Supplementary Material 1. PICO criteria used in the systematic review

Patient	Type 1 diabetes mellitus patients; pediatric patients (<18 years old)
Intervention	Carbohydrate counting method with standard therapy regiment
Control	Standard therapy regiment (no diet management)
Outcome	Glycemic control (hemoglobin A1c); nutritional outcome; quality of life

Supplementary Material 2. Search queries used on each search manager for the literature search.

PubMed	(Carbohydrate counting) AND ("Type 1 Diabetes Mellitus" OR "DMT1") AND (Pediatric OR children OR adolescent)
Scopus	TITLE-ABS-KEY ((carbohydrate AND counting) AND ("Type 1 Diabetes Mellitus" OR "DMT1") AND (pediatric OR children OR adolescent))
ScienceDirect	(Carbohydrate counting) AND ("Type 1 Diabetes Mellitus" OR "DMT1") AND (Pediatric OR children OR adolescent)
ProQuest	(Carbohydrate counting) AND ("Type 1 Diabetes Mellitus" OR "DMT1") AND (Pediatric OR children OR adolescent)

Supplementary Material 3. Cochrane risk of bias 2 risk of bias assessment results on five randomized controlled trials studies. There's a total of five domains assessed in the assessment, including: the randomization process (D1), deviations from intended interventions (D2), missing outcome data (D3), measurements of the outcome (D4), and selection of reported results (D5). HbA1c, hemoglobin A1c.

Included articles	Were the two groups similar and recruited from the same population?	Were the exposures measured similarly to assign people to both exposed and unexposed groups?	Was the exposure measured in a valid and reliable way?	Were confounding factors identified?	Were strategies to deal with confounding factors stated?	Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	Were the outcomes measured in a valid and reliable way?	Was the follow up time reported and sufficient to be long enough for outcomes to occur?	Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	Were strategies to address incomplete follow up utilized?	Was appropriate statistical analysis used?
Kastopoulou, et al. 2019											
Bayram, et al. 2020											
Fortins et al											
Dalsgaard et al											

Supplementary Material 4. JBI critical appraisal tool on four non-randomized studies (cross-sectional or cohort).