Management of difficult to treat severe asthma—what’s the evidence?

**Question 1**
In the UK, how many deaths are attributed to asthma each year?

- a. 200
- b. 400
- c. 600
- d. 800
- e. >1,000

Answer: e. In the UK, over 4 million adults are being treated for asthma and it remains responsible for more than 1,000 deaths per year.

**Question 2**
A high ratio of prescriptions for short-acting beta, agonist inhalers compared with inhalers containing an inhaled corticosteroid (ICS) should prompt assessment of adherence. What number of short-acting reliever inhalers prescribed in the previous 12 months should trigger a prompt review of a patient’s asthma?

- a. >2
- b. >4
- c. >6
- d. >8
- e. >12

Answer: e. Patients who are using excessive amounts of a short-acting beta2 agonist (e.g. prescribed more than 12 short-acting reliever inhalers in the previous 12 months) should be invited for a prompt review of their asthma control.

**Question 3**
In people with difficult to treat asthma, it is important to confirm that asthma is the primary cause of the symptoms. In one study, out of 100 patients referred to tertiary services with a label of difficult asthma, how many did not have asthma?

- a. 3
- b. 6
- c. 12
- d. 19
- e. 24

Answer: c. One study found that, of 100 patients referred to tertiary services with a label of difficult asthma, 12 did not have asthma and a further seven had other pathology that contributed to their symptoms.

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Question 4

Assessment of difficult/severe asthma is based on the level of treatment required to control symptoms/exacerbations. The assessment involves a number of steps, including confirming the asthma diagnosis, adherence to treatment and the management of comorbidities. Once the assessment is complete, what proportion of people with asthma are estimated to qualify for a diagnosis of severe asthma?

a. 1%
b. 2.5%
c. 5%
d. 7.5%
e. 10%

Answer: c. Once adherence to treatment and correct inhaler technique have been assured, it is estimated that 5% of all asthmatic patients qualify for a diagnosis of severe refractory asthma.

Question 5

In a meta-analysis of placebo-controlled studies of omalizumab in moderate to severe asthma, the risk of one or more hospital admissions was 3% in patients receiving placebo over 28 to 60 weeks. What was the risk in patients receiving omalizumab?

a. 0.5%
b. 1.0%
c. 1.5%
d. 2.0%
e. 2.5%

Answer: a. A meta-analysis identified 25 placebo-controlled studies of omalizumab in moderate to severe asthma. The risk of one or more hospital admissions was reduced from 3% in patients receiving placebo over 28 to 60 weeks. What was the risk in patients receiving omalizumab (OR 0.16, 95% CI 0.06 to 0.42) over 28–60 weeks.