Question of the Week #6

NPO status
Domain 1, Preoperative patient assessment and diagnosis

You are conducting a preoperative interview for your patient who is scheduled for an inguinal hernia repair under general anesthesia at 1000. When you ask him about his NPO status, he states that he had a cup of black coffee at 0630. Should the case proceed as scheduled? Provide the evidence-based rationale for your response.

Response:
The familiar “Nothing to eat or drink after midnight” was a standard part of preoperative teaching for many years. Progress has been made that demonstrates a shift to safely altering this maxim, starting with babies and small children, who noisily questioned the justification of going 7 or 8 hours (or longer) with nothing to eat or drink. More current studies to support a shortened preoperative fasting time have shown a relationship between preoperative fasting and postoperative insulin resistance (Awad et al, 2013), patient discomfort and dissatisfaction (Anderson and Comrie, 2009), and a weakened immune system (Blanchard, 2012). There is little in the literature to support traditional thinking that the longer the preoperative fast, the less likely the risk for pulmonary aspiration (Anderson and Comrie, 2009) or that shortened fasting times has a deleterious effect on the surgery schedule when cases begin sooner than the original scheduled start time (Wachtel and Dexter, 2009).

The American Society of Anesthesiologists’ excellent updated Practice Guidelines for Preoperative Fasting (2011) is the best evidence-based tool we have. The link to this document is found in the references. Their recommendations, though unevenly supported in the clinical arena, are a minimum of 2 hours fasting for clear liquids, at least 4 hours fasting for breast milk, and at least 6 hours for infant formula and solid food. It should be stressed that these guidelines apply to healthy patients of all ages undergoing elective procedures. They are not meant to apply to those patients undergoing procedures in which the choice of anesthetic will not affect protective reflexes (e.g., local or no anesthetic), for patients in labor, for meals with a high fat content, or for patients with altered absorption or delayed gastric emptying times. These guidelines are basic recommendations and are not to be considered standards, absolute requirements, or are to be used in the selection of anesthetic type.

Nil per os (NPO) status can be difficult to accurately determine when the patient is asked a leading question, or feels that he or she is supposed to give the “appropriate” response (“You haven’t had anything after midnight, have you?”). In addition, people frequently don’t consider liquids as “eating”. Asking an open-ended question without the use of prompts will provide the best avenue for an honest answer. The response to “When was the last time you had anything to eat or drink?” may be quite different from the answer to the question posed at the beginning of this paragraph, and yield much more useful information, including medication compliance. As always, surgeons and anesthesiologists should be included in the development of the plan of care whenever information obtained from the preoperative interview will impact patient safety.
References and resources:


