

Trial record **1 of 1** for: F3Z-MC-IOQC

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Study of Insulin Lispro in Participants With Inadequately Controlled Type 2 Diabetes (AUTONOMY)

The safety and scientific validity of this study is the responsibility of the study sponsor and investigators. Listing a study does not mean it has been evaluated by the U.S. Federal Government. Read our [disclaimer](#) for details.

ClinicalTrials.gov Identifier:
NCT01215955

[Recruitment Status](#) ⓘ : Completed
[First Posted](#) ⓘ : October 7, 2010
[Results First Posted](#) ⓘ : February 27, 2014
[Last Update Posted](#) ⓘ : April 23, 2014

Sponsor:

Eli Lilly and Company

Information provided by (Responsible Party):

Eli Lilly and Company

[Study Details](#)

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Study Type:	Interventional
Study Design:	Allocation: Randomized; Intervention Model: Parallel Assignment; Masking: None (Open Label); Primary Purpose: Treatment
Condition:	Diabetes Mellitus, Type 2
Interventions:	Drug: Insulin lispro Drug: Glargine

▶ Participant Flow

 [Hide Participant Flow](#)

Recruitment Details

Key information relevant to the recruitment process for the overall study, such as dates of the recruitment period and locations

No text entered.

Pre-Assignment Details

Significant events and approaches for the overall study following participant enrollment, but prior to group assignment

Protocol had 2 independent studies (Study A, Study B) from which data was analyzed separately and independently: Participants were randomized to 1 of the 2 treatment arms (Q1D, Q3D) at the site level. Sites were assigned to a study according to an allocation plan that was pre-specified before initiation of the study.

Reporting Groups

	Description
Study A Q1D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose reading from the previous day (Q1D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q1D at the site level: sites were assigned to Study A according to an allocation plan that was pre-specified before initiation of Study A.</p>
Study A Q3D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose readings from the past 3 days (Q3D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q3D at the site level: sites were assigned to Study A according to an allocation plan that was pre-specified before initiation of Study A.</p>
Study B Q1D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose reading from the previous day (Q1D).</p>

	<p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q1D at the site level: sites were assigned to Study B according to an allocation plan that was pre-specified before initiation of Study B.</p>
Study B Q3D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose readings from the past 3 days (Q3D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q3D at the site level: sites were assigned to Study B according to an allocation plan that was pre-specified before initiation of Study B.</p>

Participant Flow: Overall Study

	Study A Q1D	Study A Q3D	Study B Q1D	Study B Q3D
STARTED	268	263	292 ^[1]	294 ^[2]
Received at Least 1 Dose of Study Drug	267	261	288	290
COMPLETED	223	210	244	241
NOT COMPLETED	45	53	48	53
Adverse Event	1	4	2	3
Death	2	0	1	3
Entry Criteria Not Met	1	3	4	7
Lack of Efficacy	1	2	1	0
Lost to Follow-up	4	4	8	9
Physician Decision	4	10	8	11
Protocol Violation	17	13	8	8
Sponsor Decision	1	2	0	1
Withdrawal by Subject	14	15	13	9
Quality Issues	0	0	3	2

^[1] Three (3) participants from 1 site were excluded due to quality issues and validity of data.

^[2] Two (2) participants from 1 site were excluded due to quality issues and validity of the data.

▶ Baseline Characteristics

 [Hide Baseline Characteristics](#)

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.

Full Analysis Set-all participants who entered this study, completed the lead-in period (if applicable), were randomized and received ≥ 1 dose of study insulin, except the participants from the site excluded due to quality issues and data validity.

Reporting Groups

	Description
Study A Q1D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose reading from the previous day (Q1D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q1D at the site level: sites were assigned to Study A according to an allocation plan that was pre-specified before initiation of Study A.</p>
Study A Q3D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated based dose was on blood glucose readings from the past 3 days (Q3D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q3D at the site level: sites were assigned to Study A according to an allocation plan that was pre-specified before initiation of Study A.</p>
Study B Q1D	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose reading from the previous day (Q1D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q1D at the site level: sites were assigned to Study B according to an allocation plan that was pre-specified before initiation of Study B.</p>
Study B Q3D	

	<p>Insulin lispro administered subcutaneously, up to 3 times daily for 24 weeks. Mealtime bolus of insulin lispro self-titrated dose was based on blood glucose readings from the past 3 days (Q3D).</p> <p>Glargine participant-dependent doses, administered subcutaneously once daily for 24 weeks.</p> <p>Participants were randomized to Q3D at the site level: sites were assigned to Study B according to an allocation plan that was pre-specified before initiation of Study B.</p>
Total	Total of all reporting groups

Baseline Measures

	Study A Q1D	Study A Q3D	Study B Q1D	Study B Q3D	Total
Overall Participants Analyzed [Units: Participants]	267	261	288	290	1106
Age [Units: Years] Mean (Standard Deviation)	57.89 (10.25)	58.82 (9.46)	57.71 (9.71)	57.01 (10.61)	57.83 (10.03)
Gender [Units: Participants]					
Female	133	138	155	155	581
Male	134	123	133	135	525
Ethnicity (NIH/OMB) [Units: Participants]					
Hispanic or Latino	100	96	91	95	382
Not Hispanic or Latino	150	153	182	177	662
Unknown or Not Reported	17	12	15	18	62
Race (NIH/OMB) [Units: Participants]					
American Indian or	22	20	11	11	64

Alaska Native					
Asian	4	4	8	2	18
Native Hawaiian or Other Pacific Islander	0	2	0	0	2
Black or African American	20	15	35	29	99
White	219	218	228	240	905
More than one race	1	2	4	6	13
Unknown or Not Reported	1	0	2	2	5
Region of Enrollment [Units: Participants]					
Argentina	28	28	37	38	131
Austria	0	1	4	1	6
Brazil	2	4	11	14	31
Canada	5	6	7	11	29
Croatia	3	3	4	5	15
Denmark	5	0	1	0	6
France	3	0	1	3	7
Lithuania	2	4	4	5	15
Mexico	31	31	21	25	108
Poland	9	8	15	15	47
Puerto Rico	26	19	7	7	59
Romania	9	6	11	10	36
Russian Federation	12	13	15	16	56
South Africa	1	2	11	13	27
United States	131	136	139	127	533

 **Outcome Measures**

[+ Show All Outcome Measures](#)

1. **Primary: Change From Baseline to 24 Week Endpoint in Glycated Hemoglobin (HbA1c)** [Time Frame: Baseline, 24 weeks]

[+ Show Outcome Measure 1](#)

2. **Secondary: Percentage of Participants Achieving Glycated Hemoglobin (HbA1c) Target Values** [Time Frame: 24-week endpoint]

[+ Show Outcome Measure 2](#)

3. **Secondary: Percentage of Participants ≥ 65 Years of Age Achieving Glycated Hemoglobin (HbA1c) Target Concentration** [Time Frame: 24-week endpoint]

[+ Show Outcome Measure 3](#)

4. **Secondary: Change From Baseline to 24 Week Endpoint in Body Weight** [Time Frame: Baseline, 24-weeks]

[+ Show Outcome Measure 4](#)

5. **Secondary: Time to Reach Glycated Hemoglobin (HbA1c) Target Values** [Time Frame: Baseline through 24 weeks]

[+ Show Outcome Measure 5](#)

6. **Secondary: Change From Baseline to 24 Week Endpoint in Fasting Glucose** [Time Frame: Baseline, 24 weeks]

[+ Show Outcome Measure 6](#)

7. **Secondary: Change From Baseline to 24 Week Endpoint in Fasting Glucose in Participants ≥ 65 Years of Age** [Time Frame: Baseline, 24 weeks]

[+ Show Outcome Measure 7](#)

8. **Secondary: Change From Baseline to 24 Week Endpoint in 1,5-anhydroglucitol (1,5-AG)** [Time Frame: Baseline, 24 weeks]

[+ Show Outcome Measure 8](#)

9. **Secondary: Change From Baseline to 24 Weeks in 7-Point Self-Monitored Blood Glucose (SMBG) Profile** [Time Frame: Baseline, 24 weeks]

[+ Show Outcome Measure 9](#)

10. **Secondary: Daily Dose of Insulin: Total, Basal and Prandial (Bolus)** [Time Frame: 24 weeks]

[+ Show Outcome Measure 10](#)

11. Secondary: Daily Dose of Insulin Per Kilogram of Body Weight: Total, Basal and Prandial (Bolus) [Time Frame: 24 weeks]

 [Show Outcome Measure 11](#)

12. Secondary: The Number of Participants With a Hypoglycemic Episode (Incidence) [Time Frame: Randomization through 24 weeks overall]

 [Show Outcome Measure 12](#)

13. Secondary: The Number of Participants ≥ 65 Years of Age With Hypoglycemic Episodes (Incidence) [Time Frame: Randomization through 24 weeks overall]

 [Show Outcome Measure 13](#)

14. Secondary: The Rate of Hypoglycemic Episodes [Time Frame: Randomization through 24 weeks overall]

 [Show Outcome Measure 14](#)

15. Secondary: Percentage of Participants With Severe Hypoglycemic Episodes [Time Frame: Randomization up to 24 weeks]

 [Show Outcome Measure 15](#)

 **Serious Adverse Events**

 [Show Serious Adverse Events](#)

 **Other Adverse Events**

 [Show Other Adverse Events](#)

 **Limitations and Caveats**

 [Hide Limitations and Caveats](#)

Limitations of the study, such as early termination leading to small numbers of participants analyzed and technical problems with measurement leading to unreliable or uninterpretable data

Five (5) randomized participants (3 Study B Q1D, 2 Study B Q3D) from 1 site were excluded from efficacy and safety analyses due to quality issues and validity of the data at that site.

 **More Information**

 [Hide More Information](#)

Certain Agreements:

Principal Investigators are **NOT** employed by the organization sponsoring the study.

There **IS** an agreement between Principal Investigators and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

The agreement is:

- The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **less than or equal to 60 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.
- The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **more than 60 days but less than or equal to 180 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.
- Other disclosure agreement that restricts the right of the PI to discuss or publish trial results after the trial is completed.

Results Point of Contact:

Name/Title: Chief Medical Officer

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Responsible Party:	Eli Lilly and Company
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