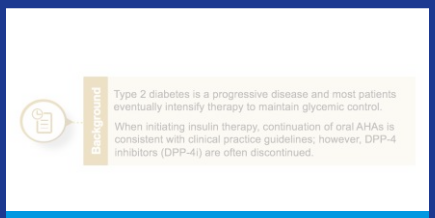
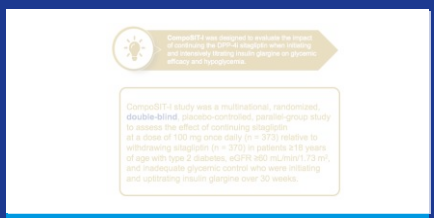
CompoSIT-I

Interactive Study Resource

GLOSSARY | SELF-ASSESSMENT

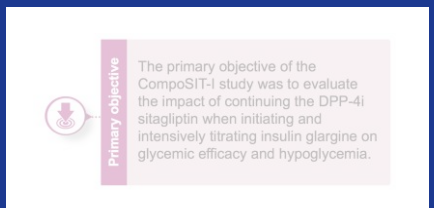


Background



Study Objective

Study Population



Study Results

CompoSIT-I Study Background

Background

Type 2 diabetes is a progressive disease and most patients eventually intensify therapy to maintain glycemic control. [Roussel: p3A]

When initiating insulin therapy, continuation of oral AHAs is consistent with clinical practice guidelines; however, DPP-4 inhibitors (DPP-4i) are often discontinued. [Roussel: p3B, 4A]

- The continued use of a DPP-4i when initiating **insulin** glargine therapy has theoretical advantages:
  - Overall improvement of glycemic control due to better post-prandial glycemic control vs glargine alone
  - Less **hypoglycemia** due to lower insulin doses and the glucagonotropic effects of glucose-dependent insulinotropic peptide (GIP) during hypoglycemia.

[Roussel: p3C, 4B, C]

CompoSIT-I Study Background

When initiating insulin therapy, continuation of oral antihyperglycemic agents is consistent with clinical practice guidelines; however, DPP-4 inhibitors are often discontinued.

[Roussel: p3B, 4A]

- The continued use of a DPP-4i when initiating **insulin** glargine therapy has theoretical advantages:
  - Overall improvement of glycemic control due to better post-prandial glycemic control vs glargine alone
  - Less **hypoglycemia** due to lower insulin doses and the glucagonotropic effects of glucose-dependent insulinotropic peptide (GIP) during hypoglycemia.

CompoSIT-I Study Background

The continued use of a DPP-4i when initiating insulin glargine therapy has theoretical advantages that may result in improvement of glycemic control due to better post-prandial glycemic control vs glargine alone as well as less hypoglycemia due to lower insulin doses and the glucagonotropic effects of glucose-dependent insulinotropic peptide (GIP) during hypoglycemia.

[Roussel: p3C, 4B, C]

- Overall improvement of glycemic control due to better post-prandial glycemic control vs glargine alone
  - Less **hypoglycemia** due to lower insulin doses and the glucagonotropic effects of glucose-dependent insulinotropic peptide (GIP) during hypoglycemia.

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CompoSIT-I Study Objective

CompoSIT-I was designed to evaluate the efficacy and safety of continuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine.

[Roussel: p4D]

CompoSIT-I study was a multinational, randomized, **double-blind**, **placebo**-controlled, parallel-group study to assess the effect of continuing sitagliptin at a dose of 100 mg once daily (n = 373) relative to withdrawing sitagliptin (n = 370) in patients ≥18 years of age with type 2 diabetes, eGFR ≥60 mL/min/1.73 m^2, and inadequate glycemic control with metformin and sitagliptin who were initiating and uptitrating insulin glargine over 30 weeks.

[Roussel : p5A,B, p4E, p7A]

[DIAB-11263228-0000; p6]

CompoSIT-I Study Objective

CompoSIT-I study was a multinational, randomized, double-blind, placebo-controlled, parallel-group study to assess the effect of continuing sitagliptin at a dose of 100 mg once daily relative to withdrawing sitagliptin was conducted in patients ≥18 years of age with T2DM, eGFR ≥60 mL/min/1.73 m^2, and inadequate glycemic control with metformin and sitagliptin who were initiating and uptitrating insulin glargine over 30 weeks.

[Roussel : p5A,B, p4E, p7A]

CompoSIT-I Study Population
Selected Inclusion Criteria

SELECTED INCLUSION CRITERIA

- Male or female, ≥18 years of age with type 2 diabetes and eGFR ≥60 mL/min/1.73 m^2
- On a stable regimen (≥12 weeks) of either:
  - Metformin (≥1500 mg/day IR, XR, or part of fixed-dose combination) in **dual combination** therapy with a DPP-4i (maximum labeled dose) or a sulfonylurea, with HbA1c ≥7.5% and ≤11.0%

or

  - Metformin (≥1500 mg/day as IR, XR, or part of fixed-dose combination) in **triple combination** therapy with a DPP-4i and a sulfonylurea, with HbA1c ≥7.0% and ≤10.0%

[Roussel p4E, p5B]

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[DIAB-11263228-0000; p7]

CompoSIT-I Study Population
Selected Inclusion Criteria

Eligible patients were male or female, ≥18 years of age, with T2DM and eGFR ≥60 mL/min/1.73m^2, were on a stable dose of metformin (≥1500 mg/day IR, XR, or part of a fixed-dose combination) in dual combination therapy with a DPP-4i or a sulfonylurea, with an HbA1c ≥7.0% and ≤11.0%, or Metformin (≥1500 mg/day as IR, XR, or part of fixed dose combination) in triple combination therapy with a DPP-4i and a sulfonylurea, with HbA1c ≥7.0% and ≤10.0%.

a DPP-4i and a sulfonylurea, with HbA1c ≥7.0% and ≤10.0%

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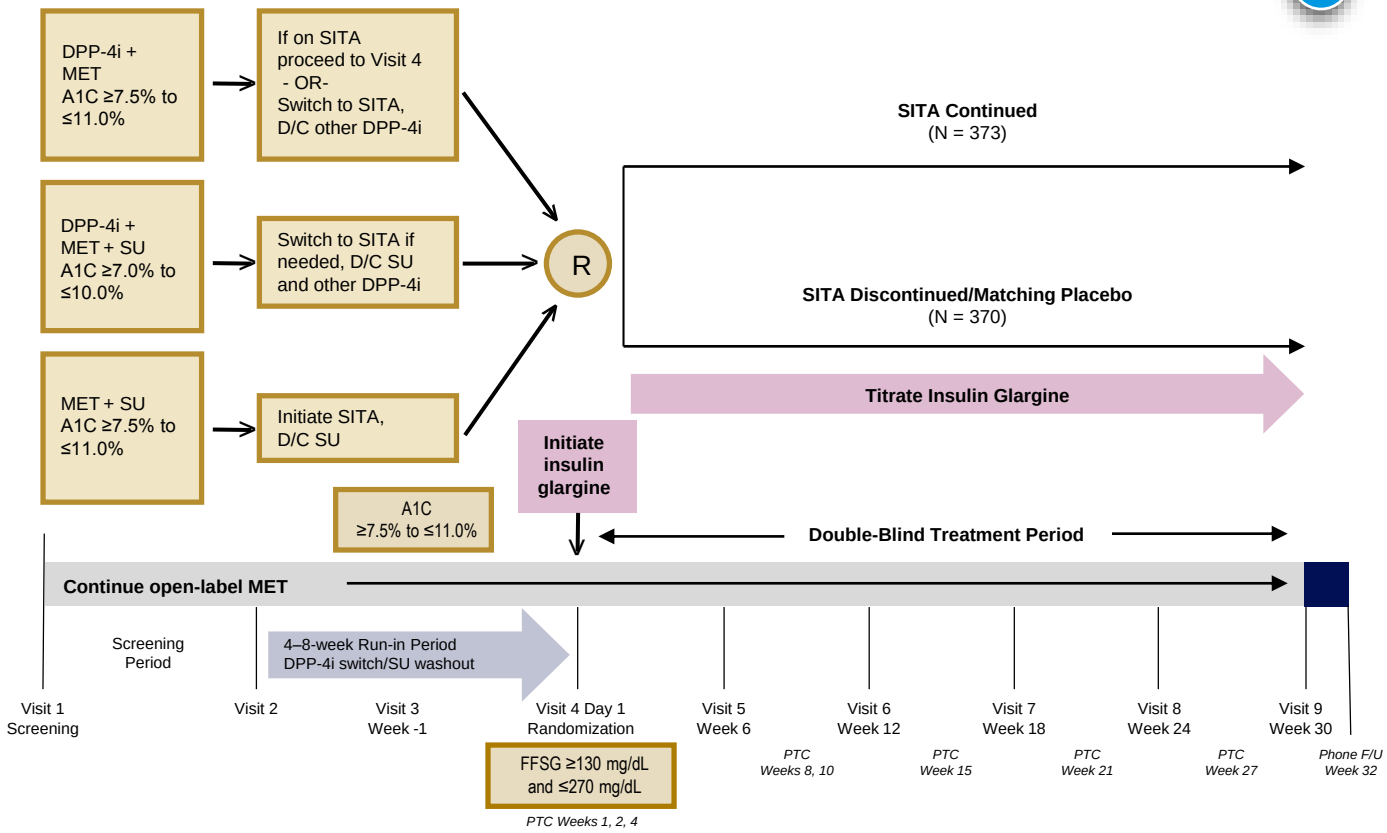
CompoSIT-I Study Design



AHA=antihyperglycemic agent; DPP-4i=DPP-4 inhibitor; MET=metformin; SITA=sitagliptin D/C=discontinue; SU=sulfonylurea; R=randomization; FFSG=fasting finger-stick glucose; PTC=patient telephone contact; F/U=follow-up.

[Roussel p30A, Fig1]

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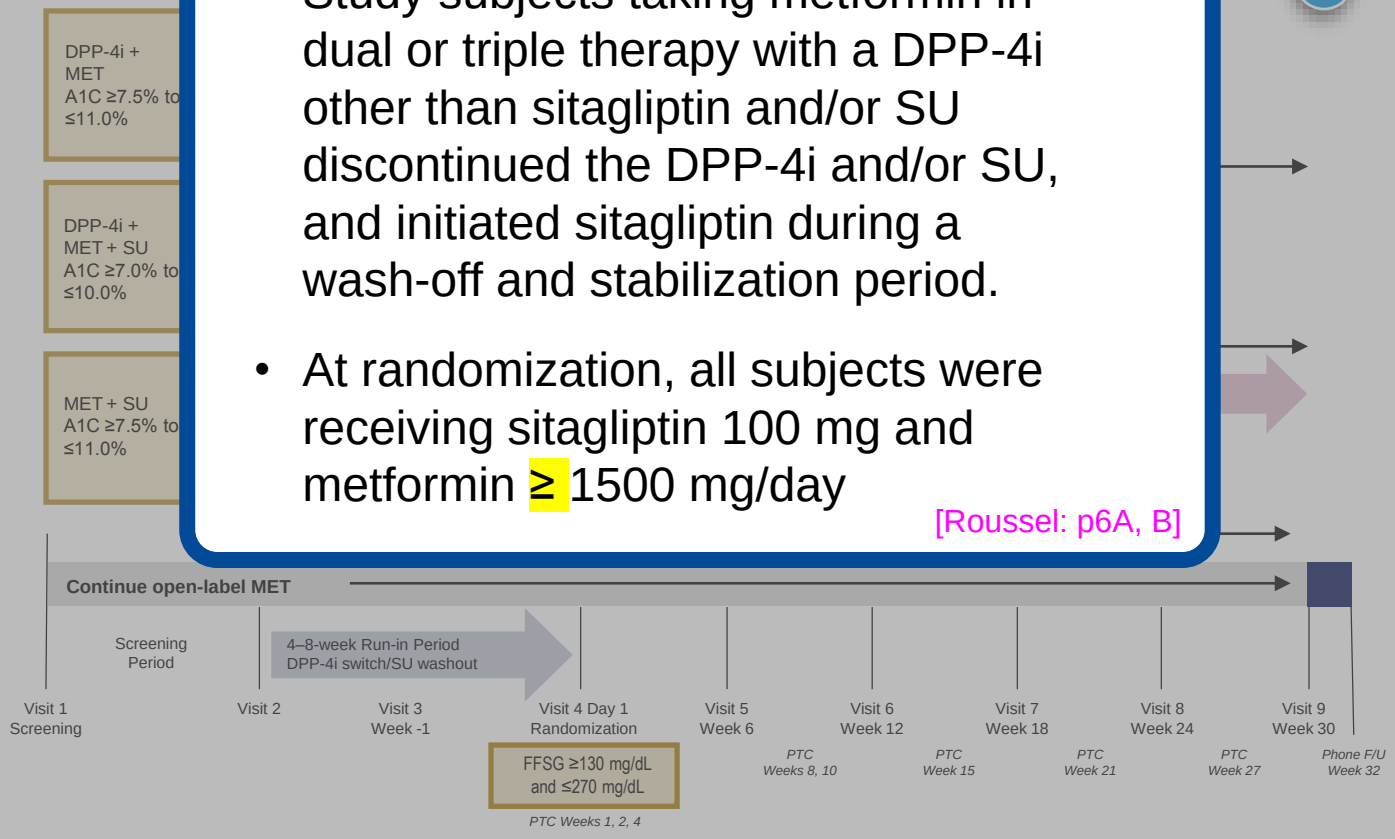
[DIAB-11263228-0000; p8]

CompoSIT-I Study Design

- Study subjects taking metformin in dual or triple therapy with a DPP-4i other than sitagliptin and/or SU discontinued the DPP-4i and/or SU, and initiated sitagliptin during a wash-off and stabilization period.
- At randomization, all subjects were receiving sitagliptin 100 mg and metformin ≥ 1500 mg/day

[Roussel: p6A, B]



AHA=antihyperglycemic agent; DPP-4i=DPP-4 inhibitor; MET=metformin; SITA=sitagliptin D/C=discontinue; SU=sulfonylurea; R=randomization; FFSG=fasting finger-stick glucose; PTC=patient telephone contact; F/U=follow-up.

CompoSIT-I Study Interventions

Treatment	Daily Dose	Route of Administration
Sitagliptin	100 mg	Oral
Sitagliptin-matching placebo	Not applicable	Oral
Metformin[a,b]	≥1500 mg/day (IR, XR, or part of fixed dose combination)	Oral
Insulin glargine	Starting dose: 10 units. If, on 3 consecutive days, the before-breakfast FPG was: • >100 mg/dL, the insulin dose was increased by 2 units • >140 mg/dL, the insulin dose was increased by 4 units • ≤70 mg/dL, the insulin dose was reduced by 4 units after investigator consultation	SC

[a] For subjects entering the study on a stable regimen of either IR metformin + sitagliptin or a FDC or both IR metformin + sitagliptin in dual/triple combination with a DPP-4i.

[b] For subjects entering the study on a stable regimen of either XR metformin + sitagliptin or a FDC or both XR metformin + sitagliptin in dual/triple combination with a DPP-4i.

Abbreviations: FDC = fixed dose combination; IR = immediate-release; SC = subcutaneous; XR = extended-release.

[Roussel: p4E, P5B, P6A, B]

CompoSIT-I Study Interventions

- All participants initiated insulin with 10 units injected on the evening of Day 1.
- Participants were instructed to target a fasting blood glucose of 72–100 mg/dL
  - If, on 3 consecutive days, the before-breakfast fasting blood glucose was
    - >100 mg/dL, the insulin dose was increased by 2 units
    - >140 mg/dL, the insulin dose was increased by 4 units
    - ≤70 mg/dL, the insulin dose was reduced by 4 units after investigator consultation

[Roussel: p6A, B]

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CompoSIT-I Study Objectives:
Efficacy, Safety & Tolerability

Primary objective

The primary objective of the CompoSIT-I study was to evaluate the effects of continuing versus discontinuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine

[Roussel: p7A]

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[DIAB-11263228-0000; p25]

CompoSIT-I Study Objectives:
Efficacy, Safety & Tolerability

The primary objective of this study was to evaluate the effect of continuing versus discontinuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine.

[Roussel: p7A]

Primary o

discontinuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine

CompoSIT-I Study
Efficacy & Safety Endpoints

Primary Endpoints

- Change from baseline in HbA1c at Week 30—evaluated for noninferiority (margin = 0.3%), superiority
- Event rate of documented symptomatic hypoglycemia (BG ≤ 3.9 mmol/L) (total number of events [including multiple events per participant] divided by the total on-treatment follow-up time)

[Roussel: p7A, p8A, B]

Secondary Endpoints

Incidences and event rates of documented hypoglycemia, with symptoms and regardless of symptoms

- Daily insulin dose
- % of participants with HbA1c <7.0%
- % of participants with HbA1c <7.0% without any event of documented hypoglycemia (BG ≤3.9 mmol/mol)
- Fasting plasma glucose (FPG)

[Roussel: p7B]

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[DIAB-11263228-0000; p26]

CompoSIT-I Study
Efficacy & Safety Endpoints

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- Change from baseline in HbA1c at Week 30—evaluated for noninferiority (margin = 0.3%), and superiority
- Event rate of documented symptomatic hypoglycemia (BG ≤3.9 mmol/L) (total number of events [including multiple events per participant] divided by the total on-treatment follow-up time)

[Roussel: p7A, p8A, B]

Secondary Endpoints

Incidences and event rates of documented hypoglycemia, with symptoms and regardless of symptoms

- Daily insulin dose
- % of participants with HbA1c <7.0%
- % of participants with HbA1c <7.0% without any event of documented hypoglycemia (BG ≤3.9 mmol/mol)
- Fasting plasma glucose (FPG)

CompoSIT-I Study
Efficacy & Safety Endpoints

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- Daily insulin dose
- % of participants with HbA1c <7.0%
- % of participants with HbA1c <7.0% without any event of documented hypoglycemia (BG ≤3.9 mmol/mol)
- Fasting plasma glucose (FPG)

- Key secondary objectives were the incidences and event rates of hypoglycemia, and the daily insulin dose
- Others included the percentage of participants with HbA1c <7.0%, percentage of participants with HbA1c <7.0% without any event of documented (BG ≤3.9 mmol/mol) hypoglycemia, and fasting plasma glucose

[Roussel: p7B]

CompoSIT-I Study
Baseline Demographic, Anthropometric, and Disease Characteristics

	Sitagliptin N = 373	Placebo N = 370
Age, years	58.6 ± 9.5	58.1 ± 9.7
Female, n (%)	203 (54.4)	180 (48.6)
Body weight, kg	84.8 ± 19.8	85.6 ± 19.4
BMI, kg/m^2	31.2 ± 5.8	31.1 ± 5.7
HbA1c, %	8.8 ± 0.9	8.8 ± 1.0
FPG, mg/dL	11.0 ± 2.8	11.12 ± 2.9
eGFR,* mL/min/1.73 m^2	103.7 ± 30.3	106.4 ± 28.1
Duration of T2DM, years	10.4 ± 6.8	11.1 ± 6.9

Values are mean ± standard deviation unless otherwise noted.
Abbreviations: BMI = body mass index; FPG = fasting plasma glucose; eGFR = estimated glomerular filtration rate.
*Participants with eGFR <60 mL/min/1.73 m^2 were excluded from the study.

[Roussel: p26A, Table1]

CompoSIT-I Study

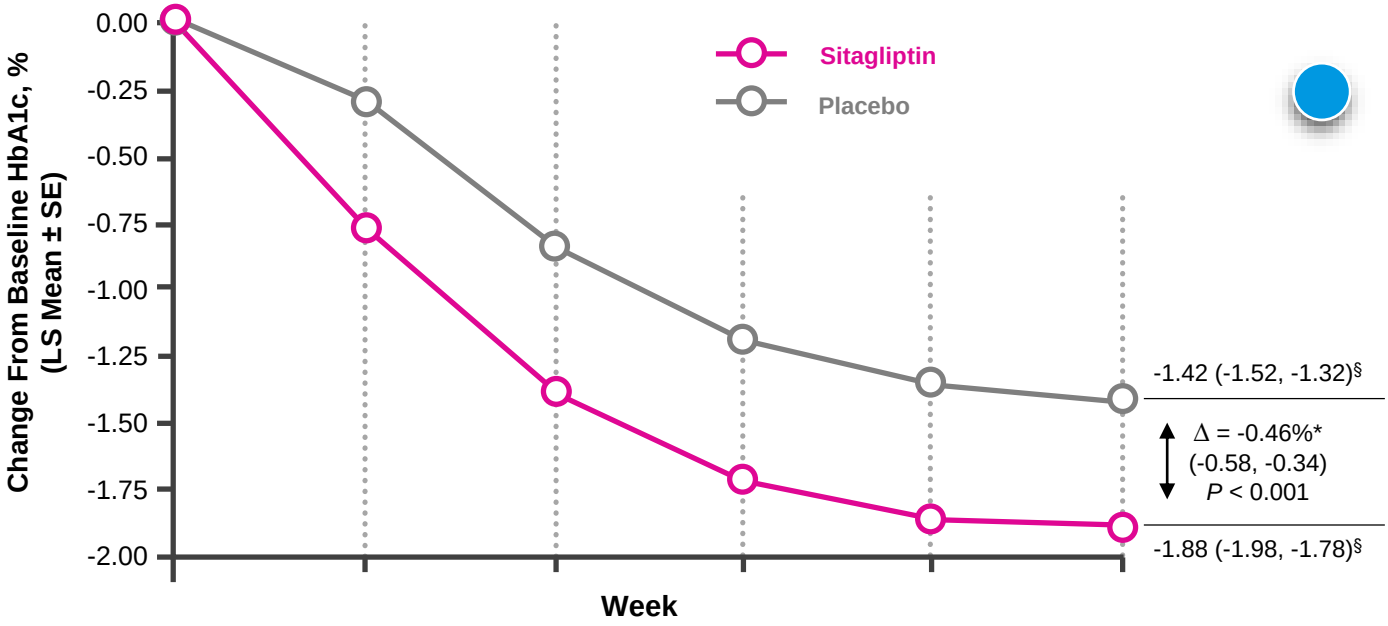
Baseline Demographic, Anthropometric, and Disease Characteristics

The mean age of patients in the study was 58.3 years, approximately 50% were female. [Roussel: p9A]

Age, years	58.6 ± 9.5	58.1 ± 9.7
Female, n (%)	203 (54.4)	180 (48.6)
Body weight, kg	84.8 ± 19.8	85.6 ± 19.4
BMI, kg/m^2	31.2 ± 5.8	31.1 ± 5.7
HbA1c, %	8.8 ± 0.9	8.8 ± 1.0
FPG, mg/dL	11.0 ± 2.8	11.12 ± 2.9
eGFR,* mL/min/1.73 m^2	103.7 ± 30.3	106.4 ± 28.1
Duration of T2DM, years	10.4 ± 6.8	11.1 ± 6.9

Values are mean ± standard deviation unless otherwise noted.
Abbreviations: BMI = body mass index; FPG = fasting plasma glucose; eGFR = estimated glomerular filtration rate.
*Participants with eGFR <60 mL/min/1.73 m^2 were excluded from the study.

CompoSIT-I Study
Primary Endpoint: Change from Baseline HbA1c (%)



§LS mean (95% CI) change from baseline.
*The between-group difference (95% CI) and *P* value are model based.

[Roussel: p31A, Fig2A]

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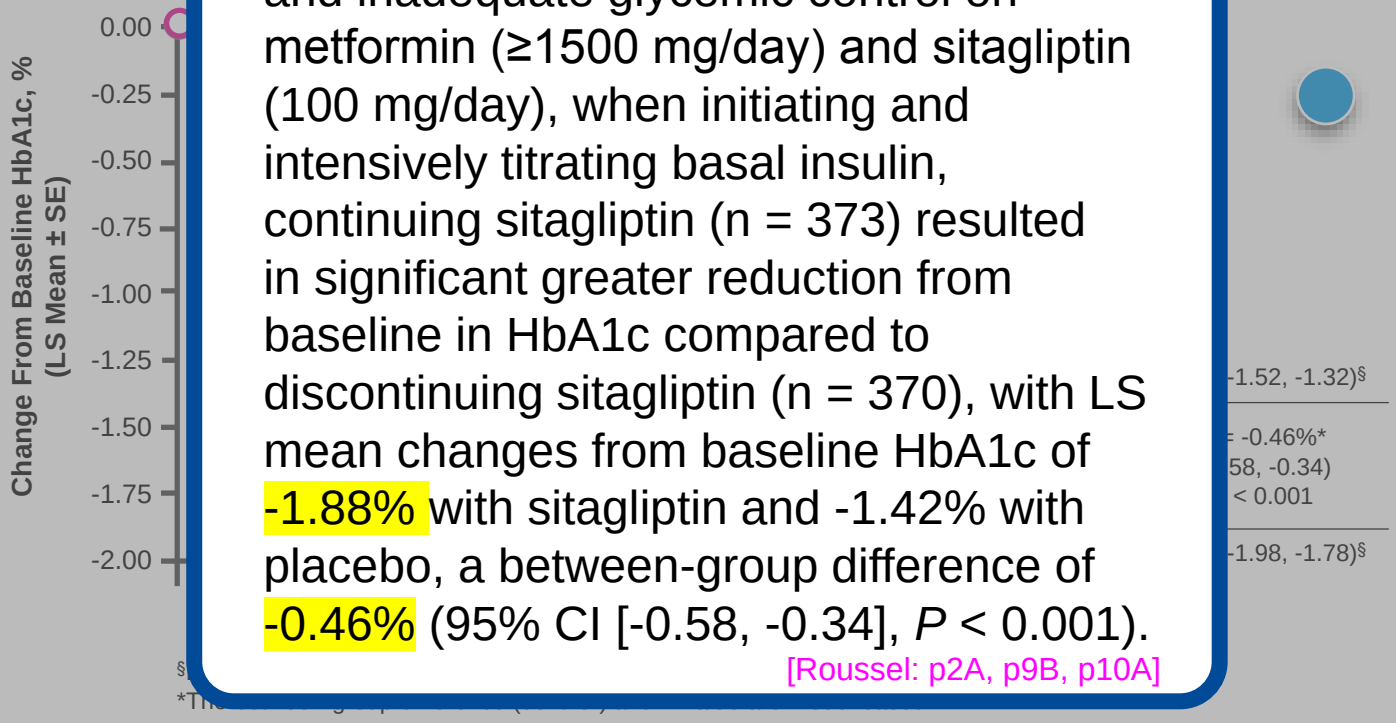
[DIAB-11263228-0000; p28]

CompoSIT-I Study

Primary Endpoint: Change from Baseline HbA1c (%)



At Week 30, in patients with T2DM and inadequate glycemic control on metformin (≥1500 mg/day) and sitagliptin (100 mg/day), when initiating and intensively titrating basal insulin, continuing sitagliptin (n = 373) resulted in significant greater reduction from baseline in HbA1c compared to discontinuing sitagliptin (n = 370), with LS mean changes from baseline HbA1c of -1.88% with sitagliptin and -1.42% with placebo, a between-group difference of -0.46% (95% CI [-0.58, -0.34], *P* < 0.001).

[Roussel: p2A, p9B, p10A]

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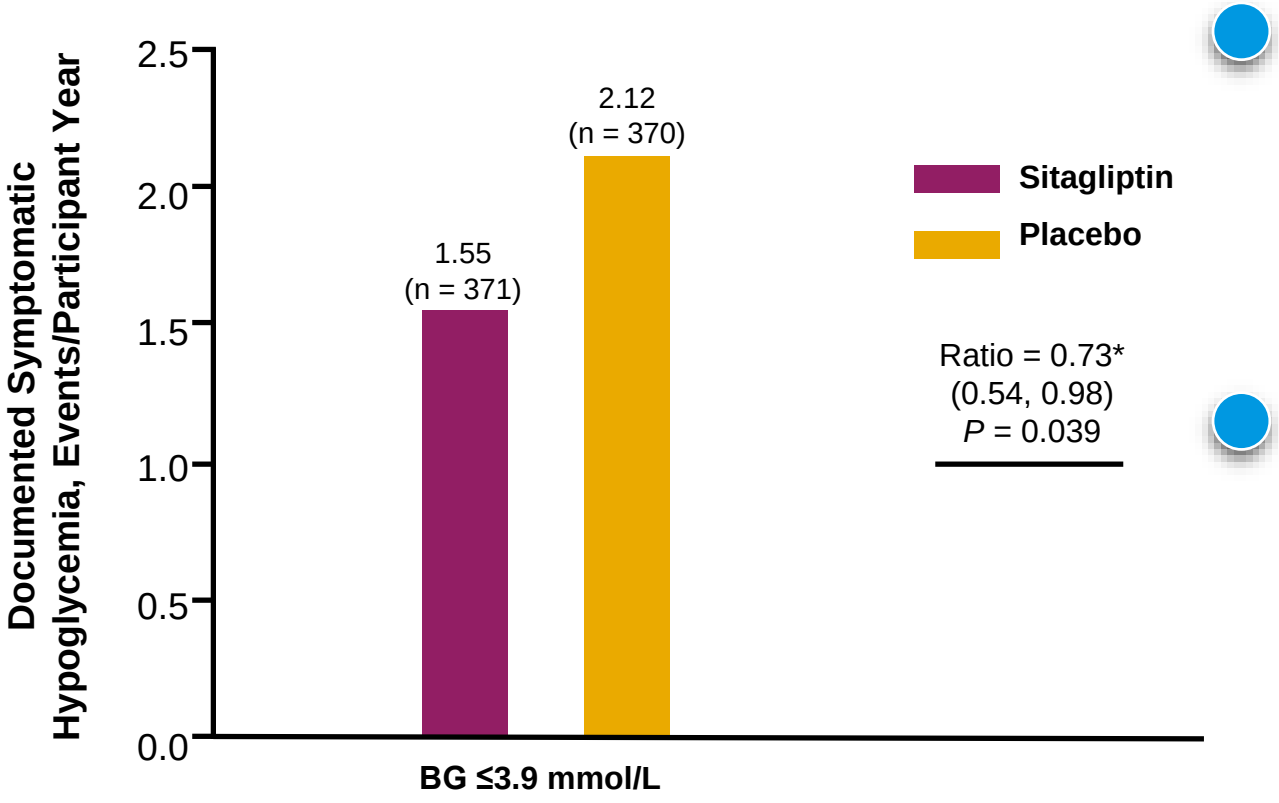
CompoSIT-I Study

Primary Endpoint: Documented Symptomatic Hypoglycemia Event Rates with BG ≤3.9 mmol/L over 30 Weeks



*Two participants (both in the sitagliptin group) were not included in the analysis due to a missing value of a model covariate (race); in a post hoc analysis that removed race from the model (thereby allowing the 2 participants to be included), the event rate ratio was 0.76; p=0.073.

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[DIAB-11263228-0000; p29]

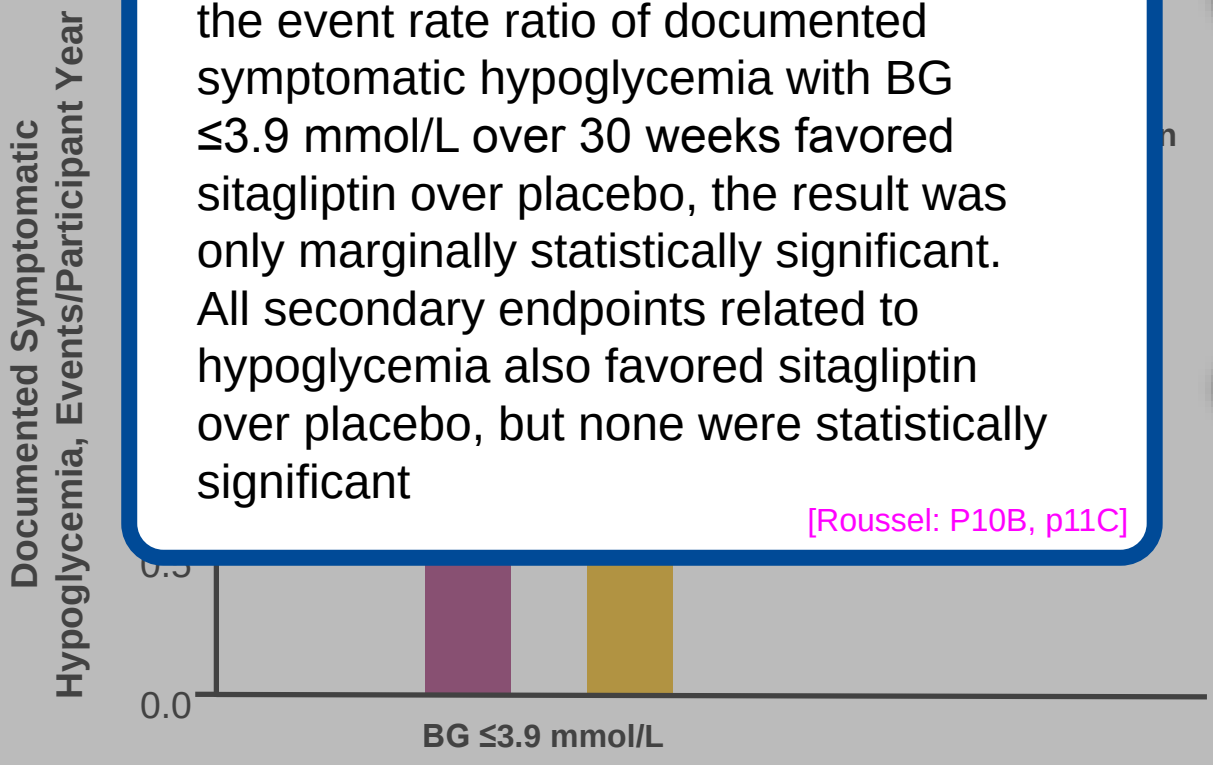
[Roussel: P27ATable2, p10B, C]

CompoSIT-I Study

Primary Endpoint: Documented Symptomatic Hypoglycemia Event Rates with BG ≤3.9 mmol/L over

There was no increased risk of hypoglycemia with sitagliptin. While the event rate ratio of documented symptomatic hypoglycemia with BG ≤3.9 mmol/L over 30 weeks favored sitagliptin over placebo, the result was only marginally statistically significant. All secondary endpoints related to hypoglycemia also favored sitagliptin over placebo, but none were statistically significant

[Roussel: P10B, p11C]



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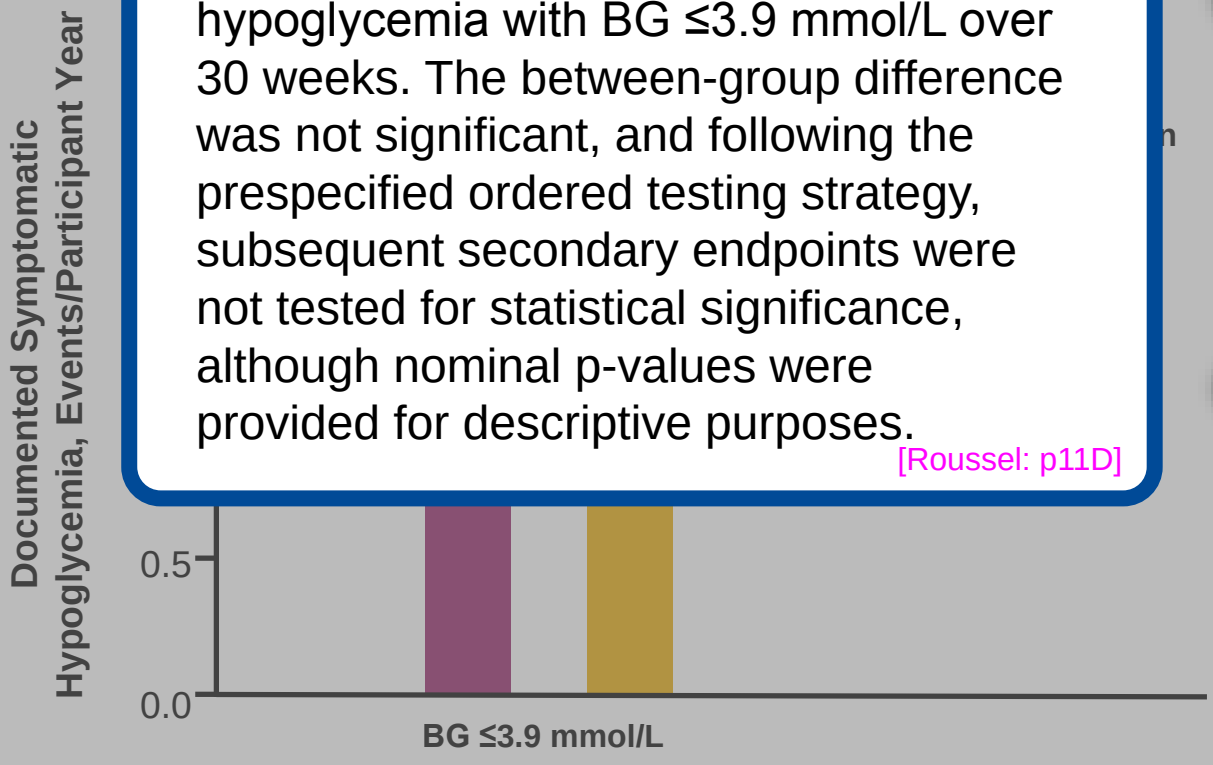
CompoSIT-I Study

Primary Endpoint: Documented Symptomatic Hypoglycemia Event Rates with BG ≤3.9 mmol/L over

The first secondary objective was the incidence of documented symptomatic hypoglycemia with BG ≤3.9 mmol/L over 30 weeks. The between-group difference was not significant, and following the prespecified ordered testing strategy, subsequent secondary endpoints were not tested for statistical significance, although nominal p-values were provided for descriptive purposes.

[Roussel: p11D]



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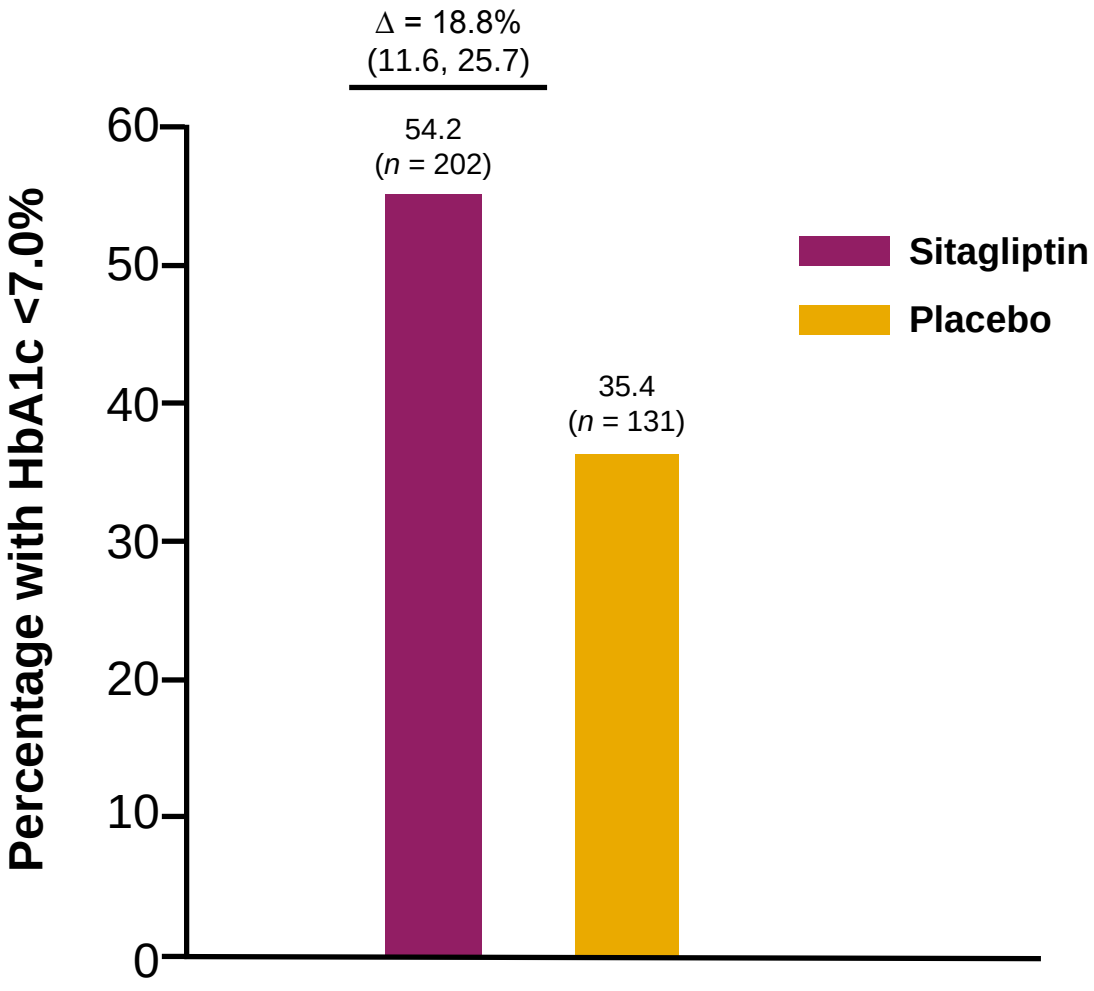
CompoSIT-I Study

Percentage of Participants with HbA1c <7.0% at Week 30



[Roussel: P11A]

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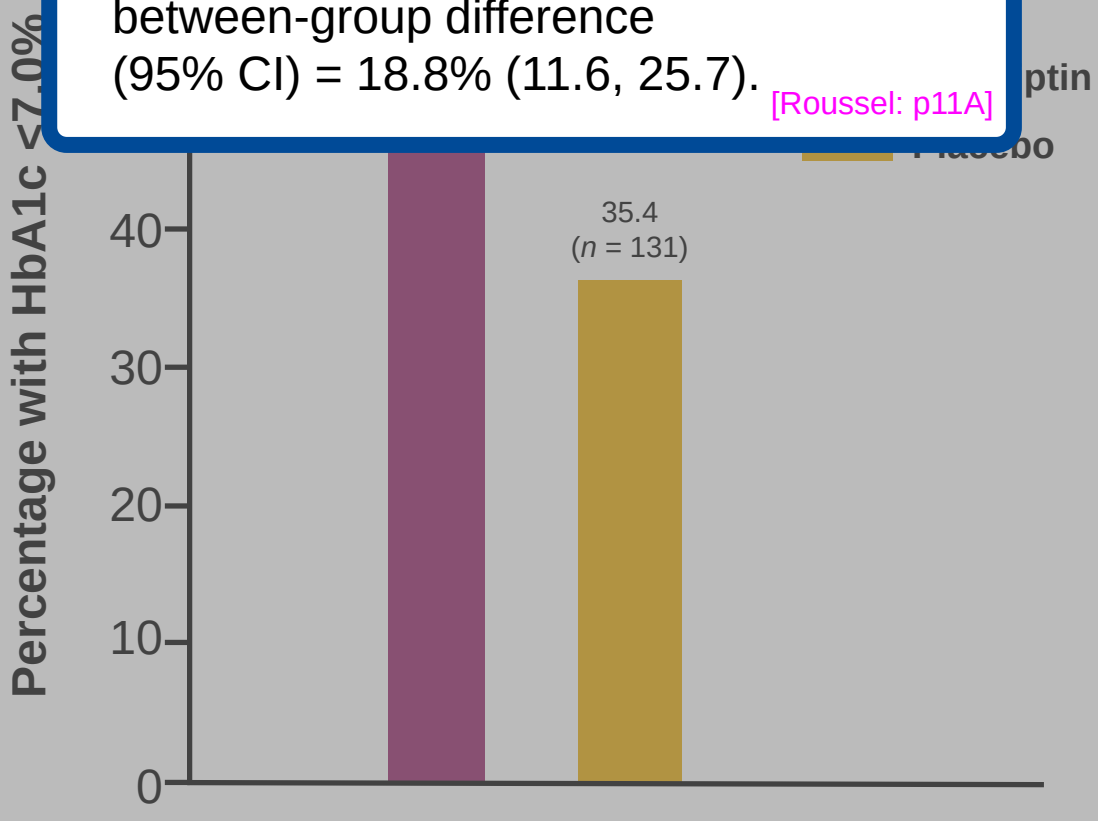
[DIAB-11263228-0000; p30]

CompoSIT-I Study

Percentage of Participants with HbA1c <7.0% at Week 30

Percentage of participants with HbA1c <7% at Week 30: 54.2% (sitagliptin; n = 202), 35.4% (placebo; n = 13), between-group difference (95% CI) = 18.8% (11.6, 25.7). [Roussel: p11A]



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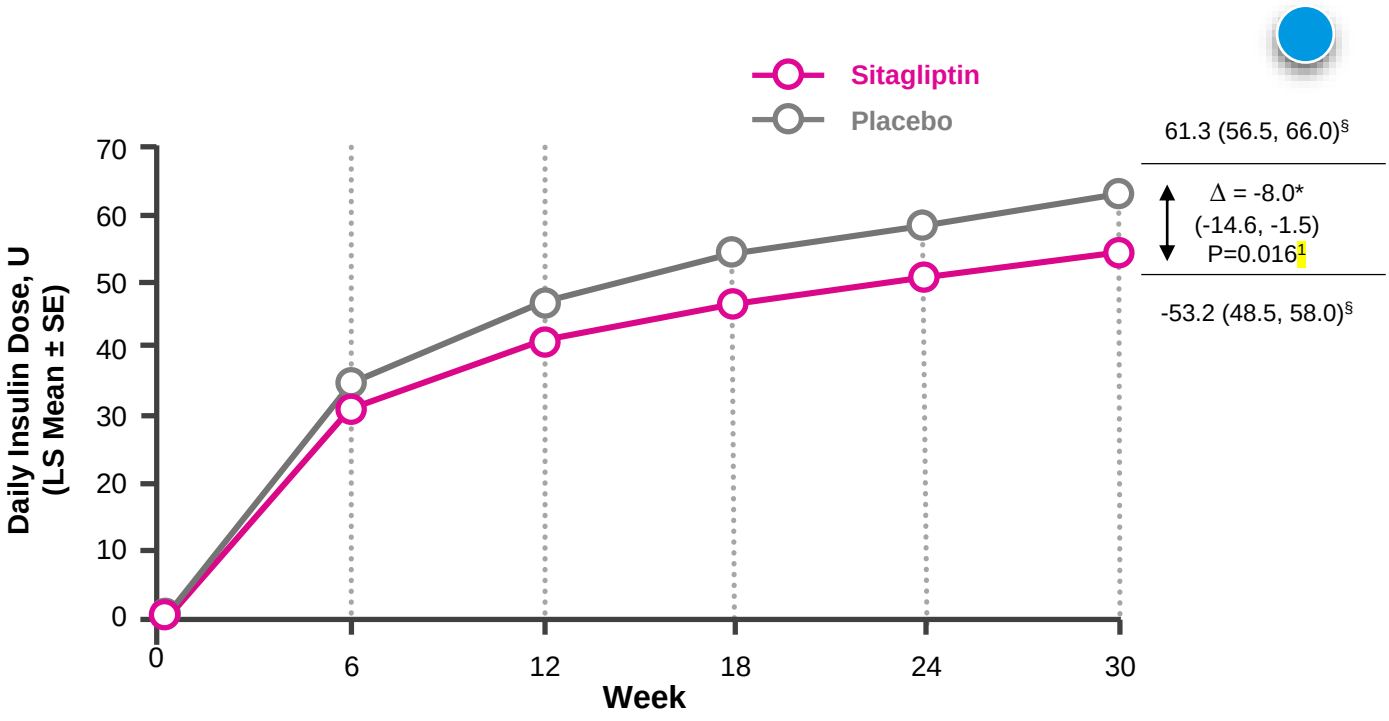
CompoSIT-I Study
Insulin Dose (Units)



§LS mean (95% CI) change from baseline.
*The between-group difference (95% CI) and *P* value are model based.

[1]This *p* value is only provided for background information (the test is only descriptive). This number should not be used as a claim in promotion.

[Roussel: p12A. p31BFig2]

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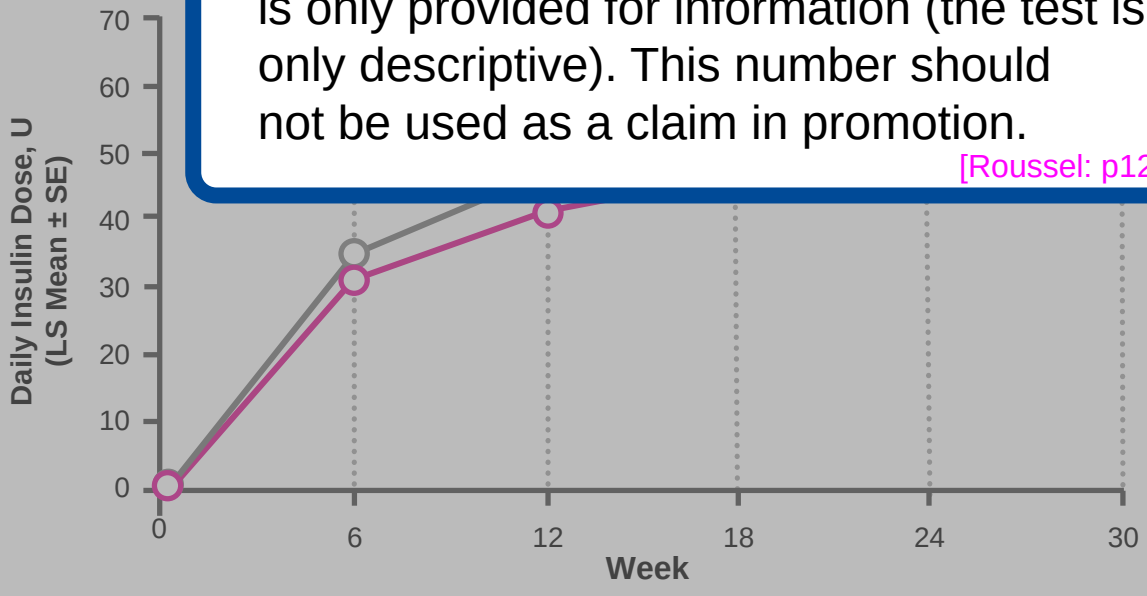
[DIAB-11263228-0000; p31]

CompoSIT-I Study
Insulin Dose (Units)

Total daily insulin dose at Week 30: 53.2 U (sitagliptin), 61.3 U (placebo), between group difference (95% CI) = -8 U (-14.6, -1.5), *P* = 0.016. This *p* value is only provided for information (the test is only descriptive). This number should not be used as a claim in promotion.

[Roussel: p12A]



56.5, 66.0)§

= -8.0*
4.6, -1.5)
?=0.016

(48.5, 58.0)§

§LS mean (95% CI) change from baseline.
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[1]This *p* value is only provided for background information (the test is only descriptive). This number should not be used as a claim in promotion.

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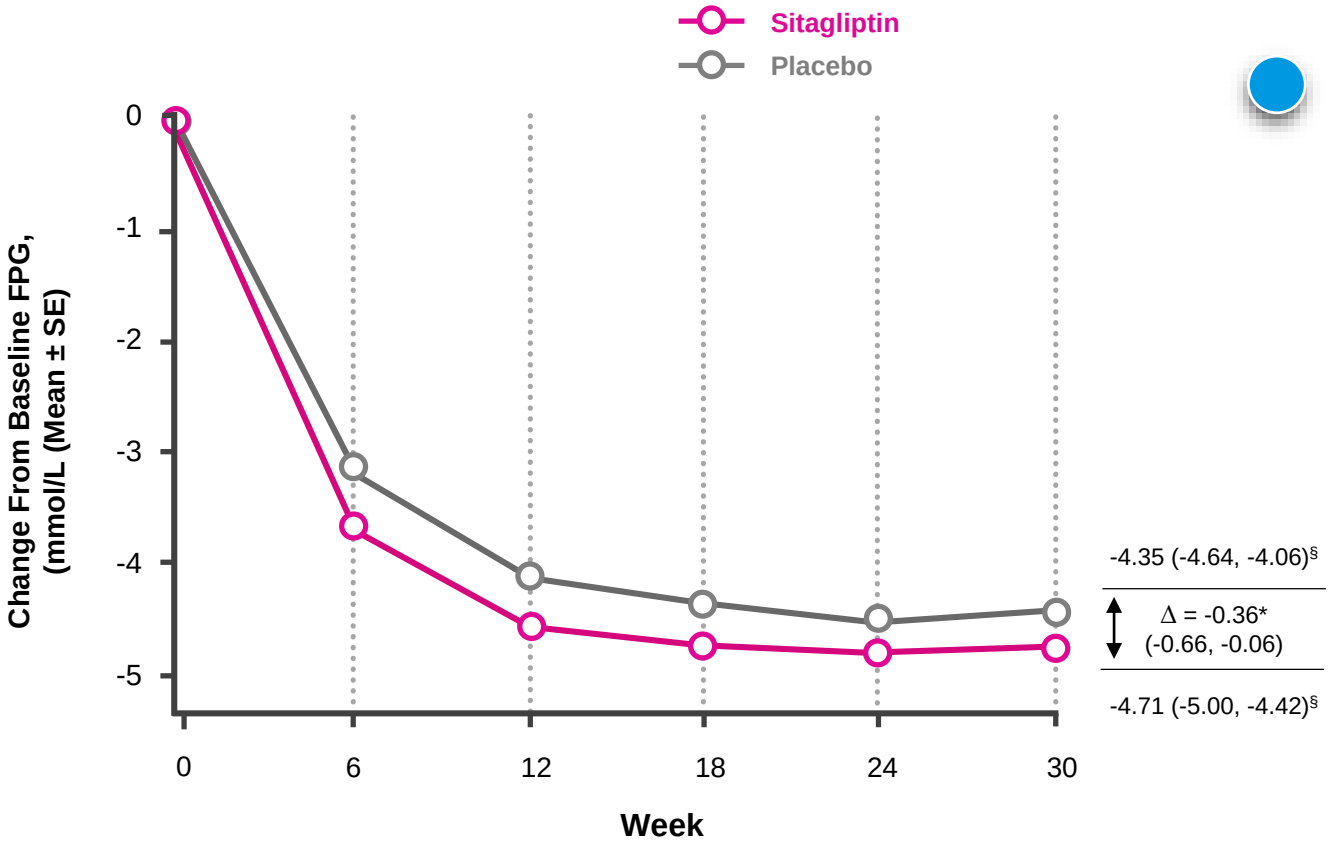
CompoSIT-I Study
Change from Baseline FPG (mmol/L)



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[Roussel: P11B, p31CFig2B]

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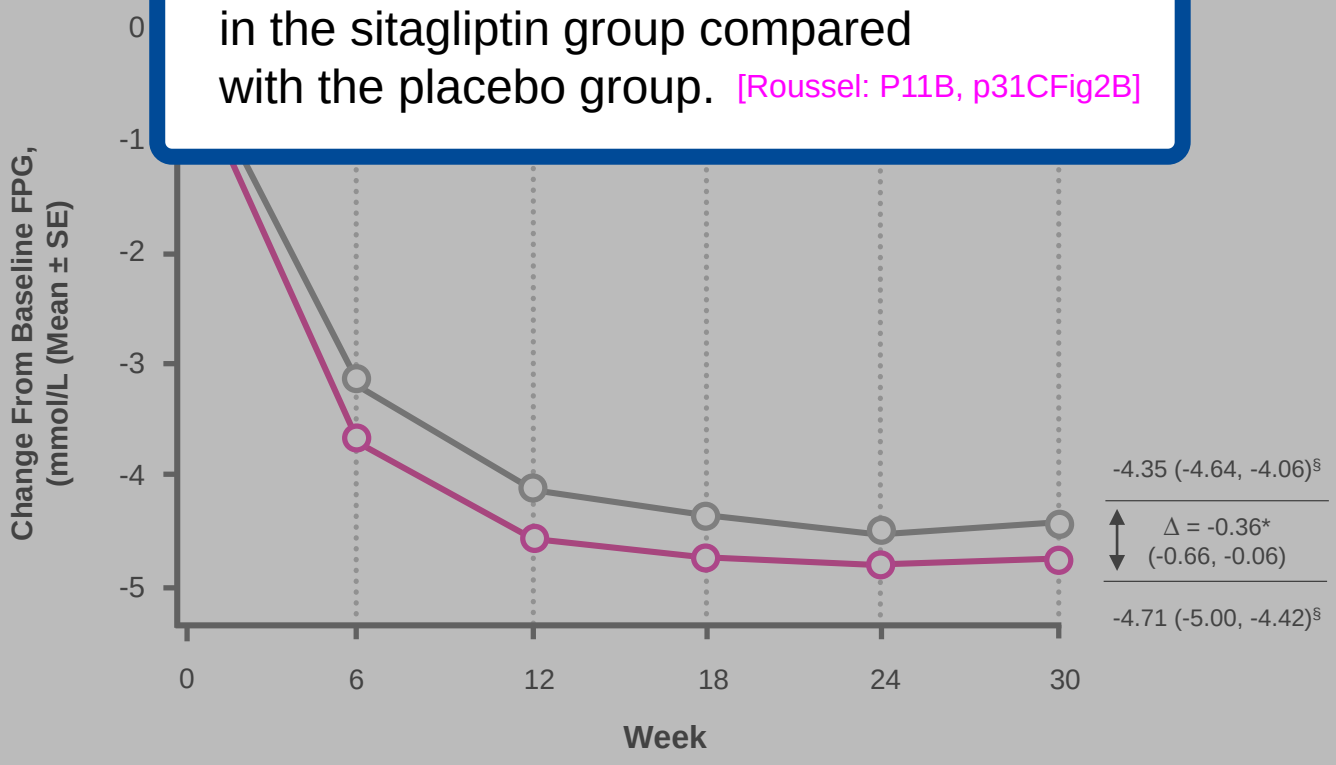
[DIAB-11263228-0000; p32]

CompoSIT-I Study
Change from Baseline FPG (mmol/L)

The LS mean reduction from baseline in FPG after 30 weeks was greater in the sitagliptin group compared with the placebo group. [Roussel: P11B, p31CFig2B]



§LS mean (95% CI) change from baseline.
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CompoSIT-I Study
Adverse Events (AEs)

Participants, n (%)	Sitagliptin		Placebo		Difference[a]
	N = 373	(%)	N = 370	(%)	
With one or more AEs	**216**	(57.9)	**222**	(60.0)	−2.1 (−9.1, 5.0)
Drug-related[b] AEs	15	(4.0)	11	(3.0)	1.0 (−1.7, 3.9)
Serious AEs	14	(3.8)	18	(4.9)	−1.1 (−4.2, 1.9)
Serious drug-related[b] AEs	0	(0.0)	0	(0.0)	0
Who died	0	(0.0)	2	(0.5)	−0.5
Discontinued study medication due to an AE	5	(1.3)	6	(1.6)	−0.3 (−2.3, 1.7)
Discontinued due to a drug-related[b] AE	1	(0.3)	0	(0.0)	0.3
Discontinued[§] due to a serious AE	0	(0.0)	2	(0.5)	−0.5
Discontinued due to a serious drug-related[b] AE	0	(0.0)	0	(0.0)	0.0

[a]Difference in % vs placebo; estimate (95% CI) was computed only for AE summary and hypoglycemia endpoints with at least 4 participants having events in one or more treatment groups.
[b]Assessed by the investigator as related to study drug.

[Roussel: p28A]

CompoSIT-I Study
Adverse Events (AEs)

Adverse events were similar in the 2 groups (5 patients taking sitagliptin and 6 patients taking placebo discontinued due to an AE; 216 patients taking sitagliptin and 222 patients taking placebo experienced one or more AEs).

[Roussel: p28A]

Parti					ce[a]
With					5.0)
Drug					3.9)
Seric					1.9)
Seric AEs					
Who died	0	(0.0)	2	(0.5)	−0.5
Discontinued study medication due to an AE	5	(1.3)	6	(1.6)	−0.3 (−2.3, 1.7)
Discontinued due to a drug-related[b] AE	1	(0.3)	0	(0.0)	0.3
Discontinued[§] due to a serious AE	0	(0.0)	2	(0.5)	−0.5
Discontinued due to a serious drug-related[b] AE	0	(0.0)	0	(0.0)	0.0

[a]Difference in % vs placebo; estimate (95% CI) was computed only for AE summary and hypoglycemia endpoints with at least 4 participants having events in one or more treatment groups.
[b]Assessed by the investigator as related to study drug.

CompoSIT-I Study
Study Summary

- When initiating basal insulin therapy, continuation of sitagliptin, compared with discontinuation of sitagliptin, resulted in the following key results:
  - A greater reduction from baseline in HbA1c and FPG [Roussel: p2B, p10B, p11B]
  - A greater percentage of subjects reached HbA1c <7.0% [Roussel: p2C]
  - No increase in hypoglycemia [Roussel: p2B]
  - A lower daily insulin dose [Roussel: p2C]
  - Similar overall tolerability

[Roussel: p11C]

[DIAB-11263228-0000; p35]

CompoSIT-I Study
Study Summary

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  - d
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When initiating basal insulin therapy, continuation of sitagliptin, compared with discontinuation, resulted in:

- A greater reduction from baseline in HbA1c and FPG [Roussel: p2B, p10B, p11B]
- Similar overall tolerability and similar event rates and incidences of hypoglycemia [Roussel: p12B]
- A greater percentage of subjects reached HbA1c <7.0%
- No increase in hypoglycemia [Roussel: p2C]
- A lower daily insulin dose [Roussel: p2C]
- Similar overall tolerability [Roussel: p2C]

Glossary

Double-blind study: a study in which neither the patients, the experimenter, nor any other assessor of the results, knows which participants are subject to which procedure, thus helping to ensure any biases or expectations will not influence results. [Double-blind Study - Medical Definition from MediLexicon p1A]

Hypoglycemia: symptoms resulting from low blood glucose (normal glucose range 60–100 mg/dL [3.3–5.6 mmol/L]), which are either autonomic or neuroglycopenic. Autonomic symptoms include sweating, trembling, feelings of warmth, anxiety, and nausea. Neuroglycopenic symptoms include feelings of dizziness, confusion, tiredness, difficulty speaking, headache, and inability to concentrate. [Hypoglycemia - Medical Definition from MediLexicon: p1A]

Insulin: polypeptide hormone, secreted by β cells in the islets of Langerhans, which promotes glucose use, protein synthesis, and the formation and storage of neutral lipids; available in various preparations including genetically engineered human insulin, which is currently favored. Insulin is used parenterally in the treatment of diabetes mellitus. [Insulin - Medical Definition from MediLexicon: p1A]

Placebo:

1. an inert substance given as a medicine for its suggestive effect.
2. an inert compound identical in appearance to material being tested in experimental research, which may or may not be known to the physician or patient, administered to distinguish between drug action and suggestive effect of the material under study. [Placebo - Medical Definition from MediLexicon: p1A]

Self Assessment

Question #1

Multiple Choice: State the two theoretical advantages of continuing the use of DPP-4i when initiating insulin glargine therapy? [Roussel: p3C]

Question #2

Fill in the blanks: Type 2 diabetes is a progressive disease and most patients eventually _____ therapy to _____ glycemic control. [Roussel: p3A]

Question #3

True or False: CompoSIT-I was designed to evaluate the efficacy and safety of discontinuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine.

[Roussel: p4D]

Question #4

State the study design of the CompoSIT-I study.

[Roussel: p5A,B, p4E, p7A]

Self Assessment

Question #5

Fill in the blanks: Eligible patients were male or female, ≥18 years of age, with T2DM and eGFR ≥60 mL/min/1.73m^2, were on a _____ ____ of _____ (≥1500 mg/day IR, XR, or part of a fixed-dose combination) in dual combination therapy with a _____ or a sulfonylurea, with an HbA1c ≥7.0% and ≤11.0%, or Metformin (≥1500 mg/day as IR, XR, or part of fixed dose combination) in triple combination therapy with a DPP-4i and a _____, with HbA1c ≥7.0% and ≤10.0%.

[Roussel: p4E, p5B]

Question #6

True or False: When initiating and intensively titrating basal insulin, continuing sitagliptin compared with discontinuing sitagliptin resulted in similar overall tolerability and lower event rates and incidences of hypoglycemia. [Roussel: p11C]

Question #7

What are the primary endpoints? [Roussel: p7B]

GLOSSARY ◀ BACK NEXT ▶ HOME

[DIAB-11263228-0000: p64-68, 70]

Self Assessment

Question #8

The event rate of documented_____ _____ was significantly ____ in the sitagliptin group versus the placebo group. [Roussel: p10B] [Roussel: p12B, p10B]

Question #9

What were the key secondary endpoints of CompoSIT-I study? [Roussel: p7B] [Roussel: p28ATable3]

Question #10

True or False: No serious side effects were considered related to the study medication. [Roussel: p28Table3]

Question #11

Fill in the blanks: When initiating _____ therapy, continuation of sitagliptin, compared with discontinuation, resulted in a clinically meaningful _____ reduction in ___ without an increase in _____. [Roussel: p2B]

Question #12

In the primary analyses, what was the difference in LS mean change from baseline in HbA1c between the sitagliptin and placebo groups. [Roussel: p2A]

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[DIAB-11263228-0000: p69, 71-73]

Self Assessment

Question #13

True or False: When initiating basal insulin therapy, continuation of sitagliptin, compared with discontinuation, resulted in a clinically meaningful greater reduction in HbA1c without an increase in hypoglycemia. [Roussel: p2B]

Question #14

What HbA1c level was required as part of the inclusion criteria?

[Roussel: p4E, 5B]

Question #15

Fill in the Blanks: As part of the inclusion criteria, participants had to be male or female, ___ years of age with ____ diabetes and eGFR ___ mL/min/1.73 m^2. [Roussel: p2B] [Roussel: p4E, p5B]

SHOW ANSWERS

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[DIAB-11263228-0000: p74-76]

Self Assessment Answer Key

1. Overall improvement of glycemic control due to better post-prandial glycemic control vs insulin glargine alone; Less hypoglycemia due to lower insulin doses and the glucagonotropic effects of glucose-dependent insulinotropic peptide (GIP) during hypoglycemia
2. intensify/maintain
3. False. CompoSIT-I was designed to evaluate the effects of continuing versus discontinuing the DPP-4i sitagliptin when initiating and intensively titrating insulin glargine
4. CompoSIT-I was a multinational, randomized, double-blind, placebo-controlled, parallel-group study to assess the effect of continuing sitagliptin at a dose of 100 mg once daily relative to withdrawing sitagliptin in patients ≥18 years of age with type 2 diabetes, and inadequate glycemic control who were initiating and uptitrating insulin glargine over 30 weeks.
5. Stable dose/MET/DPP-4i/sulfonylurea
6. False. After 30 weeks, in participants with type 2 diabetes and inadequate glycemic control on metformin (≥1500 mg/day) and sitagliptin (100 mg/day), when initiating and intensively titrating basal insulin, continuing sitagliptin compared with discontinuing sitagliptin resulted in similar overall tolerability and similar event rates and incidences of hypoglycemia.
7. Change from baseline in HbA1c at Week 30—evaluated for noninferiority (margin = 0.3%), superiority. Event rate of documented symptomatic hypoglycemia (BG ≤ 3.9 mmol/L) (total number of events [including multiple events per participant] divided by the total on-treatment follow-up time)
8. Symptomatic/hypoglycemia/lower
9. Incidences and event rates of documented hypoglycemia, with symptoms and regardless of symptoms, and daily insulin dose
10. True
11. Basal insulin/greater/HbA1c/hypoglycemia
12. The between-group difference in LS mean change from baseline HbA1c was -0.46% (-0.58%, -0.34%).
13. True
14. HbA1c of 7.5% to 11% for those who are on a stable regimen (≥12 weeks) of either metformin (≥1500 mg/day IR, XR, or part of fixed dose combination) in dual combination therapy with a DPP-4i (maximum labeled dose) or a sulfonylurea, 0r HbA1c of 7.0% to 10% for those who are on a stable regimen (≥12 weeks) of either metformin (≥1500 mg/day as IR, XR, or part of fixed dose combination) in triple combination therapy with a DPP-4i and a sulfonylurea.
15. ≥18/type 2/≥60

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