Fasting Policy: What's New?

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What should we all know about preoperative fasting?

Routinely fasting patients before elective surgery allows their stomachs to empty naturally, thereby reducing the risk of aspiration of gastric contents. However, while the removal of solids is linear and takes about six hours to complete, fluids empty exponentially and far faster [1]. Since the landmark work of Roger Maltby [2], there is abundant evidence that fluids can safely be drunk up to two hours before elective surgery without increasing the aspiration risk [1, 3–5].

Whereas the focus has previously been on minimal safe intervals, we now realise that prolonged fasting is an inappropriate way to prepare for the stress of surgery. It is therefore important to encourage patients to keep drinking until two hours before surgery in order to reduce discomfort and improve their wellbeing. This is especially important in ambulatory surgery, where a high quality recovery is paramount.

Latest European guidelines

For this reason, the European Society of Anaesthesiologists recently produced guidelines on perioperative fasting in adults and children [6]. While broadly similar to early guidelines, these include some evidence published since previous guidelines were produced, but more importantly they increase the emphasis on avoiding excessive fasting. Furthermore, these new European guidelines offer pragmatic advice on a couple of controversial topics, such as the addition of milk to hot drinks and the management of patients who continue chewing gum. The key message of the new guidelines is that "adults and children should be encouraged to drink clear fluids up to two hours before elective surgery" [6]. This recommendation applies to healthy patients, as well as to those with obesity, gastro-oesophageal reflux, diabetes and pregnant women not in labour, although there is far less evidence which is specific to the latter groups [7].

The milk controversy

Large amounts of milk curdle in the stomach, acting like a solid, but smaller quantities still behave like other liquids. Because of the limited evidence available [8] and the practical difficulty in assessing the actual volume which has been consumed, milk is usually prohibited by most fasting guidelines. However, in some societies, many patients would rather go thirsty than omit milk from their morning cup of tea or coffee. This clearly goes against the philosophy of trying to reduce fasting intervals. The guidelines group, with one exception, considered that hot drinks with added milk (up to one fifth of the total volume) should still be treated as clear fluids and can therefore be encouraged up to two hours before surgery. However, drinks made largely or predominantly from milk should be treated as solids.

The chewing gum controversy

Studies have shown that chewing gum until just before induction of anaesthesia does not cause a clinically significant increase in gastric volume [9, 10], and surgery should not be delayed for this reason. Common sense suggests the same applies to a patient found to be sucking on a single boiled sweet [6]. Taking such a pragmatic approach avoids unnecessary delays which inevitably increases anxiety and which may therefore cause greater harm to the patient.

Additional recommendations

The guidelines advise against the routine use of antacids, metoclopramide or H2 receptor antagonists before elective surgery, as there is no convincing evidence of their clinical benefit. In addition, these guidelines offer advice on oral carbohydrate loading, which is becoming popular as part of enhanced recovery protocols in short stay surgery. Commercial carbohydrate preparations rapidly leave the stomach like other clear liquids and are therefore safe up to two hours before surgery. However, despite a positive metabolic effect [7] there remains relatively little evidence of a clear clinical benefit, in terms of faster recovery, from their use. Finally the guidelines conclude by stating that "adults and children should be allowed to resume drinking as soon as they wish after elective surgery. However, fluid intake should not be insisted upon before allowing discharge from a day or ambulatory surgery facility" [6].

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