

Supplementary Table 1. Problematic Domains Identified in Risk of Bias Assessment of Included Studies

Study (Year)	Problematic Domain	Assesment	Justification
Yap 2024 [13]	D2: Deviations from intended interventions	High	Domain 2 was rated as high risk due to significant deviations from the intended intervention. Specifically, 29% of the intervention group failed to receive the full protocol due to staff errors. Furthermore, the use of a per-protocol analysis rather than an intention-to-treat approach likely introduced bias by excluding participants post-randomization, thereby compromising the internal validity of the treatment effect estimate.
Chaudhary2022 [5]	D5: Selection of the reported result	Some concerns	The text describes the results but doesn't mention if an a priori protocol was followed. However, reporting biochemical and clinical data is standard.
Lee 2022 [14]	D2: Deviations from intended interventions	Some concerns	While the intervention was delivered consistently without significant deviations in the clinical setting, the researchers utilized a modified analysis that excluded four participants who required rescue glucose management. Although these exclusions were balanced between groups, the departure from a strict intention-to-treat analysis introduces a minor risk of bias in the estimation of the intervention's metabolic effect.
Ertural 2023 [15]	D5: Selection of the reported result	Some concerns	Domain 5 is rated as having some concerns. While the authors provide a comprehensive report of multiple postoperative comfort parameters (pain, anxiety, thirst, and nausea) across five time points, the absence of a publicly accessible trial registration or pre-specified protocol prevents a definitive assessment of selective outcome reporting.

Ghaffari 2025 [17]	D5: Selection of the reported result	Some concerns	The text describes the results but doesn't mention if an a priori protocol was followed.
Dilmen 2017 [18]	D2 : : Deviations from intended interventions	Some concerns	By excluding the patient who refused to drink the morning dose, the researchers analyzed "compliance" rather than "assignment." This creates a biased "perfected" result
	D5 : Selection of the reported result	Some Concerns	The text describes the results but doesn't mention if an a priori protocol was followed.
Akbuğa 2021[19]	D2 : Deviations from intended interventions	Some Concerns	The study states "Blinding or masking was not performed." Patients knew they were drinking sour cherry juice vs. fasting. However, they reached their sample size goals and used appropriate statistical tests. The concern remains that knowledge of the intervention could affect subjective reports (thirst/fatigue).
	D4 : Bias in Measurement of the Outcome	Some Concerns	Because the study was not blinded, the researchers recording the VAS scores and the BFI (Brief Fatigue Inventory) knew the group assignments. Unlike blood glucose (objective), fatigue and thirst are subjective and highly susceptible to observer or participant bias.
Haselton 2025 [20]	D5 : Selection of the reported result	Some Concerns	The text describes the results but doesn't mention if an a priori protocol was followed.
Luo-ting 2025 [6]	D1 : bias arising from the randomization process	Some concerns	"While the study utilized a valid random number table for sequence generation and achieved balanced baseline characteristics across groups, it failed to provide specific details regarding allocation concealment . There is no mention of the use of opaque sealed envelopes or third-party

			randomization services to ensure the recruiter was blinded to the upcoming assignment at the point of enrollment.
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