Clinical & Scientific letters

Letters not directly related to articles published in *Clinical Medicine* and presenting unpublished original data should be submitted for publication in this section. Clinical and scientific letters should not exceed 500 words and may include one table and up to five references.

Diagnostic error in the hospital presentation of acute asthma

Editor – Hospital Episode Statistics data show hospital presentations with acute asthma are increasing.[1] The accurate diagnosis of asthma is hindered by the disease's heterogenous pathophysiology and the lack of a universal diagnostic test and there is little published data on the rate of false positive diagnosis of acute asthma presenting to hospital.

To assess the false positive diagnostic rate of acute asthma in our hospital we prospectively reviewed 450 serial adult presentations with asthma over six months. We recorded the presenting diagnosis (pts own if attending A&E or that of refereeing GP if referred to MAU), that made by the receiving doctor and that made after a structured respiratory specialist review. We accepted a diagnosis unless there was documented objective evidence to refute it, when patients were reclassified as 'normal', anxiety/hyperventilation, pneumonia, respiratory tract infection (RTI), COPD, cardiovascular or miscellaneous. To be given a diagnosis of 'normal' or hyperventilation at the review required a documented presentation peak flow of ≥75% best or predicted best.

Two hundred and eighty-four of the 450 patients were admitted, with admission rates from A&E and MAU being 46% and 91% respectively. In 103 cases the presenting diagnosis of asthma was not sustained by the receiving doctor. Of these 103 cases 39 were felt to be 'normal' or to have anxiety/hyperventilation, 16 COPD, 15 RTI, 8 cardiovascular, 7 pneumonia and 18 miscellaneous (Fig 1). In 347 patients the receiving doctor agreed the presenting diagnosis of asthma. After respiratory review 77 (22%) of these presentations were attributed to diagnoses other than acute asthma with 33 being classified as 'normal' or have anxiety/hyperventilation, 25 COPD, 5 RTI, 6 cardiovascular, 4 pneumonia and 4 miscellaneous causes. Patients with a post review diagnosis of 'normal' or anxiety/hyperventilation had a mean PEF on presentation of 91% best, were significantly younger than those with acute asthma (34 vs 42, p=0.008) and had a female:male ratio of 2.4:1. Patients with a post review diagnosis of COPD were significantly older than the acute asthmatics (42 vs 68, p<0.0001). The initial receiving doctors diagnosis of acute asthma was confirmed after respiratory review in 270 patients. Overall, 40% of the 450 serial cases presenting as acute asthma had their diagnosis changed after specialist review (false positive diagnostic rate) while the receiving doctors, false positive diagnostic rate was 22%.

If our results are representative of national trends, central data on hospital admissions with acute asthma are likely to be overestimating the true rate by 22%, a rate similar to the previously described over-diagnosis of asthma deaths.[2–5]

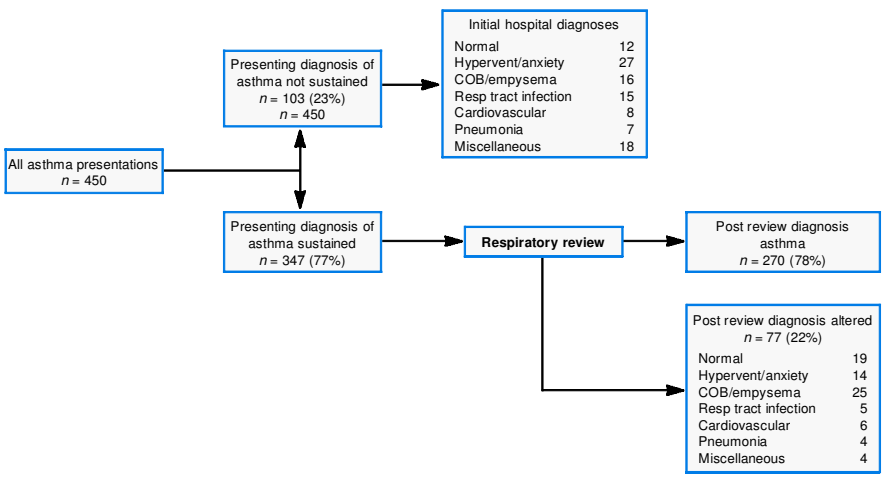

Fig 1. End diagnoses of patients after initial hospital diagnosis and after structured respiratory review.

References:

1 Lung & Asthma Information Agency. *Trends in hospital admissions for asthma*. 96/2. London: LAIA, 1996.
2 Sears MR, Rea HH, de Boer G, Beaglehole R *et al.* Accuracy of certification of deaths due to asthma. A national study. *Am J Epidemiol* 1986;**124**:1004–11.
3 Wright SC, Evans AE, Sinnamon DG, MacMahon J. Asthma mortality and death certification in Northern Ireland. *Thorax* 1994;**49**:141–3.
4 Mohan G, Harrison BD, Badminton RM, Mildenhall S, Wareham NJ. A confidential enquiry into deaths caused by asthma in an English health region: implications for general practice. *Br J Gen Pract* 1996;**46**:529–32.
5 Smyth ET, Wright SC, Evans AE, Sinnamon DG, MacMahon J. Death from airways obstruction: accuracy of certification in Northern Ireland. *Thorax* 1996;**51**:293–7.

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Availability of fully staffed GI endoscopy lists at the weekend for inpatients: does it make a difference?

Editor – Like most UK hospitals, our hospital used to have a fully staffed emergency GI endoscopy service only during normal weekday working hours. Outside these hours, an experienced endoscopist was available but was not supported either by a full support team or by the full range of therapeutic equipment. This type of ad hoc service has recently been identified as being of below an acceptable quality in the recently published British Society of Gastroenterology