Are you confident in your diagnosis of asthma? Three case histories to challenge you

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Achieving an accurate diagnosis may take time and involves working with patients to help support their understanding about why there isn’t always a quick answer or an immediate prescription. This is particularly the case with asthma. It is a variable and reversible condition, so measurements over time are key to help you and the patient feel confident about what you are treating.

The International Primary Care Respiratory Group (IPCRG) with ‘asthmaxchange’ have developed learning modules that include some real-life histories to work through in the diagnosis, management and ongoing support for people with asthma.

The three diagnosis cases highlight the opportunities that exist, particularly in primary care because of the ability to have regular contact over time with people to review results, response to treatment and to get the diagnosis right.

This case highlights that, even with difficult scenarios such as with Mei and her chronic cough, following a systematic approach supports you feeling confident that you got it right.

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**Case 1 – Make the most of the acute presentation when considering the possibility of a long-term condition diagnosis**

David is a new patient who comes to see you late on a Friday afternoon in your duty surgery.

At first you wonder whether he is breathless because he rushed here before you close but soon you notice a few minutes into the consultation that his breathing is rapid, not settling, he doesn’t complete sentences and he is beginning to look scared.
Case 1 – continued...
The history David shares is likely to help you make a diagnosis so spend time considering this. The exam can help support your initial conclusions and the investigations should be the final stage. What is the relevance of the clinical examination findings noted above?

Which options would you choose next?

Dr Weber chooses option 5. She is using this opportunity to do a reversibility test. She is using a large volume spacer and pMDI to demonstrate to David – if asthma is confirmed – that you don’t need special equipment to start to self manage an asthma attack.

David feels better after the reversibility test making asthma a likely diagnosis. Taking time to both manage the acute event but also consider future care will save time in the long run.
Managing chronic cough (a cough that lasts more than 8 weeks) can be a challenging process. We don't have a clear and definitive guideline to follow and the process often involves treatments as diagnostic aids. A systematic and shared approach is key to getting to the right answer.

Do you know why Dr Weber looked for these clinical signs below?

Mei is initially pushing for something to fix this quick and you can see why but you also know that the answer may not be available immediately and therefore you feel reluctant to treat before either knowing the cause or being clear about why you are providing therapy

What would you do now?

Do Mei’s results lead you towards a specific diagnosis?
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Dr Weber reviews Mei’s results and notes that no condition is particularly clear but she has a shortlist of conditions for trials of therapy. These include i) upper airways cough syndrome (UACS), ii) asthma or cough variant asthma, iii) non-allergic eosinophilic bronchitis (NAEB) and iv) gastroesophageal reflux cough (GORD).

A recent review in npj Primary Care Respiratory Medicine of chronic cough with normal x-ray http://www.nature.com/articles/npjpcm201581 determined the following diagnostic prevalence for chronic cough:
Case 2 – continued...

Mei opted for a trial of oral corticosteroid. Dr Weber and Mei discussed how they would know whether it worked. There are no primary care guidelines on how to assess a response in this scenario. However, various consensus statements by cough experts recommend a number of tests including the often-used generic visual analogue scale (VAS), which was used in Mei’s case. The VAS requires the patient to record cough severity on a 100 mm linear scale, with 0 mm representing no cough and 100 mm representing the worst cough ever. A reduction of 20 mm represents an improvement.

Mei’s VAS results showed a 22.4 mm reduction in severity, which provided objective evidence of improvement. She also reported better quality of sleep and positive comments from work colleagues, providing reassurance that she had responded to treatment and that eosinophilic airway inflammation was a likely cause.

Dr Weber continued to treat Mei according to usual asthma therapy pathways. The final diagnosis was cough variant asthma. You can see more about Mei’s results, the discussion she had with Dr Weber about trials of treatment for GORD and other decision and treatment algorithms at: https://www.asthmaxchange.com/e-learning/from-symptoms-to-diagnosis

Case 3 – Why good records and rechecking over time is key to better diagnosis

John comes to visit Dr Weber for antibiotics; he thinks he is getting another chest infection.

John has some desktop tests performed to help inform the findings from his history and examination.

Dr Weber already knows that John has airflow obstruction as he had quality assured spirometry 2 years ago. However, on that occasion his FEV1 was 84% of predicted and today it is 52% of predicted. Dr Weber checks the quality again and ensures the details are correct and that the flow volume loop is suggestive of what the numbers say.

continued...
Case 3 – continued ...

John was seen 5 days later and the response convinced Dr Weber that there is a significant reversible and irreversible element to his airways disease.

The learning point for Dr Weber here was that, even when you make a good quality diagnosis for breathlessness, it is likely that another condition may be present and so revisiting the diagnosis in a structured way is key to being a holistic practitioner. The asthma/COPD mix can only be determined by knowing people over time or having good records to review over time.

Patient safety tip: John was using a LAMA and SABA for mild COPD when he first presented. People with asthma on long acting bronchodilators with no inhaled steroids have poor outcomes. People with COPD have symptoms that decline slowly; if there is a more rapid progression or a greater frequency of flare ups, review the diagnosis by starting again, checking what you know and re-testing if necessary.