Web appendix: Search strategy and excluded studies

Appendix 1. Search terms

Cochrane Central Register of Controlled Trials (CENTRAL) (Issue 1, 2011) in The Cochrane Library
#1 MeSH descriptor Diabetes Mellitus, Type 2 explode all trees 6549
#2 MODY OR NIDDM OR T2DM 1348
#3 non insulin* depend* OR noninsulin* depend* OR non insulin?depend* OR noninsulin?depend* 3259
#4 (typ* 2 OR typ* II) near/3 diabet* 8930
#5 (keto?resist* OR non?keto*) near diabet* 0
#6 (late OR adult* OR matur* OR slow OR (stabl*) near/3 onset) AND diabet* 12046
#7 (#1 OR #2 OR #3 OR #4 OR #5 OR #6) 17474
#8 MeSH descriptor Diabetes Insipidus explode all trees 41
#9 diabet* insipidus 117
#10 (#8 OR #9) 117
#11 (#7 AND NOT #10) 17375
#12 MeSH descriptor Biguanides explode all trees 2419
#13 metformin* OR glucophag* OR biguanid* 1865
#14 (#12 OR #13) 3088
#15 MeSH descriptor Insulin explode all trees 7405
#16 insulin* 16568
#17 (#15 OR #16) 16568
#18 (#11 AND #14 AND #17) 851

MEDLINE (Ovid SP) (1950 to March 2011)
1. exp Diabetes Mellitus, Type 2/
2. (MODY or NIDDM or T2DM).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
3. (non insulin* depend* or noninsulin* depend* or non insulin?depend* or noninsulin?depend*).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
4. (((typ* 2 or typ* II) adj3 diabet*).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
5. ((keto?resist* or non?keto*) adj6 diabet*).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
6. (((late or adult* or matur* or slow or stabl*) adj3 onset) and diabet*).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
7. 1 or 2 or 3 or 4 or 5 or 6
8. exp Diabetes Insipidus/
9. diabet* insipidus.mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
10. 8 or 9
11. 7 not 10
12. exp Biguanides/
13. (metformin* or glucophag* or biguanid*).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
14. 12 or 13
15. exp Insulin/
16. insulin*.mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
17. 15 or 16
18. 11 and 14 and 17
19. (random* or blind* or placebo* or meta-analysis).mp. [mp=protocol supplementary concept, rare disease supplementary concept, title, original title, abstract, name of substance word, subject heading word, unique identifier]
20. 18 and 19
EMBASE (Ovid SP) (1980 to March 2011)
1. exp diabetes mellitus/
2. (MODY or NIDDM or T2DM).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
3. (non insulin* depend* or noninsulin* depend* or non insulin?depend* or noninsulin?depend*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
4. ((typ* 2 or typ* II) adj3 diabet*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
5. ((keto?resist* or non?keto*) adj6 diabet*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
6. (((late or adult* or matur* or slow or stabl*) adj3 onset) and diabet*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
7. 1 or 2 or 3 or 4 or 5 or 6
8. exp diabetes insipidus/
9. diabet* insipidus.mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
10. 8 or 9
11. 7 not 10
12. exp biguanide/
13. (metformin* or glucophag* or biguanid*).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
14. 12 or 13
15. exp INSULIN/
16. insulin*.mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
17. 15 or 16
18. 11 and 14 and 17
19. (random* or blind* or placebo* or meta-analysis).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer]
20. 18 and 19

Science Citation Index Expanded (1900 to March 2011)
# 13 1,215 #12 AND #11
# 12 >100,000 TS=(random* or blind* or placebo* or meta-analysis)
# 11 2,880 #10 AND #8
# 10 >100,000 TS=(insulin*)
# 9 10,099 TS=(metformin* or glucophag* or biguanid*)
# 8 97,316 #6 NOT #7
# 7 6,161 TS=diabet* insipidus
# 6 97,504 #5 OR #4 OR #3 OR #2 OR #1
# 5 2,932 TS=((late or adult* or matur* or slow or stabl*) SAME onset) AND diabet*)
# 4 0 TS=((keto?resist* or non?keto*) SAME diabet*)
# 3 79,124 TS=((typ* 2 or typ* II) SAME diabet*)
# 2 15,360 TS=(non insulin* depend* or noninsulin* depend* or non insulin?depend* or noninsulin?depend*)
# 1 14,877 TS=(MODY or NIDDM or T2DM)

Latin American Caribbean Health Sciences Literature (1982 to March 2011)
metformin [Words] and insulin [Words]

Cumulative Index to Nursing & Allied Health Literature (March 2011)
S1 MW Diabetes Mellitus
S2 TX MODY OR NIDDM OR T2DM
S3 TX non insulin* depend* OR noninsulin* depend* OR non insulin?depend* OR noninsulin?depend*
S4 TX (typ* 2 OR typ* II) AND diabet*
S5 TX (keto?resist* OR non?keto*) AND diabet
S6 TX (late OR adult* OR matur* OR slow OR stabl*) AND onset AND diabet*
S7 S1 or S2 or S3 or S4 or S5 or S6
S8 MW Diabetes insipidus
S9 TX diabet* insipidus  
S10 S8 or S9  
S11 S7 NOT S10  
S12 MW metformin  
S13 TX metformin* OR glucophag* OR biguanid*  
S14 S12 or S13  
S15 MW insulin  
S16 TX insulin*  
S17 S15 or S16  
S18 S11 and S14 and S17  
S19 TX random* or blind* or placebo* or meta-analysis  
S20 S18 and S19
## Appendix II. Excluded studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Reason for exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnett et al, 2006</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Chan et al, 2009</td>
<td>Not a randomised clinical trial</td>
</tr>
<tr>
<td>Chow et al, 1995</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Ebel, 2005</td>
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<tr>
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<td>Fonseca, 2009</td>
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<tr>
<td>Fritsche et al, 2010</td>
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<tr>
<td>Garber et al, 1997</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Gardner et al, 1995</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Gin et al, 2003</td>
<td>Duration of the intervention less than 12 weeks</td>
</tr>
<tr>
<td>Gregorio et al, 1989</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Goudswaard et al, 2004</td>
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</tr>
<tr>
<td>Guthrie, 1999</td>
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<tr>
<td>Home et al, 2007</td>
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<tr>
<td>Jaber et al, 2002</td>
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<td>James et al, 2005</td>
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<tr>
<td>Janka et al, 2005</td>
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<tr>
<td>Janka et al, 2007</td>
<td>Not comparing interventions of interest</td>
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<tr>
<td>Kantola et al, 2000</td>
<td>Not including patients with type 2 diabetes</td>
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<tr>
<td>Kilo et al, 2007</td>
<td>Not comparing interventions of interest</td>
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<tr>
<td>Kooy, 2009</td>
<td>Editorial. Not a randomised clinical trial</td>
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<tr>
<td>Liao et al, 2010</td>
<td>Duration of the intervention less than 12 weeks</td>
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<tr>
<td>Ligthelm et al, 2011</td>
<td>Not comparing interventions of interest</td>
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<tr>
<td>Mäkimattila et al, 1999</td>
<td>Patients continue sulphonylurea from baseline</td>
</tr>
<tr>
<td>Perriello et al, 1997</td>
<td>Not comparing interventions of interest</td>
</tr>
<tr>
<td>Pradhan et al, 2009</td>
<td>Patients continue oral antidiabetic interventions from baseline</td>
</tr>
<tr>
<td>Riddle et al, 2011</td>
<td>Not comparing interventions of interest</td>
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<td>Schiel et al, 2007</td>
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<td>Tong et al, 2002</td>
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<tr>
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<tr>
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<td>Patients continue oral antidiabetic interventions from baseline</td>
</tr>
<tr>
<td>Yki-Järvinen et al, 2006</td>
<td>Not comparing interventions of interest</td>
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References


(6) Fonseca V. Adding metformin to insulin did not improve a composite of microvascular and macrovascular disease in type 2 diabetes. Evidence-Based Medicine 2009; 14(5):139.


(16) Jaber LA, Nowak SN, Slaughter RR. Insulin-Metformin Combination Therapy in Obese Patients With Type 2 Diabetes. Journal of Clinical Pharmacology 2002; 42(1):89-94.


