

Case study: Bob

About this case study

What is included in this case study?

This case study consists of materials to print out for use directly as they are, or for adaptation to suit particular audiences.

There are pages to print out to form hand out notes for participants, broken down into two parts.

Facilitator notes to print out are also included, to guide the leader of a discussion workshop based on the case.

Pages showing the case summary to prompt questions are also included. These are available as powerpoint slides.

Who can use this case study?

The materials are designed for use by a facilitator with a small group of health care professionals, such as practice nurses, hospital nurses working in respiratory and general medicine care, GPs and junior hospital doctors working with patients with asthma (eg those in paediatrics, respiratory medicine, geriatrics and A&E).

The group should be kept small enough to encourage participation in the discussion.

A group of 8-15 may be ideal, though the materials can also be adapted for use with groups of other sizes or with individuals.

Using this case study

This case study is designed to give plenty of opportunity to discuss asthma management and key points from the revised British Guideline on the Management of Asthma (2008).

The two parts of the case study should be handed out to participants progressively, so that the story unfolds and to allow for discussion around all the salient points.

After each part has been read, the facilitator may like to initiate discussion by posing questions. The facilitator notes give guidance on the points to bring out in the ensuing discussion. In addition to the key issues to be covered, other discussion points are suggested, together with practical issues that could be raised.

The case study should give ample opportunity to tailor the discussion to suit the needs and interests of the participants.

It is possible to use only one part of the case, if more appropriate for the participants concerned or if there are time constraints.

Learning outcomes

This case illustrates follow up after an acute exacerbation, differential diagnosis in elderly patients and therapy at step 3.

After completing the first part of the case, participants should be able to:

- describe appropriate follow up after an acute exacerbation. (section 6.6, page 60)

After completing the second part of the case, participants should be able to:

- discuss management at step 3 (section 4.3, page 37)
- recognise the value of written asthma action plans (section 9.1, page 82)
- discuss differential diagnosis in elderly patients with worsening symptoms. (section 2.4-2.5, pages 14-18)

Part 1: notes for participants

History

Bob is a 67-year old retired lorry driver, who was diagnosed with asthma after his retirement, 7 years ago. At that time, he smoked about 10 cigarettes a day, but he stopped 2 years ago after a frightening severe episode of wheezing.

Exacerbation

During a recent exacerbation, Bob needed emergency help when he became very wheezy in the early hours of the morning. Your practice has a policy of identifying acute asthma attacks, and the slip from the out-of-hours service is given to you to arrange a follow up. Bob responds to the practice telephone call, and arranges to see you in the asthma clinic.

Part 2: notes for participants

Assessment

It emerged that Bob's asthma control had been suboptimal for some time. He was waking two or three times a week, and using several doses of relief inhaler most days. He has stopped going to the municipal pitch and putt on Tuesday afternoons, with other retired friends, as the exercise made him feel breathless. During the last year, Bob suffered three acute attacks.

Currently, Bob is prescribed inhaled steroid at a dose of 200mcg bd, which he takes fairly regularly, and short acting β^2 agonist which he takes when needed. Both treatments are administered via MDI. Bob's peak flow fluctuates between 350 and 420 l/ min between exacerbations.

Management

Each of the exacerbations experienced by Bob has resulted in Bob being prescribed a course of oral steroids. Given the frequency of the exacerbations and the relatively low dose of inhaled steroids currently being used, Bob agrees to try a higher dose of inhaled steroid – 400mcg bd. A spacer was added to improve delivery and minimise throat deposition. An appointment was made for Bob to attend the asthma clinic after 4 weeks, to see how he is getting on with the new management regimen.

Review

At the asthma clinic, Bob reports improved asthma control, though he remains symptomatic on exercise. The increased dose of inhaled steroid has reduced the number of disturbed nights and he has not had another acute episode.

Part 1: facilitator's notes

The key questions for discussion are listed below, with points that should emerge during the discussion. A number of other topics that could be discussed, together with practical issues, are also indicated.

Were the follow up arrangements appropriate?

Yes. Patients experiencing an acute asthma exacerbation should be followed up promptly. (section 6.6, page 60)

Practical discussion points

In primary care, how can you ensure that patients who have had an acute attack are contacted for a review? Possible approaches include checking discharge summaries, out-of-hours notifications, visit requests, and logging time of nebuliser use for emergency bronchodilation. How can you facilitate follow-up from walk-in centres or out-of-hours services? In secondary care, how can you ensure good communication with practices and clear advice to patients being discharged?

What do you want to know at the consultation?

Any acute asthma attack indicates a failure of management so it is important to understand the background to the exacerbation as the first step towards identification of the problems. Key areas to explore include: (section 6.3, pages 56-58)

- recent history – find out about symptom levels during the day and night, impact on activities, use of relief inhalers, other exacerbations in the previous year, exposure to trigger factors
- employment history – although Bob is retired, it is important to think of the possibility of occupational asthma or another occupational lung disease when symptoms develop in adulthood. Find out if Bob has any part time jobs (or hobbies) that could be triggering his symptoms (section 7.8, pages 74-76)
- current therapy – what is prescribed, what is taken, attitudes towards therapy, ability to use inhaler devices, other drug therapy – β -blockers (including eye drops), NSAIDs
- knowledge and self-management – find out what the patient understands about asthma and whether an individual written action plan was available and followed
- objective assessment of current control – consider careful history and/or spirometry, occasional use of peak flow rate measurements may indicate objectives measures of care.
- diagnosis – other possible reasons for breathlessness.

Key point

- Appropriate follow up required promptly after acute asthma (section 6.6: page 60) this is usually in primary care.

Further details on SIGN and BTS websites (www.sign.ac.uk and www.brit-thoracic.org.uk)

Part 2: facilitator's notes

The key questions for discussion are listed below, with points that should emerge during the discussion. A number of other topics that could be discussed, together with practical issues, are also indicated.

Control of asthma is defined as:

- no daytime symptoms
- no night time awakening due to asthma
- no need for rescue medication
- no exacerbations
- no limitations on activity including exercise
- normal lung function (in practical terms FEV1 and/or PEF >80% predicted or best) with minimal side effects.

Would you refine Bob's therapy further?

There is still scope for improving Bob's asthma control. It would be appropriate to try adding in an inhaled long acting β^2 agonist, though this should be discontinued if the response is limited. (section 4.3, pages 37-38)

What should be included in Bob's action plan for managing his asthma?

All patients, particularly those who have experienced acute asthma attacks, should have a written action plan to help alert them to the signs of deterioration. The plan should include signs and symptoms indicating control is deteriorating, and the actions to take if peak flow falls to specified levels. Bob should be offered a course of prednisolone that he can start taking without needing to see his GP if his asthma control appears to be worsening (not all patients wish to accept this responsibility – some prefer to seek medical advice first). (section 9.1, pages 82-83, 6.3 and 6.6: pages 56-60)

Are there any further investigations you would consider for Bob?

Although Bob has been diagnosed with asthma, as an ex-smoker, concurrent chronic obstructive pulmonary disease may be playing a part in his worsening symptoms. Even though there is clear diurnal variability in peak flow, there may be an irreversible component. Spirometry may help to evaluate the degree of any concomitant COPD. This may have been considered previously but it is worth reconsidering this again. Other causes of dyspnoea (eg ischaemic heart disease and left ventricular failure) also need to be excluded. The possibility of lung cancer should not be overlooked. Simple checks of other therapies may also be useful – timoptol eye drops, for example, may be triggering respiratory problems. (section 2.4, page 12)

Key points

Add inhaled long acting β^2 agonists rather than increasing dose of inhaled steroids (above 800mcg/day in adults and 400mcg/day in children) If it is clear that both ICS and LABA are indicated, a combination may be more convenient for Bob (remember to update the action plan if you do this)

Self-management is effective – offer self-management to all patients with asthma; reinforce with a written asthma action plan that gives patient-specific advice on signs of deteriorating asthma and appropriate actions to take (see Asthma UK website, www.asthma.org.uk).

Differentiate from other respiratory and non-respiratory conditions.

Further details on SIGN and BTS websites (www.sign.ac.uk and www.brit-thoracic.org.uk)

Part 1: case summary

67 year old man diagnosed with asthma 7 years earlier

Recent exacerbation requiring primary care assistance out of hours

Follow up asthma review

Part 2: case summary

Asthma control sub-optimal for some time

Using low dose inhaled steroid and several doses of short acting β^2 agonist most days

Peak flow 350-420 L/min

Dose of inhaled steroid increased to 400mcg bd, via spacer

Part 1: questions

Were the follow up arrangements appropriate?

What do you want to know at the consultation?

Part 2: questions

Would you refine Bob's therapy further?

What should be included in Bob's action plan for managing his asthma?

Are there any further investigations you would consider for Bob?

Part 1: key point

Primary care follow up required promptly after acute asthma

Further details on SIGN and BTS websites (www.sign.ac.uk and www.brit-thoracic.org.uk)

Part 2: key points

Add inhaled long-acting β^2 agonists rather than increasing dose of inhaled steroids (above 800mcg/day in adults and 400mcg/day in children)

Self-management is effective – offer self-management to all patients with asthma; reinforce with a written asthma action plan that gives patient-specific advice on signs of deteriorating asthma and appropriate actions to take (see Asthma UK website, www.asthma.org.uk)

Differentiate from other respiratory and non-respiratory conditions

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