profile will inform service provision to target those who would most benefit from risk reduction information and be used to aid early identification and screening. In addition, the literature was reviewed with regards to preventative strategies, self-management, and treatment modalities to inform development of future resources.

## Project plan

The JBI Evidence Implementation Model (Porritt et al., 2020) provides structure and ensures that evidence is central to the project. This service development project aims firstly to complete an evidence-informed audit of the risk factors, symptom profile and awareness of BCRBL in breast cancer patients referred to lymphoedema services in Cornwall. Secondly, evidence-based resources will be developed in collaboration with patients and healthcare professionals. These will be targeted at the those most at risk and a screening tool for early identification implemented. Finally, the audit will be repeated to evaluate the project's impact on clinical practice.

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