



## AB185. A 5-year retrospective cohort study of the seasonal variability of cellulitis

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**Background:** It is commonly purported that the incidence of cellulitis is highly seasonal but there is little empirical evidence supporting this assertion. This 5-year retrospective cohort study set out to identify whether there is a statistically significant relationship between an increase in temperature and incidences of cellulitis. As a corollary to this proposition, length of hospital stay for cellulitis was examined in relation to the level of inflammatory markers upon admission and micro-organism identified on culture.

**Methods:** This is a 5-year retrospective single centre cohort study of all patients admitted with cellulitis to Tallaght University Hospital from 2014 to 2018 inclusive. The patient cohort was identified via the use of a prospectively managed database of all surgical admissions

and corroborated via examination of clinical chart records. Dates of admission were correlated with the average temperature of Dublin as provided by the meteorological office of Ireland. Site of infection, inflammatory markers and the prevalent micro-organism were also identified whilst the length of admission was extrapolated from *Hospital In-Patient Enquiry (HIPE)* records.

**Results:** There were 710 admissions for cellulitis with 3 cases of necrotising fasciitis. There was a statistically significant ( $P < 0.05$ ) relationship between temperature and cellulitis with admission peaking in late summer/autumn. Age correlated significantly with readmission.

**Conclusions:** There is a statistically significant relationship between a rise in temperature and the incidence of cellulitis. Furthermore age is an independent risk factor for re-admission with same whilst inflammatory markers at time of admission can be used as a prognostic marker for length of stay.

**Keywords:** Cellulitis; seasonal; temperature

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