Table S2. The rationale for outcomes to be predicted.

Outcomes	**Clinical rationale for inclusion/ exclusion**
Outcomes to be predicted	
LGA (> 90th percentile)	Excess fetal growth is the central adverse pregnancy outcome in pregnancies affected by GDM with many mechanisms implicated including but not limited to the hyperglycaemia-fetal hyperinsulinaemia hypothesis.[1] This adverse outcome is also upstream on the causal pathway to other clinically relevant complications, including those related to difficulties at delivery. LGA will be used rather than macrosomia as it is a measure of birth weight corrected for gestational age and is also less variably defined.[2]
HDP	Significant association with GDM and if at high-risk, then closer monitoring during pregnancy may be required.
Shoulder dystocia	Associated with GDM and clinically significant.
Nerve palsy	May be associated with GDM and clinically significant.
Bone fracture	May be associated with GDM and clinically significant.
Perinatal (fetal and neonatal) death	Rare but of utmost clinical significance.
Neonatal hypoglycaemia	This is the central marker of the maladaptive metabolic response of the neonate exposed to hyperglycaemia in utero as per the hyperglycaemia-fetal hyperinsulinaemia hypothesis.[3] Severe cases requiring intravenous treatment are likely to be most clinically relevant.
The requirement for insulin therapy	A treatment for GDM that reduces the risk of some adverse outcomes.
Outcomes excluded from prediction	
Preterm birth	Not directly related to GDM and may be more related to IUGR; strongly clinician-driven.
Adherence to the intervention	Possible predictor.
GWG	Possible predictor.
Caesarean delivery	Highly clinician-driven and institution dependent.
SGA (<10th percentile)	Not directly related to GDM, more related to IUGR.
GA at birth	May be clinician-driven.

Neonatal jaundice	Only severe cases are clinically relevant and may be more closely related to prematurity rather than the maternal hyperglycaemia of GDM.
Neonatal adiposity	Not routinely assessed in clinical practice.
Neonatal hyperinsulinaemia	Neonatal hypoglycaemia is a more meaningful clinical outcome.
Admission to the NICU	Highly clinician-driven and institution dependent.
Malformations	Associated with pre-gestational diabetes and less relevant in gestational diabetes.
Neonatal hypocalcaemia	As its severity is related to the level of hyperglycaemia unlike in pre-gestational diabetes, it is rarely seen in GDM and if present is usually asymptomatic and resolves spontaneously.[4]
Neonatal respiratory distress syndrome	Only severe cases are clinically relevant and may be more closely related to prematurity rather than hyperglycaemia.[5]
Cord-blood serum C-peptide level above the 90th percentile	Not routinely assessed in clinical practice and clinical relevance unclear.

Abbreviations: GDM, gestational diabetes; LGA, large-for-gestational-age; HDP, hypertensive disorders of pregnancy; GWG, gestational weight gain; GA, gestational age; SGA, small-for-gestational-age; OGTT, oral glucose tolerance test; NICU, neonatal intensive care unit.

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