Table 1. Characteristics of the included studies

Study	Participants	Comparison	Follow-up	Outcome measures	Comments	Risk of bias)*
Viraraghavan, 2018 *New Delhi, India*	N at baseline Intervention: 42| Control: 41 Age (months; mean ± SD) I: 95 ± 20 | C: 95 ± 20 Sex (%female) I: 31 | C: 21 Antiseizure mediation (n(%)) -Phenytoin I: 20 (60) | C: 16 (44) -Valproate I: 5 (14) | C: 8 (28) -Carbamazepine I: 8 (23) | C: 2(7) -Multiple ASM: I: 1 (3)	Intervention: **60.000 IU vitamin D3 monthly**, orally alongside ASM. Monthly oral dosage given under direct supervision. Control: **No supplementation**	6 months Loss to follow-up I: 7 (17%) C: 12 (29%)	- Serum 25 (OH)D levels - Post-treatment vitamin D Status	Inclusion criteria - Age 5 to 10 years - BMI within 2 Z-scores of WHO reference standards - within 2 weeks of antiseizure medication initiation. Exclusion criteria - calcium or vitamin D supplementation, - non-ambulatory status, - evidence of osteomalacia, or any chronic disease influencing vit D metabolism. No funding nor conflicts of interest reported Baseline differences in Vit D levels in favor of the intervention group.	HIGH

	Vit D deficiency (n(%)) -Severe (≤10 ng/ml): I: 3 (9) | C: 6 (21) -Deficiency (11-20 ng/ml) I: 10 (29) | C: 7 (25) -Insufficiency (21-29 ng/ml) I: 5 (14) | C: 8 (28) -Normal (≥30 ng/ml) I: 17 (49) | C: 8 (28)					
Mishra, 2023 *New Delhi, India*	N at baseline Intervention: 20 | Control: 20 Age (years; median [IQR]) I: 5.5 [4.75 to 8.5] C: 7.5 [6 to 9.5] Sex (%female) I: 50 | C: 40 Type of onset (focal/generalized/unkown,n (%)) I: 13(65)/6(30)/1(5) C: 10(50)/9(45)/1(5)	Intervention: **600 IU vitamin D3 daily**, vitamin D drops)to be taken at home. Control: **No supplementation**	Loss to follow-up I: 16 (20%) C: 0 (0%)	- Serum 25 (OH)D levels - Post-treatment vitamin D status	Inclusion criteria - age 2 to 12 years - newly diagnosed epilepsy - valproate therapy. 25-(OH)D >20ng/mL. Exclusion criteria - chronic renal or liver disease, - nonambulatory tube-fed status - vitamin D supplementation in the last 3 months. No relevant funding nor conflicts of interest reported	

	Vitamin D (ng/mL, median [IQR]) I: 24.8 [23.0 to 27.4] C: 25.6 [23.0 to 31.0]					
Vichutavate, 2022 *Bangkok, Thailand*	N at baseline Intervention: 41 | Control: 41 Age (years; mean ± SD) I: 11.9 ± 3.0 | C: 22.2 ± 4.2 Sex (%female) I: 53.7| C: 53.7 Duration of ASM use (years; mean ± SD) I: 5.2 ± 3.8 | C: 6.0 ± 4.0 Number of ASMs used (mean ± SD) I:2.4 ± 1.2 | C: 2.1 ±1.3 Enzyme inducing AED (n (%)	Intervention: **60.000 IU vitamin D3 every ten days**, 3 capsules of ergocalciferol Control: **20.000 IU vitamin D3 every ten days,** 1 capsule of ergocalciferol	90 days No loss to follow-up	- Serum 25 (OH)D levels - Post-treatment vitamin D status	Inclusion criteria - Age 5 to 18 years - ≥ 6 months of anti-seizure medication use - serum 25 (OH)D level <30 ng/mL Exclusion criteria - liver, renal or gastrointestinal disease - disorder of bone mineralization - BMI Z-score <2SD - medications affecting vitamin D or vitamin D metabolism. No relevant funding nor conflicts of interest reported	LOW

Table 1. Characteristics of the included studies
Richtlijn Epilepsie 2025

	I: 11 (26.8) | C: 9 (22.0) <u>25-(OH)D level (n(%))</u> - <20 ng/ml): I: 27 (65.9) | C: 24 (58.5) -20-30 ng/ml I: 14 (34.1) | 17 (41.5)					
Abbreviations: ASM – antiseizure medication; BMI – Body Mass Index; C- control; I – intervention; IQR – interquartile range;						

For further details, see risk of bias table in the appendix