**SAMPLE TOE: Preoperative Fasting**

**Focused Clinical Question:** In a population of "healthy" preoperative patients, what are the effects of drinking liquids, particularly carbohydrate infused liquids, up to two hours prior to surgery vs. standard practice (fasting after midnight the day of surgery/procedures) on patient comfort/satisfaction, intraoperative aspiration, and postoperative complications.

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| Evidence Source\* | Type of Evidence | Level of Evidence\*\* | Quality/Strength of Evidence | Methods\*\*\* | Results/Recommendations | Comments |
| Joshi et al. (2023) | Clinical Guideline | 1  | Moderate (GRADE) | Review of relevant randomized controlled trials comparing carbohydrate-containing clear liquids vs. fasting and carbohydrate containing clear liquids vs. noncaloric clear liquids. | There is moderate evidence to support the ASA recommendation (strong) for adults to drink clear, carbohydrate containing liquids up to 2 hours prior to surgery. |  |
| Brady et al. (2010) | Systematic Review (Cochrane Library) | 1 | High (CASP) | Review of 22 RCTs comparing effect of different preoperative fasting regimens using Cochrane criteria for systematic reviews. | No evidence to indicate that shorter fasting times preoperatively are related to increased risk of aspiration, regurgitation, or other perioperative consequences. | This research is based on a sample of healthy adults and so cannot generalize to other perhaps more compromised groups, e.g., pregnant women or patients with additional co-morbidities. |
| Liang (2021) | Intervention Study | 3 | Strong (CAT) | Quasi-experimental intervention study examining  6-h fasting and 2-h water deprivation, versus 12-h fasting and 6-h water deprivation before their surgeries. | Shortening preoperative fasting improves the comfort levels of patients undergoing elective LC, alleviates thirst and hunger, promotes the recovery of gastrointestinal function, and relieves preoperative anxiety, postoperative pain, and adverse reactions. | No random assignment, no random sampling. No power analysis. All findings statistically significant. Adult patients. Patients were classified into ASA grades I-II.  |

**\***Citation only. Full reference would appear in Reference List.

**\*\***Identify the LOE used in the project as well as the level of the evidence source. For this TOE it would be:

Levin, R. F. (2011). Edifices of evidence: The proliferation of pyramids. *Research and Theory for Nursing Practice: An International Journal,*

 *25*(1), 8-10.

**\*\*\***Description of methods will differ depending on evidence source (TBD)

**References**

Brady, M. C., Kinn, S., Stuart, P., &amp; Ness, V. (2010). Preoperative fasting for adults to prevent perioperative complications

 (review). *Cochrane Database of Systematic Reviews*2003, 4. https://doi.org/10.1002/14651858.CD004423.

Critical Appraisals Skills Programme (2023). https://casp-uk.net/critical-appraisal-tools-and-resources/

The Grade Working Group (2022-2023). https://www.gradeworkinggroup.org/

Joshi, G. P., Abdelmalak, B. B., Weigel, W. A., Kuo, C. I., Stricker, P. A., Tipton, T., Grant, M., D., Marbella, A. M., Agarkar, M.,

 Blanck, J. F., &amp; Domino, K. B. (2023). 2023 American Society of Anesthesiologists Practice Guidelines for Preoperative

 Fasting: Carbohydrate-containing clear liquids with or without protein, chewing gum, and pediatric fasting duration – A modular

 update of the 2017 American Society of Anesthesiologists Practice Guidelines for Preoperative Fasting. *Anesthesiology 138*,

 132-151. https://doi.org/10.1097/ALN.0000000000004318

Liang, Y., Yan, X., Liao, Y. (2021). The effect of shortening the preoperative fasting period on patient comfort and gastrointestinal

 function after elective laparoscopic surgery. *American Journal of Translational Research, 13*(11), 13067-13075.

Moralejo, D., Ogunremi, T., & Dunn, K. (2017). Scientific writing: Critical Appraisal Toolkit (CAT) for assessing multiple types of

 evidence. *Canada Communicable Disease Report, 43*(9), 176. https://doi.org/10.14745/ccdr.v43i09a02