

Supplemental Table S1. Grading of Recommendations Assessment, Development, and Evaluation (GRADE) of selected studies.

N° of studies	Design	Quality assessment				N° of patients		Effect		Quality	Importance
		Risk of bias	Inconsistency	Indirectness	Imprecision	Cases	Control	Relative (95%CI)	Absolute		
Fadinie (2019) [28]. Curcumin and PE (90 min of follow-up)											
1	RCCT	Serious risk of bias (no information about randomization)	No Serious inconsistency	Serious indirectness (no population data at baseline)	Serious imprecision (very wide range of results)	23	24	No significant effects on IL-10 or COX-2 serum levels	-	Low ++/++++	Less important
Shi (2018) [33]; Ding (2017) [35]. EGCG/Resveratrol and Nifedipine on PE (follow-up until normalization of BP)											
2	RCCT	No Serious risk of bias	No Serious inconsistency	No serious indirectness	No serious imprecision	322	331	Time to control BP: Mean difference of 14.1 min (9.7-18.5; 95% CI) and 15.5 min (4.7-10.9; 95% CI) for EGCG and RESV, respectively Time until new HC: Mean difference of 3.1	-	High ++++/++++	Critical

								h (2.3-3.9; 95% CI) and 2.5 h (0.3-2.4; 95% CI) for EGCG and RESV, respectively			
Hobson (2018) [34]. Melatonin an PE (follow-up from recruitment until delivery)											
1	Phase I single arm clinical trial	Serious risk of bias (unblinding, no randomization)	No Serious inconsistency	Serious indirectness (use of historical controls)	No serious imprecision	20	48	No significant effects on mean arterial BP Interval from diagnosis to delivery: mean 6 [\pm 2.3 SEM] days; P<0.05) vs HCC	-	Low +/++++	Important
Caldeira-Dias (2019) [36]. Resveratrol and PE (No follow-up)											
1	Observational	Serious risk of bias (unblinding, lack of information on the choice of patients)	No Serious inconsistency	Serious indirectness	Serious imprecision (low population)	6	6	Improvement of HO-1 and NO markers and GSH levels in HUVECs treated with RESV	-	Very Low +/++++	Less Important
Caldeira-Dias (2021) [37]. Grape juice and PE (follow-up of 1 hour)											
1	Phase I single arm open-label	Serious risk of bias (unblinding, no randomization)	No serious inconsistency	Serious indirectness (no population data at baseline)	Serious imprecision (low population)	4	-	17% \pm 4, 50% \pm 2 and 69% \pm 7 decrease in HO-1, GSH and ARE activity levels, respectively,	-	Very Low +/++++	Important

after treatment (p<0.05) in HUVECs											
Miller (2014) [38]. Melatonin and fetal growth restriction (follow-up from recruitment until delivery)											
1	Phase I single arm open-label	Serious risk of bias (unblinding, no randomization)	No serious inconsistency	Serious indirectness (use of historical controls)	Serious imprecision (low population)	6	6	Significant lower MDA concentration (2.4 ± 0.6 nmol/mg tissue) versus control (4.6 ± 0.7 nmol/mg tissue; P = 0.04)	-	Low ++/++++	Important
Ghomian (2013) [86], Gupta (2020) [87]. Vitamin C use and reduction in PPRM											
1	RCCT	Serious risk of bias (blinding)	No serious inconsistency	No serious indirectness	No serious imprecision	85	85	RR 0.70	OR 0.31 (vit C) OR 0.44 (controls)	Moderate +++/++++	Critical
1	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	20	20	RR 0.18	OR 0.12 (vit C) OR 0.66 (controls)	Low ++/++++	Critical
Sharma (2014) [88], Ilhan (2107) [95], Ilhan (2015) [15], Hassanzadeh (2016) [93]. Plasmatic ascorbic acid levels in PPRM											

2	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	95	61	-	0.41-7.39 mg/L (PPROM) 0.84-13.83 mg/L (controls)	Low ++/++++	Important but not critical
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	620		-	OR 1.001 (vit C)	Low ++/++++	Important but not critical
1	Cross-sectional study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	38	34	-	7.29±2.19 mg/L (PPROM) 13.85±3.07 mg/L (controls)	Low ++/++++	Important but not critical
Martin (2015) [85]. Vitamin C association with PTB											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	3,143		-	OR 1.55 (1.07-2.24) (vit C)	Low ++/++++	Important but not critical
Zhang (2017) [97]. Plasmatic ascorbic acid levels in PTB											
1	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	130	381	-	117.3±60.35 mg (PTB) 127.13±68.17 mg (controls)	Low ++/++++	Important but not critical
Ilhan (2015) [15], Hassanzadeh (2016) [93]. Plasmatic vitamin E levels in PPRM											

1	Cross-sectional study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	38	34	-	20.38±6.47 mg/L (PPROM) 18.15±6.38 mg/L (controls)	Low ++/++++	Of limited importance
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	620		-	1.55-2.37 mg/L (PPROM) 1.42-1.71 mg/L (controls)	Low ++/++++	Of limited importance
Bartfai (2012) [90], Harville (2020) [89], Carmichael (2013) [91]. Vitamin E effects on PTB											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	1215		-	OR 1.0	Low ++/++++	Of limited importance
1	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	2,287	35,864	-	OR 0.71 (0.63-0.84)	Moderate +++ /++++	Of limited importance
1	Transversal study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	5,738		-	OR PTB<32 GWs 1.9 (1.0-3.6)	Low ++/++++	Important but not critical
Zhang (2017) [97]. Vitamin E levels in PTB											

1	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	130	381	-	29.6±9.51 mg (PTB) 33.57±11.30 mg (controls)	Low ++/++++	Important but not critical
Koenig (2017) [96]. Vitamin E intake and premature cervical remodeling											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	Serious imprecision (small sample size)	47		-	22.0±22.56 IU (high risk) 45.5±42.86 IU (low risk)	Very low +/++++	Important but not critical
Gungorduk (2014) [92]. Effect of vitamin C+E supplementation to increase latency period before birth in PPROM											
1	RCCT	Serious risk of bias (blinding)	No serious inconsistency	No serious indirectness	No serious imprecision	126	123	-	11.2±6.3 days (vit C+E) 6.2±4.0 days (controls)	Moderate +++ /++++	Important but not critical
Hauth (2010) [94]. Vitamin C+E and reduction in PPROM+PTB before 32 gestational weeks											
1	RCCT	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	4,992	4,976	-	OR 0.5 (0.27-0.93)	High ++++/++++	Important but not critical
Hauth (2010) [94]. Vitamin C+E effect on PTB											
1	RCCT	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	4,992	4,976	-	OR 1.05 (0.90-1.22)	High ++++/++++	Of limited importance

Zahiri (2015) [101]. Zinc and risk of PPROM											
1	RCCT	Undetected	No serious inconsistency	Serious indirectness (different intervention)	No serious imprecision	270	270	RR 0.08 (Zn) RR 0.07 (controls)	OR 0.09 (Zn) OR 0.07 (controls)	High ++++/++++	Important but not critical
Kucukaydin (2018) [103], Shen (2015) [104]. Plasmatic Zinc levels in PPROM											
1	Case control study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	35	38	-	0.80±0.30 mg/L (PPROM) 1.76±0.74 mg/L (controls)	Low ++/++++	Important but not critical
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	1,568		-	73.21±13.9 µmol/L (PPROM) 84.55±14.38 µmol/L (controls)	Low ++/++++	Important but not critical
Nga (2020) [99], Nossier (2015) [100], Zahiri (2015) [101]. Zinc use and reduction of PTB											
3	RCCT	Serious risk of bias (blinding)	No serious inconsistency	No serious indirectness	No serious imprecision	798	650	RR 0.012-0.13 (Zn) RR 0.05-0.10 (controls)	OR 0.01-0.16 (Zn) OR 0.06-0.12 (controls)	Moderate +++ /++++	Important but not critical
Shen (2015) [104]. Plasmatic zinc levels in PTB											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	1,568		-	73.55±14.09 µmol/L (PTB) 84.55±14.38 µmol/L (controls)	Low ++/++++	Important but not critical

Chen (2018) [105], Huang (2016) [106], Lu (2017) [107], Okubo (2015) [108], Moussally (2010) [109], Sengpiel (2013) [110], Sindiani (2020) [111]. Tea intake association with PTB											
1	Case control study	Serious risk of bias (unmatched case control)	No serious inconsistency	No serious indirectness	No serious imprecision	314	796	-	OR 1.43 (>3cups/day)	Very low +/++++	Important but not critical
6	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	88,381		-	OR 0.88-1.61	Low ++/++++	Important but not critical
Biran (2019) [112], Ramiro-Cortijo (2020) [115], Specht (2019) [116]. Mother plasma melatonin reduced levels at birth.											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	169		RR 0.78 (<34GWs) RR 0.57 (>34GWs)	OR 3.5 (<34GWs) OR 1.34 (>34 GWs)	Low ++/++++	Critical
1	Cohort study	Undetected	No serious inconsistency	Serious indirectness (because of population)	No serious imprecision	104		-	Lower mother melatonin plasmatic levels in PTB (p<0.024).	Very low +/++++	Critical
Specht (2019) [116]. Night work during pregnancy and association with PTB.											
1	Cohort study	Undetected	No serious inconsistency	No serious indirectness	No serious imprecision	16,501		RR 0.05 (night-working) RR 0.05 (day-working)	OR 0.05 (night-working) OR 0.05 (day-working)	Low ++/++++	Of limited importance

Zarban (2015) [121], Melo (2017) [125], Medeiros (2016) [126], Clemente (2015) [135]. Vitamin C/E and breastfeeding (follow-up of maximum 30 days)											
4	RCCT	No serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	-	-	Supplements of vitamin C and E increase anti-oxidant content of breastmilk, especially in colostrum (p< 0.05)	-	High ++++/++++	Important
Hoppu (2005) [120].Vitamin C and breastfeeding (follow-up of 12 months)											
1	Cross-sectional	Serious risk of bias (no control group)	No serious inconsistency	No serious indirectness	No serious imprecision	65	-	Decrease the risk of atopy in high-risk infants (p< 0.05)	-	Low +/++++	Important
Friel (2007) [123].Vitamin C/iron and breastfeeding (No follow-up)											
1	Experimental	Serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	65	-	Iron may provoke oxidative stress in preterm infants and should be divided from vitamin C (p< 0.05)	-	Very low +/++++	Important
Daneel-Otterbech (2005) [122].Vitamin C and breastfeeding (No follow-up)											
1	RCCT	Serious risk of bias	No serious inconsistency	Serious indirectness (different populations)	No serious imprecision	171	142	Significant increase of AA in human milk after AA supplementation	-	Moderate +++ /++++	Important

								(1000 mg/d for 10 d) African women: 41 mg/kg (p<0.001) European women: 10 mg/kg (p=0.03)			
Loui (2004) [131], Shaaban (2005) [130] Selenium and zinc and breastfeeding (variable follow-up)											
2	RCCT	No serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	-	-	Zn supplements in lactating women increased breast milk Zn levels (p<0.05)European women: 10 mg/kg (p=0.03)	-	High ++++/++++	Important
Strambi (2004) [129]. Selenium and zinc and breastfeeding (follow-up of 4 weeks)											
1	Longitudinal	No serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	81	129	Breast-fed SGA higher plasma Se concentrations than formula-fed newborns (p<0.05)	-	Moderate +++ /++++	Important
Qin (2019) [133]. Melatonin (follow-up of 30 days)											

1	Longitudinal	No serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	32	66	Circadian rhythm in breast milk, highest peak level in colostrum, (p< 0.05)	-	Moderate +++/++++	Important
Honorio-Franca (2013) [134]. Melatonin (follow-up of 30 days)											
1	RCCT	Serious risk of bias (no information about randomization)	No Serious inconsistency	Serious indirectness (no population data at baseline)	Serious imprecision (very wide range of results)	23	24	No significant effects on IL-10 or COX-2 serum levels	-	Low ++/++++	Less important

Abbreviations: ARE: antioxidant response element; BP: blood pressure; COX-2: cyclooxygenase-2; EGCG: epigallocatechin gallate; GRADE: Grading of Recommendations Assessment, Development, and Evaluation; GSH: glutathione; GWs: gestational weeks; HC: hypertensive crisis; HO-1: heme oxygenase-1; HUVECs: human umbilical vein endothelial cells; IL-10: interleukin 10; MDA:; NO: nitric oxide; PPRM: preterm premature rupture of membranes; PTB: preterm birth; RCCT: randomized controlled clinical trial; SGA: small for gestational age; Vit: vitamin; Zn: zinc. Quality of evidence grades: high (++++), moderate (+++), low (++) , very low (+).