

# Clinical trials of insulin

TrialResults-center [www.trialresultscenter.org](http://www.trialresultscenter.org)

## 1 diabetes type 2

| Trial  | Treatments   | Patients   | Trials design and methods                       |
|--|--|--|---|
| <b>premixed insulin lispro vs basal-bolus</b>                                  |  |  |   |
| <b>Masuda , 2008</b><br>n=NA<br>follow-up:                                     | twice-daily 50/50 premixed insulin lispro<br>versus<br>NPH insulin at bedtime and preprandial<br>insulin lispro              | insulin-naive type 2 diabetic patients   |   |
| <b>morning insulin glargine vs bedtime insulin glargine</b>                    |  |  |   |
| <b>Fritche</b><br>n=463/232<br>follow-up: 24 weeks                             | morning insulin glargine<br>versus<br>bedtime insulin glargine   | patients with type 2 diabetes previously<br>treated with oral antidiabetic agents  | open  |
| <b>insulin vs control</b>  |  |  |   |
| <b>UGDP</b><br>n=414/205<br>follow-up:   | -  | -  |   |
| <b>UKPDS 33</b><br>n=911/896<br>follow-up:                                     | -  | -  |   |
| <b>insulin glargine vs control</b>   |  |  |   |
| <b>ORIGINE , 2012</b><br>[NCT00069784]<br>n=6264/6273<br>follow-up: 6.2 years  | insulin glargine (with a target fasting<br>blood glucose level of 95 mg per deciliter<br>versus<br>standard care             | with cardiovascular risk factors plus<br>impaired fasting glucose, impaired glucose<br>tolerance, or type 2 diabetes                                   |   |
| <b>insulin detemir vs glargine</b>   |  |  |   |
| <b>Fadini , 2011</b><br>n=NA   | -  | -  |   |
| <b>insulin glulisine + glargine vs glargine once daily</b>                     |  |  |   |
| <b>Owens , 2011</b><br>n=49/57<br>follow-up: 3 months                          | basal+bolus (single dose of insulin<br>glulisine immediately prior to the main<br>meal)<br>versus<br>basal insulin (glargin) | patients withT2DM using any basal<br>insulin and HbA1c >7.0% after 3-month<br>of insulin glargine titrated to optimize<br>fasting bloodglucose control | Parallel groups<br>open-label<br>US, UK, Russia |
| <b>insulin lispro protamine suspension plus lispro vs glargine plus lispro</b> |  |  |   |

continued...

| Trial  | Treatments  | Patients  | Trials design and methods    |
|--|---|---|------------------------------|
| Koivisto , 2011<br>n=NA                                      | -   | -   |                              |
| <b>repaglinide + insulin vs insulin</b>                      |   |   |                              |
| AGEE-1524<br>[NCT00799448]<br>n=NA<br>follow-up:             | repaglinide combined with insulin NPH<br>versus<br>biphasic human insulin 30 alone  | type 2 diabetics inadequately controlled<br>with sulfonylurea (SU) +/- biguanide<br>therapy   | open<br>Greece               |
| AGEE-3020<br>n=NA  | -   | -   |                              |
| <b>biphasic insulin aspart 30 vs insulin detemir</b>         |   |   |                              |
| Lundby , 2009<br>n=NA<br>follow-up:                          | biphasic insulin aspart 30<br>versus<br>insulin detemir before bedtime  | -   |                              |
| <b>insulin detemir vs NPH insulin</b>                        |   |   |                              |
| Hermansen<br>n=236/237<br>follow-up: 26 weeks                | insulin detemir twice-daily<br>versus<br>NPH insulin  | insulin-naive people with type 2 diabetes   |                              |
| <b>lispro insulin vs NPH insulin</b>                         |   |   |                              |
| Bastyr , 2000<br>n=NA<br>follow-up:                          | insulin lispro<br>versus<br>bedtime NPH insulin   | -   |                              |
| <b>insulin aspart at mealtimes vs NPH insulin once daily</b> |   |   |                              |
| Gram , 2011<br>n=NA<br>follow-up:                            | insulin aspart at mealtimes<br>versus<br>NPH insulin once daily at bedtime  | -   |                              |
| <b>insulin glargine vs placebo</b>                           |   |   |                              |
| GRACE - ORIGIN<br>(glargine) , 2012<br>n=1184<br>follow-up:  | insulin glargine (with a target fasting<br>blood glucose level of <=95 mg per<br>deciliter [5.3 mmol per liter])<br>versus<br>standard glyceemic care alone | subject with known CV disease and/or<br>CV risk factors plus impaired fasting<br>glucose, impaired glucose tolerance, or<br>type 2 diabetes | Factorial plan<br>open-label |
| <b>pioglitazone + insulin vs placebo (add on insulin)</b>    |   |   |                              |
| OPI-502<br>n=110/112<br>follow-up: 20 wk                     | Pioglitazone + insulin<br>versus<br>Placebo + insulin   | Insulin-dependent DM-2  | Parallel groups              |
| PNFP-014<br>n=379/187<br>follow-up: 16 wk                    | Pioglitazone insulin<br>versus<br>Placebo + insulin   | patients with type 2 diabetes   | Parallel groups              |

continued...

| Trial  | Treatments  | Patients | Trials design and methods |
|--|---|----------|---------------------------|
| <b>insulin glargine plus insulin glulisine vs premixed insulin analogues</b> |   |          |                           |
| Levin , 2011<br>n=NA   | -   | -        |                           |
| <b>lispro insulin + NPH insulin vs regular insulin + NPH insulin</b>         |   |          |                           |
| Altuntas , 2003<br>n=NA<br>follow-up:  | lispro insulin + NPH insulin<br>versus<br>regular insulin + NPH insulin   | -        |                           |
| <b>lispro twice daily + NPH insulin vs regular insulin + NPH insulin</b>     |   |          |                           |
| Vignati<br>n=NA<br>follow-up:  | twice-daily insulin lispro in combination<br>with NPH human insulin<br>versus<br>regular human insulin in combination<br>with NPH human insulin | -        |                           |

More details and results :

- antidiabetic drugs for diabetes type 2 in all types of patients at <http://www.trialresultscenter.org/go-Q81>
- insulin sensitizers - glitazones for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q321>
- prevention for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q341>
- insulin sensitizer for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q377>
- insulin secretagogues for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q409>
- prevention for diabetes type 2 in people with impaired glucose tolerance at <http://www.trialresultscenter.org/go-Q416>
- intensive therapy for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q459>
- antidiabetic drugs for diabetes type 2 in patients inadequately controlled with insulin at <http://www.trialresultscenter.org/go-Q513>
- insulin therapy for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q548>
- insulin secretagogues - Meglitinides (glinides) for diabetes type 2 in all types of patients at <http://www.trialresultscenter.org/go-Q549>
- glucose lowering for cardiovascular prevention for diabetes type 2 in all type of patients at <http://www.trialresultscenter.org/go-Q576>
- glucose lowering for cardiovascular prevention for diabetes type 2 in meta-regression at <http://www.trialresultscenter.org/go-Q692>

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## 2 impaired fasting glucose

| Trial   | Treatments   | Patients   | Trials design and methods    |
|---|--|--|------------------------------|
| <b>insulin glargine vs placebo</b>                              |  |  |                              |
| <b>GRACE - ORIGIN (glargine) , 2012</b><br>n=1184<br>follow-up: | insulin glargine (with a target fasting blood glucose level of <=95 mg per deciliter [5.3 mmol per liter])<br>versus<br>standard glycemic care alone | subject with known CV disease and/or CV risk factors plus impaired fasting glucose, impaired glucose tolerance, or type 2 diabetes | Factorial plan<br>open-label |

More details and results :

- prevention for impaired fasting glucose in all type of patients at <http://www.trialresultscenter.org/go-Q342>

### References

**GRACE - ORIGIN (glargine), 2012:**

Entry terms: pioglitazone, Actos