

## An Audit of the Diagnosis of Asthma in Children in Primary Care and the Emergency Department

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**Abstract :** Background: Inconsistencies between the guidelines for childhood asthma can pose a diagnostic challenge to clinicians. NICE guidelines are the most commonly followed guidelines in primary care in the UK; they state that to be diagnosed with asthma, a child must be more than 5 years old and must have objective evidence of the disease. When diagnoses are coded in general practice (GP), these guidelines may be superseded by communications from secondary care. Hence it is imperative that diagnoses are correct, as per up to date guidelines and evidence, as this affects follow up and management both in primary and secondary care. Methods: A snapshot audit at a general practice surgery was undertaken of children (less than 16 years old) with a coded diagnosis of 'asthma', to review the age at diagnosis and whether any objective evidence of asthma was documented at diagnosis. 50 cases of asthma in children presenting to the emergency department (ED) were then audited to review the age at presentation, whether there was evidence of previous asthma diagnosis and whether the patient was discharged from ED. A repeat audit is planned in ED this winter. Results: In a GP surgery, there were 83 coded cases of asthma in children. 51 children (61%) were diagnosed under 5, with 9 children (11%) who had objective evidence of asthma documented at diagnosis. In ED, 50 cases were collected, of which 4 were excluded as they were referred to the other services, or for incorrect coding. Of the 46 remaining, 27 diagnoses confirmed to NICE guidelines (59%). 33 children (72%) were discharged from ED. Discussion: The most likely reason for the apparent low rate of a correct diagnosis is the significant challenge of obtaining objective evidence of asthma in children. There were a number of patients who were diagnosed from secondary care services and then coded as 'asthma' in GP, without having objective documented evidence. The electronic patient record (EPR) system used in our emergency department (ED) did not allow coding of 'suspected diagnosis' or of 'viral induced wheeze'. This may have led to incorrect diagnoses coded in primary care, of children who had no confirmed diagnosis of asthma. We look forward to the re-audit, as the EPR system has been updated to allow suspected diagnoses. In contrast to the NICE guidelines used here, British Thoracic Society (BTS) guidelines allow for a trial of treatment and subsequent confirmation of diagnosis without objective evidence. It is possible that some of the cases which have been classified as incorrect in this audit may still meet other guidelines. Conclusion: The diagnosis of asthma in children is challenging. Incorrect diagnoses may be related to clinical pressures and the provision of services to allow compliance with NICE guidelines. Consensus statements between the various groups would also aid the decision-making process and diagnostic dilemmas that clinicians face, to allow more consistent care of the patient.

**Keywords :** asthma, diagnosis, primary care, emergency department, guidelines, audit

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