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Dermatology Online Journal

Title

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Journal

Dermatology Online Journal, 22(9)

Author

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Publication Date

2016

DOI

10.5070/D3229032563

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Peer reviewed

Abstract

Serious Infections are on the rise in US Inpatients with Psoriasis

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Dermatology Online Journal 22 (9)

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Psoriasis is a chronic inflammatory skin disorder associated with immune dysregulation and use of systemic immunosuppressive treatments that may predispose toward serious infections. We sought to determine the rates of serious infections in hospitalized patients with psoriasis. We analyzed data from the 2002-2012 Nationwide Inpatient Sample, containing a 20% sample of all US hospitalizations. Psoriasis was determined by a validated algorithm using ICD-9-CM codes. In multivariate logistic regression models adjusting for socio-demographics, psoriasis was associated with multiple serious infections, including methicillin-resistant *Staphylococcus aureus* (odds ratio [95% confidence intervals] 1.76 [1.52-2.03]), cellulitis (3.21 [3.12-3.30]), herpes simplex virus infection (HSV) (2.21 [1.70-2.89]), infectious arthritis (1.82 [1.58-2.09]), osteomyelitis (1.31 [1.18-1.46]), meningitis (1.31 [1.16-1.47]), encephalitis (1.22 [1.02-1.47]), tuberculosis (1.34 [1.20-1.49]) and meningitis (1.31 [1.16-1.47]). Among patients with psoriasis, rates of overall serious infections increased over all time intervals analyzed ($P=0.01$) and were significantly higher compared to those without psoriasis across all time intervals ($P<0.0001$). The mean LOS (6.6 ± 0.1 days) and cost ($\$13,291\pm \166) of psoriasis with serious infections was higher than that of psoriasis without serious infections (4.6 ± 0.03 days; $\$11,003\pm \96 ; $P<0.0001$). Serious infections are increasing in incidence in inpatients with psoriasis. Further research is needed to confirm these findings and understand the mechanisms of these associations in order to develop large-scale interventions aimed at prevention.