Appendixes

Appendix A. Literature Search Strings

Appendix B. Review Forms

Appendix C. Methodological Quality of Included Studies

Appendix D. Evidence Tables

Appendix E. List of Excluded Studies and Unobtained Studies

Appendix F. Key Question 3 Outcomes Undefined by Protocol

Appendix A. Literature Search Strings

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Table A1. Medline

Database: Medline via Ovid <1948 to September Week 4 2011>
Search Date: 9 October 2011
Results: 8,234

1. Diabetes, Gestational/
2. Fetal Macrosomia/
3. Pregnancy Complications/
4. GDM.tw.
5. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
6. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
7. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).tw.
8. (hyperglyc?emia adj2 pregnan$).tw.
9. macrosomia.tw.
10. or/1-9
11. mass screening/
12. prenatal diagnosis/
13. screen$.tw.
14. ((prenatal or early) adj2 diagnosis).tw.
15. Glucose Tolerance Test/
16. Glucose Intolerance/
17. Blood Glucose/
18. Risk Factors/
19. (glucose adj (tolerance or intolerance or challenge)).tw.
20. OGTT.tw.
21. GCT.tw.
22. (fasting adj2 glucose).tw.
23. or/11-22
24. "Sensitivity and Specificity"/
25. "Predictive Value of Tests"/
26. ROC Curve/
27. specific$.tw.
28. sensitiv$.tw.
29. predictive value.tw.
30. accurac$.tw.
31. diagnostic errors/
32. diagnostic error?.tw.
33. false negative reactions/
34. false positive reactions/
35. (false adj (negative or positive)).tw.
36. "reproducibility of results"/
37. reference values/
38. reference standards/
39. or/24-38
40. and/10,23,39
41. intervention?.mp.
42. (treating or treatment? or therapy or therapies).mp.
43. manage$.mp.
44. monitor$.mp.
45. exp sulfonylurea compounds/
46. Gliclazide/
47. Glyburide/
48. Tolbutamide/
49. sulfonylurea?.tw.
50. gliclazid$.tw.
51. glimepirid$.tw.
52. glipizid$.tw.
53. glyburid$.tw.
54. tolbutamid$.tw.
55. (antidiabet$ or anti-diabet$).tw.
56. insulin?.mp.

57. glibenclamid$.mp.
58. acarbos$.mp.
59. exp Diet Therapy/
60. (diet adj2 (therap$ or restrict$ or advice)).tw.
61. medical nutrition$ therapy.tw.
62. MNT.tw.
63. exp Life Style/
64. (lifestyle$ or life-style$).mp.
65. Blood Glucose Self-Monitoring/
66. (blood glucose adj (self monitor$ or self-monitor$)).tw.
67. ((self monitor$ or self-monitor$) adj blood glucose).tw.
68. SMBG.tw.
69. Counseling/
70. counsel$.tw.
71. Labor, Induced/
72. (induc$ adj2 labo?r).tw.
73. exp Cesarean Section/
74. c?esarean.tw.
75. exp Pregnancy Outcome/
76. pregnanc$ outcome?.tw.
77. or/41-76
78. and/10,77
79. or/40,78
80. clinical trial.pt.
81. randomized controlled trial.pt.
82. randomi?ed.ti,ab.
83. placebo.ti,ab.
84. dt.fs.
85. randomly.ti,ab.
86. trial.ti,ab.
87. groups.ti,ab.
88. or/80-87
89. animals/
90. humans/
91. 89 not (89 and 90)
92. 88 not 91
93. cohort studies/
94. follow-up studies/
95. longitudinal studies/
96. prospective studies/
97. retrospective studies/
98. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
99. or/93-98
100. 99 not 91
101. exp Guideline/
102. Health Planning Guidelines/
103. (clinical adj2 guideline?).tw.
104. CPG?.tw.
105. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
106. standard?.tw.
107. protocol?.tw.
108. or/101-107
109. meta analysis.mp,pt.
110. review.pt.
111. search:.tw.
112. or/109-111 [Reviews balanced - HIRU]
113. and/79,92 [Clinical trials & RCTs]
114. and/79,100 [Observational studies]
115. and/79,108 [Guidelines]
116. and/79,112 [SRs MAs]

117. or/113-116
118. limit 117 to (english language and yr="2000 -Current")
119. limit 117 to (english language and yr="2000 -2005")
120. limit 117 to (english language and yr="2006 -Current")
121. remove duplicates from 119
122. remove duplicates from 120
123. or/121-122
124. 113 or 114 or 115
125. 113 or 114 or 115
126. limit 125 to (english language and yr="2000 -Current")
127. limit 125 to (english language and yr="2000 -2005")
128. remove duplicates from 127
129. limit 125 to (english language and yr="2006 -Current")
130. remove duplicates from 129
131. 128 or 130
132. 113 or 114
133. limit 132 to (english language and yr="2000 -Current")
134. limit 132 to (english language and yr="2000 -2005")
135. remove duplicates from 134
136. limit 132 to (english language and yr="2006 -Current")
137. remove duplicates from 136
138. 135 or 137

Table A2. Embase

Database: Embase via Ovid <1996 to 2011 Week 40>
Search Date: 10 October 2011
Results: 5,188

1. pregnancy diabetes mellitus/
2. maternal diabetes mellitus/
3. pregnancy complication/
4. macrosomia/
5. GDM.tw.
6. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
7. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
8. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).mp.
9. (hyperglyc?emia adj2 pregnan$).tw.
10. macrosomia.tw.
11. or/1-10
12. prenatal screening/
13. early diagnosis/
14. screen$.tw.
15. ((prenatal or early) adj2 diagnosis).tw.
16. exp glucose tolerance test/
17. glucose intolerance/
18. glucose blood level/
19. risk factor/
20. (glucose adj (tolerance or intolerance or challenge)).tw.
21. OGTT.tw.
22. GCT.tw.
23. (fasting adj2 glucose).tw.
24. or/12-23
25. "sensitivity and specificity"/
26. predictive value/
27. receiver operating characteristic/
28. specific$.tw.
29. sensitiv$.tw.
30. predictive value.tw.
31. accurac$.tw.
32. diagnostic error/
33. diagnostic accuracy/

34. diagnostic error?.tw.
35. false negative result/
36. false positive result/
37. (false adj (negative or positive)).tw.
38. reproducibility/
39. reference value/
40. standard/
41. or/25-40
42. and/11,24,41
43. intervention?.mp.
44. (treating or treatment? or therapy or therapies).mp.
45. manage$.mp.
46. monitor$.mp.
47. sulfonylurea derivative/
48. gliclazide/
49. glibenclamide/
50. glimepiride/
51. glipizide/
52. tolbutamide/
53. sulfonylurea?.tw.
54. gliclazid$.tw.
55. glimepirid$.tw.
56. glipizid$.tw.
57. glyburid$.tw.
58. tolbutamid$.tw.
59. (antidiabet$ or anti-diabet$).tw.
60. insulin?.mp.
61. glibenclamid$.mp.
62. acarbos$.mp.
63. exp diet therapy/
64. (diet adj2 (therap$ or restrict$ or advice)).tw.
65. medical nutrition$ therapy.tw.
66. MNT.tw.
67. exp lifestyle/
68. (lifestyle$ or life-style$).mp.
69. blood glucose monitoring/
70. (blood glucose adj (self monitor$ or self-monitor$)).tw.
71. ((self monitior$ or self-monitor$) adj blood glucose).tw.
72. SMBG.tw.
73. counseling/
74. nutritional counseling/
75. counsel$.tw.
76. labor induction/
77. (induc$ adj2 labo?r).tw.
78. cesarean section/
79. c?esarean.tw.
80. pregnancy outcome/
81. pregnanc$ outcome?.tw.
82. or/43-81
83. and/11,82
84. or/42,83
85. clinical trial/
86. randomized controlled trial/
87. randomization/
88. single blind procedure/
89. double blind procedure/
90. crossover procedure/
91. placebo/
92. randomi?ed controlled trial?.tw.
93. RCT.tw.

94. random allocation.tw.
95. randomly allocated.tw.
96. allocated randomly.tw.
97. (allocated adj2 random).tw.
98. single blind$.tw.
99. double blind$.tw.
100. ((treble or triple) adj blind$).tw.
101. placebo$.tw.
102. prospective study/
103. or/85-102
104. case study/
105. case report.tw.
106. abstract report/ or letter/
107. or/104-106
108. 103 not 107 [SIGN Embase RCT filter]
109. animal/
110. human/
111. 109 not (109 and 110)
112. 108 not 111
113. cohort analysis/
114. follow up/
115. longitudinal study/
116. prospective study/
117. retrospective study/
118. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
119. or/113-118
120. 119 not 111
121. exp practice guideline/
122. (clinical adj2 guideline?).tw.
123. CPG?.tw.
124. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
125. standard?.tw.
126. protocol?.tw.
127. or/121-126 [Guidelines]
128. and/84,112 [RCTs]
129. and/84,120 [Observational studies]
130. and/84,127 [Guidelines]
131. or/128-130
132. limit 131 to (english language and yr="2000 -2005")
133. remove duplicates from 132
134. limit 131 to (english language and yr="2006 -Current")
135. remove duplicates from 134
133 or 135

Table A3. EMB Reviews

Databases:
Cochrane Central Register of Controlled Trials (CCTR) via Ovid <3rd Quarter 2011>
Cochrane Database of Systematic Reviews (CDSR) via Ovid <2005 to September 2011>
Database of Abstracts of Reviews of Effects (DARE) via Ovid <3rd Quarter 2011>
Search Date: 9 October 2011
Results: CCTR: 23; CDSR: 79; DARE: 23
1. GDM.tw.
2. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
3. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
4. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).tw.
5. (hyperglyc?emia adj2 pregnan$).tw.
6. macrosomia.tw.
7. or/1-6
8. screen$.tw.
9. ((prenatal or early) adj2 diagnosis).tw.

10. blood glucose.tw.
11. risk factor?.tw.
12. (glucose adj (tolerance or intolerance or challenge)).tw.
13. OGTT.tw.
14. GCT.tw.
15. (fasting adj2 glucose).tw.
16. or/8-15
17. specific$.tw.
18. sensitiv$.tw.
19. predictive value.tw.
20. (ROC or "receiver operating characteristic?").tw.
21. accurac$.tw.
22. diagnostic error?.tw.
23. (false adj (negative or positive)).tw.
24. "reproducibility of results".tw.
25. (reference adj2 (standard? or value?)).tw.
26. or/17-25
27. and/7,16,26
28. intervention?.mp.
29. (treating or treatment? or therapy or therapies).mp.
30. manage$.mp.
31. monitor$.mp.
32. sulfonylurea?.tw.
33. gliclazid$.tw.
34. glimepirid$.tw.
35. glipizid$.tw.
36. glyburid$.tw.
37. tolbutamid$.tw.
38. (antidiabet$ or anti-diabet$).tw.
39. insulin?.mp.
40. glibenclamid$.mp.
41. acarbos$.mp.
42. (diet adj2 (therap$ or restrict$ or advice)).tw.
43. medical nutrition$ therapy.tw.
44. MNT.tw.
45. (lifestyle$ or life-style$).mp.
46. (blood glucose adj (self monitor$ or self-monitor$)).tw.
47. ((self monitior$ or self-monitor$) adj blood glucose).tw.
48. SMBG.tw.
49. counsel$.tw.
50. (induc$ adj2 labo?r).tw.
51. c?esarean.tw.
52. pregnanc$ outcome?.tw.
53. or/28-52
54. and/7,53
55. or/27,54
56. clinical trial.pt.
57. randomized controlled trial.pt.
58. randomi?ed.ti,ab.
59. placebo.ti,ab.
60. dt.fs.
61. randomly.ti,ab.
62. trial.ti,ab.
63. groups.ti,ab.
64. or/56-63
65. (animal? not (animal? and human?)).mp.
66. 64 not 65
67. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
68. 67 not 66
69. (clinical adj2 guideline?).tw.

70. CPG?.tw.
71. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
72. standard?.tw.
73. protocol?.tw.
74. or/69-73
75. and/55,66 [Clinical trials & RCTs]
76. and/55,68 [Observational studies]
77. and/55,74 [Guidelines]
78. or/75-77
79. limit 78 to (english language and yr="2000-Current")
80. remove duplicates from 79

Table A4. Global Health

Database: Global Health via Ovid <1973 to September 2011>
Search Date: 9 October 2011
Results: 361

1. GDM.tw.
2. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
3. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
4. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).tw.
5. (hyperglyc?emia adj2 pregnan$).tw.
6. macrosomia.tw.
7. or/1-6
8. screen$.tw.
9. ((prenatal or early) adj2 diagnosis).tw.
10. blood glucose.tw.
11. risk factor?.tw.
12. (glucose adj (tolerance or intolerance or challenge)).tw.
13. OGTT.tw.
14. GCT.tw.
15. (fasting adj2 glucose).tw.
16. or/8-15
17. specific$.tw.
18. sensitiv$.tw.
19. predictive value.tw.
20. (ROC or "receiver operating characteristic?").tw.
21. accurac$.tw.
22. diagnostic error?.tw.
23. (false adj (negative or positive)).tw.
24. "reproducibility of results".tw.
25. (reference adj2 (standard? or value?)).tw.
26. or/17-25
27. and/7,16,26
28. intervention?.mp.
29. (treating or treatment? or therapy or therapies).mp.
30. manage$.mp.
31. monitor$.mp.
32. sulfonylurea?.tw.
33. gliclazid$.tw.
34. glimepirid$.tw.
35. glipizid$.tw.
36. glyburid$.tw.
37. tolbutamid$.tw.
38. (antidiabet$ or anti-diabet$).tw.
39. insulin?.mp.
40. glibenclamid$.mp.
41. acarbos$.mp.
42. (diet adj2 (therap$ or restrict$ or advice)).tw.
43. medical nutrition$ therapy.tw.
44. MNT.tw.

45. (lifestyle$ or life-style$).mp.
46. (blood glucose adj (self monitor$ or self-monitor$)).tw.
47. ((self monitior$ or self-monitor$) adj blood glucose).tw.
48. SMBG.tw.
49. counsel$.tw.
50. (induc$ adj2 labo?r).tw.
51. c?esarean.tw.
52. pregnanc$ outcome?.tw.
53. or/28-52
54. and/7,53
55. or/27,54
56. clinical trial.pt.
57. randomized controlled trial.pt.
58. randomi?ed.ti,ab.
59. placebo.ti,ab.
60. dt.fs.
61. randomly.ti,ab.
62. trial.ti,ab.
63. groups.ti,ab.
64. or/56-63
65. (animal? not (animal? and human?)).mp.
66. 64 not 65
67. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
68. 67 not 66
69. (clinical adj2 guideline?).tw.
70. CPG?.tw.
71. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
72. standard?.tw.
73. protocol?.tw.
74. or/69-73
75. and/55,66 [Clinical trials & RCTs]
76. and/55,68 [Observational studies]
77. and/55,74 [Guidelines]
78. or/75-77
79. limit 78 to (english language and yr="2000-Current")
80. remove duplicates from 79

Table A5. PASCAL

Database: PASCAL via Ovid <1984 to 2011 Week 39>
Search Date: 9 October 2011
Results: 498

1. GDM.tw.
2. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
3. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
4. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).tw.
5. (hyperglyc?emia adj2 pregnan$).tw.
6. macrosomia.tw.
7. or/1-6
8. screen$.tw.
9. ((prenatal or early) adj2 diagnosis).tw.
10. blood glucose.tw.
11. risk factor?.tw.
12. (glucose adj (tolerance or intolerance or challenge)).tw.
13. OGTT.tw.
14. GCT.tw.
15. (fasting adj2 glucose).tw.
16. or/8-15
17. specific$.tw.
18. sensitiv$.tw.
19. predictive value.tw.

20. (ROC or "receiver operating characteristic?").tw.
21. accurac$.tw.
22. diagnostic error?.tw.
23. (false adj (negative or positive)).tw.
24. "reproducibility of results".tw.
25. (reference adj2 (standard? or value?)).tw.
26. or/17-25
27. and/7,16,26
28. intervention?.mp.
29. (treating or treatment? or therapy or therapies).mp.
30. manage$.mp.
31. monitor$.mp.
32. sulfonylurea?.tw.
33. gliclazid$.tw.
34. glimepirid$.tw.
35. glipizid$.tw.
36. glyburid$.tw.
37. tolbutamid$.tw.
38. (antidiabet$ or anti-diabet$).tw.
39. insulin?.mp.
40. glibenclamid$.mp.
41. acarbos$.mp.
42. (diet adj2 (therap$ or restrict$ or advice)).tw.
43. medical nutrition$ therapy.tw.
44. MNT.tw.
45. (lifestyle$ or life-style$).mp.
46. (blood glucose adj (self monitor$ or self-monitor$)).tw.
47. ((self monitior$ or self-monitor$) adj blood glucose).tw.
48. SMBG.tw.
49. counsel$.tw.
50. (induc$ adj2 labo?r).tw.
51. c?esarean.tw.
52. pregnanc$ outcome?.tw.
53. or/28-52
54. and/7,53
55. or/27,54
56. clinical trial.pt.
57. randomized controlled trial.pt.
58. randomi?ed.ti,ab.
59. placebo.ti,ab.
60. dt.fs.
61. randomly.ti,ab.
62. trial.ti,ab.
63. groups.ti,ab.
64. or/56-63
65. (animal? not (animal? and human?)).mp.
66. 64 not 65
67. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
68. 67 not 66
69. (clinical adj2 guideline?).tw.
70. CPG?.tw.
71. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
72. standard?.tw.
73. protocol?.tw.
74. or/69-73
75. and/55,66 [Clinical trials & RCTs]
76. and/55,68 [Observational studies]
77. and/55,74 [Guidelines]
78. or/75-77
79. limit 78 to (english language and yr="2000-Current")

80. remove duplicates from 79

Table A6. Medline In-Process & Other Non-Indexed Citations

Database: Medline In-Process & Other Non-Indexed Citations <October 7, 2011>
Search Date: 7 October 2011
Results: 98

1. GDM.tw.
2. (gestation$ adj2 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
3. (pregnan$ adj3 (diabet$ or DM or glucose intoleran$ or insulin resistan$)).mp.
4. (maternal adj2 (diabet$ or DM or glyc?emia or hyperglyc?emia)).tw.
5. (hyperglyc?emia adj2 pregnan$).tw.
6. macrosomia.tw.
7. or/1-6
8. screen$.tw.
9. ((prenatal or early) adj2 diagnosis).tw.
10. blood glucose.tw.
11. risk factor?.tw.
12. (glucose adj (tolerance or intolerance or challenge)).tw.
13. OGTT.tw.
14. GCT.tw.
15. (fasting adj2 glucose).tw.
16. or/8-15
17. specific$.tw.
18. sensitiv$.tw.
19. predictive value.tw.
20. (ROC or "receiver operating characteristic?").tw.
21. accurac$.tw.
22. diagnostic error?.tw.
23. (false adj (negative or positive)).tw.
24. "reproducibility of results".tw.
25. (reference adj2 (standard? or value?)).tw.
26. or/17-25
27. and/7,16,26
28. intervention?.mp.
29. (treating or treatment? or therapy or therapies).mp.
30. manage$.mp.
31. monitor$.mp.
32. sulfonylurea?.tw.
33. gliclazid$.tw.
34. glimepirid$.tw.
35. glipizid$.tw.
36. glyburid$.tw.
37. tolbutamid$.tw.
38. (antidiabet$ or anti-diabet$).tw.
39. insulin?.mp.
40. glibenclamid$.mp.
41. acarbos$.mp.
42. (diet adj2 (therap$ or restrict$ or advice)).tw.
43. medical nutrition$ therapy.tw.
44. MNT.tw.
45. (lifestyle$ or life-style$).mp.
46. (blood glucose adj (self monitor$ or self-monitor$)).tw.
47. ((self monitior$ or self-monitor$) adj blood glucose).tw.
48. SMBG.tw.
49. counsel$.tw.
50. (induc$ adj2 labo?r).tw.
51. c?esarean.tw.
52. pregnanc$ outcome?.tw.
53. or/28-52
54. and/7,53

55. or/27,54
56. clinical trial.pt.
57. randomized controlled trial.pt.
58. randomi?ed.ti,ab.
59. placebo.ti,ab.
60. dt.fs.
61. randomly.ti,ab.
62. trial.ti,ab.
63. groups.ti,ab.
64. or/56-63
65. (animal? not (animal? and human?)).mp.
66. 64 not 65
67. ((cohort? or follow-up or followup or longitud$ or prospectiv$ or retrospectiv$) adj (study or studies or trial?)).tw.
68. 67 not 66
69. (clinical adj2 guideline?).tw.
70. CPG?.tw.
71. ((practice or consensus or position) adj2 (guideline? or recommendation? or statement?)).tw.
72. standard?.tw.
73. protocol?.tw.
74. or/69-73
75. and/55,66 [Clinical trials & RCTs]
76. and/55,68 [Observational studies]
77. and/55,74 [Guidelines]
78. or/75-77
79. limit 78 to (english language and yr="2000-Current")
80. remove duplicates from 79

A7. CINAHL Plus with Full Text

Database: CINAHL Plus with Full Text via EBSCO <1937–current>
Search Date: 10 October 2011
Results: 275
S39= S35 or S37 or S38
S38= S25 and S33 Limiters - English Language; Published Date from: 20000101-20121231; Exclude MEDLINE records
S37= S25 and S32 Limiters - English Language; Published Date from: 20000101-20121231; Exclude MEDLINE records
S36= S25 and S32
S35= S25 and S31 Limiters - English Language; Published Date from: 20000101-20121231; Exclude MEDLINE records
S34= S25 and S31
S33=(CPG? or "best practice?" or "professional standard?" or "standard of care") OR (practice W2 guideline* or practice W2 recommendation* or practice W2 statement or position W2 guideline* or position W2 recommendation* or position W2 statement or consensus W2 guideline* or consensus W2 recommendation* or consensus W2 statement)
S32=((MH "Prospective Studies+") OR (MH "Retrospective Design")) OR TI (cohort* or follow-up or followup or longitud* or prospectiv* or retrospective*) OR AB (cohort* or follow-up or followup or longitud* or prospectiv* or retrospective*)
S31= S26 or S27 or S28 or S29 or S30
S30=(MH "Placebos") OR TX placebo* OR (MH "Quantitative Studies")
S29= TX randomi* control* trial* OR (MH "Random Assignment") OR TX random* allocat* OR TX allocat* random*
S28= TX clinic* n1 trial* OR (TX ((singl* n1 blind*) or (singl* n1 mask*)) or TX ((doubl* n1 blind*) or (doubl* n1 mask*)) or TX ((tripl* n1 blind*) or (tripl* n1 mask*)) or TX ((trebl* n1 blind*) or (trebl* n1 mask*)))
S27= PT Clinical trial
S26=(MH "Clinical Trials+")
S25= S14 or S24
S24= S5 and S23
S23= S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22
S22=((MH "Labor, Induced") OR (MH "Cesarean Section+") OR (MH "Pregnancy Outcomes")) OR (induc* n2 labo#r or cesarean or caesarean or pregnan* n1 outcome*)
S21=((MH "Counseling") OR (MH "Nutritional Counseling")) OR counsel*
S20=(MH "Blood Glucose Self-Monitoring") OR ("blood glucose" w1 "self monitor*" or "blood glucose" w1 "self-monitor*") OR SMBG
S19=(MH "Life Style Changes") OR (lifestyle* or life-style*)
S18=(MH "Diet Therapy") OR (diet w2 therap* or diet w2 restrict* or diet w2 advice) OR ("medical nutrition therapy" or MNT)

S17=(sulfonyurea? or gliclazid* or glimepirid* or glipizid* or glyburid* or tolbutamid*) OR (antidiabet* or anti-diabet*) OR (insulin* or glibenclamid* or acarbos*)
S16=(MH "Sulfonylurea Compounds+")
S15= intervention* or treating or treatment* or therapy or therapies or manage* or monitor*
S14= S5 and S10 and S13
S13= S11 or S12
S12=(specific* or sensitiv* or predictive w1 value* or accurac* or diagnostic w1 error*) OR (false w1 negative or false w1 positive)
S11=(MH "Diagnostic Errors") OR (MH "Reproducibility of Results") OR (MH "False Negative Results") OR (MH "False Positive Results") OR (MH "Predictive Value of Tests") OR (MH "Sensitivity and Specificity") OR (MH "ROC Curve") OR (MH "Reference Values")
S10= S6 or S7 or S8 or S9
S9=(glucose n1 tolerance or glucose n1 intolerance or glucose n1 challenge) OR (OGTT or GCT) OR fasting w2 glucose
S8=(MH "Glucose Tolerance Test") OR (MH "Blood Glucose Monitoring") OR (MH "Glucose Intolerance") OR (MH "Blood Glucose") OR (MH "Risk Assessment")
S7= screen* OR (prenatal n2 diagnosis or early n2 diagnosis)
S6=(MH "Neonatal Assessment") OR (MH "Health Screening+") OR (MH "Prenatal Diagnosis+")
S5= S1 or S2 or S3 or S4
S4= hyperglyc#emia n2 pregnan* OR macrosomia
S3=(gestation* n2 diabet* or gestation* n2 DM or gestation* n2 glucose intoleran* or gestation* n2 insulin resistan*) OR (pregnan* n2 diabet* or pregnan* n2 DM or pregnan* n2 glucose intoleran* or pregnan* n2 insulin resistan*) OR (maternal n2 diabet* or maternal n2 DM or maternal n2 glucose intoleran* or maternal n2 insulin resistan*)
S2=((MM "Diabetes Mellitus, Gestational") OR (MH "Pregnancy Complications") OR (MH "Fetal Macrosomia")) OR GDM
S1=(MM "Diabetes Mellitus, Gestational") OR (MH "Pregnancy Complications") OR (MH "Fetal Macrosomia")

Table A8. BIOSIS Preview®

Database: Biosis Previews ® via Web of Knowledge^{SM} <1926–present>
Search Date: 9 October 2011
Results: 34
17 (#16 OR #15 OR #14) AND Language=(English)
16 (#9) AND Language=(English) AND Document Types=(Meeting OR Meeting Paper) AND Literature Type=(Meeting Abstract OR Meeting Address OR Meeting Paper OR Meeting Poster OR Meeting Report OR Meeting Slide OR Meeting Summary)
15 (#13 AND #9) AND Language=(English
14 (#12 AND #9) AND Language=(English
13 (TS=(CPG* OR "best practice*" OR "professional standard*" OR "standard of care" OR (practice NEAR/2 guideline*) OR (practice NEAR/2 recommendation*) OR (practice NEAR/2 statement) OR (position NEAR/2 guideline*) OR (position NEAR/2 recommendation*) OR (position NEAR/2 statement) OR (consensus NEAR/2 guideline*) OR (consensus NEAR/2 recommendation*) OR (consensus NEAR/2 statement))) AND Language=(English)
12 (#10 NOT #11) AND Language=(English)
11 (TS=(animal* OR rat OR rats OR mouse OR mice OR rodent* OR rabbit OR rabbits OR horse OR horses OR equine OR veterinar* OR bovine OR cow OR cows OR pig OR pigs OR porcine)) AND Language=(English)
10 ((TS=(randomized controlled trial* OR controlled clinical trial* OR research design OR placebo* OR random*) OR TS=(cohort* OR longitude* OR prospectiv* OR retrospectiv* OR long term OR long-term OR longterm OR followup OR "follow up" OR follow-up) AND TS=(study OR studies OR trial))) AND Language=(English)
9 (#8 OR #4) AND Language=(English)
8 (#7 AND #1) AND Language=(English)
7 (#6 OR #5) AND Language=(English)
6 TS= ((diet NEAR/2 therap*) OR (diet NEAR/2 restrict*) OR (diet NEAR/2 advice) OR "medical nutrition* therapy" OR MNT OR lifestyle* OR life-style* OR ("blood glucose" NEAR self-monitor*) OR ("blood glucose" NEAR "self monitor*") OR SMBG OR counsel* OR (induc* NEAR labour) OR (induc* NEAR labor) OR cesarean OR caesarean OR (pregnan* NEAR outcome*))) AND Language=(English)
5 TS= (intervention* OR treat* OR therap* OR sulfonylurea* OR antidiabet* OR anti-diabet* OR gliclazid* OR glimepirid* OR glipizid* OR glyburid* OR tolbutamid* OR antidiabet* OR anti-diabet* OR insulin* OR glibenclamid* OR acarbos*)) AND Language=(English)
4 #3 AND #2 AND #1
3 TS=("sensitivity and specificity" OR sensitiv* OR specific* OR "predictive value" OR (diagnos* NEAR error*) OR "false negative" OR "false positive" OR accurac*)) AND Language=(English)
2 TS=("prenatal screen*" OR (glucose NEAR/3 tolerance) OR (glucose NEAR/3 intoleran*) OR (glucose NEAR/3 challenge*) OR OGTT OR GCT OR "fasting glucose" OR "risk factor* ")) AND Language=(English)

1 TS= ((gestation* NEAR/2 diabet*) OR (gestation* NEAR/2 "glucose intoleran*") OR (gestation* NEAR/2 "insulin resist*") OR (pregnan* NEAR/2 diabet*) OR (pregnan* NEAR/2 "glucose intoleran*") OR (pregnan* NEAR/2 "insulin resist*") OR (maternal NEAR/2 diabet*) OR (maternal NEAR/2 "glucose intoleran*") OR (maternal NEAR/2 "insulin resist*") OR (hyperglycemia NEAR/2 pregnan*) OR (hyperglycaemia NEAR/2 pregnan*) OR macrosomia OR GDM)) AND Language=(English)

Table A9. Science Citation Index Expanded®

Database: Science Citation Index Expanded (SCI-EXPANDED) via Web of Knowledge^{SM} <1899–present>
Search Date: 9 October 2011
Results: 2,308
17 (#16 OR #15 OR #14) AND Language=(English)
16 (#9) AND Language=(English) AND Document Types=(Meeting OR Meeting Paper) AND Literature Type=(Meeting Abstract OR Meeting Address OR Meeting Paper OR Meeting Poster OR Meeting Report OR Meeting Slide OR Meeting Summary)
15 (#13 AND #9) AND Language=(English
14 (#12 AND #9) AND Language=(English
13 (TS=(CPG* OR "best practice*" OR "professional standard*" OR "standard of care" OR (practice NEAR/2 guideline*) OR (practice NEAR/2 recommendation*) OR (practice NEAR/2 statement) OR (position NEAR/2 guideline*) OR (position NEAR/2 recommendation*) OR (position NEAR/2 statement) OR (consensus NEAR/2 guideline*) OR (consensus NEAR/2 recommendation*) OR (consensus NEAR/2 statement))) AND Language=(English)
12 (#10 NOT #11) AND Language=(English)
11 (TS=(animal* OR rat OR rats OR mouse OR mice OR rodent* OR rabbit OR rabbits OR horse OR horses OR equine OR veterinar* OR bovine OR cow OR cows OR pig OR pigs OR porcine)) AND Language=(English)
10 ((TS=(randomized controlled trial* OR controlled clinical trial* OR research design OR placebo* OR random*) OR TS=(cohort* OR longitude* OR prospectiv* OR retrospectiv* OR long term OR long-term OR longterm OR followup OR "follow up" OR follow-up) AND TS=(study OR studies OR trial))) AND Language=(English)
9 (#8 OR #4) AND Language=(English)
8 (#7 AND #1) AND Language=(English)
7 (#6 OR #5) AND Language=(English)
6 TS= ((diet NEAR/2 therap*) OR (diet NEAR/2 restrict*) OR (diet NEAR/2 advice) OR "medical nutrition* therapy" OR MNT OR lifestyle* OR life-style* OR ("blood glucose" NEAR self-monitor*) OR ("blood glucose" NEAR "self monitor*") OR SMBG OR counsel* OR (induc* NEAR labour) OR (induc* NEAR labor) OR cesarean OR caesarean OR (pregnan* NEAR outcome*))) AND Language=(English)
5 TS= (intervention* OR treat* OR therap* OR sulfonylurea* OR antidiabet* OR anti-diabet* OR gliclazid* OR glimepirid* OR glipizid* OR glyburid* OR tolbutamid* OR antidiabet* OR anti-diabet* OR insulin* OR glibenclamid* OR acarbos*)) AND Language=(English)
4 #3 AND #2 AND #1
3 TS=("sensitivity and specificity" OR sensitiv* OR specific* OR "predictive value" OR (diagnos* NEAR error*) OR "false negative" OR "false positive" OR accurac*)) AND Language=(English)
2 TS=("prenatal screen*" OR (glucose NEAR/3 tolerance) OR (glucose NEAR/3 intoleran*) OR (glucose NEAR/3 challenge*) OR OGTT OR GCT OR "fasting glucose" OR "risk factor* ")) AND Language=(English)
1 TS= ((gestation* NEAR/2 diabet*) OR (gestation* NEAR/2 "glucose intoleran*") OR (gestation* NEAR/2 "insulin resist*") OR (pregnan* NEAR/2 diabet*) OR (pregnan* NEAR/2 "glucose intoleran*") OR (pregnan* NEAR/2 "insulin resist*") OR (maternal NEAR/2 diabet*) OR (maternal NEAR/2 "glucose intoleran*") OR (maternal NEAR/2 "insulin resist*") OR (hyperglycemia NEAR/2 pregnan*) OR (hyperglycaemia NEAR/2 pregnan*) OR macrosomia OR GDM)) AND Language=(English)

Table A10. Conference Proceedings Citation Index–Science

Database: Conference Proceedings Citation Index- Science [CPCI-S] via Web of Science^{SM} <1990–present>
Search Date: 9 October 2011
Results: 562
17 (#16 OR #15 OR #14) AND Language=(English)
16 (#9) AND Language=(English) AND Document Types=(Meeting OR Meeting Paper) AND Literature Type=(Meeting Abstract OR Meeting Address OR Meeting Paper OR Meeting Poster OR Meeting Report OR Meeting Slide OR Meeting Summary)
15 (#13 AND #9) AND Language=(English
14 (#12 AND #9) AND Language=(English
13 (TS=(CPG* OR "best practice*" OR "professional standard*" OR "standard of care" OR (practice NEAR/2 guideline*) OR (practice NEAR/2 recommendation*) OR (practice NEAR/2 statement) OR (position NEAR/2 guideline*) OR (position NEAR/2 recommendation*) OR (position NEAR/2 statement) OR (consensus NEAR/2 guideline*) OR (consensus

NEAR/2 recommendation*) OR (consensus NEAR/2 statement))) AND Language=(English)
12 (#10 NOT #11) AND Language=(English)
11 (TS=(animal* OR rat OR rats OR mouse OR mice OR rodent* OR rabbit OR rabbits OR horse OR horses OR equine OR veterinar* OR bovine OR cow OR cows OR pig OR pigs OR porcine)) AND Language=(English)
10 ((TS=(randomized controlled trial* OR controlled clinical trial* OR research design OR placebo* OR random*) OR TS=(cohort* OR longitude* OR prospectiv* OR retrospectiv* OR long term OR long-term OR longterm OR followup OR "follow up" OR follow-up) AND TS=(study OR studies OR trial))) AND Language=(English)
9 (#8 OR #4) AND Language=(English)
8 (#7 AND #1) AND Language=(English)
7 (#6 OR #5) AND Language=(English)
6 TS= ((diet NEAR/2 therap*) OR (diet NEAR/2 restrict*) OR (diet NEAR/2 advice) OR "medical nutrition* therapy" OR MNT OR lifestyle* OR life-style* OR ("blood glucose" NEAR self-monitor*) OR ("blood glucose" NEAR "self monitor*") OR SMBG OR counsel* OR (induc* NEAR labour) OR (induc* NEAR labor) OR cesarean OR caesarean OR (pregnan* NEAR outcome*))) AND Language=(English)
5 TS= (intervention* OR treat* OR therap* OR sulfonylurea* OR antidiabet* OR anti-diabet* OR gliclazid* OR glimepirid* OR glipizid* OR glyburid* OR tolbutamid* OR antidiabet* OR anti-diabet* OR insulin* OR glibenclamid* OR acarbos*)) AND Language=(English)
4 #3 AND #2 AND #1
3 TS=("sensitivity and specificity" OR sensitiv* OR specific* OR "predictive value" OR (diagnos* NEAR error*) OR "false negative" OR "false positive" OR accurac*)) AND Language=(English)
2 TS=("prenatal screen*" OR (glucose NEAR/3 tolerance) OR (glucose NEAR/3 intoleran*) OR (glucose NEAR/3 challenge*) OR OGTT OR GCT OR "fasting glucose" OR "risk factor* ")) AND Language=(English)
1 TS= ((gestation* NEAR/2 diabet*) OR (gestation* NEAR/2 "glucose intoleran*") OR (gestation* NEAR/2 "insulin resist*") OR (pregnan* NEAR/2 diabet*) OR (pregnan* NEAR/2 "glucose intoleran*") OR (pregnan* NEAR/2 "insulin resist*") OR (maternal NEAR/2 diabet*) OR (maternal NEAR/2 "glucose intoleran*") OR (maternal NEAR/2 "insulin resist*") OR (hyperglycemia NEAR/2 pregnan*) OR (hyperglycaemia NEAR/2 pregnan*) OR macrosomia OR GDM)) AND Language=(English)

Table A11. LILACS (Latin American and Caribbean Health Science Literature)

Database: LILACS (Latin American and Caribbean Health Science Literature) <1982–current>
Search Date: 14 October 2011
Results: 236
1. gestational diabet$ AND (screening OR diagnos$)
2. maternal diabet$ AND (screening OR diagnos$)
3. gestational diabet$ AND (treating or treatment$ or therapy or therapies)
4. maternal diabet$ AND (treating or treatment$ or therapy or therapies)

Table A12. OCLC PapersFirst and PapersFirst

Databases:
ProceedingsFirst
PapersFirst
Search Date: 16 October 2011
Results:
ProceedingsFirst: 138; PapersFirst: 102
(kw: gestation* w2 diabet* OR kw: gestation* w2 glucose w intoleran* OR kw: gestation* w2 insulin w resist* OR kw: pregnan* w2 diabet* OR kw: pregnan* w2 glucose w intoleran* OR kw: pregnan* w2 insulin w resist* OR kw: maternal w2 diabet* OR kw: maternal w2 glucose w intoleran* OR kw: maternal w2 insulin w resist* OR kw: hyperglycemia w2 pregnan* OR kw: hyperglycaemia w2 pregnan* OR kw: macrosomia OR kw: GDM) and ((kw: prenatal w screen* OR kw: glucose w3 tolerance OR kw: glucose w3 intoleran* OR kw: glucose w3 challenge* OR kw: OGTT OR kw: GCT OR kw: fasting w glucose OR kw: risk w factor*) or ((kw: intervention* OR kw: treat* OR kw: therap* OR kw: sulfonylurea* OR kw: antidiabet* OR kw: anti-diabet* OR kw: gliclazid* OR kw: glimepirid* OR kw: glipizid* OR kw: glyburid* OR kw: tolbutamid* OR kw: antidiabet* OR kw: anti-diabet* OR kw: insulin* OR kw: glibenclamid* OR kw: acarbos*) or (kw: diet w2 therap* OR kw: diet w2 restrict* OR kw: diet w2 advice OR kw: medical w nutrition* w therapy OR kw: MNT OR kw: lifestyle* OR kw: life-style* OR kw: blood w glucose w self-monitor* OR kw: blood w glucose w self w monitor* OR kw: SMBG OR kw: counsel* OR kw: induc* w labour OR kw: induc* w labor OR kw: cesarean OR kw: caesarean OR kw: pregnan* w outcome*)))

Table A13. PubMed

Database: PubMed via NLM <last 180 days from 9 October 2011>
Search Date: 9 October 2011
Results: 377
#46 #39 NOT #45
#45 animal[TI] OR rat[TI] OR rats[TI] OR mouse [TI] OR mice[TI] OR rodent*[TI] OR rabbit*[TI] OR horse*[TI] OR horses[TI] veterinar*[TI] OR cattle[TI] OR bovine[TI] OR cow[TI] OR cows[TI] OR swine[TI] OR pig[TI] OR pigs[TI] OR porcine[TI]
#39 #21 OR #37 Limits: English, published in the last 180 days
#38 #21 OR #37
#37 #7 and #36
#36 #22 OR #23 OR #25 OR #28 OR #30 OR #31 OR #32 OR #33 OR #34 OR #34
#35 pregnanc* outcome*
#34 cesarean OR caesarean
#33 ((induc* AND labour) OR (induc* AND labor))
#32 counsel*
#31 SMBG
#30 ((self monitor* OR self-monitor*) AND blood glucose)
#28 (blood glucose AND (self monitor* OR self-monitor*))
#25 lifestyle OR life-style
#24 diet therap* OR diet* restrict* OR diet* advice OR medical nutrition therapy OR MNT
#23 sulfonylurea* OR gliclazid* OR glimepirid* OR glipizid* OR glyburid* OR tolbutamid* OR antidiabet* OR anti-diabet* OR insulin* OR glibenclamid* OR acarbos*
#22 intervention* OR treating OR treatment? OR therapy OR therapies OR manage* OR monitor*
#21 #7 AND #16 AND #20
#20 #17 OR #18 OR #19
#19 reference standard* OR reference value*
#18 ROC OR "receiver operating characteristic"
#17 specific* OR sensitiv* OR predictive value OR accurac* OR diagnostic error*
#16 #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15
#15 fasting glucose
#14 OGTT OR GCT
#13 (glucose AND (tolerance OR intolerance OR challenge))
#12 risk factor*
#11 blood glucose
#10 ((prenatal OR early) AND diagnosis)
#9 screen*
#8 mass screening[MeSH Terms]
#7 #1 OR #2 OR #3 OR #4 OR #5 OR #6
#6 macrosomia
#5 ((hyperglycaemia OR hyperglycemia) AND pregnan*)
#4 (maternal AND (diabetic* OR diabete* OR DM OR glucose intoleran* OR insulin resistan*))
#3 (pregnan* AND (diabetic* OR diabete* OR DM OR glucose intoleran* OR insulin resistan*))
#2 (gestation* AND (diabetic* OR diabete* OR DM OR glucose intoleran* OR insulin resistan*))
#1 GDM

Table A14. Clinical Trials.gov and WHO

Databases:
ClinicalTrials.gov <1987 to February week 3 2012>
WHO International Clinical Trials Registry
Search Date: 23 February 2012
Results: 200
((asperger) OR (autistic disorder) OR autism OR schizophrenia OR (bipolar disorder) OR (depression) OR (bipolar disorder) OR (obsessive-compulsive) OR (post-traumatic) OR (anorexia nervosa) OR anorexia) AND (antipsychotics) AND (child OR adolescent OR pediatric OR infant) AND PDN(>1/1/1987) AND PDN(<12/31/2010)

Appendix B. Review Forms

B1. Screening Criteria for Key Questions 1-5
B2. Eligibility Criteria for Key Questions 1-5
B3. Methodological Quality Assessment by Study Design
    a. Diagnostic studies – QUADAS-2 Tool
    b. Randomized controlled trials – Cochrane Collaboration's tool for assessing risk of bias
    c. Cohort studies – Newcastle-Ottawa Quality Assessment Scale
B4. Data Extraction Forms
    a. Screening and diagnosing gestational diabetes – key question 1
    b. Screening and diagnosing gestational diabetes – key question 2
    c. Screening and diagnosing gestational diabetes – key question 3
    d. Screening and diagnosing gestational diabetes – key question 4 and 5

B1. Screening Criteria for Key Questions 1-5

1.	Primary Research	*Yes*	*No*	*Unclear*
2.	Published in English language	*Yes*	*No*	*Unclear*
3.	Published from 1995 onward	*Yes*	*No*	*Unclear*
4.	Must have a comparison group (i.e., RCT, NRCT, R or P cohort, case control)	*Yes*	*No*	*Unclear*
5.	***Population**:* Pregnant women	*Yes*	*No*	*Unclear*
6.	***Intervention***: Using **any** GDM screening or diagnostic approach, (e.g., 1-step, 2-step, or other); ***and/or*** Any treatment for GDM (e.g., dietary advice, blood glucose monitoring, insulin therapy)	*Yes*	*No*	*Unclear*

Notes for screeners:

1. Mark each study as "no" [exclude], "unclear" or "yes" [retrieve full text] based on the criteria above.
2. FLAG any relevant systematic reviews or meta-analyses using the code "sr".
3. FLAG any studies that may be useful for background information with the code "bkg".

Key words have been colour-coded and will appear in a different font. Here is an index of the colouring:

Green → population (e.g., gestational diabetes, pregnancy)
Purple → treatments (e.g., diet, insulin, blood glucose monitoring, antidiebetic)
Aqua → screening-related terms (e.g., screening, diagnosis, sensitivity, specificity, positive predictive value, negative predictive value)
Orange → specific tests (e.g., glucose tolerance test, glucose challenge test, glucose screening test, diagnostic threshold)
Blue → study designs (e.g., randomized, controlled trial, cohort, case control)

B2. Eligibility Criteria for Key Questions 1-5

INCLUSION / EXCLUSION FORM

Reviewer:	**Ref ID:**		
CRITERIA	**Yes**	**No**	**Unclear**
1. PUBLICATION TYPE			
a) Report of primary research	☐	☐	☐
b) Full report available (Exclude abstracts and conference proceedings)	☐	☐	☐
c) English language	☐	☐	☐
d) Published in 1995 onward	☐	☐	☐
2. STUDY DESIGN			
a) Comparative study design (2 or more groups); one of: i. RCT ii. NRCT iii. Prospective or retrospective cohort studies (with concurrent or nonconcurrent/historical control groups)	☐	☐	☐
3. POPULATION			
a) Pregnant women (any duration of gestation); *Exclude* if >20% of enrolled women had known pre-existing diabetes **and** no subgroup analysis	☐	☐	☐
4. INTERVENTION			
a) Evaluating **any** GDM screening or diagnostic approach, (KQ1 & 2) or screening / diagnostic threshold (KQ3) *and/or* b) Evaluating **any** treatment for GDM (KQ4 & 5)	☐	☐	☐
5. COMPARATORS			
One or more of the following: a) Any reference standard, other screening / diagnostic test, or criteria (KQ1) [note: can also be a risk-factor if used for screening]; b) No screening / diagnostic test for GDM (KQ2); c) Patients meeting different screening / diagnostic threshold for GDM (e.g., GDM vs. no GDM) (KQ3); d) Placebo or no treatment (KQ4 & 5) *Exclude studies that compare 2 or more treatment, but have no placebo, standard care or no treatment group*	☐	☐	☐
6. OUTCOME			
Any one or more of the following: a) Test properties (i.e., sensitivity, specificity, predictive values, accuracy; *not* yield only); b) Maternal outcomes: i. Short-term: preeclampsia/maternal hypertension, cesarean delivery, depression, birth trauma, mortality, weight gain, other morbidity ii. Long-term: Type 2 DM risk, obesity, hypertension c) Fetal/neonatal/child outcomes: i. Short-term: macrosomia, shoulder dystocia, clavicular fracture, brachial plexus injury, birth injury, hypoglycemia, hyperbilirubinemia, mortality, other morbidity ii. Long-term: obesity, type 2 DM, transgenerational GDM d) Any adverse events or harms of screening or treatment (e.g., anxiety, healthcare system issues, burden on practitioner's office, increased interventions, postpartum depression, small for gestational age, costs, resource allocations)	☐	☐	☐
Comments:			
REVIEWER'S DECISION : Include ☐ Exclude ☐ Unsure ☐			
RELEVANT TO QUESTION(S): KQ1 ☐ KQ2 ☐ KQ3 ☐ KQ4 ☐ KQ5 ☐			

B3. Methodological Quality

a. QUADAS-2 Checklist (Diagnostic Studies)

Item	Assessment
1. *Patient Selection*	
a. Was a consecutive or random sample of patients enrolled? *Support for judgment*	
b. Did the study avoid inappropriate exclusions? *Support for judgment*	
c. Was the study a low risk of bias?	
d. Is the study applicable to the review? *Support for judgment*	
2. *Index Test*	
a. Were the index test results interpreted without knowledge of the results of the reference standard? *Support for judgment*	
b. If a threshold was used, was it pre-specified? *Support for judgment*	
c. Was the study a low risk of bias?	
d. Is the study applicable to the review? *Support for judgment*	
3. *Reference Standard*	
a. Is the reference standard likely to correctly classify the target audience? *Support for judgment*	
b. Were the reference standard results interpreted without knowledge of the results of the index test? *Support for judgment*	
c. Was the study a low risk of bias?	
d. Is the study applicable to the review? *Support for judgment*	
4. *Flow and Timing*	
a. Was there an appropriate interval between the index test and reference standard? *Support for judgment*	
b. Did all patients receive the same reference standard? *Support for judgment*	
c. Were all patients included in the analysis? *Support for judgment*	
d. Was the study a low risk of bias?	

b. The Cochrane Collaboration's tool for assessing risk of bias (randomized controlled trials)

Domain	Description	Review authors' judgment
Random sequence generation		Was the allocation sequence adequately generated?
Allocation concealment		Was allocation adequately concealed?
Blinding of participants and personnel	Subjective outcomes	Was knowledge of the allocated intervention adequately prevented during the study? Subjective: Objective:
	Objective outcomes	
Blinding of outcome assessment	Subjective outcomes	Was knowledge of the allocated intervention adequately prevented during the study? Subjective: Objective:
	Objective outcomes	
Incomplete outcome data, Outcome:	Subjective outcomes	Were incomplete outcome data adequately addressed? Subjective: Objective:
	Objective outcomes	
Selective outcome reporting		Are reports of the study free of suggestion of selective outcome reporting?
Other sources of bias		Was the study apparently free of other problems that could put it at a high risk of bias?
Overall risk of bias	Subjective outcomes	
	Objective outcomes	

c. Newcastle-Ottawa Quality Assessment Scale (Cohort Studies)

Selection

1) Representativeness of the exposed cohort (i.e., glucose intolerant or GDM patients)
   a) truly representative of the average patient with glucose intolerance in the community *****
   b) somewhat representative of the average glucose intolerance in the community *****
   c) selected group of users eg nurses, volunteers
   d) no description of the derivation of the cohort
2) Selection of the non-exposed cohort (i.e., normal or minimal glucose intolerant patients)
   a) drawn from the same community as the exposed cohort *****
   b) drawn from a different source
   c) no description of the derivation of the non exposed cohort
3) Ascertainment of exposure
   a) secure record (eg surgical records) *****
   b) structured interview *****
   c) written self report
   d) no description
4) Demonstration that outcome of interest was not present at start of study
   a) yes *****
   b) no

Comparability

1) Comparability of cohorts on the basis of the design or analysis
   a) study controls for age, race/ethnicity, weight/BMI, previous GDM, or family history of diabetes ******
   b) study controls for any additional factor *****

Outcome

1) Assessment of outcome
   a) independent blind assessment *****
   b) record linkage *****
   c) self report
   d) no description
2) Was follow-up long enough for outcomes to occur
   a) yes (follows patients at least until birth) *****
   b) no
3) Adequacy of follow up of cohorts
   a) complete follow up - all subjects accounted for *****
   b) subjects lost to follow up unlikely to introduce bias: small number lost (>90% follow up), or description provided of those lost *****
   c) follow up rate <75% and no description of those lost
   d) no statement

TOTAL STARS (0-9)

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability

B4. Data Extraction

a. Screening and Diagnosing Gestational Diabetes – Key Question 1

I. Coder Information

RefID:	First Author:	Year:
DE initials:	DV initials:	Other KQs: ☐2; ☐3; ☐4; ☐5

II. Study Characteristics

Country:	Publication type:	Study design:
Centers:	Recruitment start date (e.g., Jan 1998):	Recruitment end date (e.g., Feb 2000):
Funding: ☐Industry; ☐Government; ☐Academic; ☐Foundation; ☐No funding; ☐Other; ☐ND		

If industry, specify firm*:	If "other," specify*:
Blinding to test result:	Duration of followup:

* Use "NR" if not reported

III. Selection Criteria and Testing Conditions

Inclusion criteria:	Exclusion criteria: Exclude pre-pregnancy (type 1, 2)? Exclude overt diabetes diagnosed during pregnancy?
Did patients routinely undergo early testing for overt diabetes during pregnancy?	
Patients Enrolled Consecutively: Yes ☐ No ☐ ND ☐	Comparisons Done: Matched Study (all comparator tests performed in all patients) ☐ Random (comparator tests done in different patients) ☐ Non-Random (comparator tests in different patients, select gp) ☐
Reference standard reported?	If so, specify:

IV. Screening and Diagnostic Tests

GCT/GST? Index test? : Pre-test protocol (fast/diet): Test Intervals: ☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr Glucose load: Time of test (wks): Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR Brand of beverage*: Amount of liquid*:	**OGTT?** Index test? : Pre-test protocol (fast/diet): Test Intervals: ☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr Glucose load: Time of test (wks): Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR Brand of beverage*: Amount of liquid*:	**Other test 1?** Specify: Index test? : Pre-test protocol (fast/diet): Test Intervals: ☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr Glucose load: Time of test (wks): Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR Brand of beverage*: Amount of liquid*:	**Other test 2?** Specify: Index test? : Pre-test protocol (fast/diet): Test Intervals: ☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr Glucose load: Time of test (wks): Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR Brand of beverage*: Amount of liquid*:
Brand of Glucose meter: Manufacturing company:		Measurements performed by trained staff?	
Plasma glucose estimation method: Manufacturing company:			
Central lab?	*Notes:*		

***If not reported, use NR**

V. Study Arms

	Group 1	Group 2	Group 3	Group 4	TOTAL
Group label					
GCT: Fasting	±	±	±	±	±
GCT: 1hr	±	±	±	±	±
GCT: 2hr	±	±	±	±	±
GCT:3hr	±	±	±	±	±
OGTT: Fasting	±	±	±	±	±
OGTT: 1hr	±	±	±	±	±
OGTT: 2hr	±	±	±	±	±
OGTT: 3hr	±	±	±	±	±
Treatment status					
Glucose levels reported in the following units: ☐mg/dL; ☐mmol/L			Glucose levels reported as: ☐mean ± SD; ☐median ± IQR		
Are groups mutually exclusive?					

I. Baseline Characteristics

	Group 1	Group 2	Group 3	Group 4	TOTAL
Pts enrolled, n					
Pts analyzed, n					
Withdrawals, n					
Age (yr), ☐mean ± SD ☐median ± IQR	±	±	±	±	±
Prepregn. weight, ☐lb; ☐kg ☐mean ± SD ☐median ± IQR	±	±	±	±	±
BMI, ☐ mean±SD ☐median ± IQR	±	±	±	±	±
SBP (mmHg), ☐mean ± SD ☐median ± IQR	±	±	±	±	±
	Group 1	**Group 2**	**Group 3**	**Group 4**	**TOTAL**
White, n					
Black, n					
Hispanic, n					
Asian, n					
Other, n					
Gestation at time of test (wk) ☐mean ± SD ☐median ± IQR	±	±	±	±	±
Smoking, n					
Alcohol use, n					

Family history of diabetes, n					
History of GDM, n					
Parity, n	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2
Parity ☐mean ± SD ☐median ± IQR	±	±	±	±	±
Comorbidities, n					
Comments					

II. Conclusions

Briefly paraphrase the author conclusions:

REFERENCES TO BE CHECKED:

ASSOCIATED PUBLICATIONS (list all separated by semi-colons):

b. Screening and Diagnosing Gestational Diabetes – Key Question 2

IV. Coder Information

RefID:	First Author:	Year:
DE initials:	DV initials:	Other KQs: ☐1; ☐3; ☐4; ☐5

V. Study Characteristics

Country:	Publication type:	Study design:
Centers:	Recruitment start date (e.g., Jan 1998):	Recruitment end date (e.g., Feb 2000):
Funding: ☐Industry; ☐Government; ☐Academic; ☐Foundation; ☐No funding; ☐Other; ☐ND		

If industry, specify firm*:	If "other," specify*:
Blinding to test result:	Duration of followup:

* Use "NR" if not reported

VI. Study Eligibility Criteria

Inclusion criteria:	Exclusion criteria: Exclude pre-pregnancy (type 1, 2)? Exclude overt diabetes diagnosed during pregnancy?
Did patients routinely undergo early testing for overt diabetes during pregnancy?	

VII. Screening and Diagnostic Tests

GCT/GST?	**OGTT?**	**Other test?** Specify:
Test intervals:	Test intervals:	Test intervals:
☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr
Glucose load:	Glucose load:	Glucose load:
Time of test (wks):	Time of test (wks):	Time of test (wks):
Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR
Central lab?	*Notes:*	

VIII. Study Arms

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	TOTAL
Group label								
GCT: Fasting	±	±	±	±	±	±	±	±
GCT: 1 hr	±	±	±	±	±	±	±	±
GCT: 2 hr	±	±	±	±	±	±	±	±
GCT: 3 hr	±	±	±	±	±	±	±	±
OGTT: Fasting	±	±	±	±	±	±	±	±
OGTT: 1 hr	±	±	±	±	±	±	±	±
OGTT: 2 hr	±	±	±	±	±	±	±	±
OGTT: 3 hr	±	±	±	±	±	±	±	±
Treatment status								
Glucose levels reported in the following units: ☐mg/dL; ☐mmol/L				Glucose levels reported as: ☐mean ± SD; ☐median ± IQR				
Are groups mutually exclusive?								

IX. Baseline Characteristics

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	TOTAL
Pts enrolled, n								
Pts analyzed, n								
Withdrawals, n								
Age (yr), ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Prepregn. weight, ☐lb; ☐kg ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
BMI, ☐ mean±SD ☐median ± IQR	±	±	±	±	±	±	±	±
SBP (mmHg), ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±

	Group 1	**Group 2**	**Group 3**	**Group 4**	**Group 5**	**Group 6**	**Group 7**	**TOTAL**
White, n								
Black, n								
Hispanic, n								
Asian, n								
Other, n								
Gestation at time of test (wk) ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Smoking, n								
Alcohol use, n								
Family history of diabetes, n								
History of GDM, n								
Parity, n	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2
Parity ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Comorbidities, n								
Comments								

X. Conclusions

Briefly paraphrase the author conclusions:

REFERENCES TO BE CHECKED:

ASSOCIATED PUBLICATIONS (list all separated by semi-colons):

c. Screening and Diagnosing Gestational Diabetes – Key Question 3

I. Coder Information

RefID:	First Author:	Year:
DE initials:	DV initials:	Other KQs: ☐1; ☐2; ☐4; ☐5

II. Study Characteristics

Country:	Publication type:	Study design:
Centers:	Recruitment start date (e.g., Jan 1998):	Recruitment end date (e.g., Feb 2000):
Funding: ☐Industry; ☐Government; ☐Academic; ☐Foundation; ☐No funding; ☐Other; ☐ND		

If industry, specify firm*:	If "other," specify*:
Blinding to test result:	Duration of followup:

* Use "NR" if not reported

III. Study Eligibility Criteria

Inclusion criteria:	Exclusion criteria: Exclude pre-pregnancy (type 1, 2)? Exclude overt diabetes diagnosed during pregnancy?
Did patients routinely undergo early testing for overt diabetes during pregnancy?	

IV. Screening and Diagnostic Tests

GCT/GST?	**OGTT?**	**Other test?** Specify:
Test intervals:	Test intervals:	Test intervals:
☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr
Glucose load:	Glucose load:	Glucose load:
Time of test (wks):	Time of test (wks):	Time of test (wks):
Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR
Central lab?	*Notes:*	

V. Study Arms

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	TOTAL
Group label								
GCT: Fasting	±	±	±	±	±	±	±	±
GCT: 1 hr	±	±	±	±	±	±	±	±
GCT: 2 hr	±	±	±	±	±	±	±	±
GCT: 3 hr	±	±	±	±	±	±	±	±
OGTT: Fasting	±	±	±	±	±	±	±	±
OGTT: 1 hr	±	±	±	±	±	±	±	±
OGTT: 2 hr	±	±	±	±	±	±	±	±
OGTT: 3 hr	±	±	±	±	±	±	±	±
Treatment status								
Glucose levels reported in the following units: ☐mg/dL; ☐mmol/L				Glucose levels reported as: ☐mean ± SD; ☐median ± IQR				
Are groups mutually exclusive?								

VI. Baseline Characteristics

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	TOTAL
Pts enrolled, n								
Pts analyzed, n								
Withdrawals, n								
Age (yr), ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Prepregn. weight, ☐lb; ☐kg ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
BMI, ☐ mean±SD ☐median ± IQR	±	±	±	±	±	±	±	±
SBP (mmHg), ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±

	Group 1	**Group 2**	**Group 3**	**Group 4**	**Group 5**	**Group 6**	**Group 7**	**TOTAL**
White, n								
Black, n								
Hispanic, n								
Asian, n								
Other, n								
Gestation at time of test (wk) ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Smoking, n								
Alcohol use, n								
Family history of diabetes, n								
History of GDM, n								
Parity, n	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2
Parity ☐mean ± SD ☐median ± IQR	±	±	±	±	±	±	±	±
Comorbidities, n								
Comments								

VII. Conclusions

Briefly paraphrase the author conclusions:

REFERENCES TO BE CHECKED:

ASSOCIATED PUBLICATIONS (list all separated by semi-colons):

d. Screening and Diagnosing Gestational Diabetes Mellitus – Key Question 4 and 5

I. Coder Information

Ref ID:	First Author:	Year of Publication:
DE Initials:	DE Reviewer Initials:	Other KQs: ☐1; ☐2; ☐3

II. Study Characteristics

Country:	Publication Type:	Study Design:
Centers:	Recruitment start date (e.g. Jan. 2001):	Recruitment end date (e.g. Feb. 2000):
Funding: ☐Industry; ☐Government; ☐Academic; ☐Foundation; ☐No funding; ☐Other; ☐ND		
If Industry, specify firm:*	If "Other", specify*:	
Blinding to test result:	Duration of followup:	

*use NR if not reported

III. Study Eligibility Criteria

Inclusion Criteria:	Exclusion Criteria: Exclude pre-pregnancy diabetes (type 1, 2)? Exclude overt diabetes diagnosed during pregnancy?
Did patients routinely undergo early testing for overt diabetes during pregnancy?	

IV. Screening and Diagnostic Tests

GCT/GST?	**OGTT?**	**Other test?** Specify:
Test intervals:	Test intervals:	Test intervals:
☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr	☐Fasting; ☐1 hr; ☐2 hr; ☐ 3 hr
Glucose load:	Glucose load:	Glucose load:
Time of test (wks):	Time of test (wks):	Time of test (wks):
Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR	Criteria: ☐ ADA, year: ☐ CC, year: ☐ NDDG, year: ☐ WHO, year: ☐ Other1: , year: ☐ Other2: , year: ☐ NR
Central lab?	*Notes:*	

V. Study Arms

	Group 1	Group 2	Group 3	Group 4	TOTAL
Group label					
GCT: Fasting	±	±	±	±	±
GCT: 1hr	±	±	±	±	±
GCT: 2hr	±	±	±	±	±
GCT:3hr	±	±	±	±	±
OGTT: Fasting	±	±	±	±	±
OGTT: 1hr	±	±	±	±	±
OGTT: 2hr	±	±	±	±	±
OGTT: 3hr	±	±	±	±	±
Treatment status					
Glucose levels reported in the following units: ☐mg/dL; ☐mmol/L			Glucose levels reported as: ☐mean ± SD; ☐median ± IQR		
Are groups mutually exclusive?					

VI. Intervention

	Group 1	Group 2	Group 3	Group 4
Study arm label				
Brief description of intervention				
Care provider(s)				
BG target: FGB	Units:	Units:	Units:	Units:
BG target: 1 hr	Units:	Units:	Units:	Units:
Dietary counseling/ advice?				
Formal diet plan?				
If formal diet, describe:				
Involve dietician/ nutritionist?				
BG monitoring?				
Frequency of BG monitoring	x per	x per	x per	x per
BGM device				
Insulin?				
Oral medications?				
Drug name				
BG values for prescription:	≥ Units: Time:	≥ Units: Time:	≥ Units: Time:	≥ Units: Time:
Dosing				
Daily dosage	Units:	Units:	Units:	Units:
Other tx				
Rules for tx/dose adjustment				

Comments				

VII. Baseline Characteristics

	Group 1	Group 2	Group 3	Group 4	TOTAL
Pts enrolled, n					
Pts analyzed, n					
Withdrawals, n					
Age (yr) ☐mean ± SD ☐median ± IQR	±	±	±	±	±
Prepregn. weight, ☐lb; ☐kg ☐mean ± SD ☐median ± IQR	±	±	±	±	±
BMI, ☐ mean±SD ☐median ± IQR	±	±	±	±	±
SBP (mmHg), ☐ mean ± SD ☐ median ± IQR	±	±	±	±	±
White, n					
Black, n					
Hispanic, n					
Asian, n					
Other, n					
Gestation at time of test (wk) ☐mean ± SD ☐median ± IQR	±	±	±	±	±
Smoking, n					
Alcohol use, n					
Family history of diabetes, n					
History of GDM, n					
Parity, n	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2	0 1 ≥2
Parity ☐ mean ± SD ☐ median ± IQR	±	±	±	±	±
Overt diabetes, n					
Comorbidities, n					

Comments					

VIII. Conclusions

Briefly paraphrase author conclusions:

REFERENCES TO BE CHECKED:

ASSOCIATED PUBLICATIONS (list all separated by semi-colons):

Appendix C. Methodological Quality of Included Studies

Table C1. Methodological quality of diagnostic studies using QUADAS-2 for key question 1
Table C2. Methodological quality of randomized controlled trials (RCTs) using the Cochrane Collaboration's tool for assessing risk of bias for key questions 2 to 5
Table C3. Methodological quality of prospective cohort studies (PCS) and retrospective cohort studies (RCS) using Newcastle-Ottawa Quality Assessment Scale, by key question and design

Table C1. Methodological quality of diagnostic studies using QUADAS-2 for key question 1

Author, Year Study design	1. Patient Selection*				2. Index Test*				3. Reference Standard*				4. Flow and Timing*			
	a. sample	b. exclusion	c. low risk of bias	d. applicable	a. reference results not known	b. threshold	c. low risk of bias	d. applicable	a. likely to classify	b. index results not known	c. low risk of bias	d. applicable	a. interval	b. same standard	c. all included in analysis	d. low risk of bias
Agarwal, 2011 PCS	U	Yes	U	U	U	U	U	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Agarwal, 2005 PCS	U	U	U	No	U	Yes	U	Yes	Yes	U	U	Yes	U	Yes	Yes	U
Agarwal, 2006 PCS	U	Yes	U	No	U	U	U	Yes	Yes	U	U	Yes	U	Yes	Yes	U
Agarwal, 2008 PCS	U	No	U	U	U	Yes	U	Yes	Yes	U	Yes	Yes	Yes	Yes	Yes	Yes
Ardawi, 2000 PCS	Yes	U	U	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	U	U
Ayach, 2006 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	U	U
Balaji(1), 2011 PCS	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Balaji(2), 2011 PCS	Yes	Yes	Yes	No	U	Yes	U	Yes	U	Yes	U	Yes	Yes	Yes	U	U
Berkus, 1995 PCS	U	Yes	U	Yes	U	Yes	U	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Brustman, 1995 PCS	U	Yes	U	Yes	U	Yes	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Buhling, 2003 PCS	U	No	U	No	Yes	Yes	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Buhling, 2004 PCS	U	Yes	U	U	Yes	U	U	U	U	No	U	U	Yes	Yes	Yes	Yes
Cetin, 1996 PCS	U	No	No	U	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes

Author, Year Study design	1. Patient Selection*				2. Index Test*				3. Reference Standard*				4. Flow and Timing*			
	a. sample	b. exclusion	c. low risk of bias	d. applicable	a. reference results not known	b. threshold	c. low risk of bias	d. applicable	a. likely to classify	b. index results not known	c. low risk of bias	d. applicable	a. interval	b. same standard	c. all included in analysis	d. low risk of bias
Chastang, 2003 PCS	U	No	No	U	No	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Deerochanawong, 1996 PCS	Yes	Yes	Yes	U	Yes	Yes	Yes	Yes	U	U	U	Yes	Yes	U	Yes	U
De los Monteros, 1999 PCS	Yes	Yes	Yes	U	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	No	No
Eslamian, 2008 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes	Yes	No	U	Yes	Yes	Yes	Yes
Fung, 1996 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	U	U	U	U	Yes	U	Yes	U
Gandevani, 2011 PCS	Yes	Yes	Yes	U	Yes	Yes	Yes	Yes	Yes	No	No	U	Yes	No	Yes	Yes
Hill, 2005 PCS	Yes	No	No	No	U	Yes	U	Yes	Yes	U	U	Yes	Yes	Yes	No	No
Jakobi, 2003 PCS	U	No	No	No	U	No	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jensen, 2004 PCS	Yes	Yes	Yes	No	Yes	Yes	Yes	U	Yes	Yes	Yes	Yes	U	Yes	U	U
Kashi, 2007 PCS	U	No	No	U	Yes	Yes	Yes	U	Yes	No	No	Yes	U	Yes	No	No
Kauffman, 2006 PCS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lamar, 1999 PCS	Yes	U	U	Yes	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	No	No

Author, Year Study design	1. Patient Selection*				2. Index Test*				3. Reference Standard*				4. Flow and Timing*			
	a. sample	b. exclusion	c. low risk of bias	d. applicable	a. reference results not known	b. threshold	c. low risk of bias	d. applicable	a. likely to classify	b. index results not known	c. low risk of bias	d. applicable	a. interval	b. same standard	c. all included in analysis	d. low risk of bias
Moses, 2011 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	U	Yes	U	U	Yes	Yes	Yes	Yes
Naylor, 1997 RCT	Yes	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ostlund, 2003 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes	No	No	Yes	U	Yes	U	No
Perea-Carrasco, 2002 PCS	Yes	Yes	Yes	U	U	Yes	U	Yes	Yes	U	U	Yes	U	Yes	Yes	U
Perucchini, 1999 PCS	U	Yes	U	U	Yes	Yes	Yes	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Poyhonen-Alho, 2004 PCS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	U	No	Yes	U	Yes	No	U	U
Reichelt, 1998 PCS	Yes	No	U	U	U	No	U	U	Yes	U	U	Yes	U	Yes	Yes	U
Rust, 1998 PCS	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Sacks, 2003 PCS	U	U	No	U	Yes	Yes	Yes	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Sermer, 1998 RCT	U	Yes	U	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Siribaddana, 2003 PCS	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Soheilykhah, 2011 PCS	Yes	Yes	Yes	U	No	Yes	No	Yes	U	No	No	Yes	U	Yes	U	U

Author, Year Study design	1. Patient Selection*				2. Index Test*				3. Reference Standard*				4. Flow and Timing*			
	a. sample	b. exclusion	c. low risk of bias	d. applicable	a. reference results not known	b. threshold	c. low risk of bias	d. applicable	a. likely to classify	b. index results not known	c. low risk of bias	d. applicable	a. interval	b. same standard	c. all included in analysis	d. low risk of bias
Soonthornpun, 2003 PCS	U	U	U	No	U	Yes	U	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Uncu, 1995 PCS	U	No	U	U	Yes	Yes	U	Yes	Yes	U	U	Yes	Yes	Yes	Yes	Yes
2619 van Leeuwen 2007	U	No	No	U	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Weerakiet, 2006 PCS	Yes	U	U	No	U	No	No	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes
Wijeyaratne, 2006 PCS	Yes	U	U	No	Yes	U	U	U	Yes	Yes	Yes	Yes	Yes	U	Yes	U
Yachi, 2011 PCS	U	Yes	U	No	Yes	Yes	Yes	U	Yes	U	U	U	No	No	Yes	Yes
Yogev, 2004 PCS	U	Yes	U	U	Yes	Yes	Yes	Yes	Yes	No	U	Yes	Yes	Yes	Yes	Yes

*QUADAS domain descriptions: 1.a. Random sample; 1.b. Did the study avoid inappropriate exclusions?; 1.c. Was the study a low risk of bias?; 1.d.Is the study applicable?; 2.a. Reference standard results not known; 2.b. Pre specified threshold; 2.c. Was the study a low risk of bias?; 2.d. Is the study applicable?; 3.a. Likely to classify target patients; 3.b. Index test results not known; 3.c. Was the study a low risk of bias?; 3.d. Is the study applicable?; 4.a. Interval between tests; 4.b. Same standard for all patients; 4.c. All patients included in analysis; 4.d. Was the study a low risk of bias?
U = unclear

Table C2. Methodological quality of randomized controlled trials (RCTs) using the Cochrane Collaboration's tool for assessing risk of bias for key questions 2 to 5

Author Year	Sequence generation	Allocation concealment	Blinding		Incomplete outcome data*	Selective outcome reporting	Other	Overall Risk of Bias* (quality rating)†
			Participants*	Outcome assessment*				
Bevier, 1999	Unclear	Unclear	Unclear	Low	Unclear	Low	Low	Unclear (fair)
Bonomo, 2005	Low	Unclear	Unclear	Low	Low	Low	Low	Unclear (fair)
Crowther, 2005	Low	Low	Low	Low	Low	Low	Low	Low (good)
Garner, 1997	Unclear	Unclear	Unclear	High	High	Low	Low	High (poor)
Landon, 2009	Unclear	Unclear	Low	Low	Low	Low	Low	Unclear (fair)

* Domains for which assessments are made by outcome were assessed for objective outcomes
† Quality rating based on EPC Methods Guide (good, fair, poor)

Table C3. Methodological quality of prospective cohort studies (PCS) and retrospective cohort studies (RCS) using Newcastle-Ottawa Quality Assessment Scale, by key question and design

Author, Year	Representative-ness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome of interest not present at start of study	Comparability of cohorts *(Study controls)*		Assessment of outcome	Follow up long enough for outcomes to occur	Adequacy of cohort follow up	Total stars (quality rating)[†]
					*known factors**	*additional factor*				
KQ2 - PCS										
Solomon, 1996	Selected group of users	Same community as exposed cohort	Structured interview	Yes	No	No	Record linkage	Yes	Subjects lost unlikely to introduce bias	6 (fair)
KQ2 - RCS										
Chanprapaph, 2004	Truly representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
KQ3 – PCS										
Ardawi, 2000	Truly representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Subjects lost unlikely to introduce bias	7 (good)
Lao, 2001	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	No description	Yes	Subjects lost unlikely to introduce bias	6 (fair)
Lapolla, 2007	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	No description	Yes	Complete follow up	8 (good)
Metzger/ HAPO, 2008	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Independent blind assessment	Yes	Subjects lost unlikely to introduce bias	9 (good)
Retnakaran, 2008	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	No description	Yes	Subjects lost unlikely to introduce bias	8 (good)
Sacks, 1995	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	No description	Yes	Subjects lost unlikely to introduce bias	8 (good)

Author, Year	Representative-ness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome of interest not present at start of study	Comparability of cohorts *(Study controls)*		Assessment of outcome	Follow up long enough for outcomes to occur	Adequacy of cohort follow up	Total stars (quality rating)†
					*known factors**	*additional factor*				
Sermer, 1995 RCT	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Shirazian, 2008	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	No description	Yes	Subjects lost unlikely to introduce bias	8 (good)
KQ3 - RCS										
Adams, 1998	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Berggren, 2011	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Berkus, 1995	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
Biri, 2009	Truly representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
Black, 2010	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Bo, 2004	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Cheng, 2009	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Chico, 2005	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)

Author, Year	Representative-ness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome of interest not present at start of study	Comparability of cohorts *(Study controls)*		Assessment of outcome	Follow up long enough for outcomes to occur	Adequacy of cohort follow up	Total stars (quality rating)†
					*known factors**	*additional factor*				
Ching-Yu, 2010	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
Cok, 2011	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
Corrado, 2009	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Hillier, 2007	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Independent blind assessment	Yes	Subjects lost unlikely to introduce bias	9 (good)
Jensen, 2002	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Kwik, 2007	Truly representative	Same community as exposed cohort cohort	Secure record	Yes	No	No	Record linkage	Yes	Subjects lost unlikely to introduce bias	7 (good)
Langer, 2005	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Lao, 2003	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	No	Record linkage	Yes	Subjects lost unlikely to introduce bias	8 (good)
Lapolla, 2011	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Morikawa, 2010	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)

Author, Year	Representative-ness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome of interest not present at start of study	Comparability of cohorts *(Study controls)*		Assessment of outcome	Follow up long enough for outcomes to occur	Adequacy of cohort follow up	Total stars (quality rating)†
					*known factors**	*additional factor*				
Nord, 1995	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Subjects lost unlikely to introduce bias	7 (good)
Pennison, 2001	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
Rust, 1996	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Schwartz, 1999	Truly representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Follow up rate <75% and no description of those lost	6 (fair)
Stamilio, 2004	Somewhat representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)
KQ4/5 - PCS										
Malcolm, 2006	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Follow up rate <75% and no description of those lost	6 (fair)
KQ4/5 – RCS										
Adams, 1998	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Subjects lost unlikely to introduce bias	9 (good)
Bonomo, 1997	Selected group of users	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	8 (good)

Author, Year	Representative-ness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome of interest not present at start of study	Comparability of cohorts *(Study controls)*		Assessment of outcome	Follow up long enough for outcomes to occur	Adequacy of cohort follow up	Total stars (quality rating)†
					*known factors**	*additional factor*				
Fassett, 2007	Somewhat representative	Same community as exposed cohort	Secure record	Yes	No	No	Record linkage	Yes	Complete follow up	7 (good)
Langer, 2005	Truly representative	Same community as exposed cohort	Secure record	Yes	Yes	Yes	Record linkage	Yes	Complete follow up	9 (good)

* Controls for known factors: age, race, BMI, history of GDM, family history of DM
† Quality rating based on EPC Methods Guide (good, fair, poor): total scores of 7-9 were considered good, 4-6 fair, and 0-3 poor.
BMI = body mass index; GDM = gestational diabetes mellitus; DM = diabetes mellitus; PCS = prospective cohort study; RCS = retrospective cohort study

Appendix D. Evidence Tables

Table D1. Characteristics of studies examining properties of current screening and diagnostic tests for GDM, key question 1
Table D2. Characteristics of studies examining outcomes of mothers and offspring in the absence of treatment, key question 3
Table D3. Characteristics of studies examining treatment outcomes of mothers and offspring, key questions 4 and 5

Table D1. Characteristics of studies examining properties of current screening and diagnostic tests for GDM, key question 1

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Agarwal, 2005 May 2003 to Jul 2003 United Arab Emirates	442 **G1**: 26.2 ± 5.3 **G2**: 28.5 ± 5.9 NR ADA, 85 (19%) WHO, 49 (11%)	**Inclusion:** Attended routine antenatal clinics at hospital, 24-28 wks gestation, complete OGTT record **Exclusion:** Delivery in other hospital, failure to undergo OGTT, hepatic, renal or evident DM, diet treatment, previous GDM, any endocrine disorder	HbA1c (cutoff value ≥7.5%; collected at time of OGTT)	ADA, 2004 WHO, 1999 75 g, 2 h 24-28wks	**Purpose:** Is HbA1c is an effective screen for GDM **Recommendations:** HbA1c is a poor test to screen for GDM
Agarwal, 2006 May 2004 to Sep 2005 United Arab Emirates	4,602 28.4 ± 6 NR ADA, 675 (14.7%) WHO, 979 (21.3%) ADIPS, 1158 (25.2%) EASD, 556 (12.1%)	**Inclusion:** Routine antenatal clinic attendance at study hospital **Exclusion:** NR	FPG (cutoff value ≥4.9 mmol/l)	ADA, 2004 WHO, 1999 ADIPS, 1999 EASD, 1998 75 g, 2 h 24-28 wks	**Purpose:** Effect of diagnostic criteria on the usefulness of FPG as a screen for GDM **Recommendations:** Initial testing by FPG can decrease the number of OGTTs needed to diagnose GDM
Agarwal, 2008 Nov 2006 to Jun 2007 United Arab Emirates	1,662 28.8 ± 5.9 NR ADA, 186 (11.2%)	**Inclusion:** Routine antenatal clinic attendance **Exclusion:** NR	FBG (hand-held glucometer; cutoff value ≥4.9 mmol/L)	ADA, 2004 75 g, 2 h 24-28 wks	**Purpose:** Test the practical value of measuring FBG vs. FPG **Recommendations:** FBG is a simple, practical, cost-effective and patient-friendly approach to screen for GDM

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Agarwal, 2011 Oct 2008 to May 2009 United Arab Emirates	849 29.4 ± 6.0 NR ADA, 113 (13.3%) IADPSG, 279 (32.9%) WHO, 156 (20.3%) ADIPS, 172 (20.3% EASD, 90 (10.6%)	**Inclusion:** Routine antenatal care **Exclusion:** Twin pregnancy, pregestational DM, Hx of GDM	Serum fructosamlne (cutoff value ≥237 µmol/L)	ADA, 2004 IADPSG, 2010 WHO, 1999 ADIPS, 1999 EASD, 1998 75 g, 2 h 24-28 wks	**Purpose:** Evaluate the value of serum fructosamlne to screen for GDM **Recommendations:** Serum fructosamlne is a poor test to screen for GDM
Ardawi, 2000 Jun 1996 to Jun 1998 Saudi Arabia	818 **G1**:29.2 ± 4.6 **G2**:30.7 ± 4.8 **G3**:32.1 ± 5.1 NR NDDG, 102 (12.5%)	**Inclusion:** Attended antenatal care clinics at 2 hospitals **Exclusion:** NR	50 g GCT, (O'Sullivan and Mahan,1973; ≥7.2 mmol/L)	NDDG, 1979 100 g, 3 h 24-28 wks	**Purpose:** Evaluate the applicability of the 50 g glucose challenge test as a screening test for GDM in relation to pregnancy outcomes **Recommendations:** 50 g glucose challenge test at 24-28 weeks of gestation with a cutoff value of 7.8 mmol/L is a reliable screening test for GDM

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Ayach, 2006 Jul 1997 to Dec 1999 Brazil	341 Age ≥25, n = 54 (15.8%) BMI ≥27, n = 49 (14.4%) ADA, 13 (3.8%)	**Inclusion:** All pregnant women, no Hx of DM, sought care in study hospital during 1st half of pregnancy **Exclusion:** Failure to perform or finish screening/diagnostic test (50/100 g OGTT), withdrawl of consent or premature termination of pregnancy, miscarriage, pseudocyesis, premature birth, fetal death, intolerance to oral glucose test	FPG and risk factors (age ≥ 25, BMI before pregnancy ≥ 27 kg/m^2, family or personal history of diabetes, and membership of an ethnic group with high prevalence of GDM)	ADA, 2002 100 g, 3 h 24-28 wks	**Purpose:** Compare FPG + risk factors vs.50 g GTT **Recommendations:** FPG + risk factors are more appropriate for screening compared with 50 g OGCT
Balaji, 2011 NR India	1,463 23.6 ± 3.3 21.5 ± 4.1 WHO, 196 (13.4%)	**Inclusion:** Visiting antenatal clinic for the first time in second or third trimester **Exclusion:** Hx of GDM or DM	FPG (IADPSG ≥5.1 mmol/L)	WHO, 1999 75 g, 2 h 24-28 wks	**Purpose:** Ascertain the ability of FPG to diagnose glucose intolerance during pregnancy in Asian Indians **Recommendations:** FPG is not suitable for diagnosis of GDM in this population
Balaji, 2012 NR India	819 23.8 ± 3.48 21.2 ± 4.87 WHO, 86 (10.5%)	**Inclusion:** Pregnant women at 24-28 wks, attending community health center **Exclusion:** NR	CBG (point-of-care testing with glucometer; 75 g glucose load, 2 h sample, cutoff value of ≥7.8 mmol/L)	WHO, 1999 75 g, 2 h 24-28 wks	**Purpose:** Compare point-of-care measured CBG with a glucometer and lab-estimated VPG **Recommendations:** CBG value at a 2 h plasma glucose ≥7.8 mmol/L may be recommended for the diagnosis of GDM

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Berkus, 1995 NR US	80 **G1**: 28.1 ± 5 **G2**: 25.7 ± 5 NR NDDG, 21/80 (26%) WHO, 20/40 (50%)	**Inclusion:** Nonhypertensive women, recruited from obstetric clinic in Texas, non diabetic **Exclusion:** NR	50 g OGTT 75 g OGTT, WHO	NDDG, 1979 100g, 3 h **G1**:28.6 ±4 **G2**:30.6 ±4	**Purpose:** Determine whether glucose abnormality, as shown by GTT periodicity, is not affected by different glucose loads **Recommendations:** Glucose tolerance test periodicity identifies patients with GDM regardless of GTT load
Brustman, 1995 NR US	32 28 ± 5 NR NDDG, 16 (50%) IWC, 6 (19%)	**Inclusion:** Women 26-26 wks gestation, abnormal glucose screen ≥130 mg/dl after 24 wks gestation **Exclusion:** NR	IWG, 3rd (75 g, 3 h GTT)	NDDG, 1979 100 g, 3 h 26-36 wks	**Purpose:** Compare results of a 75 g, 3 h OGTT with a 100g OGTT **Recommendations:** 75 g OGTTusing the NDDG criteria, recognizes carbohydrate intolerance in pregnancy
Buhling, 2003 Jul 1999 to Mar 2000 Germany	193 29 ± 5.5 NR NR	**Inclusion:** OGCT performed in outpatient clinic **Exclusion:** NR	CBG (≥7.4 mmol/L)	No confirmation of GDM 50 g GCT (ADA, 2003; cutoff of ≥7.8 mmol/L)	**Purpose:** Test the usefulness of glucose meters in screening for GDM **Recommendations:** When used by well-trained personnel, the accuracy of glucose meters was acceptable

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Buhling, 2004 Jun 1997 to Jan 2000 Germany	912 28.5 ± 5 23.6 ± 4.4 ADA, 37 (4.1%)	**Inclusion:** Received prenatal care at clinic, no previous GDM testing **Exclusion:** NR	Urine (glucose-stix) 50g GCT (≥140 mg/dL)	ADA, 2001 75 g, 2 h 33.8 ±3 wks	**Purpose:** Evaluate the sensitivity of the glucose-stix for screening for GDM **Recommendations:** Urine glucose dip stick analysis is not useful to detect GDM
Cetin, 1996 Oct 1994 to Jan 1996 Turkey	274 G1:27 (19-37) G2: 28 (18-37) G3: 29 (19-41) G1: 24.8 (17.3-40.1) G2: 24.5 (17-40) G3: 25 (19.3-39.8) NDDG, 17 (6.2%)	**Inclusion:** Women > 24 yrs, 24-28 wks gestation, examined by obstetrician before 20 wks, singleton pregnancy **Exclusion:** Hx of preexisting diabetes, preeclampsia, regular ingestion of any drug, delivery ≤28 wks , premature rupture of membranes	50g, 1h GCT (≥140 mg/dL)	NDDG, NR 100 g, 3 h 26-28 wks	**Purpose:** Examine different cutoff values with regard to the time of patient's last meal **Recommendations:** Different cutoff values lead to improved efficiency of the OGCT and decreased frequency of OGTT
Chastang, 2003 Jun 1997 to Jun 1998 France	354 31.4 ± 4.6 22.5 ± 4.1 CC, 69 (20%)	**Inclusion:** Presented at least one risk factor for GDM: >35 years, BMI > 25, family Hx of diabetes, personal Hx of GDM, Hx of macrosomia/LGA, gravidic hypertension or preeclampsia, presence of obstetrical event(s) in current pregnancy, excessive weight gain during in current pregnancy **Exclusion:** NR	≥25 g carbohydrate breakfast, 50 g OGCT	CC, 1998 100 g, 3 h 24-28 wks	**Purpose:** Validate a diagnostic test for GDM which predicts the risk of macrosomia **Recommendations:** Standard 50 g carbohydrate breakfast is more sensitive than the 50 g GCT to screen women at risk of macrosomia

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
De Los Monteros, 1999 Jul 1996 to Dec 1996 Mexico	445 >25 (n=359) <25 (n=86) NR NDDG, 43 (9.7%) CC, 52 (11.7%) Sacks, 62 (13.9%)	**Inclusion:** 24-28 wks gestation, attending medical centre for routine care **Exclusion:** Previous Hx of DM, consent withdrawl during either glucose tolerance test, inability to recall last menstrual period, Hx of regular drug ingestion during pregnancy	Postprandial 50 g OGCT	NDDG, 1979 CC, 1982 Sacks, 1989 100 g, 3 h 24-28 wks	**Purpose:** Study sensitivity and specificity of the 50 g, 1 h GCT performed 1 to 2 h after a non-standardized home breakfast **Recommendations:** Sensitivity after breakfast was similar, based on the NDDG and CC criteria for GDM
Deerochanawong, 1996 NR Thailand	709 26.9 ± 5.6 22.4 ± 3.8 NDDG, 10 (1.4%) WHO, 111 (15.7%)	**Inclusion:** Attending antenatal clinic, no prepregnancy DM **Exclusion:** NR	WHO, 1980 (75 g, 2 h OGTT)	NDDG, 1979 100 g, 3 h 24-28 wks	**Purpose:** Compare criteria of the NDDG and WHO for pregnancy outcomes **Recommendations:** WHO criteria resulted in poorer pregnancy outcomes but fewer perinatal complications were missed than with the NDDG criteria
Eslamian, 2008 NR Iran	138 27.5 ± 4.6 24.9 ± 3.1 CC, 12 (8.6%)	**Inclusion:** Patients receiving prenatal care **Exclusion:** Pregestational DM, current GDM	Standard breakfast containing 50 g simple sugar	CC, NR 100 g, 3 h 24-28 wks	**Purpose:** Compare a standard breakfast with a 50 g glucola-based OGCT **Recommendations:** Standard breakfast can be used as an alternative method for assessing carbohydrate intolerance

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Fung, 1996 NR Hong Kong	966 NR NR NR	**Inclusion:** Women recruited from hospital antenatal clinic **Exclusion:** NR	50 g, 3 h OGTT (British Diabetic Association)	WHO, NR 75 g, 2 h 28-32 wks	**Purpose:** Determine if a 75 g glucose load influences the results of a subsequent 50 g GTT performed after a 1 wk interval **Recommendations:** The 75 g test has a significant effect on the FPG and response to a 50 g glucose load up to 1 wk later
Gandevani, 2011 2007 to 2008 Iran	1,804 32.5 ± NR 23.3 ± 2.4 CC, 130 (7.2%)	**Inclusion:** Prenatal clinic attendance at study center, referred for 50 g GCT between 24-28 wks **Exclusion:** Glucose intolerance before pregnancy, Hx of GDM	50 g OGCT (various cutoff values)	CC, 1982 100 g, 3 h 24-28 wks	**Purpose:** Investigate cutoff value of GCT in an Iranian population **Recommendations:** Best cutoff value is 135 mg/dL to identify GDM
Hill, 2005 Jun 1997 to Aug 1998 India	830 24 (16-40) 23.1 (20.7-25.7) CC, 49 (6%)	**Inclusion:** Planned to deliver at hospital, singleton pregnancy, <32 wks GA determined by LMP or a first trimester ultrasound scan **Exclusion:** Prepregnancy DM	Risk Factors (one or more of the following: BMI ≥25 kg/m^2; family Hx of DM in a first or second degree relative; poor obstetric Hx; previous baby weighing ≥3800 g; PIH; polyhydramnios	CC, 1982 100 g, 3 h 28-32	**Purpose:** Determine the incidence of GDM in one urban maternity unit in South India and examine its effect on the offspring **Recommendations:** effect of maternal glucose concentrations on neonatal anthropometry is continuous and extends into those diagnosed as normal

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Jakobi, 2003 1998 to 1999 Israel	180 NR NR IWC, 25 (13.9%)	**Inclusion:** Positive 50 g OGCT (≥7.8 mmol/L), referred to high-risk pregnancy clinic **Exclusion:** NR	BG/ portable glucose meter	IWG, 3rd (similar to NDDG) 100 g, 3 h 28-32 wks	**Purpose:** Evaluate perinatal effects of replacing current methods for 100 g OGTT with portable glucose meters **Recommendations:** No difference between the 2 methods
Jensen, 2003 1999 to 2000 Denmark	5,235 NR NR WHO, 124 (2%)	**Inclusion:** Risk group: women presenting ≥1 of: glucosuria, GDM in previous pregnancy, family Hx of DM, previous macrosomic infant. Non risk group: contacted by study midwife at first appointment **Exclusion:** Preexisting DM, <18 yrs, delivery or migration before 30 wks, first booking later than 30 wks	Risk factors (glucosuria, GDM in a previous pregnancy, prepregnancy BMI ≥27 kg/m^2, family history of DM, and previous delivery of macrosomic infant)	WHO, 1998 75 g, 2 h 28-32 wks	**Purpose:** Evaluate a screening model for GDM using clinical risk indicators **Recommendations:** Using risk factor assessment reduces the need for screening and diagnostic testing in 66% pregnant women
Kashi, 2007 NR Iran	200 27.8 ± 95.2 29.6 ± 4.5 ADA, 20 (10%)	**Inclusion:** Referred to prenatal clinic, ≥1 risk factors: >25 years old, Hx of recurrent abortion, previous GDM, preeclampsia, macrosomia, still birth, DM in first degree family or pregestational BMI >25 kg/m^2 **Exclusion:** Pregestational overt DM	FPG (≥91.5 mg/dL)	ADA, 2006 100 g, 3 h NR	**Purpose:** Determine a cutoff point of FPG for screening for GDM **Recommendations:** FPG level of 91.5 mmol/dL showed highest sensitivity and specificity

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Kauffman, 2006 NR US	123 NR NR NDDG,16 (13.0%) CC, 25 (20.3%)	**Inclusion:** Women attending obstetrical clinic, 24-28 wks gestation with consent to undergo 100 g, 3h OGTT in lieu of 50 g screen **Exclusion:** Hx DM or GDM, untreated endocrine disorders, medications with impact on circulating glucose or insulin levels	homeostatic insulin sensitivity indices (HOMA-1, HOMA-2, QUICKI) FPG ≥92 mg/dL FPI ≥93 µmol/L	NDDG, 1979 CC, 1982 100 g, 3 h 24-28 wks	**Purpose:** investigate homeostatic indices of insulin sensitivity to screen for GDM **Recommendations:** FPG and the homeostatic insulin sensitivity indices are sensitive alternatives to OGCT
Lamar, 1999 NR US	136 26 ± 5.3 NR NDDG, 5 (3.7%)	**Inclusion:** Women in general obstetric population at institution ≥18 yrs and between 24-28 wks,no Hx of overt DM **Exclusion:** NR	50 g OGCT (traditional and alternative sugar source - 28 jelly beans consisting of 50 g of simple sugar)	ACOG, 1994 (Values same as NDDG) 100 g, 3 h 24-28 wks	**Purpose:** Determine if a standardized dose of jelly beans is an alternative sugar source to the 50 g glucose beverage to screen for GDM **Recommendations:** Jelly beans provide a “dose” of simple carbohydrate similar to that of the 50 g glucose beverage but with suboptimal sensitivity
Moses, 2011 Jan 2010 to Jun 2010 Australia	1 ,275 NR NR ADIPS, 123 (9.6%) IADPSG, 166 (13.0%)	**Inclusion:** NR **Exclusion:** NR	IADPSG, 2010	ADIPS, 1991 75 g, 2 h NR	**Purpose:** Compare the prevalence of GDM using IADPSG criteria vs. ADIP criteria **Recommendations:** IADPSG criteria Increased the prevalence of GDM from 9.6% to 13.0%

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Ostlund, 2003 Jul 1994 to Jun 1996 Sweden	4,918 NR NR WHO, 61 (1.7%)	**Inclusion:** Nondiabetic women visiting maternal health care clinics in Sweden **Exclusion:** Pre-pregnancy DM	Anamnestic risk factors (Heredity, non-Nordic origin, prior macrosomia, prior GDM, multipara, prior macrosomia, and prior GDM)	WHO, 1980 75 g, 2 h 28-32 wks	**Purpose:** Determine prevalence of GDM and the value of traditional anamnestic risk factors for predicting the outcome of the OGTT **Recommendations:** Traditional risk factors as an indicator to perform an OGTT gives a low sensitivity to detect GDM
Perea-Carrasco, 2002 NR Spain	578 NR NR IWC, 46 (7%)	**Inclusion:** Attended routine antenatal clinic, OGCT and OGTT between 24-28 wks **Exclusion:** Multiple pregnancies	Index test (I) = (fructosamlne/ total protein) - (glucose/100) I = ≥27.2	IWC, 3rd (same as NDDG thresholds) 100 g, 3 h 24-28 wks	**Purpose:** Devise an index test to improve screening sensitivity and specificity, offering better screening capability and greater ease of diagnosis **Recommendations:** Proposed index offers an efficient screening test for GDM, and with more stringent cutoff points may be applicable as a single-step diagnostic procedure
Perucchini, 1999 1995 to 1997 Switzerland	520 28.4 ± 0.2 23.8 ± 0.2 IWG, 53 (10.2%)	**Inclusion:** Singleton pregnancy, attended hospital, delivery >28 wks **Exclusion:** Pre-existing DM, not examined before 24 wks	FPG (≥4.8 mmol/L, 86 mg/dL)	IWC, 4th 100 g, 3 h 24-28wks	**Purpose:** Evaluate FPG vs. the 1 h 50 g OGCT **Recommendations:** More women are referred for the OTT using FPG vs. those using the OGCT

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Poyhonen-Alho, 2004 Jan 1996 to Aug 1998 Finland	532 NR NR Author defined, 123 (23%)	**Inclusion:** Caucasian, attendance at primary health care units **Exclusion:** Pre-pregnancy DM	Risk factor based screening (BMI >27; age >40; previous child >4500 g; previous GDM; glucosuria; or macrosomia in current pregnancy)	Author defined 75 g, 2 h Fasting ≥4.8, 1h ≥10.0, 2h ≥8.7 mmol/L 26-28 wks	**Purpose:** Compare whether universal screening by OGCT will identify more women with GDM vs. risk factor based screening **Recommendations:** 50 g OGCT identified a higher number women with GDM
Reichelt, 1998 May 1991 to Aug 1995 Brazil	4,977 27.9 ± 5.5 26.1 ± 4.1 WHO, 379 (7.6%)	**Inclusion:** Women ≥20 yrs, 21-28 wks gestation **Exclusion:** Pre-pregnancy DM	FPG (≥87 mg/dL)	WHO, 1994 75 g, 2 h 24-28 wks	**Purpose:** Evaluate FPG as a screening test for GDM **Recommendations:** FPG is a useful screening test for GDM
Rust, 1998 Jul 1994 to Jun 1995 US	448 23.7 ± 6.1 26.8 ± 7.6 ADA, 16 (3.6%)	**Inclusion:** Women at medical centre obstetric clinics, >20 wks gestation **Exclusion:** NR	Postprandial 50 g GCT (1 and 2 hrs post meal glucose load)	ADA, 100 g, 3 h 20 wks	**Purpose:** Compare 2 h postprandial glucose measurements with the Ih, 50 g glucola screen as a predictor of GDM **Recommendations:** Ih glucola test is a reliable screening test for GDM whereas the 2 h postprandial test is not

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Sacks, 2003 Feb 1998 to Jul 1999 US	4,507 NR NR ADA, 302 (6.7%)	**Inclusion:** Prenatal visit at medical center, no known diabetic Hx, able to return for lab work and glucose testing **Exclusion:** Transferred care to other institution, began prenatal care or screened elsewhere, spontaneous abortion after enrollment	FPG (≥83 mg/dL)	ADA, 2001 75 g, 2 h ≥23 wk	**Purpose:** Determine whether the FPG test administered at the first prenatal visit is an efficient screen for GDM **Recommendations:** FPG has poor specificity (high false-positive rate) making it an inefficient screening test
Siribaddana, 2003 NR Sri Lanka	721 NR NR WHO, 40 (5.5%)	**Inclusion:** Attended antenatal clinic hospital **Exclusion:** Known DM	50g OGCT Traditional risk factors (Age, family Hx, parity, Hx of poor pregnancy outcomes)	WHO, 1985 75 g, 2 h 24-28 wks	**Purpose:** Determine the prevalence of GDM in a Sri Lankan population using WHO criteria, and establish the predictive value of a 50g OGCT vs. the OGTT **Recommendations:** Traditional risk factors did not predict GDM; screening for GDM should be performed in all women with a GCT
Soheilykhah, 2010 2007 to 2010 Iran	1,502 27.3 ± 6.1 25.7 ± 6.9 ADA, 216 (13.1%)	**Inclusion:** Attended prenatal clinics **Exclusion:** Hx hyperglycemia, on medication known to affect glucose metabolism	Time intervals of 100 g OGTT	ADA, 2009 100 g, 3 h 24-28 wks	**Purpose:** To find an appropriate and simple way to perform screening tests for GDM **Recommendations:** A positive GCT result (≥130 mg/dL) with subsequent 2 h 100g OGTT (≥150 mg/dL) will diagnose GDM

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Soonthornpun, 2003 NR Thailand	42 33.6 ± 5.4 NR CC, 9 (21.4%) ADA, 3 (7.1%)	**Inclusion:** 50 g OGCT values ≥140 mg/dL at screening between 14-36 wks **Exclusion:** NR	ADA, 2000 (75 g, 2 h GTT)	CC, 1982 100 g, 3 h 28.2 ±4.2	**Purpose:** Test the validity of a 75 g, 2 h OGTT using the ADA criteria and reference values for the 100 g, 3 h OGTT **Recommendations:** The prevalence of GDM was lower using the 75 g OGTT using the criteria and reference values of the 100 g OGTT
Tri-Hospital (2 papers) Sermer, 1998 Sept 1989 to Mar 1992 Canada	3,836 NR NR NDDG, 145 (3.8%)	**Inclusion:** >24 yrs at time of delivery, no Hx of DM examined by physician before 24 wks gestation, delivery >28 wks **Exclusion:** NR	50 g, 2 h OGCT (time of last meal prior to glucose load)	NDDG, 1979 100 g, 3 h 24-28 wks	**Purpose:** Established more efficient screening strategies for detection of GDM **Recommendations:** increasing maternal carbohydrate intolerance is associated with a graded increase in adverse maternal and fetal outcomes
Tri-Hospital Naylor, 1997 Sept 1989 to Mar 1992 Canada	3,131 NR NR NR	**Inclusion:** >24 yrs at time of delivery, no Hx of DM, examined by physician before 24 wks gestation **Exclusion:** Delivery< 28 wks	Clinical risk factors (Age, race, BMI, parity, family Hx of DM, and adverse obstetrical Hx)	NDDG, 1979 CC, 1982 100 g, 3 h 24-28 wks	**Purpose:** Established more efficient screening strategies for detection of GDM **Recommendations:** Consideration of risk factors allows efficient selective screening; efficiency of GCT can be enhanced by adjusting the threshold of ≥7.8 mmol/L

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Uncu, 1995 NR Turkey	42 27.5 ± 4.3 NR CC, 14 (33%)**	**Inclusion:** Attending outpatient clinic, OGCT between 24-28 wks **Exclusion:** Pregnancies beyond wk 28 previously diagnosed as DM	Serum fructosamine (≥2.85 mmol/L) HbA1c (≥7.2%)	CC, 1988 100 g, 3 h 24-28 wks	**Purpose:** Evaluated the sensitivity and specificity of 50 g OGCT, serum fructosamine and HbA1c levels as screening tests for GDM **Recommendations:** HbA1c and fructosamine levels are reliable methods to 50 g OGCT
Van Leeuwen, 2007 NR Netherlands	1,301 30.8 ± 4.9 24.2 ± 4.6 WHO, 48 (3.7%)	**Inclusion:** NR **Exclusion:** Known preexisting diabetes; no prenatal care before 24 wks of gestation	Random 50 g glucose test	WHO, NR 75 g, 2 h 24-28 wks	**Purpose:** Compare the accuracy measures of the random glucose test and the 50 g GCT as screening tests for GDM **Recommendations:** the 50 g glucose challenge test is more useful than the random glucose test
Van Leeuwen, 2010 NR Netherlands	995 NR NR WHO, 24 (2.4%)	**Inclusion:** Singleton pregnancy, reported for prenatal care **Exclusion:** Known pregestational DM, women first seen before 20 wks	Risk factors (>25 years, BMI >30 kg/m^2, a previous macrosomic baby, previous GDM, first degree relative with diabetes and an ethnic origin with a high prevalence of diabetes)	WHO, 1999 75 g, 2 h 24-28 wks	**Purpose:** Develop a clinical prediction rule to help identify women at high and low risk for GDM **Recommendations:** Clinical prediction model is an accurate method to identify women at increased risk for GDM and could be used to select women for additional testing for GDM

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Weerakiet, 2006 Jul 2004 to Mar 2005 Thailand	359 NR NR ADA, 66 (16.7%)	**Inclusion:** Singleton pregnancy, presenting ≥1 risk factor for GDM: age >30, obesity, family Hx of DM, prior GDM, glucosuria, symptoms or signs of hyperglycemia, Hx of poor obstetric outcome **Exclusion:** Hypertension, known DM, known chronic disease requiring Tx, positive result for syphilis, hepatitis B (HBSAg), HIV	Adiponectin levels (10 µmg/mL) 50g OGCT (≥140 mg/dL)	ADA, 2000 100 g, 3 h 24-28 wks	**Purpose:** Evaluate adiponectin as a predictive factor for GDM and appropriate as a screening test for GDM **Recommendations:** Adiponectin was not as strong a predictor as GCT
Wijeyaratne, 2006 Apr 2003 to Jul 2003 Sri Lanka	853 NR NR WHO, 144 (16.3%)	**Inclusion:** Registered for antenatal care **Exclusion:** Established glucose intolerance	FBG (≥4.1 mmol/L) FPG (≥4.7 mmol/L) Risk factors proposed by ADA, NR	WHO, 1999 75 g, 2 h 24-28 wks	**Purpose:** Evaluate tests used for screening and confirmation of GDM in Sri Lanka **Recommendations:** Urine and FBG are unsuitable for screening
Yachi, 2011 Sep 2008 to Jan 2010 Japan	509 33.4 ± 3.7 20 ± 2.5 JSOG, 8 (2%)	**Inclusion:** Visited clinic; ≥13wks gestation **Exclusion:** FPG levels ≥2.5 mmol/L; missing or incomplete data	FPG (≥3.66 mmol/L at 10 wks) FPI (≥36.69 pmol/L at 10 wks)	JSOG, 1999 75 g, 2 h 26-29 wks	**Purpose:** Determine early screening tests and risk factors predictive of glucose intolerance in later pregnancy **Recommendations:** FPG is not an acceptable screening test for glucose intolerance

Author, year Dates of study Country	Women Analyzed, *n* Maternal Age, *mean ± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Prevalence of GDM Criteria, n (%)*	Inclusion Criteria	Index†, (Comment)	Reference†*, Date Load Time of Screening	Study Purpose Conclusion(s)
Yogev, 2004 1995 to 1999 US	2,541 NR NR NDDG, 343 (13.5%)** CC, 468 (18.4%)**	**Inclusion:** Singleton pregnancies; screened at 24-28 wks **Exclusion:** No Hx of GDM and pre-gestational DM	50 g OGCT (various threshold)	NDDG, 1979 CC, 1982 100 g, 3 h 24-28 wks	**Purpose:** Describe the predictive value for GDM using different OGCT thresholds in Mexican-American women **Recommendations:** A threshold of ≥130 mg/dL is recommended

Notes: †Index and reference data used in this review. *Complete diagnostic criteria can be found in Table 1. **Prevalence calculated based on tables provided ADA = American Diabetes Association; ADIPS = Australian Diabetes in Pregnancy Society; BMI = body mass index; CBG = capillary blood glucose; CHT = chronic hypertension; d = day; dL = deciliter; DM = diabetes mellitus; Dx = diagnosis/diagnostic; EASD = European Association for the Study of Diabetes FPG = fasting plasma glucose; GA = gestational age; GCT = glucose tolerance test; GDM = gestational diabetes mellitus; GHT = gestational hypertension; HbA1c = glycated hemoglobin; HBSAg = hepatitis B virus surface antigen; HOMA = homeostatic model assessment; h = hour; mg = milligrams; IADPSG = International Association of Diabetes and Pregnancy Study Groups; JSOG = Japan Society of Obstetrics and Gynecology; NDDG = National Diabetes Data Group; NR = not reported; OGTT = oral glucose tolerance test; PCS = prospective cohort study; PIH = pregnancy-induced hypertension; PROM = premature rupture of the membrane; PPH = postprandial hypotension; QUICKI = Quantitative insulin sensitivity check index ; RCS = retrospective cohort study; SD = standard deviation; Tx = treatment; WHO = World Health Organization; wk(s) = week(s); yr(s) = year(s)

Table D2. Characteristics of studies comparing outcomes for women who were and were not screened for GDM, key question 2

Author, year Study Design, Duration of Followup Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)*	Inclusion/ Exclusion Criteria	Gestational Age at Screening Screening Test	Outcomes Reported Numbers screened vs. not screened, *n (%)*
Chanprapaph, 2004 RCS, Until birth Thailand	1,000 Screened: 31.5 ± 5.5 Not screened: 24.0 ± 3.8 Screened: 22.5 ± 3.8 Not screened: 20.9 ± 2.9	**Inclusion:** Pregnant women attending a single antenatal care center; attendance from Oct 2001 to Dec 2002. **Exclusion:** NR	First booking; 24 & 28 wks; 30 & 32 wks **Step 1:** Risk factors + 50 g OGCT; positive ≥ 140mg/dL after 1 hour **Step 2:** 100 g OGTT: 1) fasting glucose value 105 mg/dL 2) 1 hr 190 mg/dL 3) 2 hr 165 mg/dL 4) 3 hr 145 mg/dL -test considered positive if any 2 of non-fasting values greater than normal	**Obstetric complications:** PROM: 30 (7) vs. 46 (8) PIH: 21 (5) vs. 7 (1) GHT: 4 (1) vs. 4 (1) CHT: 4 (1) vs. 2 (0.3) PPH: 3 (1) vs. 1 (0.2) Chorioamnionitis: 0 (0) vs. 1 (0.2) Polyhydramnios: 1 (0.2) vs. 0 (0) Total obstetric complications: 65 (16) vs. 63 (11) **Pregnancy outcomes:** Preterm delivery: 42 (10) vs. 50 (8) Birthweight: >90th percentile: 50 (12) vs. 55 (9) <10th percentile: 42(10) vs. 58 (10) Fetal anomalies: 3 (2) vs. 1 (1) Cesarean section: 81 (20) vs. 71 (12)
Solomon, 1996 RCS, Until birth US	93 Screened: 30.5 Not screened: 31.1 Screened: 23.0 Not screened: 23.6	**Inclusion:** Female nurses; 25 to 42 yrs residing in 1 of 14 US states **Exclusion:** NR	**Gestational Age:** NR **Step 1:** 1 h 50 g OGCT	**Maternal morbidity:** NR **Fetal morbidity:** Macrosomia (7% each group)

* BMI = body mass index; CHT = chronic hypertension; dl = deciliter; DM = diabetes mellitus; GA = gestational age; OGCT = oral glucose tolerance test; GDM = gestational diabetes mellitus; GHT = gestational hypertension; mg = milligrams; NR = not reported; OGTT = oral glucose tolerance test; PCS = prospective cohort study; PIH = pregnancy – induced hypertension; PROM = premature rupture of the membrane; PPH = postprandial hypotension; RCS = retrospective cohort study; SD = standard deviation; wk = weeks; yr = years

Table D3. Characteristics of studies examining outcomes of mothers and offspring in the absence of treatment, key question 3

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Adams,1998 RCS (1) US Jan 1986 - Sep 1996	389 **G1:** GDM Diet (Tx) **G2:** GDM Insulin (Tx) **G3:** Unrecognized GDM (no Tx) **G4:** Control (no Tx)	**G1:** 31.4 ± 4.9 **G2:** 31.5 ± 4.6 **G3:** 30.2 ± 4.7 **G4:** 30.2 ± 4.5 **G1:** 26.1 ± 6.1 **G2:** 30.3 ± 7.2 **G3:** 26.6 ± 7.5 **G4:** 26.3 ± 7.0	**Inclusion:** Diagnosis of GDM **Exclusion:** NR	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG, 1979	Cesarean delivery, maternal birth trauma (rectal injury), macrosomia (BW >4000 gm, >4500 gm), shoulder dystocia, clavicular fracture, brachial plexus injury (cranial nerve palsy, brachial plexus, permanent & healed), hypoglycemia, hyperbilirubinemia (within neonatal complications composite), mortality (stillbirth) **Other:** Birthweight, LGA, vacuum & forceps delivery
Ardawi, 2000 PCS (2) Saudi Arabia Jun 1996 – Jun 1998	818 **G1:** Negative Screenees (no Tx) **G2:** Positive Screenees (no Tx) **G3:** GDM by NDDG (Tx)	**G1:** 29.2 ± 4.6 **G2:** 30.7 ± 4.8 **G3:** 32.1 ± 5.1 **G1:** 64.3 ± 4.1 **G2:** 68.6 ± 4.1 **G3:** 75.2 ± 4.5	**Inclusion:** NR **Exclusion:** Hepatic renal disease, DM prior to pregnancy, previous diet therapy, previous GDM, known endocrine disorders	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG 1979	Cesarean delivery, macrosomia, hypoglycemia, hyperbilirubinemia, mortality(stillbirth) **Other:** Fetal length, <25g, head circumference, wk at delivery

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Berggren, 2001 RCS (1) US Apr 1996 – May 2010	3,759 **G1**: CC GDM (no Tx) **G2:** NDDG GDM (Tx) **G3:** Control (no Tx)	NR NR	**Inclusion:** Delivery at UNC women's hospital **Exclusion:** No results available on 1 hr 50 g OGCT, delivery <24 wks, pregestational DM, GDM diagnosed by 50 g OGCT only	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG 1979 CC 1982	Preeclampsia, Maternal Hypertension, Cesarean delivery, maternal birth trauma (3rd or 4th degree laceration), macrosomia, shoulder dystocia **Other:** GA at delivery, mode of delivery other than c-section, HELLP (hemolysis, elevated liver enzymes, low platelet count), birthweight, NICU admission, NICU stay >48 hrs
Berkus, 1995 RCS (NR) US 1987 – 1988	833 **G1:** GDM by CC (no Tx) **G2:** GDM by Sacks (no Tx) **G3:** GDM by Langer (no Tx) **G4:** Normal (no Tx)	**G1:** 29.0 ± 5.0 **G2:** 30.0 ± 7.0 **G3:** 29.0 ± 6.0 **G4:** 26.0 ± 6.0 NR	**Inclusion:** Nonhypertensive gravidas; singleton pregnancy; underwent 3-hour GTT; attended clinics in San Antonio area **Exclusion:** Women with 2+ abnormal OGTT values by NDDG criteria	No OGCT 3 h, 100 g OGTT Coustan & Lewis, 1978 NDDG, 1979 Langer,1987 Sacks,1989	Macrosomia **Other:** Birthweight

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Biri, 2009 RCS (1) Turkey Jan 2004 - Dec 2006	2,029 **G1:** Normal 50 g GLT (no Tx) **G2:** Abnormal 50 g/ Normal 100 g (no Tx) **G3:** 1 Abnormal 100 g (no Tx) **G4:** GDM - 100 g GLT (Tx) **G5:** GDM – 50 g GLT (no Tx)	**G1:** 29.6 ± 4.6 **G2:** 30.9 ± 4.9 **G3:** 32.1 ± 4.6 **G4:** 33.3 ± 4.8 **G5:** 32.6 ± 5.0 NR	**Inclusion:** Singleton pregnancies, screened at study centre **Exclusion:** Prepregnancy DM, multiple gestations	1 h, 50 g OGCT 3 h, 100 g OGTT ACOG, 2001 NDDG, 1979	Preeclampsia, cesarean delivery, macrosomia, hypoglycemia, hyperbilirubinemia **Other:** Birthweight, LGA/SGA, APGAR, respiratory complications, polyhydramnios, prematurity
Black, 2010 RCS (1) US Oct 2005 – Mar 2010	8,711 All no Tx **G1:** No GDM **G2:** IGT **G3:** IFG **G4:** IGT-2 **G5:** IFG-IGT	**G1:** 28.6 ± 5.9 **G2:** 32.1 ± 5.4 **G3:** 30.4 ± 5.6 **G4:** 32.3 ± 5.2 **G5:** 32.0 ± 5.1 **G1:** 26.9 ± 5.8 **G2:** 28.1 ± 5.6 **G3:** 30.8 ± 7.1 **G4:** 27.5 ± 4.7 **G5:** 31.8 ± 7.0	**Inclusion:** Singleton birth >20 wks gestation, received 2 hr 75 g OGTT with no prior 50 g OGCT, available pre-pregnancy and delivery anthropometric data **Exclusion:** Any form of treatment	2 h, 75 g OGTT IADPSG, 2010	Cesarean delivery, maternal weight gain, gestational hypertension, shoulder dystocia/birth injury, hyperbilirubinemia **Other:** Birthweight, LGA, ponderal index, preterm delivery
Bo, 2004 RCS (1) Italy Apr 1999 - Feb 2001	700 **G1:** OGCT negative (normal) (no Tx) **G2:** OGCT positive OGTT negative (no Tx) **G3:** OGTT1 abnormal value (Tx) **G4:** GDM positive (Tx)	**G1:** 30.8 ± 4.2 **G2:** 31.8 ± 4.3 **G3:** 32.9 ± 4.7 **G4:** 32.6 ± 4.9 NR	**Inclusion:** Caucasian; attending clinic **Exclusion:** Known DM, any disease affecting glucose metabolism	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982	Cesarean delivery, macrosomia, hyperbilirubinemia (icterus), mortality (death) **Other:** "Metabolic Syndrome in Pregnancy", premature births, birthweight, LGA/SGA, APGAR score, respiratory distress, malformations, neonatal diseases

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Cheng, 2009 RCS (1) US Jan 1988 - Dec 2001	14,69 **G1:** No GDM (no Tx) **G2:** GDM by CC only (no Tx) **G3:** GDM NDDG only (Tx)	NR NR	**Inclusion:** All pregnancies screened and delivered at University of California **Exclusion:** Multifetal pregnancies, vaginal breech deliveries, delivery <24 wks, congenital anomalies, pregestational DM	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG,1979 CC, 1982	Preeclampsia, cesarean delivery (mode of delivery), maternal birth trauma (3rd or 4th degree laceration), macrosomia, shoulder dystocia, birth trauma composite variable incl. brachial plexus injury, facial nerve palsy, clavicular and skull fracture, head laceration **Other:** Preterm delivery <37wks, APGAR <7, neonatal acidemia, LGA
Chico, 2005 RCS (1) Spain Jan 1999 - Dec 2001	6,248 **G1:** Standard criteria (Tx) **G2:** New criteria (Tx) **G3:** Subgroup- New IGT criteria (no Tx) **G4:** Normal tolerance (no Tx)	**G1:** 33.4 ± 4.0 **G2:** 33.3 ± 4.0 **G3:** 33.3 ± 4.0 **G4:** 32.8 ± 4.0 NR	**Inclusion:** All pregnancies handled in 2 yr period **Exclusion:** None	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG, 1979 4th IWC/ADA, 2003 4th IWC/CC, 1998	Cesarean delivery, maternal weight gain, macrosomia (>4000 g), hypoglycemia, hyperbilirubinemia (jaundice), mortality (fetal deaths) **Other:** Week of delivery, instrumentation, birthweight, LGA/SGA, APGAR, malformations
Ching-Yu, 2010 RCS (1) Taiwan Jan 2001 - Sep 2008	10,990 **G1:** Normal (no Tx) **G2:** GDM by CC but not NDDG criteria (no Tx) **G3:** GDM by NDDG criteria (Tx)	**G1:** 32.8 ± NR **G2:** 33.4 ± NR **G3:** 34.4 ± NR NR	**Inclusion:** Singleton pregnancies delivered at Cathay General Hospital **Exclusion:** Multiple pregnancies, fetal anomalies diagnosed prenatally	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982 NDDG, 1979	Maternal hypertension, cesarean delivery, maternal birth trauma (postpartum hemorrhage), macrosomia, shoulder dystocia, mortality (intrauterine fetal demise) **Other:** Preterm labour, APGAR scores

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Cok, 2011 RCS(1) Turkey Jan 2003 - Jun 2009	185 **G1:** 0h OGTT (no Tx) **G2:** 1 h OGTT (no Tx) **G3:** 2 h OGTT (no Tx) **G4:** 3 h OGTT (no Tx)	**G1:** 32.5 ± 4.8 **G2:** 30.1 ± 4.5 **G3:** 30.0 ± 5.1 **G4:** 30.2 ± 4.3 **G1:** 33.7 ± 4.5 **G2:** 30.8 ± 3.8 **G3:** 29.8 ± 4.3 **G4:** 30.1 ± 3.2	**Inclusion:** Women presenting to Baskent Unviersity, one abnormal OGTT value **Exclusion:** Multiple gestations or prepregnancy DM, 2 abnormal OGTT values	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982	Macrosomia **Other:** LGA, birthweight, birth week
Corrado, 2009 RCS (NR) Italy Jan 1996 - Dec 2005	776 **G1:** OAV (no Tx) **G2:** Control (no Tx)	**G1:** 31.2 ± 5.1 **G2:** 30.1 ± 4.9 **G1:** 25.0 ± 5.1 **G2:** 24.2 ± 4.4	**Inclusion:** Caucasian, one positive screening test and OGTT **Exclusion:** Multiple gestations, Tx for GDM (insulin/diet)	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982	Preeclampsia/maternal hypertension (hypertensive disorders of pregnancy), cesarean delivery, macrosomia, hypoglycemia **Other:** GA, birthweight, APGAR
Hillier, 2007 RCS (2) US 1995-2000	9,439 **G1:** Normal (no Tx) **G2:** Positive OGCT normal OGTT (no Tx) **G3:** Positive OGCT and 1 Abnormal CC or NDDG (no Tx) **G4:** GDM-CC (no Tx), **G5:** GDM NDDG (Tx)	NR NR	**Inclusion:** Data on mother-child pairs 5-7 yrs PP **Exclusion:** Preexisting DM	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG, NR (1979) CC criteria as presented in 4th IWC, 1998	Macrosomia (maternal glycemic level associated with macrosomia, childhood obesity) **Other:** Prevalence, risk of childhood obesity; association with maternal GDM screening results during pregnancy (hyperglycemia)

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Jensen, 2002 RCS(4) Denmark Jan 1992 - Dec 1996	3,260 **G1:** Normal WHO (no Tx) **G2:** Normal DPSG but IGT WHO (no Tx) **G3:** Abnormal DPSG and IGT WHO (Tx) **G4:** GDM by both (Tx)	NR NR	**Inclusion:** First pregnancy in study period, tested with 75 g OGTT **Exclusion:** Pregestational GDM, multiple pregnancies, chronic disease	2 h, 75 g OGTT WHO, 1985 DPSG, 1991	Preeclampsia, maternal hypertension, cesarean delivery, maternal weight gain, macrosomia (>4000g), hypoglycemia, hyperbilirubinemia (jaundice) **Other:** LGA, respiratory distress, preterm delivery, glucosuria, GA
Kwik, 2007 RCS(1) Australia Feb 2000/Oct 2003 - May 2005	675 **G1:** Treated **G2:** Untreated **G3:** Comparison	**G1:** 34.5 ± 4.8 **G2:** 33.3 ± 4.7 **G3:** 32.8 ± 4.5 **G1:** 23.8 ± 4.4 **G2:** 22.9 ± 4.6 **G3:** 22.6 ± 3.7	**Inclusion:** Singleton pregnancy, 75 g GTT with a fasting value ≤ 5.5 mmol/L and 2-h blood sugar ≥7.8 mmol/L **Exclusion:** Confined ≤34 wks gestation	1 h, 50 g OGCT 2 h, 75 g OGTT ADA, 2000	Preeclampsia, cesarean delivery, macrosomia (BW > 4000 g), shoulder dystocia, clavicular fracture, brachial plexus injury (Erb's Palsy) **Other:** Mean birthweight, SCN admission, APGAR, premature delivery, GA at delivery
Landon, 2009 (primary) Landon, 2011 RCT(Multicenter, n = NR) US Oct 2002 - Nov 2007	1,841 **G1:** CC Mild GDM (no Tx) **G2:** CC False-positive, further divided by normal/ abnormal OGTT value (no Tx, no distinct data) **G3:** Normal control (no Tx)	**G1:** 28.9 ± 5.6 **G2:** 27.4 ± 5.5 **G3:** 25.1 ± 5.3 **G1:** 30.2 ± 5.1 **G2:** 30.1 ± 5.3 **G3:** 29.9 ± 5.8	**Inclusion:** Between 24 wks 0 ds and 30 wks 6 ds gestation, 135 and 200 mg/dL 1 hour after a 50 g glucose loading test **Exclusion:** Preexisting diabetes, abnormal results before 24 wks, prior GDM, Hx of stillbirth, multifetal gestation, asthma, CHT, corticosteriod use, known fetal anomaly, likely preterm delivery	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982 4th IWC, 1998	Preeclampsia, maternal hypertension, cesarean delivery, maternal weight gain, macrosomia (BW >4000 g), shoulder dystocia, birth injury (trauma), hypoglycemia, hyperbilirubinemia, mortality (stillbirth/neonatal death) **Other:** GA at birth, elevated c-cord peptide, birthweight, LGA/SGA, Fat mass, Preterm delivery, NICU admission, IV glucose Tx, respiratory distress

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Langer, 2005 US(1) RCS Jan 1999 - Sept 1999	2,775 **G1:** GDM (no Tx, Dx after 37 wks) **G2:** GDM (Tx) **G3:** Nondiabetic control (no Tx)	**G1:** 27.6 ± 6.0 **G2:** 29.1 ± 6.0 **G3:** 25.0 ± 6.0 NR	**Inclusion:** Singleton pregnancies, FPG<140 mg/dL on OGTT; Case-control groups: GDM diagnosed >37 wks, treated GDM and non diabetic matched 2:1 for obesity, parity, ethnicity, GA at delivery (within 5 ds), yr of delivery **Exclusion:** Pregestational DM, substance abusers, multifetal gestation, fetal anomalies	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982	Cesarean delivery, macrosomia, shoulder dystocia, hypoglycemia, hyperbilirubinemia, mortality (stillbirth) **Other:** Birthweight, LGA, ponderal Index >2.85, arterial cord pH <7.2, erythrocytosis, respiratory complication, induction of labour
Lao, 2001 PCS(1) China NR	487 **G1:** GDM by WHO (Tx) **G2:** Normal OGTT only (no Tx) **G3:** Control (no Tx)	**G1:** 32.1 ± 4.6 **G2:** 30.4 ± 5.3 **G3:** 27.7 ± 4.0 **G1:** 22.6 ± 3.2 **G2:** 22.0 ± 2.7 **G3:** 21.1 ± 2.7	**Inclusion:** Singleton pregnancies with visits to antenatal care between 28-30 wks **Exclusion:** Preexisting DM, CHT or other medical complication, thalassemia trait	2 h, 75 g OGTT WHO, 1980	Preeclampsia, cesarean delivery, maternal birth trauma (antepartum hemorrhage) **Other:** Preterm labor, prelabor rupture of the membranes, delivery mode, weeks gestation, birthweight, LGA/SGA, APGAR score 1 min., NICU admission

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Lao, 2003 RCS(1) China 1996 – 1997	2,149 2 h OGTT (mmol/L): **G1:** <6.0 (no Tx) **G2:** 6.0 -6.9 (no Tx) **G3:** 7.0 -7.9 (no Tx)	**G1:** 28.6 ± 4.6 **G2:** 29.6 ± 4.6 **G3:** 30.8 ± 4.4 **G1:** 21.5 ± 2.6 **G2:** 21.7 ± 2.7 **G3:** 21.8 ± 2.8	**Inclusion:** Singleton pregnancy, antenatal OGTT, delivery at Queen Mary hospital, no insulin requirements **Exclusion:** Significant medical complications, taking no medication (ie. corticosteriods)	2 h, 75 g OGTT WHO, 1980	Cesarean delivery, macrosomia **Other:** Birthweight, LGA/SGA, preterm birth
Lapolla, 2007 PCS(5) Italy NR – NR	611 **G1:** Normal Control (no Tx) **G2:** False Positive (no Tx) **G3:** 1 Abnormal Glucose Value (OAV) (no Tx) **G4:** GDM (Tx)	**G1:** 30.9 ± 4.7 **G2:** 31.7 ± 4.9 **G3:** 32.5 ± 4.4 **G4:** 33.4 ± 4.4 **G1:** 22.4 ± 4.2 **G2:** 22.8 ± 3.9 **G3:** 23.7 ± 4.7 **G4:** 24.7 ± 4.8	**Inclusion:** No smoking; no CHT/specific conditions known to affect glucose metabolism **Exclusion:** Those with conditions known to affect glucose metabolism	1 h, 50 g OGCT 3 h, 100 g OGTT HbA1c* Criteria not defined, values same as Carpenter-Coustan	Cesarean delivery, macrosomia **Other:** LGA, ponderal index
Lapolla, 2011 RCS(1) Italy 1998 - 2008	1,927 **G1:** GDM formerly normal (no Tx) **G2:** Normal (no Tx)	**G1:** 32.4 ± 4.5 **G2:** 32.2 ± 4.5 **G1:** 23.7 ± 4.3 **G2:** 23.3 ± 4.2	**Inclusion:** Positive 50 g OGCT (1-h plasma glucose ≥ 7.8mmol/L), 3-h OGTT at 24–28 wks; negative result on OGCT or OGTT formed control group **Exclusion:** NR	1 h, 50 g OGCT 3 h, 100 g OGTT IADPSG, 2010 4th IWC, 1998	Maternal morbidity (eclampsia), maternal hypertension, cesarean delivery, macrosomia, shoulder dystocia (within fetal morbidity, incl. malformations, hypoglycemia,asphyxia,hyperbilirubinemia, etc.) **Other:** LGA/SGA, birthweight, ponderal index

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Metzger/ HAPO, 2008 PCS(15) Various Jul 2000 - Apr 2006	23,316 (All no Tx) **G1:** 100 mg/dL + **G2:** 95-99 mg/dL **G3:** 90-94mg/dL **G4:** 85-89mg/dL **G5:** <85mg/dL; subdivided into **G6:** <75mg/dL **G7:** 75-79 mg/dL	**Tot:** 29.2 ± 5.8 **Tot:** 27.7 ± 5.1	**Inclusion:** Pregnant women **Exclusion:** <18 years, unknown LMP, no ultrasonographic estimation of GA between 6-24 wks, no OGTT within 32 wks, multiple pregnancies, assisted conception/IVF, glucose testing before recruitment, participation in another study or previous HAPO study, HIV, hepatitis B or C virus; no English language proficiency	2 h, 75 g OGTT HAPO Criteria; defined by groups	Preeclampsia, maternal hypertension, cesarean delivery, shoulder dystocia, hypoglycemia, hyperbilirubinemia **Other:** Cord blood serum C-peptide, Cord blood PG, CHT, intensive neonatal care, premature delivery, BW >90th percentile
Morikawa, 2010 RCS(1) Japan Jan 2002- Dec 2006	228 **G1:** JSOG GDM (Tx) **G2:** JSOG - No GDM (no Tx) **G3:** IADPSG-Hyperglycemia (Tx) **G4:** IADPSG-New Patients (no Tx) **G5:** IADPSG No GDM (no Tx)	NR NR	**Inclusion:** Women with both OGCT and OGTT; singleton birth **Exclusion:** NR	1 h, 50 g OGCT 2 h, 75 g OGTT IADPSG, 2010 JSOG, 2008	Macrosomia **Other:** BW percentile

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Nord, 1995 RCS(2) Sweden 1989 -1990	614 **G1:** 2-h OGTT 8.0-8.9mmol/L (no Tx) **G2:** Controls (no Tx)	**G1:** 30 ± 18-46 **G2:** 29 ± 16-45 **G1:** 22.3 ± 17.0 -43.3 **G2:** 21.3 ± 16.0-41.8	**Inclusion:** Intervention group: Indications to perform OGTT (Hx of DM in first degree relative; obesity (≥120 % or >9 kg); previous LFD-baby (>4.5 kg); IGT in previous pregnancy; accelerated fetal growth or polyhydraminosis; glucosuria; random B-glucose ≥7. mmol/L). Control group: No indication to perform OGTT **Exclusion:** NR	2 h, 75 g OGTT WHO, 1980	Preeclampsia, cesarean delivery, macrosomia (LFD - large for date), clavicular facture, brachial plexus injury, birth injury (traumatic delivery), hypoglycemia, hyperbilirubinemia, mortality **Other:** Premature delivery, respiratory distress syndrome, polycythemia requiring Tx, traumatic delivery
Pennison, 2001 RCS (1) US 1995 - 1999	242 **G1:** Control (no Tx) **G2:** GDM NDDG (Tx) **G3:** GDM ADA (no Tx)	NR **G1:** 30.2 ± 1.1 **G2:** 31.7 ± 1.0 **G3:** 29.6 ± 1.1	**Inclusion:** Delivery at regional medical centre in Memphis; euglycemic or Dx GDM **Exclusion:** NR	1 h, 50 g OGCT 3 h, 100 g OGTT ADA, 1998 CC, 1982 NDDG/ACOG, 1994	Preeclampsia, cesarean delivery, macrosomia, shoulder dystocia, hypoglycemia

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Retnakaran, 2008 PCS (Multicenter, n = NR) Canada 2003 - Sep 2007	396 **G1:** Normal OGCT, NGT (no Tx) **G2:** Abnormal OGCT, NGT (no Tx) **G3:** GIGT (no Tx) **G4:** GDM (Tx)	**G1:** 34.0 ± 4.4 **G2:** 33.8 ± 4.2 **G3:** 34.2 ± 4.2 **G4:** 34.5 ± 4.3 **G1:** 23.0 ± 21.5-26.1 **G2:** 23.5 ± 21.1-27.5 **G3:** 23.5 ± 21.8-27.7 **G4:** 25.0 ± 22.0-30.1	**Inclusion:** Attending outpatient obstetrics clinics; late second trimester; 50 g OGCT screen **Exclusion:** NR	1 h, 50 g OGCT 3 h, 100 g OGTT *3 mo. PP:* 2 h, 75 g OGTT NDDG 1979, CDA 2003	Maternal weight gain **Other:** 3 mo postpartum: maternal insulin sensitivity, beta-cell function, glycemia
Rust, 1996 RCS(1) US NR - NR	664 **G1:** ≥ 2 of 4 values, abnormal by Sacks criteria **G2:** ≥ 2 of 4 values, abnormal by CC criteria **G3:** 1 abnormal by Sacks **G4:** 1 abnormal by CC **G5:** No abnormal by Sacks **G6:** No abnormal by CC	**G1:** 25.7 ± NR **G2:** 23.7 ± NR **G3:** 22.7 ± NR **G4:** 26.7 ± NR **G5:** 24.0 ± NR **G6:** 22.7 ± NR **G1:** 26.6 ± NR **G2:** 25.5 ± NR **G3:** 24.8 ± NR **G4:** 28.1 ± NR **G5:** 25.7 ± NR **G6:** 24.6 ± NR	**Inclusion:** Positive GDM screen result; underwent 3 h100 g OGT **Exclusion:** Delivery outside study hospital	1 h, 50 g OGCT 3 h, 100 g OGTT CC,1982 NDDG,1979 O'Sullivan and Mahan,1964 Sacks, 1975	Maternal hypertension,cesarean delivery, birth trauma (obstetric lacerations, hemorrhage) maternal weight gain, macrosomia, shoulder dystocia, birth trauma (dystocia disorders, birth trauma), hypoglycemia, hyperbilirubinemia, mortality (cumulative neonatal morbidity) **Other:** Intrauterine growth restriction, oligohydramnios, preterm labor, premature or prolonged rupture of the membranes, chorioamnionitis, malpresentation, labour induction, labour augmentation, fetal intolerance of labour, abdominal delivery, operative vaginal delivery

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Sacks,1995 PCS(NR) US Mar 1992 - Mar 1993	3,505 **Groups:** Women were not grouped; actual glucose levels were used in regression analyses to assess the association with birthweight	**Tot:** 27.2 ± 5.8 **Tot:** 24.9 ± NR	**Inclusion:** Enrolled in prenatal care **Exclusion:** GDM in previous pregnancy, glucocorticoids, diet or insulin Tx, high fasting plasma glucose values, multiple gestations	2 h, 75 g OGTT No criteria defined, purpose of study to ID threshold values	Maternal weight gain, macrosomia
Schwartz, 1999 RCS(4) US 1995 - 1996	8,711 **G1:** Normal results, prenatal screen (no Tx) **G2:** Abnormal (or no) prenatal screen and normal OGTT (no Tx) **G3:** NDDG GDM (Tx) **G4:** CC GDM (no Tx)	NR NR	**Inclusion:** No previous DM or GDM **Exclusion:** NR	1 h, 50 g OGCT 3 h, 100 g OGTT CC, 1982 NDDG, 1979	Cesarean delivery, macrosomia (BW >4000 g , >4500 g), mortality (stillbirth)
Sermer, 1995 (Primary) Naylor, 1996 RCT(3) Canada Sep 1989 - Mar 1992	3,780 **G1:** Negative screenees (no Tx), **G2:** False-positive Screenees (no Tx) **G3:** GDM- Borderline (no Tx) **G4:** GDM (Tx)	**G1:** 30.9 ± 4.1 **G2:** 31.9 ± 4.3 **G3:** 32.1 ± 4.4 **G4:** 32.7 ± 4.3 **G1:** 22.7 ± 3.8 **G2:** 23.1 ± 4.5 **G3:** 24.7 ± 5.8 **G4:** 24.2 ± 4.8	**Inclusion:** >24 yrs at delivery; no Hx of preexisting DM; examined by physician before 24 wks gestation **Exclusion:** Delivery <28 wks	1 h, 50 g OGCT 3 h,100 g OGTT NDDG, 1979 CC, 1982	Preeclampsia, cesarean delivery, macrosomia, hypoglycemia, hyperbilirubinemia (phototherapy) **Other:** Fetal trauma, congenital anomalies, respiratory distress syndrome, maternal/fetal length of stay

Author, year Study Design (number of centers) Country Dates of study	Women Analyzed, *n* Groups	Maternal Age, *mean ± SD/ median ± IQR (yr)* BMI, *mean ± SD/ Median ± IQR (kg/m^s)*	Inclusion Criteria	Diagnostic Test Criteria	Outcomes Other Outcomes (Not defined by KQ)
Shirazian, 2008 PCS(5) Iran NR - NR	612 **G1:** No GDM (no Tx) **G2:** GDM by ADA only (Tx) **G3:** GDM by WHO only (NR) **G4:** GDM by ADIPS only (NR)	NR Tot: 24.4 ± 4.6	**Inclusion:** No Hx of DM **Exclusion:** Pregestational DM, inablity to complete OGTT at 24-48 wks, twin pregnancies, no CHT, chronic renal failure, heart diseases, advanced pulmonary disease, current smokers, labor before 37th or after 40th gestational wk, planning to deliver at another hospital	2 h, 75 g OGTT ADA, 2008 WHO, 2008 ADIPS, 2008	Macrosomia
Stamilio, 2004 RCS(1) US 1995 -1997	1,825 **G1:** False-positive OGCT (no Tx) **G2:** Negative OGCT (no Tx) **G3:** GDM (Tx)	**G1:** 28.5 ± NR **G2:** 25.5 ± NR **G1:** 28.5 ± NR **G2:** 25.5 ± NR	**Inclusion:** Delivery at University of Pennsylvania Medical Center, entry into triple marker screen perinatal database, complete followup **Exclusion:** Multiple gestations, anomalous fetuses	1 h, 50 g OGCT 3 h, 100 g OGTT NDDG modified by O'Sullivan cutoff, NR	Preeclampsia, maternal hypertension (chronic hypertension), long term hypertension (chronic hypertension), macrosomia, shoulder dystocia, mortality (antenatal death) **Other:** NICU admission, chorioamionitis, endometritis, birthweight (mean), high 28-week mean arterial pressure (maternal)

* ACOG = American Congress of Obstetricians and Gynecologists; ADA = American Diabetes Association; ADIPS = Australian Diabetes in Pregnancy Society; BMI = body mass index; CC = Carpenter-Coustan; CHT = chronic hypertension; d(s) = day(s); dL = deciliter; DM = diabetes mellitus; Dx = diagnosis/diagnostic; FPG = fasting plasma glucose; OGCT = oral glucose tolerance test; GDM = gestational diabetes mellitus; GLT = glucose load test; g = grams; HAPO = Hyperglycemia and Adverse Pregnancy Outcomes Study; h = hour; IADPSG = International Association of Diabetes and Pregnancy Study Groups; IFG = impaired fasting glucose; IGT = impaired glucose tolerance; IGT-2 = double impaired glucose tolerance; IQR = inter-quartile range; JSOG = Japan Society of Obstetrics and Gynecology; kg = kilogram; m = meter; mg = milligrams; NDDG = National Diabetes Data Group; NR = not reported; OGTT = oral glucose tolerance test; PP= postpartum; PCS = prospective cohort study; RCS = retrospective cohort study; SD = standard deviation; Tx = treatment; wk(s) = week(s); WHO = World Health Organization; yr(s) = year(s)

Table D4. Characteristics of studies examining treatment outcomes of mothers and offspring, key question 4 and 5

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Adams, 1998 RCS Jan 1986 to Sep 1996 US	453 **G1:** 31.5 ±4.6 **G2:** 31.4 ±4.9 **G3:** 30.2 ±4.7 **G1:** 30.3 ±7.2 **G2:** 26.1 ±6.1 **G3:** 26.6 ±7.5 **G1**: White: 73 **G2**: White: 277 **G3**: White: 15	**Inclusion:** Meeting NDDG criteria (2 plasma glucose values) for GDM **Exclusion:** Multiple gestation; fetal congenital anomalies; delivery before 34 wks; delivery elsewhere; diet or insulin therapy initiated < 4 wks before delivery	**Screen:** 1) 50 g GCT (24–30 wks with 1-h cutoff by NDDG criteria, ≥ 140 mg/dL) 2)100 g OGTT (24–30 wks) Fasting: 105 mg/dL 1hr: 190 mg/dL 2hr: 165 mg/dL 3hr: 145 mg/dL	**G1:** Diet with weekly blood glucose monitoring, daily BG self-monitoring and insulin required (n=76) **G2:** Diet with weekly blood glucose monitoring (n=297) **G3:** No treatment (n=16)	Weight gain, shoulder dystocia, hypoglycemia, stillbirth or neonatal death, birth trauma, birth weight, bone fracture/clavicular fracture, nerve palsy/brachial plexus injury, LGA, rectal injury, neonatal complications, Horner's syndrome, hemidiaphragm paralysis, unilateral eyelid ptosis from partial cranial nerve palsy	NOS = 9 (good)
Bevier, 1999 RCT NR US	83 **G1:** 26.3 ± 6.0 **G2:** 27.4 ± 5.4 **G1:** NR **G2:** NR **G1**: White: 2 Black: 1 Hispanic: 45 **G2**: White: 2 Black: 0 Hispanic: 33	**Inclusion:** Positive GCT screen and negative OGTT **Exclusion:** Hypertension; collagen disease; chronic renal disease; cardiac or pulmonary disease; Rh sensitization; Hx of preterm labor or SGA	**Screen:** 1) 50 g GCT (24–30 wks with 1-h cutoff by NDDG criteria, ≥ 140 mg/dL) 2)100 g OGTT (24–30 wks) Fasting: 105 mg/dL 1hr: 190 mg/dL 2hr: 165 mg/dL 3hr: 145 mg/dL 3) HbA1c (28–32 wks)	**G1:** No diet, random glucose checks, and usual care (n=48) **G2:** Standard euglycemic diet, HBGM, random glucose checks HBGM recorded in a diary and reviewed weekly; 3 meals and 3 snacks: 40% carbohydrates, 20% protein, and 40% fat (n=35)	Preeclampsia, shoulder dystocia, birth weight, APGAR, abnormal fetal heart rate, SGA	RoB = Unclear (fair)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Bonomo, 1997 RCS 1989 to 1995 Italy	175 **G1:** 30.7 ±4.8 **G2:** 29.8 ±4.2 **G1:** 250 ±57 **G2:** 236 ±44 **G1**: NR **G2**: NR	**Inclusion:** Screened at diabetic centre; Dx of mild degree of glucose intolerance **Exclusion:** NR	**Screen:** 1) 50 g GCT (14–16 wks for at risk and 24–28 wks for women without risk with 1-h cutoff) by CC and NDDG criteria 2) 100 g OGTT (14–16 wks for at risk and 24–28 wks for women without risk with Fasting, 1-h, 2-h, and 3-h intervals) by CC and NDDG criteria	**G1:** No treatment from 1989 to 1993; from 1994 on patients given dietary advice; 25-30 kcal/kg per day diet; bi-weekly visits, BG monitoring (n=63) **G2:** Standard care or no treatment (n=112)	Caesarean delivery, birth weight, APGAR, LGA	NOS = 8 (good)
Bonomo, 2005 RCT 1997 to 2002 Italy	300 **G1:** 31.1 ±4.7 **G2:** 30.7 ±5.1 **G1:** 231 ±44 **G2:** 230 ±45 **G1**: White: 150 **G2**: White: 150	**Inclusion:** Caucasian; elevated GCT with normal OGTT; singleton pregnancies **Exclusion:** Normal GCT; one abnormal OGTT value; GDM under CC criteria	**Screen:** 1) 50 g GCT (24–28 wks with 1-h cutoff by Italian Society of Diabetology criteria, plasma glucose 1-h after challenge ≥ 7.8 mmol/L) 2)100 g OGTT (within 7 d of GCT) assessed by CC criteria 3) GCT/OGTT repeated at 30–34 wks for complete diagnosis of Borderline Gestational Glucose Intolerance (BGGI)	**G1:** Diet and regular glucose monitoring; dietary counseling; 24–30 kcal/kg per day formal diet; caloric intake divided into 3 meals and 2–3 snacks; distributed as 50–55% carbohydrates, 25–30% protein, and 25% fat (n=150) **G2:** No special care, diet or treatment (n=150)	Caesarean delivery, weight gain, hypoglycemia, hyperbilirubinemia, admission to NICU, birth weight, weight, length, APGAR, LGA, ponderal index, SGA	RoB = Unclear (fair)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Crowther, 2005 Gillman, 2010 (4-5 year outcomes for children) Moss, 2007 (economic analysis) RCT, multi-center Sept 1993 to June 2003 Australia	1,000 **G1:** 30.9 ±5.4 **G2:** 30.1 ±5.5 **G1:** 26.8 (23.3–31.2) **G2:** 260 (22.9–30.9) **G1**: White: 356 Asian: 92 Other: 42 **G2**: White: 396 Asian: 72 Other: 42	**Inclusion:** Singleton or twin pregnancy; 16–30 wks gestation; prenatal clinic attendance; 1+ risk factors for GDM on selective screen or positive 50 g GCT + 75 g OGTT at 24–34 wks **Exclusion:** More severe glucose impairment; Hx of GDM; active chronic systemic disease	**Screen:** 1) 50 g GCT (24–34 wks with 1h cutoff by WHO criteria, 1985) From 1998 onward any glucose level above normal classified as GDM - glucose level 1h after GCT of at least 7.8 mmol/L 2) 75 g OGTT (24–34 wks at fasting and 2-h) assessed by WHO criteria, 1985 From 1998 onward any glucose level above normal classified as GDM - venous plasma glucose level less than 78 mmol/L after overnight fast and 7.8–11.0 mmol/L at 2h	**G1:** Ongoing care; dietary advice; blood glucose monitoring; pre-prandial blood glucose target 55 mmol/L; 2h 70 mmol/L (n=490) **G2:** Replicated routine clinical care where GDM screening not available (n=510)	Induction of labor, caesarean delivery (elective & emergency), shoulder dystocia, hypoglycemia, hyperbilirubinemia, stillbirth or neonatal death, admission to NICU, birth weight, bone fracture/clavicular fracture, nerve palsy/brachial plexus injury, “Any serious prenatal complication”, APGAR, LGA + SGA, 6wk + 3 mo. Postpartum physical functioning, general health, vitality, emotional role, health state utility, anxiety, visits with healthcare professionals	RoB = Low (good)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Fassett, 2007 Cohort (with historical controls) Jan 2001 to June 2006 US	126 **G1:** 28.5 ±5.8 **G2:** 29.2 ±5.0 **G1**: 178.8 ±49.5 **G2**: 160.1 ±34.5 (mean prepregnancy weight, p=002) **G1**: White: 23 Black: 2 Hispanic: 39 Asian: 5 Other: 0 **G2**: White: 14 Black: 1 Hispanic: 35 Asian: 6 Other: 1	**Inclusion:** Prior GDM; prior macrosomia; first-degree relative with DM; prior stillbirth; prior malformation; 24–28 wks gestation **Exclusion:** NR	**Screen:** 1) 50 g GCT (24–28 wks with 1-h cutoff) 2)100 g OGTT (24–28 wks at Fasting, 1-h, 2-h, and 3-h intervals) assessed by CC criteria	**G1:** Routine medical nutrition therapy by dietitian; formal diet (20–35 kcal/kg of prepregnancy body weight);BG daily self-monitoring, insulin as needed (n=69) **G2:** Historical controls before institution of routine medical nutrition therapy (n=57)	Caesarean delivery, unplanned caesarean delivery, weight gain, shoulder dystocia, admission to NICU, birth weight, neonatal metabolic complications, APGAR	NOS = 7 (good)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Garner, 1997 Malcolm, 2006 (7-11 yr f-up) RCT Sept 1991 to May 1994 Canada	300 **G1:** 30.7 ±4.8 **G2:** 30.7 ±4.6 **G1:** 68.91 ±16.87 **G2:** 71.23 ± 19.78 (mean prepregnancy weight, kg) **G1**: NR **G2**: NR	**Inclusion:** Women with GDM diagnosed between 24–32 wks gestation in an otherwise low-risk pregnancy **Exclusion:** Multiple gestation; maternal-fetal group incompatibility; known congenital anomaly; prior evidence of placenta previa or abruptio placentae; CHT; connective tissue disease; endocrine disorders; chronic hepatic disease; long-term medical therapy affecting glucose metabolism; imminent delivery	**Screen:** 1) 75 g GCT (24–28 wks with 1-h cutoff by O'Sullivan criteria -1-h level of 144 mg/dL 2) 75 g OGTT (24–28 wks with Fasting, 1-h, 2-h, and 3-h intervals) assessed by Hatem et al criteria	**G1:** Strict glycemic control and tertiary level obstetric monitoring; dietary counseling, calorie-restricted diet, BG daily self-monitoring, insulin as needed (n=149) **G2:** Routine obstetric care (unrestricted healthy diet) (n=150)	Caesarean delivery, weight gain, hypoglycemia, hyperbilirubinemia, birth trauma, birth weight, child outcomes 7-11 yrs Normal 2 h GTT, at risk for overweight	RoB = High (poor)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Landon, 2009 RCT, multi-center Oct 2002 to Nov 2007 US	958 **G1:** 29.2 ±5.7 **G2:** 28.9 ±5.6 **G1:** 30.1 ±5.0 **G2:** 30.2 ±5.1 **G1**: White: 123 Black: 56 Hispanic: 281 Asian: 22 Other: 3 **G2**: White: 119 Black: 54 Hispanic: 265 Asian: 28 Other: 7	**Inclusion:** Women between 24 wks 0 days and 30 wks 6 days with BG concentration between 135 and 200 mg/dL **Exclusion:** Abnormal result before 24 wks of gestation; preexisting diabetes; prior GDM; Hx of stillbirth; multifetal gestation; asthma; CHT; corticosteroid use; known fetal anomaly; likely preterm delivery	**Screen:** 1) 50 g GCT (1-h cutoff) 2) 100 g OGTT (Fasting, 1-h, 2-h, and 3-h intervals) assessed by the 4th IWC criteria - 1hr 180 mg/dL - 2hr 155 mg/dL - 3hr 140 mg/dL -women included if fasting glucose <95 mg/dL and 2-3 timed measurements exceeded above thresholds	**G1:** Nutritional counseling and dietary therapy; daily BG self-monitoring; insulin as needed (n=485) **G2:** Usual perinatal care (n=473)	Induction of labor, caesarean delivery, preeclampsia, GHT, BMI at delivery, weight gain, shoulder dystocia, hypoglycemia, hyperbilirubinemia, elevated cord-blood c-peptide level, stillbirth or neonatal death, birth trauma, preterm delivery, admission to NICU, primary perinatal outcome, intravenous glucose Tx, respiratory distress syndrome, LGA, SGA, BMI at delivery	RoB = Unclear (fair)

Author, year Study Design Dates of study Country	Women Enrolled, *n* Maternal Age, *mean± SD (yr)* BMI, *mean ± SD (kg/m^s)* *Race*	Inclusion/ Exclusion Criteria	Screening Test	Interventions	Outcomes Reported	Quality
Langer 2005 Cohort Jan 1990 to Sept 1999 US	1,660 **G1:** 29.1 ±6 **G2:** 27.6 ±6 **G1:** NR **G2:** NR **G1**: White: 144 Black: 56 Hispanic: 910 **G2**: White: 61 Black: 17 Hispanic: 477	**Inclusion:** Singleton pregnancies; FPG < 140 mg/dL on OGTT; CASE CONTROL: GDM diagnosed > 37 wks; treated GDM and diabetic matched 2:1 obesity, parity, ethnicity, GA at delivery (within 5 days), and yr of delivery **Exclusion:** Pregestational DM; substance abusers; multifetal gestation; fetal anomalies	**Screen:** 1) 50 g GCT (1-h >37 wks for G2; G1 underwent universal screening) - Plasma glucose < 130 mg/dL 2)100 g OGTT (>37 wks for G2; G1 underwent universal screening; Fasting, 1-h, 2-h, and 3-h intervals) assessed by CC criteria	**G1:** Diet alone or insulin and diet; formal diet with caloric restriction: 25 (overweight/obese) to 35 (normal weight) kcal/kg for actual pregnancy weight; 3 meals and 4 snacks; daily BG self-monitoring, insulin therapy if diet not successful in achieving glycemic control after 2 weeks (n=1,110) **G2:** Standard care until delivery (n=555)	Induction of labor, caesarean delivery, shoulder dystocia, hypoglycemia, stillbirth or neonatal death, birth weight, ponderal index, arterial cord <7.0, composite outcome, overall metabolic complications, erythrocytosis, respiratory complication, LGA, SGA	NOS = 9 (good)

* ADA = American Diabetes Association; ADIPS = Australian Diabetes in Pregnancy Society; BMI = body mass index; CHT = chronic hypertension; d(s) = day(s); dL = deciliter; DM = diabetes mellitus; Dx = diagnosis/diagnostic; FPG = fasting plasma glucose; GCT = glucose tolerance test; GDM = gestational diabetes mellitus; GLT = glucose load test; g = grams; h = hour; IADPSG = International Association of Diabetes and Pregnancy Study Groups; JSOG = Japan Society of Obstetrics and Gynecology; mg = milligrams; NDDG = National Diabetes Data Group; NR = not reported; NOS = Newcastle-Ottawa Quality Assessmnet Scale; n = number; OGTT = oral glucose tolerance test; PP= postpartum; PCS = prospective cohort study; RCS = retrospective cohort study; RoB = Collaboration's tool for assessing risk of bias; SD = standard deviation; tx = treatment; wk(s) = week(s); WHO = World Health Organization; yr(s) = year(s)

Appendix E. List of Excluded Studies and Unobtained Studies

Excluded – Comparator (N=199)

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Appendix F. Key Question 3 – Additional outcomes commonly reported but not specified in review protocol

Large for Gestational Age (>90th percentile). Thirteen studies presented data on birthweights above the 90th percentile (also defined as large for gestational age). {Landon, 2011 8489 /id}, {Lapolla, 2011 14059 /id}, {Chico, 2005 4044 /id}, {Langer, 2005 4063 /id}, {Berkus, 1995 7958 /id}, {Bo, 2004 4656 /id}, {Kwik, 2007 2903 /id}, {Lapolla, 2007 2750 /id}, {Biri, 2009 1488 /id}, {Nord, 1995 8026 /id}, {Morikawa, 2010 501 /id}, {Black, 2010 499 /id}{Retnakaran, 2008 1998 /id}.

Women meeting diagnostic thresholds for CC GDM were compared with no GDM in five studies {Berkus, 1995 7958 /id}{Chico, 2005 4044 /id}{Landon, 2011 8489 /id}{Lapolla, 2011 14059 /id}{Langer, 2005 4063 /id}, a significant difference was found in favor of the no GDM group (Figure 1). Two studies compared CC GDM with one abnormal OGTT value (Figure 2) {Berkus, 1995 7958 /id}{Chico, 2005 4044 /id}, and three studies compared CC false-positive with no GDM (Figure 4){Berkus, 1995 7958 /id}{Bo, 2004 4656 /id}{Lapolla, 2007 2750 /id}; no significant difference was noted between groups in either case. Two studies compared women meeting thresholds for one abnormal OGTT by CC criteria with no GDM; these studies significantly favored the no GDM group (Figure 3).{Chico, 2005 4044 /id}{Lapolla, 2007 2750 /id} Two studies analyzed CC false-positive women in comparison with those having one abnormal OGTT, a significant difference was demonstrated in favor of the false-positive group (Figure 5).{Kwik, 2007 2903 /id}{Lapolla, 2007 2750 /id} NDDG false-positive women were compared to women with no GDM in two studies, these significantly favored the no GDM group (Figure 6).{Biri, 2009 1488 /id}{Retnakaran, 2008 1998 /id} Women with IGT by WHO criteria were compared to women with no GDM in one study, this also favored the no GDM group. Two studies compared women meeting thresholds for GDM by IADPSG criteria with no GDM, these studies showed no significant difference (Figure 7).{Lapolla, 2011 14059 /id}{Morikawa, 2010 501 /id} One study compared various other IADPSG criteria for glucose tolerance and no GDM. {Black, 2010 499 /id} Significant differences were found between IFG and no GDM, as well as between IGT IFG and no GDM; both significantly in favor of no GDM. Comparisons between IGT and IFG as well as IGT and IGT IFG significantly favored IADPSG IGT in both cases. No significant difference was observed between any other IADPSG comparison group (Table 1).

Figure 1. CC GDM vs. No GDM: large for gestational age

Study or Subgroup	CC GDM Events	CC GDM Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Berkus, 1995	17	72	80	573	18.9%	1.69 [1.06, 2.69]
Chico, 2005	39	422	92	5767	20.2%	5.79 [4.04, 8.31]
Landon, 2011	66	454	28	421	19.4%	2.19 [1.43, 3.33]
Langer, 2005	163	555	125	1110	21.9%	2.61 [2.11, 3.22]
Lapolla, 2011	20	112	272	1815	19.6%	1.19 [0.79, 1.80]
Total (95% CI)		**1615**		**9686**	**100.0%**	**2.34 [1.45, 3.79]**
Total events	305		597			

Heterogeneity: Tau² = 0.26; Chi² = 36.83, df = 4 (P < 0.00001); I² = 89%
Test for overall effect: Z = 3.46 (P = 0.0005)

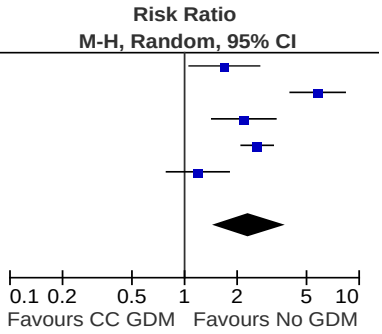


Figure 2. CC GDM vs. 1 Abnormal OGTT: large for gestational age

Study or Subgroup	CC GDM Events	CC GDM Total	1 Abnormal OGTT Events	1 Abnormal OGTT Total	Weight	Risk Ratio M-H, Random, 95% CI
Berkus, 1995	17	72	22	87	76.5%	0.93 [0.54, 1.62]
Chico, 2005	39	422	4	59	23.5%	1.36 [0.51, 3.68]
Total (95% CI)		**494**		**146**	**100.0%**	**1.02 [0.63, 1.65]**
Total events	56		26			

Heterogeneity: Tau² = 0.00; Chi² = 0.44, df = 1 (P = 0.51); I² = 0%
Test for overall effect: Z = 0.08 (P = 0.93)

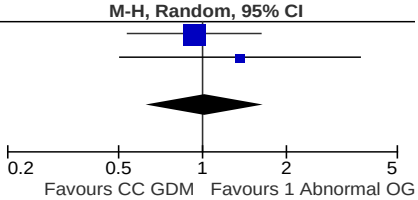


Figure 3. CC, 1 Abnormal OGTT vs. No GDM

Study or Subgroup	1 Abnormal OGTT Events	1 Abnormal OGTT Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Chico, 2005	4	59	92	5767	23.8%	4.25 [1.61, 11.18]
Lapolla, 2007	14	48	35	334	76.2%	2.78 [1.62, 4.78]
Total (95% CI)		**107**		**6101**	**100.0%**	**3.08 [1.92, 4.94]**
Total events	18		127			

Heterogeneity: Tau² = 0.00; Chi² = 0.56, df = 1 (P = 0.45); I² = 0%
Test for overall effect: Z = 4.67 (P < 0.00001)

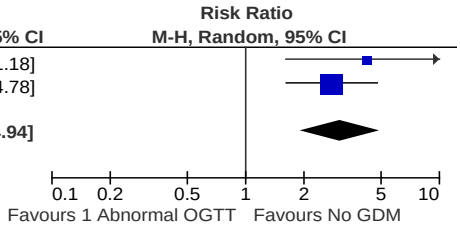


Figure 4. CC False-positive vs. No GDM: large for gestational age

Study or Subgroup	False-positive Events	False-positive Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Berkus, 1995	22	87	80	573	51.7%	1.81 [1.20, 2.74]
Bo, 2004	60	315	8	91	18.1%	2.17 [1.08, 4.36]
Lapolla, 2007	17	128	35	334	30.2%	1.27 [0.74, 2.18]
Total (95% CI)		**530**		**998**	**100.0%**	**1.68 [1.25, 2.26]**
Total events	99		123			

Heterogeneity: Tau² = 0.00; Chi² = 1.67, df = 2 (P = 0.43); I² = 0%
Test for overall effect: Z = 3.41 (P = 0.0006)

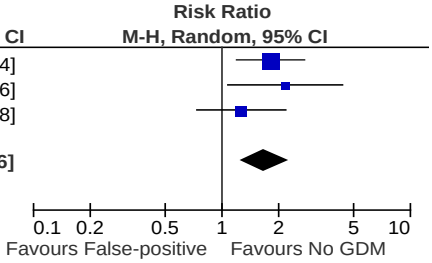


Figure 5. CC, 1 Abnormal OGTT value vs. False-positive: large for gestational age

Study or Subgroup	1 Abnormal OGTT Events	1 Abnormal OGTT Total	False-positive Events	False-positive Total	Weight	Risk Ratio M-H, Random, 95% CI
Kwik, 2007	49	213	29	197	69.2%	1.56 [1.03, 2.37]
Lapolla, 2007	14	48	17	128	30.8%	2.20 [1.18, 4.10]
Total (95% CI)		**261**		**325**	**100.0%**	**1.74 [1.23, 2.45]**
Total events	63		46			

Heterogeneity: Tau² = 0.00; Chi² = 0.79, df = 1 (P = 0.37); I² = 0%
Test for overall effect: Z = 3.12 (P = 0.002)

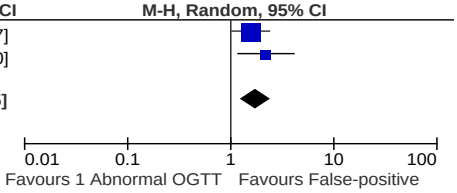


Figure 6. NDDG False-positive vs. No GDM: large for gestational age

Study or Subgroup	NDDG False-positive Events	NDDG False-positive Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Biri, 2009	39	326	115	1432	90.1%	1.49 [1.06, 2.10]
Retnakaran, 2008	18	128	4	74	9.9%	2.60 [0.92, 7.40]
Total (95% CI)		**454**		**1506**	**100.0%**	**1.57 [1.13, 2.19]**
Total events	57		119			

Heterogeneity: Tau² = 0.00; Chi² = 1.01, df = 1 (P = 0.32); I² = 1%
Test for overall effect: Z = 2.70 (P = 0.007)

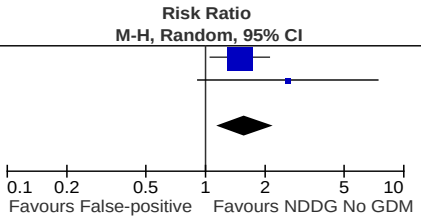
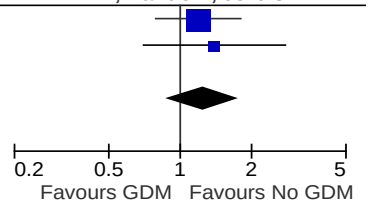


Figure 7. IADPSG GDM vs. No GDM: large for gestational age

Study or Subgroup	IADPSG GDM Events	IADPSG GDM Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Lapolla, 2011	20	112	272	1815	73.6%	1.19 [0.79, 1.80]
Morikawa, 2010	9	43	24	160	26.4%	1.40 [0.70, 2.78]
Total (95% CI)		**155**		**1975**	**100.0%**	**1.24 [0.87, 1.77]**
Total events	29		296			

Heterogeneity: Tau² = 0.00; Chi² = 0.15, df = 1 (P = 0.70); I² = 0%
Test for overall effect: Z = 1.20 (P = 0.23)



Large for Gestational Age (>97th percentile). One study presented data on infants born large for gestational age, above the 97th percentile for weight[{Cheng, 2009 1430 /id}.] Women meeting thresholds for GDM by CC criteria were compared with those who had no GDM; a significant difference was found in favor of the no GDM group (Table 1).

Small for Gestational Age. Six studies presented data on infants born under the 10th percentile for weight, or small for gestational age. [{Lapolla, 2011 14059 /id}, {Chico, 2005 4044 /id}, {Lapolla, 2007 2750 /id}, {Bo, 2004 4656 /id}, {Biri, 2009 1488 /id}, {Nord, 1995 8026 /id}] No studies demonstrated any significant difference between comparison groups. Under CC criteria, two studies compared women meeting criteria for GDM with women having no GDM (Figure 8), one study compared CC GDM with one abnormal OGTT value, two studies analyzed one abnormal OGTT in comparison to no GDM (Figure 9), another two compared false-positive women with no GDM (Figure 10), and one study compared one abnormal OGTT value with false-positive women. One study employed NDDG criteria for false-positive women in comparison to no GDM, another IGT by WHO criteria with no GDM, and another IADPSG GDM vs. no GDM (Table 1).

Figure 8. CC GDM vs. No GDM: small for gestational age

Study or Subgroup	CC GDM Events	CC GDM Total	No GDM Events	No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Chico, 2005	30	422	484	5767	91.2%	0.85 [0.59, 1.21]
Lapolla, 2011	3	112	58	1815	8.8%	0.84 [0.27, 2.63]
Total (95% CI)		**534**		**7582**	**100.0%**	**0.85 [0.60, 1.19]**
Total events	33		542			

Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.99); I² = 0%
Test for overall effect: Z = 0.96 (P = 0.33)

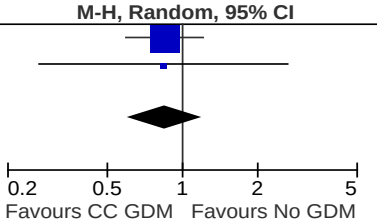


Figure 9. CC, 1 Abnormal OGTT value vs. No GDM: small for gestational age

Study or Subgroup	1 Abnormal OGTT Events	1 Abnormal OGTT Total	CC No GDM Events	CC No GDM Total	Weight	Risk Ratio M-H, Random, 95% CI
Chico, 2005	2	59	484	5767	41.4%	0.40 [0.10, 1.58]
Lapolla, 2007	3	48	30	334	58.6%	0.70 [0.22, 2.19]
Total (95% CI)		**107**		**6101**	**100.0%**	**0.56 [0.23, 1.34]**
Total events	5		514			

Heterogeneity: Tau² = 0.00; Chi² = 0.37, df = 1 (P = 0.54); I² = 0%
Test for overall effect: Z = 1.31 (P = 0.19)

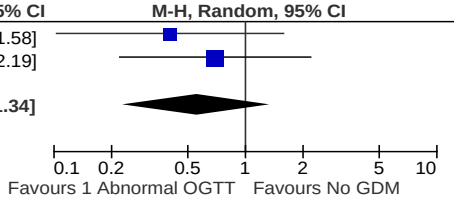
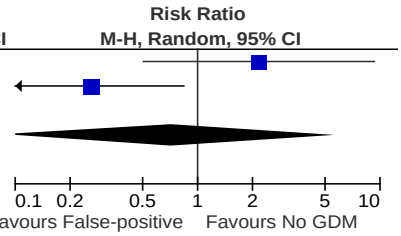


Figure 10. CC False-positive vs. No GDM: small for gestational age

Study or Subgroup	CC False-positive Events	Total	No GDM Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
Bo, 2004	15	315	2	91	47.8%	2.17 [0.50, 9.30]
Lapolla, 2007	3	128	30	334	52.2%	0.26 [0.08, 0.84]
Total (95% CI)		**443**		**425**	**100.0%**	**0.72 [0.09, 5.73]**
Total events	18		32			

Heterogeneity: Tau² = 1.79; Chi² = 4.95, df = 1 (P = 0.03); I² = 80%
Test for overall effect: Z = 0.31 (P = 0.75)



Birthweight. Fifteen studies presented data on birthweight. {Chou, 2010 12131 /id}, {Lapolla, 2011 14059 /id}, {Chico, 2005 4044 /id}, {Langer, 2005 4063 /id}, {Corrado, 2009 1356 /id}, {Bo, 2004 4656 /id}, {Naylor, 1996 7850 /id}, {Adams, 1998 7009 /id}, {Biri, 2009 1488 /id}, {Adams, 1998 7009 /id}, {Stamilio, 2004 4726 /id}, {Ardawi, 2000 6088 /id}, {Jensen, 2003 5196 /id}, {Nord, 1995 8026 /id}, {Black, 2010 499 /id}. Significant differences in favor of no GDM were found in comparisons between CC false-positive, unrecognized NDDG GDM, IGT by WHO (Figure 14), IADPSG IFG, and IGT IFG. In comparison between IADPSG IGT and IGT IFG, a significant difference was found in favor of the IGT group. IADPSG IFG was compared to IGT-2, significantly favoring the IGT-2 group. No other significant differences were found between comparison groups (Table 1).

Figure 11. CC GDM vs. No GDM: birthweight

Study or Subgroup	GDM Mean	SD	Total	No GDM Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Chico, 2005	3,204	513	422	3,239	518	5767	25.7%	-35.00 [-85.74, 15.74]
Ching-Yu, 2010	3,230.8	452	489	3,136.9	1,185	10116	25.8%	93.90 [47.66, 140.14]
Langer, 2005	3,600	540	555	3,312	601	1110	25.5%	288.00 [230.83, 345.17]
Lapolla, 2011	3,326	590	112	3,348	478	1815	23.0%	-22.00 [-133.46, 89.46]
Total (95% CI)			**1578**			**18808**	**100.0%**	**83.59 [-63.15, 230.34]**

Heterogeneity: Tau² = 21145.08; Chi² = 73.23, df = 3 (P < 0.00001); I² = 96%
Test for overall effect: Z = 1.12 (P = 0.26)

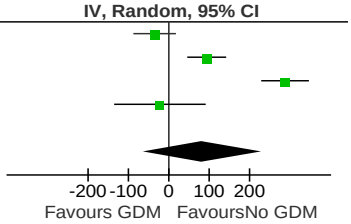


Figure 12. CC, 1 Abnormal OGTT value vs. No GDM: birthweight

Study or Subgroup	1 Abnormal OGTT Mean	SD	Total	No GDM Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Chico, 2005	3,247	548	59	3,239	518	5767	35.4%	8.00 [-132.47, 148.47]
Corrado, 2009	3,346.7	565.5	152	3,244.5	525	624	64.6%	102.20 [3.31, 201.09]
Total (95% CI)			**211**			**6391**	**100.0%**	**68.85 [-19.44, 157.14]**

Heterogeneity: Tau² = 595.81; Chi² = 1.16, df = 1 (P = 0.28); I² = 13%
Test for overall effect: Z = 1.53 (P = 0.13)

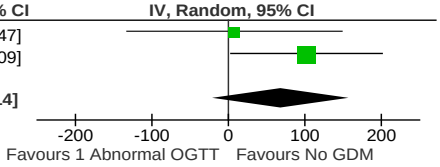


Figure 13. NDDG False-positive vs. No GDM: birthweight

Study or Subgroup	NDDG False-positive Mean	SD	Total	No GDM Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Ardawi, 2000	3,390	201	187	3,096	215	529	26.7%	294.00 [259.86, 328.14]
Biri, 2009	3,346	326	326	3,307.9	449.3	1432	26.5%	38.10 [-4.25, 80.45]
Retnakaran, 2008	3,472	572.4	128	3,424	480.7	74	22.0%	48.00 [-99.74, 195.74]
Stamilio, 2004	3,304	577.7	164	3,194	577.7	1661	24.8%	110.00 [17.32, 202.68]
Total (95% CI)			**805**			**3696**	**100.0%**	**126.34 [-35.85, 288.54]**

Heterogeneity: Tau² = 25381.52; Chi² = 91.16, df = 3 (P < 0.00001); I² = 97%
Test for overall effect: Z = 1.53 (P = 0.13)

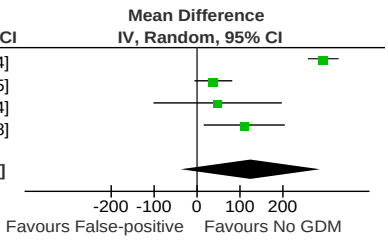
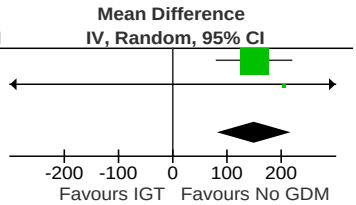


Figure 14. WHO IGT vs. No GDM: birthweight

Study or Subgroup	IGT Mean	IGT SD	IGT Total	No GDM Mean	No GDM SD	No GDM Total	Weight	Mean Difference IV, Random, 95% CI
Jensen, 2003	3,750	570	289	3,600	556	2596	98.3%	150.00 [80.89, 219.11]
Nord, 1995	3,616	3,193	223	3,410	3,081	391	1.7%	206.00 [-312.54, 724.54]
Total (95% CI)			**512**			**2987**	**100.0%**	**150.98 [82.47, 219.48]**

Heterogeneity: Tau² = 0.00; Chi² = 0.04, df = 1 (P = 0.83); I² = 0%
Test for overall effect: Z = 4.32 (P < 0.0001)



NICU Admission. Four studies presented data on NICU or neonatal nursery admission.[{Cheng, 2009 1430 /id}, {Berggren, 2011 8201 /id}, {Kwik, 2007 2903 /id},{Stamilio, 2004 4726 /id}.] No significant difference was found between any comparison group (Table 1).

Table E1. Evidence summary table: fetal/neonatal outcomes

Outcome and comparison	Studies	Partici-pants	Effect Estimate*	I^2	Favors
LGA >97th Percentile					
CC GDM vs. No GDM	1	14,213	3.95 [2.32, 6.71]	NA	No GDM
LGA >90th Percentile					
CC GDM vs. No GDM	5	11,301	2.34 [1.45, 3.79]	89%	No GDM
CC GDM vs. 1 Abnormal OGTT	2	640	1.02 [0.63, 1.65]	0%	
CC 1 Abnormal OGTT vs. No GDM	2	6,208	3.08 [1.92, 4.94]	0%	No GDM
CC False-positive vs. No GDM	3	1,528	1.68 [1.25, 2.26]	44%	
CC 1 Abnormal OGTT vs. False-positive	2	586	1.74 [1.23, 2.45]	0%	False-positive
NDDG False-positive vs. No GDM	2	1,960	1.57 [1.13, 2.19]	1%	No GDM
WHO IGT vs. No GDM	1	614	2.48 [1.36, 4.51]	NA	No GDM
IADPSG GDM vs. No GDM	2	2,130	1.24 [0.87, 1.77]	0%	
IADPSG IGT vs. No GDM	1	7,411	1.33 [0.97, 1.81]	NA	
IADPSG IFG vs. No GDM	1	7,906	2.22 [1.88, 2.63]	NA	No GDM
IADPSG IGT-2 vs. No GDM	1	7,103	1.44 [0.77, 2.69]	NA	
IADPSG IGT IFG vs. No GDM	1	7,351	2.73 [2.18, 3.43]	NA	No GDM
IADPSG IGT vs. IFG	1	1,277	0.60 [0.43, 0.83]	NA	IADPSG IGT
IADPSG IGT vs. IGT-2	1	474	0.92 [0.46, 1.82]	NA	
IADPSG IGT vs. IGT IFG	1	722	0.49 [0.34, 0.70]	NA	IADPSG IGT
IADPSG IFG vs. IGT-2	1	969	1.54 [0.82, 2.90]	NA	
IADPSG IFG vs. IGT IFG	1	1,217	0.81 [0.63, 1.05]	NA	
IADPSG IGT-2 vs. IGT IFG	1	414	0.53 [0.27, 1.01]	NA	
SGA <10th Percentile					
CC GDM vs. No GDM	2	8,116	0.85 [0.60, 1.19]	0%	
CC GDM vs. 1 Abnormal OGTT	1	481	2.10 [0.51, 8.55]	NA	
CC 1 Abnormal OGTT vs. No GDM	2	6,208	0.56 [0.23, 1.34]	0%	
CC False-positive vs. No GDM	2	868	0.72 [0.09, 5.73]	80%	
CC 1 Abnormal OGTT vs. False-positive	1	176	2.67 [0.56, 12.76]	NA	
NDDG False-positive vs. No GDM	1	1,758	0.82 [0.39, 1.72]	NA	

WHO IGT vs. No GDM	1	614	0.41 [0.14, 1.21]	NA	
IADPSG GDM vs. No GDM	1	1,927	0.84 [0.27, 2.63]	NA	
Birthweight (g)					
CC GDM vs. No GDM	4	20,386	83.59 [-63.15, 230.34]	96%	
CC GDM vs. 1 Abnormal OGTT	1	6,189	-35.00 [-85.74, 15.74]	NA	
CC 1 Abnormal OGTT vs. No GDM	2	6,602	68.85 [-19.44, 157.14]	13%	
CC False-positive vs. No GDM	1	406	0.17 [0.05, 0.29]	NA	No GDM
CC 1 Abnormal OGTT vs. False-positive	1	410	-104.00 [-200.25, -7.75]	NA	
NDDG GDM (Unrecognized) vs. No GDM	1	80	406.00 [39.13, 772.87]	NA	No GDM
NDDG False-positive vs. No GDM	4	4,501	126.34 [-35.85, 288.54]	97%	
WHO IGT vs. No GDM	2	3,499	150.98 [82.47, 219.48]	0%	No GDM
IADPSG IGT vs. No GDM	1	7,411	-16.00 [-81.74, 49.74]	NA	
IADPSG IFG vs. No GDM	1	7,906	153.00 [114.01, 191.99]	NA	No GDM
IADPSG IGT-2 vs. No GDM	1	7,103	-31.00 [-153.79, 91.79]	NA	
IADPSG IGT IFG vs. No GDM	1	7,351	180.00 [114.99, 245.01]	NA	No GDM
IADPSG IGT vs. IFG	1	1,277	-169.00 [-243.50, -94.50]	NA	
IADPSG IGT vs. IGT-2	1	474	15.00 [-123.23, 153.23]	NA	
IADPSG IGT vs. IGT IFG	1	722	-196.00 [-286.87, -105.13]	NA	IADPSG IGT
IADPSG IFG vs. IGT-2	1	969	184.00 [56.30, 311.70]	NA	IGT-2
IADPSG IFG vs. IGT IFG	1	1,217	-27.00 [-100.86, 46.86]	NA	
IADPSG IGT-2 vs. IGT IFG	1	414	-211.00 [-348.89, -73.11]	NA	
NICU Admission					
CC GDM vs. No GDM	1	14,213	0.98 [0.60, 1.58]	NA	
CC GDM vs. False-positive	1	3,577	1.16 [1.00, 1.35]	NA	
CC 1 Abnormal OGTT vs. False-positive	1	410	1.62 [0.69, 3.77]	NA	
NDDG False-positive vs. No GDM	1	1,825	0.87 [0.52, 1.47]	NA	

* Effect estimates are risk ratios and 95% confidence intervals except where indicated.

ACOG = American Congress of Obstetricians and Gynecologists; ADA = American Diabetes Association; ADIPS = Australian Diabetes in Pregnancy Society; CC = Carpenter-Coustan; GDM = gestational diabetes mellitus; HAPO = Hyperglycemia and Adverse Pregnancy Outcomes Study; IFG = impaired fasting glucose; IGT = impaired glucose tolerance; IGT-2 = double impaired glucose tolerance; IADPSG = International Association of Diabetes and Pregnancy Study Groups; JSOG = Japan Society of Obstetrics and Gynecology; NDDG = National Diabetes Data Group; NA = not applicable; OGTT = oral glucose tolerance test; WHO = World Health Organization