

Answers to Case 1

Answer 1

Remember A, B, C – Airway, Breathing and Circulation.

Assess how long she can speak – full sentence, single word, not at all.

Look for evidence of hypoxia, especially central cyanosis and reduced conscious level suggesting hypercapnic respiratory failure.

Assess for respiratory distress, respiratory rate, use of accessory muscles. Listen to the chest for crepitations and wheeze. Assess respiratory effort.

Assess circulatory status, measuring BP and pulse.

Temperature should also be recorded.

Answer 2

The following factors suggest a poor prognosis for Mariam:

Respiratory rate of 40

Cyanosis

History of need for ventilation

Feedback

When assessing the need for admission for severe disease the following factors are important:

Respiratory rate >30

Hypoxemia

Shock (systolic BP < 90)

Confusion

Multi-lobar infiltrates on CXR

Leucopenia (<4000/cmm)

Elderly patients (age > 65yrs)

Previous history of ICU admission and need for ventilation

The colour of sputum has not been shown to be predictive of severity of disease and in very severe disease wheeze may be absent due to poor respiratory effort.

Answer 3

Give:

Oxygen at 2 litres per minute via nasal prongs.

Salbutamol 5mg via nebulizer

IV hydrocortisone 200mg stat

A third generation cephalosporin (e.g. cefotaxime or ceftriaxone) antibiotic

An antibiotic to cover atypical organisms (e.g. doxycycline, azithromycin or a respiratory fluoroquinolone)

The first line treatment for an acute exacerbation of COPD should include nebulized bronchodilators, systemic corticosteroids, antibiotics and controlled oxygen. In a patient who is less sick, oral prednisolone 40mg can be given instead of IV hydrocortisone. High flow rates of oxygen may reduce respiratory drive in patients with severe COPD. Nebulized ipratropium bromide is also helpful in acute exacerbations.