This illustration demonstrates a complication of enteral feeding that is avoided by

- (A) auscultation after tube placement
- (B) testing pH of tube aspirate
- (C) taking a chest x-ray
- (D) measuring the length of tube placed
- (E) infusing a test amount of enteral feeding

For the incomplete statement above, select the one answer that is best of the 5 given.

For the critique of this item see page 104

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Nasoenteric feeding tubes are commonly used. Figure (A) shows proper placement. Misplacement of the feeding tube into the tracheobronchial tree, as shown in Figure (B), may occur in as many as 1% to 2% of cases. We are often unable to detect that the tube is in the wrong place. A cuffed endotracheal or tracheostomy tube does not prevent this complication.

Before the tube is used, most physicians will document its location. Detection of the location of the tube tip before feeding is begun remains problematic. A number of methods have been evaluated. Except for a chest x-ray, most are inadequate. Auscultation revealed tube position in 34% of patients. Testing of pH of the aspirate is another method suggested. A pH reading > 6.0 was obtained in 87% of the cases, but such values were also common from the lung and pleural space.

The length of tube inserted is not helpful, nor is infusing a test amount of enteral feeding. Many patients will have the formula fed into the lungs and have very few initial complaints. The most accurate way to exclude an abnormal placement is to obtain a chest x-ray.

References