1. Foghsgaard, S., et al., *Treatment with the glucagon-like peptide-1 receptor agonist liraglutide improves glycemic control in women with prior gesta tional diabetes mellitus: A randomized, placebo-controlled trial.* (It has a protocol published in BMJ open)

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	The randomization will be carried out through a central independent unit through an unblinded data manager at Public Health and Quality Improvement, Central Denmark Region, Denmark
Allocation concealment (selection bias)	Low risk	The allocation sequence will be concealed from the investigators and healthcare staff enrolling and assessing participants
Blinding of participants and personnel (performance bias)	Low risk	Participants, investigators and healthcare staff will remain blinded to the allocated treatment and kept masked until the afternoon of visit 10 (OGTT after 52 weeks).
Blinding of outcome assessment (detection bias)	Low risk	Data analysis will be carried out blinded
Incomplete outcome data (attrition bias)	Unclear risk	104 participants at baseline but 83 finished the trial after one year
Selective reporting (reporting bias)	Unclear risk	Secondary outcomes including ALT,AST and so on, but only reported FPG,HbA1c, BW and glucose tolerance
Other bias	Low risk	Comment: none detected

2. Elkind-Hirsch, K.E., et al., *SHORT-TERM SITAGLIPTIN-METFORMIN THERAPY IS MORE EFFECTIVE THAN METFORMIN OR PLACEBO IN PRIOR GESTATIONAL DIABETIC WOMEN WITH IMPAIRED GLUCOSE REGULATION.*

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	All subjects were assigned to one of these three groups based on computer-generated random numbers using a block randomization method.
Allocation concealment (selection bias)	Low risk	The primary investigators were blinded to treatment allocation
Blinding of participants and personnel (performance bias)	High risk	This was a prospective, single-blind, randomized, outpatient clinical trial The research coordinator filled color-coded bags (A, B, C,) with 1 of 3 medications (A = P, B = MET, and C = SITA-MET) and dispensed open-label medications to study patients in color-coded bags with instructions
Blinding of outcome assessment (detection bias)	Unclear risk	This was a single-blind designed trial, and the members who assessed outcomes did not mention
Incomplete outcome data (attrition bias)	Low risk	The trial enrolled 36 participates and all completed the trial for 16 weeks.
Selective reporting (reporting bias)	Unclear risk	TSH, β-hCG, ALT and AST were measured at baseline, but did not report at end-point.
Other bias	Low risk	Comment: none detected.

3. Hummel, S., et al., *Efficacy of vildagliptin for prevention of postpartum diabetes in women with a recent history of insulin-requiring gestational diabetes: a phase II, randomized, double-blind, placebo-controlled study.*

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Eligible women were centrally randomized at the baseline visit to receive either 50 mg vildagliptin or placebo, but the randomized method did not report
Allocation concealment (selection bias)	Low risk	The participants and investigators were blinded to the allocated treatment
Blinding of participants and personnel (performance bias)	Low risk	The trial was a double-blinded and participants and investigators were blinded to allocated treatment.
Blinding of outcome assessment (detection bias)	Unclear risk	The details of who assessed the outcome were not reported, but the it was a double-blinded trial
Incomplete outcome data (attrition bias)	High risk	Comment: Participants did not complete the measurements in each time-point
Selective reporting (reporting bias)	Low risk	Comment: Authors reported outcomes of each measurement.
Other bias	Low risk	Comment: none detected

4. Sun, X., et al., *Sitagliptin down-regulates retinol-binding protein 4 and reduces insulin resistance in gestational diabetes mellitus: a randomized and double-blind trial.*

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Using a randomization method of permuted-block design stratified according to the baseline FPG levels of each participant
Allocation concealment (selection bias)	Low risk	This was a double-blinded trial and both sitagliptin and placebo were supplied as capsules identical in shape and color and in coded bottles to mask their contents to the investigators and participants
Blinding of participants and personnel (performance bias)	Low risk	Both sitagliptin and placebo were supplied as capsules identical in shape and color and in coded bottles to mask their contents to the investigators and participants
Blinding of outcome assessment (detection bias)	Low risk	All anthropometric assessments were measured at baseline (week 0) and end of trial (week 16) by investigators blind to the randomized group assignment
Incomplete outcome data (attrition bias)	Unclear risk	Comment: 29 participants in experimental group and 28 in controlled group dropped out, and the data of them did not report
Selective reporting (reporting bias)	Low risk	Comment: Authors reported all the data mentioned in method
Other bias	Low risk	Comment: none detected