

**Supplemental Table S1. *Per protocol* analysis of primary outcome and maternal glycemia in pre-specified special interest groups**

OGTT time point	N	Adjusted Beta (95% CI) for log <sub>e</sub> glucose* (log <sub>e</sub> mmol/L)	N	Fully adjusted Beta (95% CI) for log <sub>e</sub> glucose† (log <sub>e</sub> mmol/L)	GDM‡  Control	Intervention	Adjusted risk ratio (95% CI)§
<b>Per protocol analyses<sup>  </sup> (N=553)</b>							
Fasting	552	-0.0034 ( -0.018 to 0.012)	549	0.0003 ( -0.014 to 0.015)	58/266	69/279	1.24 (0.92 to 1.66; N=515)
1-hour	545	0.027 ( -0.014 to 0.067)	542	0.038 (-0.002 to 0.077)	(21.8%)	(24.7%)	
2-hour	546	0.048 (0.011 to 0.085)	543	0.052 (0.014 to 0.090)			
<b>Overweight or obese prior to conception¶ (N=258)</b>							
Fasting	258	-0.010 (-0.035 to 0.014)	257	-0.0005 (-0.025 to 0.024)	39/125	42/128	1.18 (0.83 to 1.69; N=239)
1-hour	253	0.017 (-0.038 to 0.072)	252	0.032 (-0.024 to 0.088)	(31.2%)	(32.8%)	
2-hour	254	0.069 (0.015 to 0.122)	253	0.076 (0.020 to 0.131)			
<b>Documented evidence of dysglycemia prior to conception# (N=94)</b>							
Fasting	94	0.003 (-0.047 to 0.053)	92	0.018 (-0.034 to 0.070)	26/48	26/46	1.21 (0.86 to 1.71; N=86)
1-hour	93	0.062 (-0.022 to 0.146)	91	0.081 (-0.008 to 0.169)	(54.2%)	(56.5%)	
2-hour	93	0.048 (-0.045 to 0.140)	91	0.072 (-0.022 to 0.166)			

\*log<sub>e</sub> glucose at 24-32 weeks adjusted for site, ethnicity and baseline log<sub>e</sub> glucose (for fasting and 2-hour only, baseline 60 min glucose not available).

†log<sub>e</sub> glucose at 24-32 weeks adjusted for site, ethnicity, maternal age, pre-pregnancy BMI, preconception smoking, parity, family history of diabetes and baseline log<sub>e</sub> glucose (for fasting and 2-hour only, baseline 1-hour glucose not available).

‡Gestational diabetes (GDM) defined by the IADPSG criteria (fasting glucose ≥5.1 mmol/L or 1-hour glucose ≥10.0 mmol/L or 2-hour glucose ≥8.5 mmol/L); includes only women with complete OGTT data at all 3 time points.

§Adjusted for site, ethnicity, maternal age, preconception BMI, household income level, parity, preconception smoking, preconception baseline fasting glycemia, family history of diabetes and offspring sex.

||sensitivity analysis excluding those who violated the eligibility criteria (11 stopped hormonal contraception less than 28 days before recruitment, 1 conceived by assisted reproductive technologies) and those who were non-compliant (20 with <60% adherence; [3 and 0 in the control and intervention groups, respectively, completely stopped consumption during pregnancy prior to the 28-week OGTT.](#)

¶defined using ethnic-specific thresholds of BMI >23 kg/m<sup>2</sup> for Asians including Chinese, Indians, Pakistani, Bangladeshi, Malay, mixed Asian; >25 kg/m<sup>2</sup> for non-Asians including White Caucasian, Polynesian, Black, mixed Asian-non-Asian.

#defined as at least one of the following: GDM in a previous pregnancy; preconception baseline first visit raised HbA1C (≥5.7% (39mmol/mol) or impaired fasting glucose (5.6 to 6.9 mmol/L) or impaired glucose tolerance (2-hour glucose 7.8 to 11.0 mmol/L) [*American Diabetes Association. 2. Classification and diagnosis of diabetes: standards of medical Care in Diabetes-2019. Diabetes Care. 2019; 42:S13–28.*]

**Supplemental Table S2. Other pre-specified pregnancy and neonatal outcomes with the NiPPeR intervention compared with control**

	Control	Intervention	Effect of Intervention Risk ratio (95% CI) <sup>§</sup>
Fetal death <i>in utero</i> or stillbirth $\geq 24$ weeks (denominator all pregnancies $\geq 24$ weeks)	0/292 (0.0%)	1/294 (0.3%) <sup>†</sup>	Insufficient to analyze
Shoulder dystocia requiring recognized manoeuvres for delivery	2/292 (0.7%)	4/293 (1.4%)	Insufficient to analyze
<b>Neonatal outcomes</b> (denominator: all livebirths $\geq 24$ weeks)	...	...	...
Macrosomia (>4 kg)	21/292 (7.2%)	21/293 (7.2%)	0.94 (0.53 to 1.69, N=553)
Low birthweight (<2.5 kg)	21/292 (7.2%)	16/293 (5.5%)	0.78 (0.40 to 1.51, N=553)
Neonatal death (within 4 weeks of birth)	0/292 (0.0%)	1/293 (0.3%) <sup>‡</sup>	Insufficient to analyze
Jaundice requiring phototherapy	24/292 (8.2%)	23/293 (7.8%)	0.91 (0.55 to 1.51, N=553)
Low Apgar score (<7) at 5 minutes	3/288 (1.0%)	4/288 (1.4%)	Insufficient to analyze
Meconium aspiration	3/292 (1.0%)	6/293 (2.0%)	Insufficient to analyze
Respiratory distress requiring Continuous Positive Airway Pressure (CPAP) or ventilation	5/292 (1.7%)	7/293 (2.4%)	Insufficient to analyze
Hypoxic ischemic encephalopathy	1/292 (0.3%)	0/293 (0.0%)	Insufficient to analyze

<sup>§</sup> Adjusted for site, ethnicity, maternal age, preconception BMI, household income level, parity, smoking during pregnancy, offspring sex, fasting glucose at 28 weeks' gestation.

<sup>†</sup> Intrauterine death at term associated with placental infarctions (reported on histopathology)

<sup>‡</sup> Death due to extreme prematurity with delivery at 24<sup>+3</sup> weeks' gestation

**Supplemental Table S3. Other serious adverse events reported in all randomized women between randomization and 4 weeks post-delivery or withdrawal from study**

	Control	Intervention
<b>All other maternal</b>	2.3% (20/859)	2.8% (24/870)
Obstetric	4	6
Gynecological	4	3
Infection/suspected infection	4	6
Gastrointestinal/surgical	3	2
Cardiac/renal	2	1
Breast	0	3*
Neurological/mental/psychological	1	1
Accidents/trauma	2	2

\*2 cases of mastitis requiring i.v. antibiotics and 1 case of breast cancer