An assessment of the quality of hospital data collection in invasive bacterial infections - can existing systems be reliably used to retrospectively infer the clinical nature of infection and associated resource cost?

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Background: Invasive group A streptococci (IGAS) infections are caused by gram-positive, beta-haemolytic bacteria. These include necrotising fasciitis and streptococcal toxic shock syndrome. The extensive treatment required to manage these conditions have a significant economic burden on the NHS. Administrative data or microbiological can be used for epidemiological surveillance of these diseases.

Methods: IGAS infections can be confirmed via laboratory testing. In the NHS, an inpatient’s diagnoses are coded using International Classification of Diseases – 10 (ICD-10) on discharge. These are used when costing the patient’s episode of care. Accuracy of coding was tested by comparing laboratory confirmed invasive GAS to their ICD-10 diagnoses codes. 14 cases at Leeds Teaching Hospitals were looked at.

Results: 5 of the 14 cases did not have a diagnostic code of IGAS assigned to them by the clinical coders, giving an accuracy rate of 64%. 9 of the 14 cases did not have IGAS as their primary diagnosis.

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