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Questions and Answers

1. Which of the following is the most serious potential complication of enteral nutrition feeding?
 - a. Diarrhea
 - b. Tube obstruction
 - c. Pulmonary aspiration
 - d. Esophagitis

Answer: c.

Explanation: Pulmonary aspiration is common with both nasogastric and percutaneous endoscopic gastrostomy (PEG) feeding; it can be life-threatening compared to other complications and is a common cause of death in patients on enteral feeding. Tube obstruction and diarrhea, while common, are easily managed. Most common cause of upper gastrointestinal bleeding in patients with PEG is esophagitis, which can be prevented by head of the bed elevation.

2. In administering tube feedings to a bedridden patient, what is the ideal position to provide feeding?
 - a. Lying on the left side
 - b. Lying on the right side
 - c. Lying flat with back on the bed
 - d. Elevating the head of bed to 30–45°

Answer: d.

Explanation: During feeding, attempt to keep head end of bed elevated to 30–45° to minimize the pulmonary aspiration. In practice, this is seldom achieved; patients with PEGs are demented and hard to instruct as to ideal position; such patients tend to slide down and adopt positions which may actually increase risk for aspiration and esophagitis.

3. For which one of the following would nasogastric feeding be indicated?
 - a. Absent gag reflex
 - b. Long-term home feeding

- c. Large gastric residuals
- d. Short-term feeding during a period of inadequate oral intake

Answer: d.

Explanation: Nasogastric tubes are usually useful for short-term feeding in any patient with inadequate oral intake. The tubes often get clogged or inadvertently get dislodged and do not provide secure access for the long term. They are also uncomfortable. There is risk for aspiration and nasal or septal injury, as well as otitis media or sinusitis.

4. Jejunostomy tube feeding may be indicated in all of the following conditions except
 - a. Patients with severe gastroparesis
 - b. Patients with history of recurrent pulmonary aspiration
 - c. Patients with history of gastrectomy
 - d. Patients in intensive care with severe necrotizing pancreatitis
 - e. Patient with Advance dementia

Answer: e.

Explanation: Gastrostomy tube feeding is more physiologic and well tolerated in most settings including patients with advance dementia. Advance dementia is by itself not an indication for jejunostomy, unless in coexistence with the other indications listed. Jejunostomy feeds are associated with dumping syndrome, diarrhea, and mechanical problems such as tube clogging; hence, gastrostomy feeding is preferred.

5. All of the following about PEG is true except?
 - a. PEG feeding improves nutritional status, survival, and quality of life in advanced dementia
 - b. PEG feeding is a preferred method of long-term nutrition in frail elderly
 - c. PEG feeding is more physiological and better tolerated than oral feeds

- d. Replacement gastrostomy tube can migrate into the duodenum and cause gastric outlet obstruction or pancreatitis
- e. Pneumoperitoneum is common after PEG procedure and typically does not require any intervention

Answer: a.

Explanation: Multiple prospective trials suggest PEG feeding is not associated with improvement in long-term

outcomes, including patient survival, quality of life, nutritional status, or aspiration risk in patient with advanced dementia. Therefore, selection of patients requires a careful multidisciplinary approach. Ideal beneficiaries of PEG include patients with head and neck or esophageal cancer and postcerebrovascular accident (in this case for variable periods of time).