to respiratory tract infections in earlier childhood (unpublished findings of cohort and cross-sectional studies of children aged up to 5 years in the same population in Esmeraldas Province, Ecuador) and, as a definition of asthma, would be subject to much greater misclassification. We did consider a more complex definition to increase specificity but decided against this because of a lack of validation.

Wheeze in the past 12 months is now the most widely used definition for asthma in epidemiological studies[2 3] and, although we agree it may be subject to some misclassification, such a definition has three important advantages: (1) simplicity, permitting widespread use in epidemiological studies; (2) the definition is more inclusive and, where a word for the symptom exists in the local language that is linked culturally with asthma, may be less subject to bias in poor populations (see below); and (3) its wide use permits comparison between studies of the role of potential risk factors and more powerful analyses across studies of potential risk factors with a wide range in the prevalence of exposure. Examples of the latter are phases I–III of the International Study of Asthma and Allergies in Childhood (ISAAC) which have made important contributions to our understanding of asthma internationally.[4] Furthermore, other definitions may be more prone to misclassification bias. For example, a doctor diagnosis of asthma is widely used[5 6] but is unlikely to be helpful in populations with very limited access to healthcare such as the population where we conducted this research in rural Ecuador.

The distinction between different asthma/wheeze phenotypes remains an area of considerable debate[7] and such phenotypes may not necessarily be uniform across different populations. Given the lack of consensus on how to measure asthma in epidemiological studies, we believe that wheeze in the past 12 months is as good as any definition presently available, but certainly agree that such a definition has its limitations.

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Seasonality and attendance at a pulmonary rehabilitation programme

Pulmonary rehabilitation (PR) programmes have been shown to reduce symptoms, improve exercise tolerance and reduce readmission rates in chronic obstructive pulmonary disease (COPD).[1 2] PR has the potential to reduce the economic burden of COPD upon the NHS but, if poor attendance results in groups running at less than capacity, the cost-effectiveness of the service is markedly reduced. Understanding and responding to the factors that influence attendance is vital to ensuring maximum benefit is gained from PR programmes. The role of seasonality in attendance at PR programmes has not previously been evaluated, and there is conflicting evidence regarding the role of seasonality from other outpatient settings.[3 4]

We reviewed attendance rates between 2007 and 2010 at our PR programme in a central London borough. We collected data on attendance at initial assessments and subsequent biweekly PR sessions and examined the data by season, winter months incorporating October to March and summer months April to September.

During this period 506 assessment appointments were made to achieve 258 attendances, an attendance rate of 51%. For assessments, there was no difference in attendance between the winter and summer months (50% and 51%, respectively). The overall attendance rate at the PR group sessions was 69% (2325 appointments were made to achieve 1613 attendances). The attendance rate at group sessions during winter was 64% compared with 74% during summer. A Mann–Whitney U test was performed to compare monthly attendance rates and showed the seasonal difference to be statistically significant ($p<0.05$).

The attendance data were correlated with local monthly weather data using the Pearson product moment correlation coefficient. Attendance rates showed a weak positive correlation with maximum and minimum temperatures ($r=0.51$ and $r=0.44$, respectively) and with sunlight hours ($r=0.55$), and a weak negative correlation with amount of rainfall ($r=-0.33$).

Attendance rates at assessments were worse than for the subsequent PR sessions and showed no seasonal variation. However, attendance rates at the PR sessions themselves were significantly worse during winter months than during the summer months. In practice, this corresponds to increased time spent arranging and rearranging appointments, leaving PR groups with unfilled spaces. This pattern has not previously been explored in the literature despite the well-documented association between seasonality and COPD symptoms and exacerbations.[5] The weak correlation we found between attendance and specific weather indicators suggests that weather conditions may contribute to this pattern. However, confounding patient factors such as illness exacerbation and environmental issues such as transport are likely to play an important role, and these need to be further evaluated in the context of seasonality to better understand this relationship. The patterns we observed need to be taken into account when planning PR services, and we hope to open up a discussion into potential methods of addressing this variation in order to maximise patient participation and hence service effectiveness.

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Hydatid disease versus textiloma: a diagnostic challenge

We read with great interest the well-written review by Kunst *et al*[1] discussing parasitic lung infections. In the section on hydatid disease (HD), the authors report that chest scans may reveal diagnostic features including collapse of the laminated membrane from the surrounding host tissue, the presence of daughter cysts and the presence of cyst rupture. We wish to highlight an important diagnostic challenge: differentiating between the typical tomographical presentations of HD and textilomas. Recently, Miguélez-Vara and Mariñan Gorospe[2] reported this problem, describing their difficulty in establishing a differential diagnosis between an HD recurrence and a complication of surgery (textiloma).

We report the case of a 47-year-old woman presenting with cough and chest pain and a thoracic mass detected during a radiological examination. A CT scan showed an encapsulated mass containing high-density opacities (figure 1). The patient lives in an area of endemic HD and had a history of surgery to remove a mediastinal tumour 16 years earlier for a mass of unknown histological type. The initial hypothesis for the present mass was a hydatid cyst, but surgical resection demonstrated a textiloma.

A textiloma is a mass composed of a retained surgical sponge or gauze surrounded by a foreign body reaction.[3 4] Such foreign bodies can often mimic tumours or abscesses either clinically or radiologically.[4] Textilomas generally show a high-density capsule and their contents may present an enfolded pattern, with wavy, striped high-density areas that represent the sponge.[3 4] This is very similar to observations of hydatid cysts. In HD, the detached membrane inside the cyst may be seen as a twisted, undulated structure, with a snake-like appearance, called the snake (or serpent) sign.[5]

Therefore, both conditions can present as encapsulated cysts containing a high-density undulated structure that corresponds to the sponge of a textiloma or to the detached inner membrane of a hydatid cyst. These conditions may be indistinguishable on CT, and differential diagnosis may be made by correlation with clinical features. In some cases, diagnosis may be made only after surgery.[2]

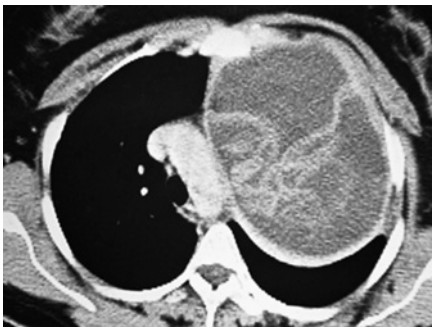

Figure 1 CT with mediastinal window settings showing a well-defined encapsulated oval mass in the right hemithorax with a thick wall and heterogeneous densities, containing wavy, striped high-density areas in the central portion.

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Gossypiboma

We thank you very much for allowing us to respond to the letter by Marchiori *et al*[1] submitted in response to our recently published paper titled 'Parasitic infections of the lung: a guide for the respiratory physician'.[2]

We agree with the authors that the condition may be a difficult diagnostic challenge, but in textilomas (gossypibomas) there is nearly always a history of previous surgery. In a fairly large series of CT scans performed on textilomas, Kopka *et al*[3] observed that in seven patients gas bubbles were found inside the textiloma with a typical pattern. These patients did not have any abscess formation; however, it is interesting to note that the radio-opaque marker inside a textiloma was seen in nine patients but did not lead to a diagnosis in all of them. The authors also found that, from in vitro studies, gas bubbles were demonstrated in all surgical sponges scanned 1 hour afterwards. It is interesting that the number of gas bubbles were not significantly reduced after 6 months. CT signs of thoracic textilomas include well-defined mediastinal or pleural-based masses with hyperdense rims, central air bubbles, with curvilinear high-density stripes occasionally seen in the early postoperative period.[4] We agree that the appearance of retained surgical sponges (textilomas/gossypibomas) can lead to misdiagnosis with lesions mimicking malignancy and hydatid disease. Textilomas have been reported in a variety of places including the maxillary sinuses, the brain and the abdomen as well as the chest, and radiologists need to be aware and vigilant of this particular clinical problem.

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