

## Nutrition to Improve Outcomes

### Practice Change: Let's Feed Our Patients!

Patients are routinely kept “NPO (*nil per os*, or nothing by mouth) after midnight” on the day of surgery or any procedure requiring anesthesia or sedation. Although current research and anesthesia guidelines no longer support this practice, prolonged fasting is still the standard in many health care facilities.

In 1999, the American Society of Anesthesiologists (ASA) revised their practice guidelines, recommending that patients may have clear liquids up to two hours before procedures requiring general anesthesia, regional anesthesia, or sedation/analgesia (ASA, 2011). Patients may even have a small meal six hours prior to the procedure, such as toast and tea and a heavier meal eight hours prior (ASA, 2011). These guidelines suggest patients should be kept NPO for approximately two hours, while research suggests that patients tend to remain NPO for an average of 12-14 hours, with some patients fasting as long as 20 hours (Crenshaw & Winslow, 2002).

Although there is little evidence about the benefits of pre-procedural fasting, the rationale behind this practice is the belief that patients who eat or drink before receiving anesthesia will likely aspirate during the procedure. ASA revised their guidelines based on newer studies that suggest modern anesthesia poses a low risk of pulmonary aspiration. One recent study demonstrated that patients undergoing percutaneous coronary catheterization do not require any fasting prior to the procedure. Patients were observed after undergoing percutaneous coronary intervention (PCI) with moderate sedation without fasting prior to the procedure. There were no occurrences of intra-procedure or post-procedure aspiration pneumonia (Hamid et al., 2014).

Not only is it unnecessary to keep patients NPO after midnight, it is actually more harmful than beneficial. Patients who are kept NPO for an extended period of time are at a higher risk of irritability, headache, dehydration, hypovolemia, and hypoglycemia (Crenshaw & Winslow, 2002). In the case of invasive cardiac procedures, patients who are fasted are potentially at risk for contrast-induced nephropathy (acute kidney injury), dehydration, and poorly controlled hypertension (Hamid et al., 2014). Additionally, about 40% of patients in the hospital are malnourished; keeping patients NPO greatly limits opportunities for them to receive adequate nutrition (Barker, Gout, & Crow, 2011). Inappropriate pre-procedural fasting is a concern that needs to be addressed in order to provide the safest care possible to our patients. It is important that nurses and physicians are aware of current

anesthesia guidelines and collaborate in order to ensure that patients are not kept without nutrition for longer than necessary.

#### References

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