This month’s stumper

A 5-year-old boy suddenly begins coughing while eating peanuts at home. When he is brought to the emergency department, his parents state that he has been choking and gagging for the past 15 minutes. He is awake and can give his name, but he continues to cough. On physical examination, he is afebrile, respirations are 30 per minute, pulse is 100 beats per minute, and blood pressure is 100/68 mm Hg in his right arm while seated. He is pink and well-perfused and has no stridor, wheezing, retractions or accessory muscle use.

Which of the following is the most appropriate initial step in management?

A. Allow the patient to clear the foreign object by spontaneous coughing.

B. Clear the oropharynx with multiple blind sweeps with a finger.
C. Intubate the patient.

D. Perform emergency tracheostomy and take the patient to surgery.

E. Position the patient and perform back blows.

F. Stand behind the patient and perform abdominal thrusts.

The correct answer is A.

Kaplan Medical explains why

In cases of foreign-object obstruction, if the patient can cough and breathe, it is best to initially observe and allow for spontaneous resolution. Forceful coughing can be more effective than other interventions in expelling a foreign object.

Parents can be taught this response during well-child care visits. Children who cannot produce a
forceful cough should receive help, and back blows or abdominal thrusts are appropriate options for these patients. If unsuccessful, rigid bronchoscopy is the procedure of choice to identify and remove the foreign object.

**Why the other answers are wrong**

**Choice B:** Blind finger sweeps should never be performed. The only time that finger-sweep clearance may be performed is in the initial evaluation of airway obstruction. The airway is first opened with a head-tilt/chin-lift maneuver and then inspected for a foreign body. Only if one is seen should an attempt be made to remove it with a visualized finger sweep.

**Choice C:** Intubation is incorrect. It would only be performed by emergency medical personnel if all other previous steps failed to remove the object and the patient’s cough is no longer effective, respiratory distress increases, or if the child loses consciousness.

**Choice D:** If the foreign body is lodged prior to the tracheal bifurcation, then the only procedure that would allow for oxygenation and ventilation is emergency tracheostomy, and this decision would have to be made quickly.

**Choice E:** After opening the airway, if ventilation is unsuccessful, the next step is to reposition the airway and make another attempt at ventilation. If there is still no air movement, then removal of the object should be attempted. If the patient is under 1 year old, the next step is to administer five back blows and five chest thrusts. The mouth should be inspected again for the object. Ventilation should then be resumed and if unsuccessful, the airway repositioned and ventilation attempted again. If still unsuccessful, the back blows and chest thrusts are repeated.

**Choice F:** If a child is older than 1 and is conscious, then a series of abdominal thrusts—Heimlich maneuver—should be done with the child standing or sitting. If unconscious, the child should be lying down. As above, the sequence of repositioning, ventilation and repeat Heimlich maneuvers then follows.

**Tips to remember**

> In the management of foreign-object obstruction, if the patient can cough and breathe, it is best to initially observe and allow for spontaneous resolution.

> The following steps should be performed sequentially as needed: airway positioning, ventilation, back blows, chest thrusts (under 1 year old), and abdominal thrusts (older than 1).


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Intubation and possible tracheostomy are options for respiratory failure or complete obstruction.

For more prep questions on USMLE Steps 1, 2 and 3, view other posts in this series.