**Table B6. Oral Hypoglycemic Agents: Data Abstraction, Study Characteristics**

|  | **Publication, methods section** |  |  |  | |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Study design** | **Intervention** | **Comparison** | **Total N** | **Primary outcome stated in the study (relevant to index outcome)** | | **Relevant secondary outcomes (relevant to index outcome)** | **Followup intervals (weeks)  F/U 1  F/U 2  F/U 3** | **Analysis set (definition from study)  Definition of analysis set** | **How handled missing values** |
| Aschner 2010 | Non-inferiority, parallel group | Sitagliptin | Metformin | 1050 | HbA1c change from baseline at week 24 | | Proportions of patients with HbA1c <7 or<6.5% | 24  NA  NA | PP; Secondary analyses was FAS (all randomized patients with 1+ study drug dose and B/ and 1+ F/U measures)   Patients who completed the study and did not have any reasons for exclusion from this population, including absence of baseline or on-treatment data at the week 24 visit or major protocol violations (e.g. drug compliance <75%, addition of non-study antihypergly-cemic agent or incorrect double-blind study medication). Also could be excluded for lack of efficacy. | LOCF |
| Bakris 2006 | Parallel group, double-blind, superiority | Rosiglitazone plus metformin | Glyburide plus metformin | 389 | None | | Additional pharmacodynamic end points included change from baseline at week 32 in HbA1c | 32  NA  NA | ITT  All randomized patients who had at least one postbaseline data point for any efficacy parameter; for the secondary population (completers) ITT population with no use of LOCF | LOCF |
| Bunck 2009 | Parallel group, open label | Exenatide plus metformin | Insulin glargine plus metformin | 69 | None | | Glycemic control | 52  64 (for A1c and body weight)  NA | NR in methods section; ITT listed in flow diagram  NR | NR |
| Defronzo 2009 | Parallel group trial | Saxagliptin plus metformin | Metformin plus placebo | 743 | Change from baseline in A1C to week 24 | | Percentage of patients at the glycemic target (defined as A1C <7.0%) | 24  42-month long term extension  NA | Efficacy analyses were performed on the randomly assigned patient population   Consisting of randomly assigned patients who received at least one dose of study medication and had a baseline and at least one postbaseline measurement | LOCF |
| Defronzo 2010 | Parallel group, open label | Exenatide injection   Rosiglitazone | Combination of exenatide plus rosiglitazone | 137 | None | | Efficacy measurements included A1C, glucose, insulin, C-peptide, lipids, and body weight | 20  NA  NA | ITT  Included participants with a baseline and at least one post baseline value | NR |
| Garber 2009 | Parallel group trial; superiority; non-inferiority analysis mentioned but not presented | Subcutaneous liraglutide | Oral glimepiride | 746 | Change in value of HbA1c from baseline to 52 weeks | | Proportion of patients achieving A1c <7.0% and >6.5% | 52  NA  NA | ITT  Participants exposed to at least one dose | LOCF |
| Goldberg 2005 | Parallel group trial | Pioglitazone | Rosiglitazone | 802 | None | | A1C: mentioned in analysis section but not in prior parts of methods section | 24  NA  NA | Infer ITT (see definition)  Efficacy analyses were conducted on subjects providing a baseline measurement and at least one postbaseline measurement | LOCF |
| Goldstein 2007;   Williams-Herman 2009 | Parallel group trial | Sitagliptin/metformin | Placebo | 1091 | Change from baseline at week 24 was assessed for A1C | | Proportion <7.0 and <6.5% in each RX group  Williams-Herman: change from baseline at week 54 for A1c (and others); also mention proportion with A1c <7.0 at week 54 and at both weeks 24 and 54 | 24  Williams-Herman: 54   NA | Efficacy analyses were based on the APT population  Williams: continuation APT (baseline measure, no rescue therapy, 1+ dose study medication, 1+ efficacy measure weeks 24 to 54)  All randomized patients who received at least one dose of study treatment and who had both a baseline and at least one postbaseline measurement | LOCF  Williams: rescue therapy patients were treated as missing with LOCF |
| Gupta 2009 | Parallel group trial | Pioglitazone plus placebo | Pioglitazone plus ADA diet  Metformin plus ADA diet | 51 | None | | Change in A1c | 16  NA  NA | NR  NR explicitly, but reports are on completers only | NR |
| Hamann 2008 | Parallel group, non-inferiority | Rosiglitazone plus metformin | Sulphonylurea (glibenclamide or gliclazide)  Sulphonylurea plus metformin | 596 | Change in HbA 1c from baseline after 52 weeks of treatment | | NA | 52  NA  NA | ITT  ITT without LOCF for A1c, biomarkers, and health outcomes; ITT with LOCF for all other outcomes  All randomized subjects who received at least one dose of study medication, had a baseline assessment and at least one corresponding on-therapy assessment for HbA1c | LOCF |
| Jadzinsky 2009 | Parallel group trial | Saxagliptin plus metformin  Saxagliptin plus placebo | Metformin plus placebo (metformin) | 1306 | HbA1c change from baseline to week 24 | | Proportion of patients achieving HbA1c <7.0% and <6.5% | 24  NA  NA | All randomized patients who took 1+ dose of study medication | LOCF |
| Kaku 2009 | Parallel group | Metformin plus pioglitazone | Metformin plus placebo | 169 | Change in end-of-treatment HbA1c in the FAS population | | Secondary endpoints included time course for HbA1c and FBG, and the percentage of patients achieving an HbA1c <6.5% | 28  NA  NA | FAS   A FAS assessment of efficacy was performed in patients receiving >=1 dose of pioglitazone | NR |
| Nauck 2007;   Seck 2010 | Parallel group, non-inferiority  Seck: In methods section is stated to be a non-inferiority study at 1 year, with 2 year results having "no predefined efficacy hypotheses"; results presented as superiority | Sitagliptin plus metformin | Glipizide plus metformin | 1172 | HbA1c change from baseline at week 52 | | Nauck: Percent < 7.0 and <6.5%  Seck: A1c <7.0 at 2y, and <7.0% at both 1 and 2 year | Nauck: 52   Seck: 104   NA | Per-protocol approach  Secondary analysis based on all patients treated, with missing values imputed with LOCF  Seck: 2 years are PP for efficacy outcome (not non-inferiority)  Patients who completed all 52 weeks of treatment and did not have any reasons for exclusion from this population, including no baseline data, no treatment data at Week 52 or major protocol violations | LOCF for APT analyses |
| Nauck 2009 | Parallel group trial; both a superiority and NI trial (liraglutide and metformin is significantly better or at least as good as metformin) | Subcutaneous liraglutide   Glimepiride | Placebo | 1091 | Change in A1C at the end of the study (26 weeks) | | None explicitly listed, but in statistical section, percentage with A1c < 0.7% and <=0.6.5% | 26   NA  NA | ITT  Subjects who were exposed to at least one dose of trial product and had one postbaseline measurement of the parameter | LOCF |
| Perez 2009 | Parallel group | Pioglitazone/ metformin combination therapy | Pioglitazone mono therapy, metformin mono therapy | 600 | Change in HbA1c from baseline to final visit or early termination | | Percent with A1c <=7%; changes from baseline to week 24 (or early termination) | 24  NA  NA | FAS   >=1 dose drug, baseline, and at least one treatment value | LOCF from last post-baseline measurement |
| Pratley 2010 | Parallel group, open label, non-inferiority followed by superiority | Subcutaneous liraglutide | Oral sitagliptin | 665 | Change in HbA1c from baseline to week 26 | | Proportions of participants reaching HbA1c targets of less than 7·0% or of 6·5% or lower; and a composite endpoint of proportions of participants with HbA1c of less than 7·0%, with no hypoglycemia | 26  NA  NA | NI: Full analysis set and per protocol sets: superiority: FAS: secondary analyses on the FAS  FAS: randomized participants who were exposed to at least one dose of trial drug and with at least one HbA1c measurement taken after baseline | LOCF |
| Raskin 2009 | Parallel group trial; 2 non-inferiority comparisons | Repaglinide/ metformin | Rosiglitazone/ metformin | 561 | HbA1c change from baseline | | Percentage of subjects A1c <7.0, 7.5, 6.5% | 26  NA  NA | ITT  Those randomized subjects who received at least one dose of trial medication and had at least one postbaseline assessment | LOCF |
| Raz 2008 | Parallel group | Sitagliptin plus metformin | Metformin plus placebo | 190 | Reduction in A1c at 18 weeks | | 30 week A1c; percent of patients reaching goal A1c <7.0% | 18  30  NA | FAS  FAS= all randomized with >=1 dose and baseline plus 1 F/U measure at week 6 | LOCF from start of rescue RX; LOCF for missing data |
| Rigby 2009 | Parallel group, open label, superiority | Colesevelam | Rosiglitazone, sitagliptin | 169 | Change in A1C from baseline to week 16 | | Change in A1C from baseline to Week 8. Percentage of subjects who achieved an A1c reduction of ≥0.7% and <7.0% at 16 weeks. %Percentage of subjects who achieved A1c target of <7.0% at 16 weeks | 16  8  NA | FAS   All randomized subjects who had taken ≥1 dose of study medication and had a baseline and ≥1 post-baseline A1C measurement | LOCF |
| Robbins 2007 | Parallel group, open label | Insulin lispro plus metformin | Insulin glargine HS plus metformin | 317 | HbA1c at endpoint | | NA | 12  24  NA | ITT  Analyses were performed on data from randomized patients who received ≥1 dose of study drug | LOCF |
| Rosenstock 2006 | Double-blind, parallel group; superiority | Rosiglitazone plus metformin | Rosiglitazone or metformin | 468 | A1c from baseline to week 32 | | The proportions of patients achieving recommended A1c targets (<7.0 and <6.5%) | 32  NA  NA | ITT  All randomized patients who received at least one dose of study medication and who had at least one valid on-therapy observation for an efficacy variable | LOCF |
| Scott 2008 | Parallel group, superiority (of sitagliptin versus placebo) | Metformin plus sitagliptin or metformin plus rosiglitazone | Metformin plus placebo | 273 | Change in HbA1c from baseline | | Proportion of patients achieving HbA1c < 7% | 18  NA  NA | Efficacy analyses were based on the APT population  All randomized patients who received at least one dose of study drug and who had both a baseline and at least one postbaseline measurement | LOCF |
| Seino 2010 | Parallel group, double dummy, non-inferiority; superiority | Liraglutide plus placebo | Glibenclamide plus placebo | 411 | A1c at 24 weeks | | Percent with A1c <7.0 ("post hoc") or <6.5% | 24  Open-label extension to week 52 described but results NR herein  NA | FAS   FAS= >=1 dose drug | LOCF |
| van der Meer 2009 | Parallel group, double dummy, superiority | Pioglitazone | Metformin | 78 | None | | A1c | 24  NA  NA | NR  NR | NR |