



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## LOWER LIMB CELLULITIS: INACCURATE DIAGNOSIS AND RECOGNITION OF RISK FACTORS

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**Introduction:** Cellulitis is a common global disorder with diagnosis based on clinical history and examination. Non-specialist diagnosis is often inaccurate. Poor recognition of treatable predisposing risk factors leads to increased cellulitis recurrence with long term sequelae including lymphoedema and ulceration.

**Objective:** To determine the accuracy of diagnosis and the recognition of risk factors for patients referred to a specialist cellulitis service based in a UK hospital.

**Materials and Methods:** Data on 1746 consecutive patients referred with lower-limb cellulitis, to a hospital service from 2007-18, were assessed to identify accuracy of diagnosis. Recent data were compared with previous analyses of this series in 2011 and 2015. The proportion of patients with confirmed cellulitis who had identified predisposing risk factors was assessed.

**Results:** Over the period of 2007-2018 cellulitis over diagnosis increased. 32% of patients referred in 2015-18 were confirmed to have lower-limb cellulitis. Recognition of at least one risk factor rose to 89% from 61% following the establishment of a new service proforma with specific screening questions for predisposing factors of lower limb cellulitis.

**Conclusions:** Overdiagnosis of lower limb cellulitis leads to overuse of antibiotics, increasing problems with antibiotic resistance. Correct diagnosis is delayed, resources wasted and patient safety reduced. This analysis of the world's largest reported lower-limb cellulitis case series showed a high level of overdiagnosis. Most patients with cellulitis had identifiable, treatable risk factors. Lower-limb cellulitis risk factors and differential diagnosis vary according to global region, but similar findings have been reported elsewhere. This study showed deteriorating accuracy of diagnosis of lower-limb cellulitis by referring clinicians indicating new approaches to education are required. Improved recognition of risk factors for cellulitis was demonstrated after introduction of specific screening proforma. The high cost and morbidity of lower-limb cellulitis indicates improving care for this condition





should be a priority for dermatologists.

