SUMMARY OF PRODUCT CHARACTERISTICS

This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 for how to report adverse reactions.

# 1. NAME OF THE MEDICINAL PRODUCT

Ozempic 0.25 mg solution for injection in pre-filled pen Ozempic 0.5 mg solution for injection in pre-filled pen Ozempic 1 mg solution for injection in pre-filled pen

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Ozempic 0.25 mg solution for injection

One ml of solution contains 1.34 mg of semaglutide\*. One pre-filled pen contains 2 mg semaglutide\* in 1.5 ml solution. Each dose contains 0.25 mg of semaglutide in 0.19 ml solution.

Ozempic 0.5 mg solution for injection

One ml of solution contains 1.34 mg of semaglutide\*. One pre-filled pen contains 2 mg semaglutide\* in 1.5 ml solution. Each dose contains 0.5 mg of semaglutide in 0.37 ml solution.

Ozempic 1 mg solution for injection

One ml of solution contains 1.34 mg of semaglutide\*. One pre-filled pen contains 4 mg semaglutide\* in 3.0 ml solution. Each dose contains 1 mg of semaglutide in 0.74 ml solution.

\*human glucagon-like peptide-1 (GLP-1) analogue produced in *Saccharomyces cerevisiae* cells by recombinant DNA technology.

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Solution for injection (injection). Clear and colourless or almost colourless, isotonic solution; pH=7.4.

## 4. CLINICAL PARTICULARS

## 4.1 Therapeutic indications

Ozempic is indicated for the treatment of adults with insufficiently controlled type 2 diabetes mellitus as an adjunct to diet and exercise

- as monotherapy when metformin is considered inappropriate due to intolerance or contraindications
- in addition to other medicinal products for the treatment of diabetes.

Ozempic is indicated to reduce the risk of major adverse cardiovascular events (cardiovascular death, non-fatal myocardial infarction or non-fatal stroke) in adults with type 2 diabetes mellitus and established cardiovascular disease.

1.0

For study results with respect to combinations, effects on glycaemic control and cardiovascular events, and the populations studied, see sections 4.4, 4.5 and 5.1.

## 4.2 Posology and method of administration

#### Posology

The starting dose is 0.25 mg semaglutide once weekly. After 4 weeks the dose should be increased to 0.5 mg once weekly. After at least 4 weeks with a dose of 0.5 mg once weekly, the dose can be increased to 1 mg once weekly to further improve glycaemic control.

Semaglutide 0.25 mg is not a maintenance dose. Weekly doses higher than 1 mg are not recommended.

When Ozempic is added to existing metformin and/or thiazolidinedione therapy or to a sodiumglucose cotransporter 2 (SGLT2) inhibitor, the current dose of metformin and/or thiazolidinedione or SGLT2 inhibitor can be continued unchanged.

When Ozempic is added to existing therapy of sulfonylurea or insulin, a reduction in the dose of sulfonylurea or insulin should be considered to reduce the risk of hypoglycaemia (see sections 4.4 and 4.8).

Self-monitoring of blood glucose is not needed in order to adjust the dose of Ozempic. Blood glucose self-monitoring is necessary to adjust the dose of sulfonylurea and insulin, particularly when Ozempic is started and insulin is reduced. A stepwise approach to insulin reduction is recommended.

#### Missed dose

If a dose is missed, it should be administered as soon as possible and within 5 days after the missed dose. If more than 5 days have passed, the missed dose should be skipped, and the next dose should be administered on the regularly scheduled day. In each case, patients can then resume their regular once weekly dosing schedule.

#### Special populations

#### Elderly

No dose adjustment is required based on age. The rapeutic experience in patients  $\geq$ 75 years of age is limited (see section 5.2).

#### Renal impairment

No dose adjustment is required for patients with mild, moderate or severe renal impairment. Experience with the use of semaglutide in patients with severe renal impairment is limited. Semaglutide is not recommended for use in patients with end-stage renal disease (see section 5.2).

#### Hepatic impairment

No dose adjustment is required for patients with hepatic impairment. Experience with the use of Semaglutide in patients with severe hepatic impairment is limited. Caution should be exercised when treating these patients with semaglutide (see section 5.2).

#### Paediatric population

The safety and efficacy of semaglutide in children and adolescents below 18 years have not yet been established. No data are available.

#### Method of administration

Ozempic is to be administered once weekly at any time of the day, with or without meals.

Ozempic is to be injected subcutaneously in the abdomen, in the thigh or in the upper arm. The injection site can be changed without dose adjustment. Ozempic should not be administered intravenously or intramuscularly.

The day of weekly administration can be changed if necessary as long as the time between two doses is at least 3 days (>72 hours). After selecting a new dosing day, once-weekly dosing should be continued.

For further information on administration, see section 6.6.

## 4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

## 4.4 Special warnings and precautions for use

To be used as prescribed by doctor only. If experience dizziness or fainting, please consult your doctor immediately.

Semaglutide should not be used in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis. Semaglutide is not a substitute for insulin. Diabetic ketoacidosis has been reported in insulin-dependent patients whom had rapid discontinuation or dose reduction of insulin when treatment with a GLP-1 receptor agonist is started (see section 4.2).

There is no experience in patients with congestive heart failure NYHA class IV and semaglutide is therefore not recommended in these patients.

## Gastrointestinal effects

Use of GLP-1 receptor agonists may be associated with gastrointestinal adverse reactions. This should be considered when treating patients, with impaired renal function as nausea, vomiting, and diarrhoea may cause dehydration which could cause a deterioration of renal function (see section 4.8).

#### Acute pancreatitis

Acute pancreatitis has been observed with the use of GLP-1 receptor agonists. Patients should be informed of the characteristic symptoms of acute pancreatitis. If pancreatitis is suspected, semaglutide should be discontinued; if confirmed, semaglutide should not be restarted. Caution should be exercised in patients with a history of pancreatitis.

#### Hypoglycaemia

Patients treated with semaglutide in combination with a sulfonylurea or insulin may have an increased risk of hypoglycaemia. The risk of hypoglycaemia can be lowered by reducing the dose of sulfonylurea or insulin when initiating treatment with semaglutide (see section 4.8).

#### **Diabetic retinopathy**

In patients with diabetic retinopathy treated with insulin and semaglutide, an increased risk of developing diabetic retinopathy complications has been observed (see section 4.8). Caution should be exercised when using semaglutide in patients with diabetic retinopathy treated with insulin. These patients should be monitored closely and treated according to clinical guidelines. Rapid improvement in glucose control has been associated with a temporary worsening of diabetic retinopathy, but other mechanisms cannot be excluded.

#### Sodium content

This medicine contains less than 1 mmol sodium (23 mg) per dose, i.e. essentially 'sodium-free'.

#### Traceability

In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded.

## 4.5 Interaction with other medicinal products and other forms of interaction

Semaglutide delays gastric emptying and has the potential to impact the rate of absorption of concomitantly administered oral medicinal products. Semaglutide should be used with caution in patients receiving oral medicinal products that require rapid gastrointestinal absorption.

## Paracetamol

Semaglutide delays the rate of gastric emptying as assessed by paracetamol pharmacokinetics during a standardised meal test. Paracetamol AUC<sub>0-60min</sub> and C<sub>max</sub> were decreased by 27% and 23%, respectively, following concomitant use of semaglutide 1 mg. The total paracetamol exposure (AUC<sub>0-5h</sub>) was not affected. No dose adjustment of paracetamol is necessary when administered with semaglutide.

## Oral contraceptives

Semaglutide is not anticipated to decrease the effect of oral contraceptives as semaglutide did not change the overall exposure of ethinylestradiol and levonorgestrel to a clinically relevant degree when an oral contraceptive combination medicinal product (0.03 mg ethinylestradiol/0.15 mg levonorgestrel) was co-administered with semaglutide. Exposure of ethinylestradiol was not affected; an increase of 20% was observed for levonorgestrel exposure at steady state.  $C_{max}$  was not affected for any of the compounds.

## Atorvastatin

Semaglutide did not change the overall exposure of atorvastatin following a single dose administration of atorvastatin (40 mg). Atorvastatin  $C_{max}$  was decreased by 38%. This was assessed not to be clinically relevant.

## <u>Digoxin</u>

Semaglutide did not change the overall exposure or  $C_{max}$  of digoxin following a single dose of digoxin (0.5 mg).

## Metformin

Semaglutide did not change the overall exposure or  $C_{max}$  of metformin following dosing of 500 mg twice daily over 3.5 days.

# Warfarin

Semaglutide did not change the overall exposure or  $C_{max}$  of R- and S-warfarin following a single dose of warfarin (25 mg), and the pharmacodynamic effects of warfarin as measured by the international normalised ratio (INR) were not affected in a clinically relevant manner. However, upon initiation of semaglutide treatment in patients on warfarin or other coumarin derivatives, frequent monitoring of INR is recommended.

## 4.6 Fertility, pregnancy and lactation

## Women of childbearing potential

Women of childbearing potential are recommended to use contraception when treated with semaglutide.

## Pregnancy

Studies in animals have shown reproductive toxicity (see section 5.3). There are limited data from the use of semaglutide in pregnant women. Therefore, semaglutide should not be used during pregnancy. If a patient wishes to become pregnant, or pregnancy occurs, semaglutide should be discontinued.

Semaglutide should be discontinued at least 2 months before a planned pregnancy due to the long half-life (see section 5.2).

# Breast-feeding

In lactating rats, semaglutide was excreted in milk. As a risk to a breast-fed child cannot be excluded, semaglutide should not be used during breast-feeding.

# **Fertility**

The effect of semaglutide on fertility in humans is unknown. Semaglutide did not affect male fertility in rats. In female rats, an increase in oestrous length and a small reduction in number of ovulations were observed at doses associated with maternal body weight loss (see section 5.3).

## 4.7 Effects on ability to drive and use machines

Semaglutide has no or negligible influence on the ability to drive or use machines. When it is used in combination with a sulfonylurea or insulin, patients should be advised to take precautions to avoid hypoglycaemia while driving and using machines (see section 4.4).

## 4.8 Undesirable effects

## Summary of safety profile

In 8 phase 3a trials 4,792 patients were exposed to semaglutide. The most frequently reported adverse reactions in clinical trials were gastrointestinal disorders, including nausea (very common), diarrhoea (very common) and vomiting (common). In general, these reactions were mild or moderate in severity and of short duration.

## Tabulated list of adverse reactions

Table 1 lists adverse reactions identified in all phase 3a trials in patients with type 2 diabetes mellitus (further described in section 5.1). The frequencies of the adverse reactions are based on a pool of the phase 3a trials excluding the cardiovascular outcomes trial (see text below the table for additional details).

The reactions are listed below by system organ class and absolute frequency. Frequencies are defined as: very common: ( $\geq 1/10$ ); common: ( $\geq 1/100$  to <1/10); uncommon: ( $\geq 1/1,000$  to <1/100); rare: ( $\geq 1/10,000$  to <1/1,000); very rare: (<1/10,000) and not known: cannot be estimated from available data. Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness.

# Table 1 Adverse reactions from long-term controlled phase 3a trials including the cardiovascular outcomes trial

MedDRA	Very common	Common	Uncommon	Rare	Not known
system organ					
class					
Immune system			Hypersensitivity <sup>c</sup>	Anaphylactic	
disorders				reaction	
Metabolism and	Hypoglycaemia <sup>a</sup>	Hypoglycaemia <sup>a</sup>			
nutrition	when used with	when used with			
disorders	insulin or	other OADs			
	sulfonylurea				
		Decreased			
		appetite			
		11			
Nervous system		Dizziness	Dysgeusia		
disorders					
Eye disorders		Diabetic			
-		retinopathy			

		complications <sup>b</sup>		
Cardiac disorders			Increased heart rate	
Gastrointestinal disorders	Nausea Diarrhoea	Vomiting Abdominal pain Abdominal distension Constipation Dyspepsia Gastritis Gastro- oesophageal reflux disease	Acute pancreatitis	
Hepatobiliary disorders		Eructation Flatulence Cholelithiasis		
Skin and subcutaneous tissue disorders				Angioedema <sup>d</sup>
General disorders and administration site conditions		Fatigue	Injection site reactions	
Investigations		Increased lipase Increased amylase Weight decreased		

<sup>a)</sup> Hypoglycaemia defined as severe (requiring the assistance of another person) or symptomatic in combination with a blood glucose <3.1 mmol/L.

<sup>b)</sup> Diabetic retinopathy complications is a composite of: retinal photocoagulation, treatment with intravitreal agents, vitreous haemorrhage, diabetes-related blindness (uncommon). Frequency based on cardiovascular outcomes trial.

<sup>c)</sup> Grouped term covering also adverse events related to hypersensitivity such as rash and urticaria.

<sup>d)</sup> From post-marketing reports.

#### 2-year cardiovascular outcomes and safety trial

In cardiovascular high risk population the adverse reaction profile was similar to that seen in the other phase 3a trials (described in section 5.1).

#### Description of selected adverse reactions

#### <u>Hypoglycaemia</u>

No episodes of severe hypoglycaemia were observed when semaglutide was used as monotherapy. Severe hypoglycaemia was primarily observed when semaglutide was used with a sulfonylurea (1.2% of subjects, 0.03 events/patient year) or insulin (1.5% of subjects, 0.02 events/patient year). Few episodes (0.1% of subjects, 0.001 events/patient year) were observed with semaglutide in combination with oral antidiabetics other than sulfonylureas.

ADA classified hypoglycaemia occurred in 11.3% (0.3 events/patient year) of patients when semaglutide 1.0 mg was added to SGLT2 inhibitor in SUSTAIN 9 compared to 2.0% (0.04 events/patient year) of placebo-treated patients. Severe hypoglycaemia was reported in 0.7% (0.01 events/patient year) and 0% of patients, respectively.

#### Gastrointestinal adverse reactions

Nausea occurred in 17.0% and 19.9% of patients when treated with semaglutide 0.5 mg and 1 mg, respectively, diarrhoea in 12.2% and 13.3% and vomiting in 6.4% and 8.4%. Most events were mild to moderate in severity and of short duration. The events led to treatment discontinuation in 3.9% and 5% of patients. The events were most frequently reported during the first months on treatment. Patients with low body weight may experience more gastrointestinal side effects when treated with semaglutide.

In concomitant use with an SGLT2 inhibitor in SUSTAIN 9, constipation and gastro-oesophageal reflux disease occurred in 6.7% and 4% respectively of patients treated with semaglutide 1.0 mg compared to no events for placebo-treated patients. The prevalence of these events did not decrease over time.

## Acute pancreatitis

The frequency of adjudication-confirmed acute pancreatitis reported in phase 3a clinical trials was 0.3% for semaglutide and 0.2% for the comparator, respectively. In the 2-year cardiovascular outcomes trial the frequency of acute pancreatitis confirmed by adjudication was 0.5% for semaglutide and 0.6% for placebo (see section 4.4).

## Diabetic retinopathy complications

A 2-year clinical trial investigated 3,297 patients with type 2 diabetes, with high cardiovascular risk, long duration of diabetes and poorly controlled blood glucose. In this trial, adjudicated events of diabetic retinopathy complications occurred in more patients treated with semaglutide (3.0%) compared to placebo (1.8%). This was observed in insulin-treated patients with known diabetic retinopathy. The treatment difference appeared early and persisted throughout the trial. Systematic evaluation of diabetic retinopathy complication was only performed in the cardiovascular outcomes trial. In clinical trials up to 1 year involving 4,807 patients with type 2 diabetes, adverse events related to diabetic retinopathy were reported in similar proportions of subjects treated with semaglutide (1.7%) and comparators (2.0%).

## Discontinuation due to an adverse event

The incidence of discontinuation of treatment due to adverse events was 6.1% and 8.7% for patients treated with semaglutide 0.5 mg and 1 mg, respectively, versus 1.5% for placebo. The most frequent adverse events leading to discontinuation were gastrointestinal.

## Injection site reactions

Injection site reactions (e.g. injection site rash, erythema) have been reported by 0.6% and 0.5% of patients receiving semaglutide 0.5 mg and 1 mg, respectively. These reactions have usually been mild.

## Immunogenicity

Consistent with the potentially immunogenic properties of medicinal products containing proteins or peptides, patients may develop antibodies following treatment with semaglutide. The proportion of patients tested positive for anti-semaglutide antibodies at any time point post-baseline was low (1-2%) and no patients had anti-semaglutide neutralising antibodies or anti-semaglutide antibodies with endogenous GLP-1 neutralising effect at end-of-trial.

## Heart rate increase

Increased heart rate has been observed with GLP-1 receptor agonists. In the phase 3a trials, mean increases of 1 to 6 beats per minute (bpm) from a baseline of 72 to 76 bpm were observed in subjects treated with Ozempic. In a long-term trial in subjects with cardiovascular risk factors, 16% of Ozempic-treated subjects had an increase in heart rate of >10 bpm compared to 11% of subjects on placebo after 2 years of treatment.

## Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system

## 4.9 Overdose

Overdoses of up to 4 mg in a single dose, and up to 4 mg in a week have been reported in clinical trials. The most commonly reported adverse reaction was nausea. All patients recovered without complications.

There is no specific antidote for overdose with semaglutide. In the event of overdose, appropriate supportive treatment should be initiated according to the patient's clinical signs and symptoms. A prolonged period of observation and treatment for these symptoms may be necessary, taking into account the long half-life of semaglutide of approximately 1 week (see section 5.2).

# 5. PHARMACOLOGICAL PROPERTIES

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Drugs used in diabetes, Glucagon-like peptide-1 (GLP-1) analogues, ATC code: A10BJ06

## Mechanism of action

Semaglutide is a GLP-1 analogue with 94% sequence homology to human GLP-1. Semaglutide acts as a GLP-1 receptor agonist that selectively binds to and activates the GLP-1 receptor, the target for native GLP-1.

GLP--1 is a physiological hormone that has multiple actions in glucose and appetite regulation, and in the cardiovascular system. The glucose and appetite effects are specifically mediated via GLP-1 receptors in the pancreas and the brain.

Semaglutide reduces blood glucose in a glucose dependent manner by stimulating insulin secretion and lowering glucagon secretion when blood glucose is high. The mechanism of blood glucose lowering also involves a minor delay in gastric emptying in the early postprandial phase. During hypoglycaemia, semaglutide diminishes insulin secretion and does not impair glucagon secretion.

Semaglutide reduces body weight and body fat mass through lowered energy intake, involving an overall reduced appetite. In addition, semaglutide reduces the preference for high fat foods.

GLP-1 receptors are also expressed in the heart, vasculature, immune system and kidneys. Semaglutide had a beneficial effect on plasma lipids, lowered systolic blood pressure and reduced inflammation in clinical studies. In animal studies, semaglutide attenuates the development of atherosclerosis by preventing aortic plaque progression and reducing inflammation in the plaque.

## Pharmacodynamic effects

All pharmacodynamic evaluations were performed after 12 weeks of treatment (including dose escalation) at steady state with semaglutide 1 mg once weekly.

## Fasting and postprandial glucose

Semaglutide reduces fasting and postprandial glucose concentrations. In patients with type 2 diabetes, treatment with semaglutide 1 mg resulted in reductions in glucose in terms of absolute change from baseline (mmol/L) and relative reduction compared to placebo (%) for fasting glucose (1.6 mmol/L; 22% reduction), 2 hour postprandial glucose (4.1 mmol/L; 37% reduction), mean 24 hour glucose

concentration (1.7 mmol/L; 22% reduction) and postprandial glucose excursions over 3 meals (0.6-1.1 mmol/L) compared with placebo. Semaglutide lowered fasting glucose after the first dose.

## Beta-cell function and insulin secretion

Semaglutide improves beta-cell function. Compared to placebo, semaglutide improved first- and second-phase insulin response with a 3– and 2–fold increase, respectively, and increased maximal beta-cell secretory capacity in patients with type 2 diabetes. In addition, semaglutide treatment increased fasting insulin concentrations compared to placebo.

## **Glucagon secretion**

Semaglutide lowers the fasting and postprandial glucagon concentrations. In patients with type 2 diabetes, semaglutide resulted in the following relative reductions in glucagon compared to placebo: fasting glucagon (8–21%), postprandial glucagon response (14–15%) and mean 24 hour glucagon concentration (12%).

#### Glucose dependent insulin and glucagon secretion

Semaglutide lowered high blood glucose concentrations by stimulating insulin secretion and lowering glucagon secretion in a glucose dependent manner. With semaglutide, the insulin secretion rate in patients with type 2 diabetes was comparable to that of healthy subjects.

During induced hypoglycaemia, semaglutide compared to placebo did not alter the counter regulatory responses of increased glucagon and did not impair the decrease of C-peptide in patients with type 2-diabetes.

#### Gastric emptying

Semaglutide caused a minor delay of early postprandial gastric emptying, thereby reducing the rate at which glucose appears in the circulation postprandially.

## Appetite, energy intake and food choice

Semaglutide compared to placebo lowered the energy intake of 3 consecutive *ad libitum* meals by 18-35%. This was supported by a semaglutide-induced suppression of appetite in the fasting state as well as postprandially, improved control of eating, less food cravings and a relative lower preference for high fat food.

#### Fasting and postprandial lipids

Semaglutide compared to placebo lowered fasting triglyceride and very low density lipoproteins (VLDL) cholesterol concentrations by 12% and 21%, respectively. The postprandial triglyceride and VLDL cholesterol response to a high fat meal was reduced by >40%.

#### Cardiac electrophysiology (QTc)

The effect of semaglutide on cardiac repolarization was tested in a thorough QTc trial. Semaglutide did not prolong QTc intervals at supra-therapeutic dose levels (up to 1.5 mg at steady state).

#### Clinical efficacy and safety

Both improvement of glycaemic control and reduction of cardiovascular morbidity and mortality are an integral part of the treatment of type 2 diabetes.

The efficacy and safety of Ozempic 0.5 mg and 1 mg once weekly were evaluated in six randomised controlled phase 3a trials that included 7,215 patients with type 2 diabetes mellitus (4,107 treated with semaglutide). Five trials (SUSTAIN 1–5) had the glycaemic efficacy assessment as the primary objective, while one trial (SUSTAIN 6) had cardiovascular outcome as the primary objective.

In addition a phase 3b trial (SUSTAIN 7) including 1,201 patients was conducted to compare the efficacy and safety of Ozempic 0.5 mg and 1 mg once weekly to dulaglutide 0.75 mg and 1.5 mg once

weekly, respectively. A phase 3b trial (SUSTAIN 9), was conducted to investigate the efficacy and safety of semaglutide as add-on to SGLT2 inhibitor treatment.

Treatment with semaglutide demonstrated sustained, statistically superior and clinically meaningful reductions in HbA<sub>1c</sub> and body weight for up to 2 years compared to placebo and active control treatment (sitagliptin, insulin glargine, exenatide ER and dulaglutide).

The efficacy of semaglutide was not impacted by age, gender, race, ethnicity, BMI at baseline, body weight (kg) at baseline, diabetes duration and level of renal function impairment.

Detailed information is provided below.

## SUSTAIN 1 – Monotherapy

In a 30-week double-blind placebo-controlled trial, 388 patients inadequately controlled with diet and exercise, were randomised to Ozempic 0.5 mg or Ozempic 1 mg once weekly or placebo.

## Table 2 SUSTAIN 1: Results at week 30

	Semaglutide	Semaglutide	Placebo
	0.5 mg	1 mg	
Intent-to-Treat (ITT) Population (N)	128	130	129
HbA <sub>1c</sub> (%)			
Baseline (mean)	8.1	8.1	8.0
Change from baseline at week 30	-1.5	-1.6	0
Difference from placebo [95% CI]	-1.4 [-1.7, -1.1] <sup>a</sup>	-1.5 [-1.8, -1.2] <sup>a</sup>	-
Patients (%) achieving HbA <sub>1c</sub> <7%	74	72	25
FPG (mmol/L)			
Baseline (mean)	9.7	9.9	9.7
Change from baseline at week 30	-2.5	-2.3	-0.6
Body weight (kg)			
Baseline (mean)	89.8	96.9	89.1
Change from baseline at week 30	-3.7	-4.5	-1.0
Difference from placebo [95% CI]	-2.7 [-3.9, -1.6] <sup>a</sup>	-3.6 [-4.7, -2.4] <sup>a</sup>	-

<sup>a</sup>p <0.0001 (2-sided) for superiority

In a 56-week active-controlled double-blind trial, 1,231 patients were randomised to Ozempic 0.5 mg once weekly, Ozempic 1 mg once weekly or sitagliptin 100 mg once daily, all in combination with metformin (94%) and/or thiazolidinediones (6%).

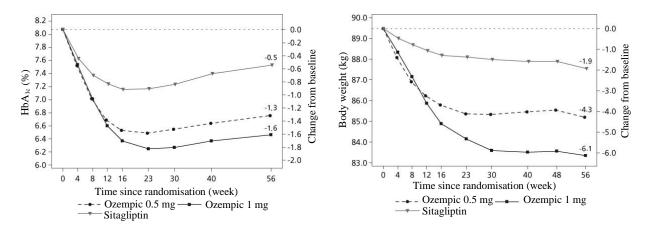
#### Table 3 SUSTAIN 2: Results at week 56

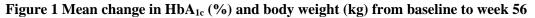
	Semaglutide 0.5 mg	Semaglutide 1 mg	Sitagliptin 100 mg
Intent-to-Treat (ITT) Population (N)	409	409	407
HbA <sub>1c</sub> (%)			
Baseline (mean)	8.0	8.0	8.2
Change from baseline at week 56	-1.3	-1.6	-0.5
Difference from sitagliptin [95% CI]	-0.8 [-0.9, -0.6] <sup>a</sup>	-1.1 [-1.2, -0.9] <sup>a</sup>	-
Patients (%) achieving HbA <sub>1c</sub> <7%	69	78	36
FPG (mmol/L)			
Baseline (mean)	9.3	9.3	9.6
Change from baseline at week 56	-2.1	-2.6	-1.1
Body weight (kg)			
Baseline (mean)	89.9	89.2	89.3

<sup>&</sup>lt;u>SUSTAIN 2 – Ozempic vs. sitagliptin both in combination with 1–2 oral antidiabetic drugs (metformin and/or thiazolidinediones)</u>

Change from baseline at week 56	-4.3	-6.1	-1.9
Difference from sitagliptin [95% CI]	-2.3 [-3.1, -1.6] <sup>a</sup>	-4.2 [-4.9, -3.5] <sup>a</sup>	-

<sup>a</sup>p <0.0001 (2-sided) for superiority





## SUSTAIN 7 – Ozempic vs. dulaglutide both in combination with metformin

In a 40-week, open-label trial, 1,201 patients on metformin were randomised 1:1:1:1 to once weekly Ozempic 0.5 mg, dulaglutide 0.75 mg, Ozempic 1 mg or dulaglutide 1.5 mg, respectively . The trial compared 0.5 mg of Ozempic to 0.75 mg of dulaglutide and 1 mg of Ozempic to 1.5 mg of dulaglutide.

Gastrointestinal disorders were the most frequent adverse events, and occurred in similar proportion of patients receiving Ozempic 0.5 mg (129 patients [43%]), Ozempic 1 mg (133 [44%]), and dulaglutide 1.5 mg (143 [48%]); fewer patients had gastrointestinal disorders with dulaglutide 0.75 mg (100 [33%]).

At week 40, the increase in pulse rate for Ozempic (0.5 mg and 1 mg) and dulaglutide (0.75 mg and 1.5 mg) was 2.4, 4.0, and 1.6, 2.1, beats/min, respectively.

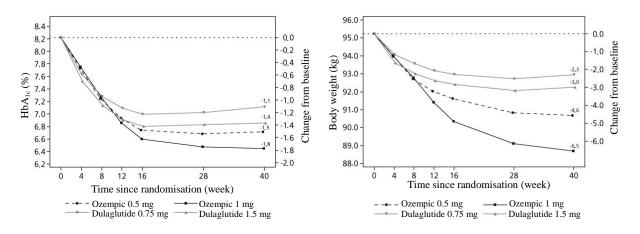
	Semaglutide	Semaglutide	Dulaglutide	Dulaglutide
	0.5 mg	1 mg	0.75 mg	1.5 mg
Intent-to-Treat (ITT)	301	300	299	299
Population(N)				
HbA <sub>1c</sub> (%)				
Baseline (mean)	8.3	8.2	8.2	8.2
Change from baseline at week 40	-1.5	-1.8	-1.1	-1.4
Difference from dulaglutide	-0.4 <sup>b</sup>	-0.4 <sup>c</sup>	-	-
[95% CI]	[-0.6, -0.2] <sup>a</sup>	[-0.6, -0.3] <sup>a</sup>		
Patients (%) achieving HbA <sub>1c</sub> <7%	68	79	52	67
FPG (mmol/L)				
Baseline (mean)	9.8	9.8	9.7	9.6
Change from baseline at week 40	-2.2	-2.8	-1.9	-2.2
Body weight (kg)				
Baseline (mean)	96.4	95.5	95.6	93.4
Change from baseline at week 40	-4.6	-6.5	-2.3	-3.0
Difference from dulaglutide	-2.3 <sup>b</sup>	-3.6 <sup>c</sup>	-	-
[95% CI]	[-3.0, -1.5] <sup>a</sup>	[-4.3, -2.8] <sup>a</sup>		

#### Table 4 SUSTAIN 7: Results at week 40

<sup>a</sup>p <0.0001 (2-sided) for superiority

<sup>b</sup>Ozempic 0.5 mg vs dulaglutide 0.75 mg

<sup>c</sup> Ozempic 1 mg vs dulaglutide 1.5 mg



## Figure 2 Mean change in HbA1c (%) and body weight (kg) from baseline to week 40

## <u>SUSTAIN 3 – Ozempic vs. exenatide ER both in combination with metformin or metformin with</u> <u>sulfonylurea</u>

In a 56-week open-label trial, 813 patients on metformin alone (49%), metformin with sulfonylurea (45%) or other (6%) were randomised to Ozempic 1 mg or exenatide ER 2 mg once weekly.

	Semaglutide	Exenatide ER
	1 mg	2 mg
Intent-to-Treat (ITT) Population (N)	404	405
HbA <sub>1c</sub> (%)		
Baseline (mean)	8.4	8.3
Change from baseline at week 56	-1.5	-0.9
Difference from exenatide [95% CI]	-0.6 [-0.8, -0.4] <sup>a</sup>	-
Patients (%) achieving HbA <sub>1c</sub> <7%	67	40
FPG (mmol/L)		
Baseline (mean)	10.6	10.4
Change from baseline at week 56	-2.8	-2.0
Body weight (kg)		
Baseline (mean)	96.2	95.4
Change from baseline at week 56	-5.6	-1.9
Difference from exenatide [95% CI]	-3.8 [-4.6, -3.0] <sup>a</sup>	-

## Table 5 SUSTAIN 3: Results at week 56

<sup>a</sup>p <0.0001 (2-sided) for superiority

## <u>SUSTAIN 4 – Ozempic vs. insulin glargine both in combination with 1–2 oral antidiabetic drugs</u> (metformin or metformin and sulfonylurea)

In a 30-week open-label comparator trial 1,089 patients were randomised to Ozempic 0.5 mg once weekly, Ozempic 1 mg once weekly, or insulin glargine once-daily on a background of metformin (48%) or metformin and sulfonylurea (51%).

	Semaglutide 0.5 mg	Semaglutide 1 mg	Insulin Glargine
Intent-to-Treat (ITT) Population (N)	362	360	360
HbA <sub>1c</sub> (%)			
Baseline (mean)	8.1	8.2	8.1
Change from baseline at week 30	-1.2	-1.6	-0.8
Difference from insulin glargine [95% CI]	-0.4 [-0.5, -0.2] <sup>a</sup>	-0.8 [-1.0, -0.7] <sup>a</sup>	-

## Table 6 SUSTAIN 4: Results at week 30

Patients (%) achieving HbA <sub>1c</sub> <7%	57	73	38
FPG (mmol/L)			
Baseline (mean)	9.6	9.9	9.7
Change from baseline at week 30	-2.0	-2.7	-2.1
Body weight (kg)			
Baseline (mean)	93.7	94.0	92.6
Change from baseline at week 30	-3.5	-5.2	+1.2
Difference from insulin glargine [95% CI]	-4.6 [-5.3, -4.0] <sup>a</sup>	-6.34 [-7.0, -5.7] <sup>a</sup>	_

<sup>a</sup>p <0.0001 (2-sided) for superiority

# SUSTAIN 5 – Ozempic vs. placebo both in combination with basal insulin

In a 30-week double-blind placebo-controlled trial, 397 patients inadequately controlled with basal insulin with or without metformin were randomised to Ozempic 0.5 mg once weekly, Ozempic 1 mg once weekly or placebo.

Table 7 SU	STAIN 5:	Results	at week 30
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	Semaglutide	Semaglutide	Placebo
	0.5 mg	1 mg	
Intent-to-Treat (ITT) Population (N)	132	131	133
HbA <sub>1c</sub> (%)			
Baseline (mean)	8.4	8.3	8.4
Change from baseline at week 30	-1.4	-1.8	-0.1
Difference from placebo [95% CI]	-1.4 [-1.6, -1.1] <sup>a</sup>	-1.8 [-2.0, -1.5] <sup>a</sup>	-
Patients (%) achieving HbA <sub>1c</sub> <7%	61	79	11
FPG (mmol/L)			
Baseline (mean)	8.9	8.5	8.6
Change from baseline at week 30	-1.6	-2.4	-0.5
Body weight (kg)			
Baseline (mean)	92.7	92.5	89.9
Change from baseline at week 30	-3.7	-6.4	-1.4
Difference from placebo [95% CI]	-2.3 [-3.3, -1.3] <sup>a</sup>	-5.1 [-6.1, -4.0] <sup>a</sup>	-

<sup>a</sup>p <0.0001 (2-sided) for superiority

In a 30-week double-blind placebo-controlled trial, 302 patients inadequately controlled with SGLT2 inhibitor with or without metformin or SU were randomised to semaglutide 1.0 mg once weekly or placebo.

## Table 8 SUSTAIN 9: Results at week 30

	Semaglutide	Placebo
	1 mg	
Intent-to-Treat (ITT) Population (N)	151	151
$HbA_{1c}$ (%)		
Baseline (mean)	8.0	8.1
Change from baseline at week 30	-1.5	-0.1
Difference from placebo [95% CI]	-1.4 [-1.6, -1.2] <sup>a</sup>	-
Patients (%) achieving HbA <sub>1c</sub> <7%	78.7	18.7
FPG (mmol/L)		
Baseline (mean)	9.1	8.9
Change from baseline at week 30	-2.2	0.0
Body weight (kg)		
Baseline (mean)	89.6	93.8
Change from baseline at week 30	-4.7	-0.9
Difference from placebo [95% CI]	-3.8 [-4.7, -2.9] <sup>a</sup>	-

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<sup>&</sup>lt;u>SUSTAIN 9 – Ozempic vs. placebo as add-on to SGLT2 inhibitor  $\pm$  metformin or SU</u>

 $^{a}p < 0.0001$  (2-sided) for superiority, adjusted regarding multiplicity based on hierarchical testing of the HbA1c value and body weight

## Combination with sulfonylurea monotherapy

In SUSTAIN 6 (see subsection Cardiovascular disease) 123 patients were on sulfonylurea monotherapy at baseline.  $HbA_{1c}$  at baseline was 8.2%, 8.4% and 8.4% for Ozempic 0.5 mg, Ozempic 1 mg, and placebo, respectively. At week 30, the change in  $HbA_{1c}$  was -1.6%, -1.5% and 0.1% for Ozempic 0.5 mg, Ozempic 1 mg, and placebo, respectively.

## Combination with premix insulin $\pm 1-2$ OADs

In SUSTAIN 6 (see subsection Cardiovascular disease) 867 patients were on premix insulin (with or without OAD(s)) at baseline. HbA<sub>1c</sub> at baseline was 8.8%, 8.9% and 8.9% for Ozempic 0.5 mg, Ozempic 1 mg, and placebo, respectively. At week 30, the change in HbA<sub>1c</sub> was -1.3%, -1.8% and - 0.4% for Ozempic 0.5 mg, Ozempic 1 mg, and placebo, respectively.

## Cardiovascular disease

In a 104-week double-blind trial (SUSTAIN 6), 3,297 patients with type 2 diabetes mellitus at high cardiovascular risk were randomised to either Ozempic 0.5 mg once weekly, Ozempic 1 mg once weekly or corresponding placebo in addition to standard-of-care hereafter followed for 2 years. In total 98% of the patients completed the trial and the vital status was known at the end of the trial for 99.6% of the patients.

The trial population was distributed by age as: 1,598 patients (48.5%)  $\geq$ 65 years, 321 (9.7%)  $\geq$ 75 years, and 20 (0.6%)  $\geq$ 85 years. There were 2,358 patients with normal or mild renal impairment, 832 with moderate and 107 with severe or end stage renal impairment. There were 61% males, the mean age was 65 years and mean BMI was 33 kg/m<sup>2</sup>. The mean duration of diabetes was 13.9 years.

The primary endpoint was time from randomisation to first occurrence of a major adverse cardiovascular event (MACE): cardiovascular death, non-fatal myocardial infarction or non-fatal stroke.

The total number of primary component MACE endpoints was 254, including 108 (6.6%) with semaglutide and 146 (8.9%) with placebo. See figure 4 for results on primary and secondary cardiovascular endpoints. Treatment with semaglutide resulted in a 26% risk reduction in the primary composite outcome of death from cardiovascular causes, non-fatal myocardial infarction or non-fatal stroke. The total numbers of cardiovascular deaths, non-fatal myocardial infarctions and non-fatal strokes were 90, 111, and 71, respectively, including 44 (2.7%), 47 (2.9%), and 27 (1.6%), respectively, with semaglutide (figure 4). The risk reduction in the primary composite outcome was mainly driven by decreases in the rate of non-fatal stroke (39%) and non-fatal myocardial infarction (26%) (figure 3).

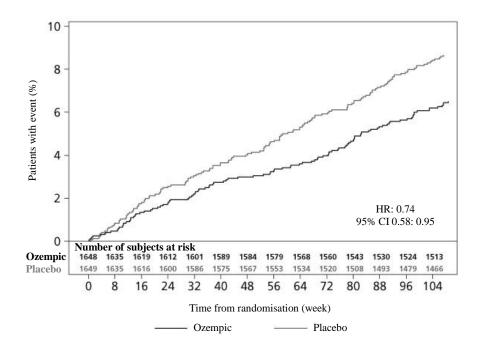


Figure 3 Kaplan-Meier plot of time to first occurrence of the composite outcome: cardiovascular death, non-fatal myocardial infarction or non-fatal stroke (SUSTAIN 6)

				Hazard Ratio (95% CI)	Ozempic N (%)	Placebo N (%)
FAS					1648 (100)	1649 (100)
Primary endpoint – MACE	H	•		0.74 (0.58- 0.95)	108 (6.6)	146 (8.9)
<b>Components of MACE</b>						
Cardiovascular death	H	• 1		0.98 (0.65-1.48)	44 (2.7)	46 (2.8)
Non-fatal stroke	•			0.61 (0.38-0.99)	27 (1.6)	44 (2.7)
Non-fatal myocardial infarction	ļ	•		0.74 (0.51-1.08)	47 (2.9)	64 (3.9)
Other secondary endpoints						
All cause death		• · · · · ·		1.05 (0.74-1.50)	62 (3.8)	60 (3.6)
	0.2	1	5			
	Favours Ozempic	Favo	urs placebo			

# Figure 4 Forest plot: analyses of time to first occurrence of the composite outcome, its components and all cause death (SUSTAIN 6)

There were 158 events of new or worsening nephropathy. The hazard ratio [95% CI] for time to nephropathy (new onset of persistent macroalbuminuria, persistent doubling of serum creatinine, need for continuous renal replacement therapy and death due to renal disease) was 0.64 [0.46; 0.88] driven by new onset of persistent macroalbuminuria.

## Body weight

After one year of treatment, a weight loss of  $\geq$ 5% and  $\geq$ 10% was achieved for more subjects with Ozempic 0.5 mg (46% and 13%) and 1 mg (52 – 62% and 21 – 24%) compared with the active comparators sitagliptin (18% and 3%) and exenatide ER (17% and 4%).

In the 40-week trial versus dulaglutide a weight loss of  $\geq 5\%$  and  $\geq 10\%$  was achieved for more subjects with Ozempic 0.5 mg (44% and 14%) compared with dulaglutide 0.75 mg (23% and 3%) and Ozempic 1 mg (up to 63% and 27%) compared with dulaglutide 1.5 mg (30% and 8%).

A significant and sustained reduction in body weight from baseline to week 104 was observed with Ozempic 0.5 mg and 1 mg vs placebo 0.5 mg and 1 mg, in addition to standard-of-care (-3.6 kg and -4.9 kg vs -0.7 kg and -0.5 kg, respectively) in SUSTAIN 6.

## Blood pressure

Significant reductions in mean systolic blood pressure were observed when Ozempic 0.5 mg (3.5-5.1 mmHg) and 1 mg (5.4–7.3 mmHg) were used in combination with oral antidiabetic medicinal products or basal insulin. For diastolic blood pressure, there were no significant differences between semaglutide and comparators.

## Paediatric population

The European Medicines Agency has deferred the obligation to submit the results of studies with semaglutide in one or more subsets of the paediatric population in type 2 diabetes (see section 4.2).

## 5.2 Pharmacokinetic properties

Compared to native GLP-1, semaglutide has a prolonged half-life of around 1 week making it suitable for once weekly subcutaneous administration. The principal mechanism of protraction is albumin binding, which results in decreased renal clearance and protection from metabolic degradation. Furthermore, semaglutide is stabilised against degradation by the DPP-4 enzyme.

#### **Absorption**

Maximum concentration was reached 1 to 3 days post dose. Steady state exposure was achieved following 4–5 weeks of once weekly administration. In patients with type 2 diabetes, the mean steady state concentrations following subcutaneous administration of 0.5 mg and 1 mg semaglutide were approximately 16 nmol/L and 30 nmol/L, respectively. Semaglutide exposure increased in a dose proportional manner for doses of 0.5 mg and 1 mg. Similar exposure was achieved with subcutaneous administration of semaglutide in the abdomen, thigh, or upper arm. Absolute bioavailability of subcutaneous semaglutide was 89%.

## Distribution

The mean volume of distribution of semaglutide following subcutaneous administration in patients with type 2 diabetes was approximately 12.5 L. Semaglutide was extensively bound to plasma albumin (>99%).

## Metabolism/Biotransformation

Prior to excretion, semaglutide is extensively metabolised through proteolytic cleavage of the peptide backbone and sequential beta-oxidation of the fatty acid sidechain. The enzyme neutral endopeptidase (NEP) is expected to be involved in the metabolism of semaglutide.

## **Elimination**

In a study with a single subcutaneous dose of radiolabelled semaglutide, it was found that the primary excretion routes of semaglutide-related material were via urine and faeces; approximately 2/3 of semaglutide-related material were excreted in urine and approximately 1/3 in faeces. Approximately 3% of the dose was excreted as intact semaglutide via urine. In patients with type 2 diabetes clearance of semaglutide was approximately 0.05 L/h. With an elimination half-life of approximately 1 week, semaglutide will be present in the circulation for about 5 weeks after the last dose.

## Special population

# <u>Elderly</u>

Age had no effect on the pharmacokinetics of semaglutide based on data from phase 3a studies including patients of 20–86 years of age.

## Gender, race and ethnicity

Gender, race (White, Black or African-American, Asian) and ethnicity (Hispanic or Latino, non-Hispanic or -Latino) had no effect on the pharmacokinetics of semaglutide.

## Body weight

Body weight has an effect on the exposure of semaglutide. Higher body weight results in lower exposure; a 20% difference in body weight between individuals will result in an approximate 16% difference in exposure. Semaglutide doses of 0.5 mg and 1 mg provide adequate systemic exposure over a body weight range of 40–198 kg.

#### Renal impairment

Renal impairment did not impact the pharmacokinetics of semaglutide in a clinically relevant manner. This was shown with a single dose of 0.5 mg semaglutide for patients with different degrees of renal impairment (mild, moderate, severe or patients in dialysis) compared with subjects with normal renal function. This was also shown for subjects with type 2 diabetes and with renal impairment based on data from phase 3a studies, although the experience in patients with end-stage renal disease was limited.

#### Hepatic impairment

Hepatic impairment did not have any impact on the exposure of semaglutide. The pharmacokinetics of semaglutide were evaluated in patients with different degrees of hepatic impairment (mild, moderate, severe) compared with subjects with normal hepatic function in a study with a single-dose of 0.5 mg semaglutide.

## Paediatric population

Semaglutide has not been studied in paediatric patients.

## 5.3 Preclinical safety data

Preclinical data reveal no special hazards for humans based on conventional studies of safety pharmacology, repeat-dose toxicity or genotoxicity.

Non-lethal thyroid C-cell tumours observed in rodents are a class effect for GLP-1 receptor agonists. In 2-year carcinogenicity studies in rats and mice, semaglutide caused thyroid C-cell tumours at clinically relevant exposures. No other treatment-related tumours were observed. The rodent C-cell tumours are caused by a non-genotoxic, specific GLP-1 receptor mediated mechanism to which rodents are particularly sensitive. The relevance for humans is considered to be low, but cannot be completely excluded.

In fertility studies in rats, semaglutide did not affect mating performance or male fertility. In female rats, an increase in oestrous cycle length and a small reduction in *corpora lutea* (ovulations) were observed at doses associated with maternal body weight loss.

In embryo-foetal development studies in rats, semaglutide caused embryotoxicity below clinically relevant exposures. Semaglutide caused marked reductions in maternal body weight and reductions in embryonic survival and growth. In foetuses, major skeletal and visceral malformations were observed, including effects on long bones, ribs, vertebrae, tail, blood vessels and brain ventricles. Mechanistic evaluations indicated that the embryotoxicity involved a GLP-1 receptor mediated impairment of the nutrient supply to the embryo across the rat yolk sac. Due to species differences in yolk sac anatomy and function, and due to lack of GLP-1 receptor expression in the yolk sac of non-human primates,

this mechanism is considered unlikely to be of relevance to humans. However, a direct effect of semaglutide on the foetus cannot be excluded.

In developmental toxicity studies in rabbits and *cynomolgus* monkeys, increased pregnancy loss and slightly increased incidence of foetal abnormalities were observed at clinically relevant exposures. The findings coincided with marked maternal body weight loss of up to 16%. Whether these effects are related to the decreased maternal food consumption as a direct GLP-1 effect is unknown.

Postnatal growth and development were evaluated in *cynomolgus* monkeys. Infants were slightly smaller at delivery, but recovered during the lactation period.

In juvenile rats, semaglutide caused delayed sexual maturation in both males and females. These delays had no impact upon fertility and reproductive capacity of either sex, or on the ability of the females to maintain pregnancy.

## 6. PHARMACEUTICAL PARTICULARS

## 6.1 List of excipients

Disodium phosphate dihydrate Propylene glycol Phenol Hydrochloric acid (for pH adjustment) Sodium hydroxide (for pH adjustment) Water for injections

## 6.2 Incompatibilities

In the absence of compatibility studies this medicinal product must not be mixed with other medicinal products.

## 6.3 Shelf life

3 years. In-use shelf life: 6 weeks.

<u>After first use:</u> Store below  $30^{\circ}$ C or in a refrigerator ( $2^{\circ}$ C to  $8^{\circ}$ C). Do not freeze Ozempic and do not use Ozempic if it has been frozen. Keep the pen cap on when the pen is not in use in order to protect it from light.

Always remove the injection needle after each injection and store the pen without a needle attached. This may prevent blocked needles, contamination, infection, leakage of solution and inaccurate dosing.

## 6.4 Special precautions for storage

<u>Before first use:</u> Store in a refrigerator ( $2^{\circ}C$  to  $8^{\circ}C$ ). Keep away from the cooling element. Do not freeze Ozempic and do not use Ozempic if it has been frozen.

For storage conditions after first opening of the medicinal product, see section 6.3.

Keep the pen cap on in order to protect from light.

## 6.5 Nature and contents of container

1.5 ml or 3 ml glass cartridge (type I glass) closed at the one end with a rubber plunger (chlorobutyl) and at the other end with an aluminium cap with a laminated rubber sheet (bromobutyl/polyisoprene) inserted. The cartridge is assembled into a disposable pre-filled pen made of polypropylene, polyoxymethylene, polycarbonate and acrylonitrile butadiene styrene.

Pack sizes:

Ozempic 0.25 mg solution for injection: Each pre-filled pen contains 1.5 ml of solution, delivering 4 doses of 0.25 mg.

1 pre-filled pen and 4 disposable NovoFine Plus needles

Ozempic 0.5 mg solution for injection: Each pre-filled pen contains 1.5 ml of solution, delivering 4 doses of 0.5 mg.

1 pre-filled pen and 4 disposable NovoFine Plus needles

3 pre-filled pens and 12 disposable NovoFine Plus needles

Ozempic 1 mg solution for injection: Each pre-filled pen contains 3 ml of solution, delivering 4 doses of 1 mg.

1 pre-filled pen and 4 disposable NovoFine Plus needles

3 pre-filled pens and 12 disposable NovoFine Plus needles

Not all pack sizes may be marketed.

## 6.6 Special precautions for disposal and other handling

The patient should be advised to discard the injection needle after each injection and store the pen without an injection needle attached. This may prevent blocked needles, contamination, infection, leakage of solution and inaccurate dosing. Needles and other waste material should be disposed of in accordance with local requirements.

The pen is for use by one person only.

Ozempic should not be used if it does not appear clear and colourless or almost colourless. Ozempic should not be used if it has been frozen.

Ozempic can be administered with needles up to a length of 8 mm. The pen is designed to be used with NovoFine or NovoTwist disposable needles. NovoFine Plus needles are included in the package.

## 7. MARKETING AUTHORISATION HOLDER

Manufacturer Novo Nordisk A/S, Bagsværd, Denmark

Importer Novo Nordisk Pharma (Thailand) Ltd., Bangkok, Thailand

# 8. MARKETING AUTHORISATION NUMBERS

 Ozempic 0.25 mg
 Thai Reg.No. 1C 15023/63 (NBC)

 Ozempic 0.5 mg
 Thai Reg.No. 1C 15024/63 (NBC)

 Ozempic 1 mg
 Thai Reg.No. 1C 15025/63 (NBC)

## 9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 28 January 2020

# 10. DATE OF REVISION OF THE TEXT

Approval date from Thai FDA

Detailed information on this medicinal product is available on the website of the Thai FDA

Instructions on how to use Ozempic 0.25 mg solution for injec	tion in pre-filled pen
Please read these instructions carefully before using your Ozempic pre-filled pen. Do not use the pen without proper training from your doctor or nurse. Only use the medicine in this pen as prescribed. Start by checking your pen to make sure that it contains Ozempic 0.25 mg, then look at the illustrations below to get to know the different parts of your pen and needle. If you are blind or have poor eyesight and cannot read the dose counter on the pen, do not use this pen without help. Get help from a person with good eyesight who is trained to use the Ozempic pre-filled pen. Your pen is a pre-filled dial-a-dose pen. It contains 2 mg of semaglutide, and you can only select doses of 0.25 mg. Your pen is designed to be used with NovoFine and NovoTwist disposable needles up to a length of 8 mm. NovoFine Plus needles are included in the pack.	Ozempic pre-filled pen and needle (example) Pen cap Pen cap Pen vindow Pen window Pen label Dose counter Dose selector Flow
	Dose button check symbol
1. Prepare your pen with a new needle	
<ul> <li>Check the name and coloured label of your pen, to make sure that it contains Ozempic. This is especially important if you take more than one type of injectable medicine. Using the wrong medicine could cause severe harm to your health.</li> <li>Pull off the pen cap.</li> </ul>	
• Check that the solution in your pen is clear and colourless. Look through the pen window. If the solution looks cloudy or coloured, do not use the pen.	
<ul> <li>Take a new needle. Check the paper tab and the outer needle cap for damages that could affect sterility. If any damage is seen use a new needle.</li> <li>Tear off the paper tab.</li> </ul>	

•	Push the needle straight onto the pen. Turn until it is	
	on tight.	
•	<b>Pull off the outer needle cap and keep it for later.</b> You will need it after the injection, to safely remove the needle from the pen.	
•	<b>Pull off the inner needle cap and throw it away.</b> If you try to put it back on, you may accidentally stick yourself with the needle.	F C C C C C C C C C C C C C C C C C C C
but y first t	op of solution may appear at the needle tip. This is normal, ou must still check the flow, if you use a new pen for the time. See step 2 'Check the flow'. <b>ot attach a new needle</b> to your pen until you are ready to	
	your injection.	
Δ	Always use a new needle for each injection. This reduces the risk of blocked needles, contamination, in	fection and inaccurate dosing
$\Lambda$	Never use a bent or damaged needle.	to the second se
	neck the flow	
•	Before your first injection with each new pen, check the flow. If your pen is already in use, go to step 3 'Select your dose'. Turn the dose selector until the dose counter shows the flow check symbol (**  ).	Flow check symbol selected
•	Hold the pen with the needle pointing up. <b>Press and hold in the dose button</b> until the dose counter returns to 0. The 0 must line up with the dose pointer. A drop of solution should appear at the needle tip.	
If no and r	all drop may remain at the needle tip, but it will not be injec <b>drop appears,</b> repeat step 2 'Check the flow' up to 6 times, epeat step 2 'Check the flow' once more. <b>Irop still does not appear,</b> dispose of the pen and use a new	. If there is still no drop, change the needle
Δ	Always make sure that a drop appears at the needle tip to This makes sure that the solution flows.	
	If no drop appears, you will <b>not</b> inject any medicine even t <b>may indicate a blocked or damaged needle.</b> If you do not check the flow before your first injection with	
L	in you us not encer the new before your mist mjeetion with	i cuch new pen, you muy not get the

pi	prescribed dose and the intended effect of Ozempic.			
3. Select your dose				
• T K	<b>Furn the dose selector to select 0.25 mg.</b> Leep turning until the dose counter stops and shows .25 mg.	0.25 mg selected		
The dos	e dose counter and dose pointer will show that 0.25 mg has e selector clicks differently when turned forwards, backw			
in D 0. co	Iways use the dose counter and the dose pointer to see a jecting this medicine. The onot count the pen clicks. .25 mg in the dose counter must line up precisely with the correct dose. t your dose			
	nsert the needle into your skin as your doctor or nurse			
• ha	as shown you. <b>Take sure you can see the dose counter.</b> Do not cover with your fingers. This could interrupt the injection.			
• P	ress and hold down the dose button until the dose	B		
	ounter shows 0. The 0 must line up with the dose ointer. You may then hear or feel a click.			
re th • If so	<b>Leep the needle in your skin</b> after the dose counter has eturned to 0 and <b>count slowly to 6.</b> This is to make sure hat you get your full dose. If the needle is removed earlier, you may see a stream of polution coming from the needle tip. If so, the full dose will not be delivered.	C Count slowly: 1-2-3-4-5-6		
	<b>Remove the needle from your skin.</b> If blood appears at the injection site, press lightly. Do not rub the area.			
You ma dose.	You may see a drop of solution at the needle tip after injecting. This is normal and does not affect your dose.			
	<b>Iways watch the dose counter to know how many mg y</b> ntil the dose counter shows 0.	you inject. Hold the dose button down		
H _	<ul> <li>How to identify a blocked or damaged needle</li> <li>If 0 does not appear in the dose counter after continuously pressing the dose button, you may have used a blocked or damaged needle.</li> </ul>			

	<ul> <li>In this case, you have <b>not</b> received any medicine – ev from the original dose that you have set.</li> </ul>	en though the dose counter has moved	
	<b>How to handle a blocked needle</b> Change the needle as described in step 5 'After your injection' and repeat all steps starting with step 1		
	'Prepare your pen with a new needle'. Make sure you selec	et the full dose you need.	
5 4 4	Never touch the dose counter when you inject. This can iter your injection	interrupt the injection.	
5. AI	Lead the needle tip into the outer needle cap on a flat		
	surface without touching the needle or the outer needle cap.		
•	Once the needle is covered, <b>carefully push the outer</b> <b>needle cap completely on.</b> <b>Unscrew the needle</b> and dispose of it carefully in accordance with local guidelines. Ask your doctor, nurse or pharmacist about sharps disposal.	B	
•	<b>Put the pen cap on</b> your pen after each use to protect the solution from light.		
Alwa	ays dispose of the needle after each injection to ensure con	venient injections and prevent blocked	
	les. If the needle is blocked, you will not inject any medicin	с I	
	n the pen is to be disposed of, do it without a needle on as ir		
or lo	cal authorities.		
$\Lambda$	Never try to put the inner needle cap back on the needle	e. You may stick yourself with the needle.	
$\Lambda$	Always remove the needle from your pen immediately a	after each injection.	
	This reduces the risk of blocked needles, contamination, in dosing.	fection, leakage of solution and inaccurate	
$\Lambda$	Further important information		
•	Always keep your pen and needles out of the sight and re	ach of others, especially children.	
•	Never share your pen or your needles with other people.		
•	Caregivers must be very careful when handling used nee	edles to prevent needle injury and cross-	
	infection.		
	ng for your pen	. 1	
	t your pen with care. Rough handling or misuse may cause in the intended effect of this medicine.	naccurate dosing. If this happens you might	
•			
	of this medicine.		
•	Do not inject Ozempic which has been exposed to direct sunlight. If you do that, you might not		
	get the intended effect of this medicine.		
•	Do not expose your pen to dust, dirt or liquid.		
•	<b>Do not wash, soak or lubricate your pen.</b> If necessary, cl cloth.	lean it with a mild detergent on a moistened	
•	<b>Do not drop your pen</b> or knock it against hard surfaces. If	f you drop it or suspect a problem. attach a	
	new needle and check the flow before you inject.		
•	• Do not try to refill your pen.		
•	Do not try to repair your pen or pull it apart.		

Instr	uctions on how to use Ozempic 0.5 mg solution for inject	ion in pre-filled pen
Ozem Do ne or nu Start Ozem know If you dose Get h the O Your semag is des	by checking your pen to <b>make sure that it contains</b> <b>pic 0.5 mg,</b> then look at the illustrations below to get to the different parts of your pen and needle. <b>a are blind or have poor eyesight and cannot read the</b> <b>counter on the pen, do not use this pen without help.</b> elp from a person with good eyesight who is trained to use zempic pre-filled pen. pen is a pre-filled dial-a-dose pen. It contains 2 mg of glutide, and you can only select doses of 0.5 mg. Your pen igned to be used with NovoFine and NovoTwist	Ozempic pre-filled pen and needle (example) Pen cap Pen cap Inner needle cap
disposable needles up to a length of 8 mm. NovoFine Plus needles are included in the pack.	Pen window Pen label Pen label Dose counter Dose pointer	
		Dose selector Dose button
1. <b>Pr</b>	epare your pen with a new needle	
•	<b>Check the name and coloured label</b> of your pen, to make sure that it contains Ozempic. This is especially important if you take more than one type of injectable medicine. Using the wrong medicine could cause severe harm to your health. <b>Pull off the pen cap.</b>	
•	<b>Check that the solution in your pen is clear</b> and colourless. Look through the pen window. If the solution looks cloudy or coloured, do not use the pen.	
•	Take a new needle.Check the paper tab and the outer needle cap for damagesthat could affect sterility. If any damage is seen use a newneedle.Tear off the paper tab.	

•	Push the needle straight onto the pen. Turn until it is on tight.	
•	<b>Pull off the outer needle cap and keep it for later.</b> You will need it after the injection, to safely remove the needle from the pen.	
•	<b>Pull off the inner needle cap and throw it away.</b> If you try to put it back on, you may accidentally stick yourself with the needle.	
but y first t	op of solution may appear at the needle tip. This is normal, ou must still check the flow, if you use a new pen for the time. See step 2 'Check the flow'. <b>ot attach a new needle</b> to your pen until you are ready to	
	your injection.	
Δ	Always use a new needle for each injection. This reduces the risk of blocked needles, contamination, in	fection and inaccurate dosing.
$\mathbf{\nabla}$	Never use a bent or damaged needle.	
2. Cł	neck the flow	
•	Before your first injection with each new pen, check the flow. If your pen is already in use, go to step 3 'Select your dose'. Turn the dose selector until the dose counter shows the flow check symbol (**  ).	Flow check symbol selected
•	Hold the pen with the needle pointing up. <b>Press and hold in the dose button</b> until the dose counter returns to 0. The 0 must line up with the dose pointer. A drop of solution should appear at the needle tip.	
If no and r	all drop may remain at the needle tip, but it will not be injec drop appears, repeat step 2 'Check the flow' up to 6 times. epeat step 2 'Check the flow' once more. drop still does not appear, dispose of the pen and use a new	. If there is still no drop, change the needle
Δ	Always make sure that a drop appears at the needle tip to This makes sure that the solution flows.	
	If no drop appears, you will <b>not</b> inject any medicine even t <b>may indicate a blocked or damaged needle.</b> If you do not check the flow before your first injection with	

	prescribed dose and the intended effect of Ozempic.			
3. Select your dose				
•	<b>Turn the dose selector to select 0.5 mg.</b> Keep turning until the dose counter stops and shows 0.5 mg.	0.5 mg selected		
Only	the dose counter and dose pointer will show that 0.5 mg has	been selected.		
The d	lose selector clicks differently when turned forwards, backwa	ards or past 0.5 mg. Do not count the pen		
	Always use the dose counter and the dose pointer to see	that 0.5 mg has been selected before		
	injecting this medicine. Do not count the pen clicks. 0.5 mg in the dose counter must line up precisely with the dose correct dose. much solution is left			
•	<b>To see how much solution is left</b> , use the dose counter: Turn the dose selector until the <b>dose counter stops.</b> If it shows 0.5, <b>at least 0.5 mg</b> is left in your pen. If the <b>dose counter stops before 0.5 mg</b> , there is not enough solution left for a full dose of 0.5 mg.	Dose counter stopped: 0.5 mg left		
$\Lambda$	If there is not enough solution left in your pen for a full dos	e, do not use it. Use a new Ozempic® pen.		
4. Inj	ect your dose			
•	<ul><li>Insert the needle into your skin as your doctor or nurse has shown you.</li><li>Make sure you can see the dose counter. Do not cover it with your fingers. This could interrupt the injection.</li></ul>			
•	<b>Press and hold down the dose button until the dose counter shows 0.</b> The 0 must line up with the dose pointer. You may then hear or feel a click.			
•	<b>Keep the needle in your skin</b> after the dose counter has returned to 0 and <b>count slowly to 6.</b> This is to make sure that you get your full dose. If the needle is removed earlier, you may see a stream of solution coming from the needle tip. If so, the full dose will not be delivered.	Count slowly: 1-2-3-4-5-6		

•	<b>Remove the needle from your skin.</b> If blood appears at the injection site, press lightly. Do not rub the area.	
You 1 dose.	nay see a drop of solution at the needle tip after injecting. T	his is normal and does not affect your
⚠	Always watch the dose counter to know how many mg until the dose counter shows 0.	you inject. Hold the dose button down
	<ul> <li>How to identify a blocked or damaged needle</li> <li>If 0 does not appear in the dose counter after continue have used a blocked or damaged needle.</li> <li>In this case, you have not received any medicine – every from the original dose that you have set.</li> </ul>	
	How to handle a blocked needle Change the needle as described in step 5 'After your inject 'Prepare your pen with a new needle'. Make sure you selec	
	Never touch the dose counter when you inject. This can	interrupt the injection.
5. Af	ter your injection	
•	<b>Lead the needle tip into the outer needle cap</b> on a flat surface without touching the needle or the outer needle cap.	
•	Once the needle is covered, <b>carefully push the outer</b> <b>needle cap completely on.</b> <b>Unscrew the needle</b> and dispose of it carefully in accordance with local guidelines. Ask your doctor, nurse or pharmacist about sharps disposal.	
•	<b>Put the pen cap on</b> your pen after each use to protect the solution from light.	
needl Wher or loc	<b>ys dispose of the needle after each injection</b> to ensure comes. If the needle is blocked, you will <b>not</b> inject <b>any</b> medicinn the pen is empty, throw it away <b>without</b> a needle on as instal authorities.	e.
	Never try to put the inner needle cap back on the needle Always remove the needle from your pen immediately a This reduces the risk of blocked needles, contamination, in dosing.	after each injection.
	Further important information	
• •	Always keep your pen and needles <b>out of the sight and re</b> <b>Never share</b> your pen or your needles with other people. Caregivers must <b>be very careful when handling used nee</b> infection.	

# Caring for your pen

Treat your pen with care. Rough handling or misuse may cause inaccurate dosing. If this happens you might not get the intended effect of this medicine.

- **Do not inject Ozempic which has been frozen.** If you do that, you might not get the intended effect of this medicine.
- **Do not inject Ozempic which has been exposed to direct sunlight.** If you do that, you might not get the intended effect of this medicine.
- Do not expose your pen to dust, dirt or liquid.
- **Do not wash, soak or lubricate your pen.** If necessary, clean it with a mild detergent on a moistened cloth.
- **Do not drop your pen** or knock it against hard surfaces. If you drop it or suspect a problem, attach a new needle and check the flow before you inject.
- **Do not try to refill your pen.** Once empty, it must be disposed of.
- **Do not try to repair your pen** or pull it apart.

Instructions on how to use Ozempic 1 mg solution for injection	in pre-filled pen
Please read these instructions carefully before using your Ozempic pre-filled pen. Do not use the pen without proper training from your doctor or nurse. Start by checking your pen to make sure that it contains Ozempic 1 mg, then look at the illustrations below to get to know the different parts of your pen and needle. If you are blind or have poor eyesight and cannot read the dose counter on the pen, do not use this pen without help. Get help from a person with good eyesight who is trained to use the Ozempic pre-filled pen.	Ozempic pre-filled pen and needle (example) Pen cap Outer needle cap Inner needle cap
Your pen is a pre-filled dial-a-dose pen. It contains 4 mg of semaglutide, and you can only select doses of 1 mg. Your pen is designed to be used with NovoFine and NovoTwist disposable needles up to a length of 8 mm. NovoFine Plus needles are included in the pack.	Pen window Pen window Pen label Dose pointer Dose pointer Dose selector Dose button
1. Prepare your pen with a new needle	
<ul> <li>Check the name and coloured label of your pen, to make sure that it contains Ozempic. This is especially important if you take more than one type of injectable medicine. Using the wrong medicine could cause severe harm to your health.</li> <li>Pull off the pen cap.</li> </ul>	
• Check that the solution in your pen is clear and colourless. Look through the pen window. If the solution looks cloudy or coloured, do not use the pen.	B

	Take a new needle. Check the paper tab and the outer needle cap for damages that could affect sterility. If any damage is seen use a new needle. Tear off the paper tab.	
	Push the needle straight onto the pen. Turn until it is on tight.	
	<b>Pull off the outer needle cap and keep it for later.</b> You will need it after the injection, to safely remove the needle from the pen.	E
	<b>Pull off the inner needle cap and throw it away.</b> If you try to put it back on, you may accidentally stick yourself with the needle.	
but yo first tii <b>Do no</b> take ye	<ul> <li>p of solution may appear at the needle tip. This is normal,</li> <li>u must still check the flow, if you use a new pen for the</li> <li>me. See step 2 'Check the flow'.</li> <li>t attach a new needle to your pen until you are ready to</li> <li>our injection.</li> </ul>	
	Always use a new needle for each injection. This reduces the risk of blocked needles, contamination, inf	ection and inaccurate dosing
Δ.	Never use a bent or damaged needle.	
	eck the flow	
•	<b>Before your first injection with each new pen, check</b> <b>the flow.</b> If your pen is already in use, go to step 3 'Select your dose'. Turn the dose selector <b>until the dose counter shows the</b> <b>flow check symbol</b> ( ••••••).	Flow check symbol
		selected
	Hold the pen with the needle pointing up. <b>Press and hold in the dose button</b> until the dose counter returns to 0. The 0 must line up with the dose pointer. A drop of solution should appear at the needle tip.	
If no o	Ill drop may remain at the needle tip, but it will not be injected <b>drop appears,</b> repeat step 2 'Check the flow' up to 6 times. peat step 2 'Check the flow' once more.	

If a d	If a drop still does not appear, dispose of the pen and use a new one.		
Always make sure that a drop appears at the needle tip before you use a new pen for the first time.			
	This makes sure that the solution flows.		
	If no drop appears, you will <b>not</b> inject any medicine even though the dose counter may move. <b>This</b>		
	may indicate a blocked or damaged needle.		
	If you do not check the flow before your first injection with	each new pen, you may not get the	
	prescribed dose and the intended effect of Ozempic.	1 / 5 / 5 /	
<b>3.</b> Se	lect your dose		
•	Turn the dose selector to select 1 mg.		
	Keep turning until the dose counter stops and shows 1 mg.	1 mg selected	
Only	the dose counter and dose pointer will show that 1 mg has be	een selected.	
The c	lose selector clicks differently when turned forwards, backwa	ards or past 1 mg. Do not count the pen	
clicks	δ		
$\Lambda$	Always use the dose counter and the dose pointer to see	that 1 mg has been selected before	
	injecting this medicine.		
	Do not count the pen clicks.		
	1 mg in the dose counter must line up precisely with the dos	se pointer to ensure that you get a correct	
	dose.		
How much solution is left			
•	<b>To see how much solution is left,</b> use the dose counter: Turn the dose selector until the <b>dose counter stops.</b> If it shows 1, <b>at least 1 mg</b> is left in your pen. If the <b>dose counter stops before 1 mg</b> , there is not enough solution left for a full dose of 1 mg.	Dose counter stopped: 1 mg left	
$\Lambda$	If there is not enough solution left in your pen for a full dos	e, do not use it. Use a new Ozempic pen.	
<b>4.</b> Inj	ject your dose		
•	Insert the needle into your skin as your doctor or nurse		
	has shown you.	A A	
•	Make sure you can see the dose counter. Do not cover it		
	with your fingers. This could interrupt the injection.		
•	Press and hold down the dose button until the dose	B	
	<b>counter shows 0.</b> The 0 must line up with the dose pointer. You may then hear or feel a click.		

•	Keep the needle in your skin after the dose counter has returned to 0 and count slowly to 6. This is to make sure that you get your full dose. If the needle is removed earlier, you may see a stream of solution coming from the needle tip. If so, the full dose will not be delivered.	Count slowly: 1-2-3-4-5-6
•	<b>Remove the needle from your skin.</b> If blood appears at the injection site, press lightly. Do not rub the area.	
You dose.	may see a drop of solution at the needle tip after injecting. The	his is normal and does not affect your
▲	Always watch the dose counter to know how many mg y until the dose counter shows 0.	<b>You inject.</b> Hold the dose button down
	<ul> <li>How to identify a blocked or damaged needle</li> <li>If 0 does not appear in the dose counter after continuation have used a blocked or damaged needle.</li> <li>In this case, you have not received any medicine – erfrom the original dose that you have set.</li> <li>How to handle a blocked needle</li> </ul>	ven though the dose counter has moved
	Change the needle as described in step 5 'After your injecti 'Prepare your pen with a new needle'. Make sure you selec	t the full dose you need.
5 1 6	Never touch the dose counter when you inject. This can it	interrupt the injection.
5. AI	<b>ter your injection</b> <b>Lead the needle tip into the outer needle cap</b> on a flat surface without touching the needle or the outer needle cap.	
•	Once the needle is covered, <b>carefully push the outer</b> <b>needle cap completely on.</b> <b>Unscrew the needle</b> and dispose of it carefully in accordance with local guidelines. Ask your doctor, nurse or pharmacist about sharps disposal.	
•	<b>Put the pen cap on</b> your pen after each use to protect the solution from light.	
needl When or loc	<b>ys dispose of the needle after each injection</b> to ensure com- les. If the needle is blocked, you will <b>not</b> inject <b>any</b> medicine in the pen is empty, throw it away <b>without</b> a needle on as inst cal authorities.	e. ructed by your doctor, nurse, pharmacist
<ul> <li>Never try to put the inner needle cap back on the needle. You may stick yourself with the needle.</li> <li>Always remove the needle from your pen immediately after each injection.</li> </ul>		

	This reduces the risk of blocked needles, contamination, infection, leakage of solution and inaccurate	
	dosing.	
Δ	Further important information	
•	Always keep your pen and needles out of the sight and reach of others, especially children.	
•	Never share your pen or your needles with other people.	
•	Caregivers must be very careful when handling used needles to prevent needle injury and cross-	
	infection.	
Caring for your pen		
Treat your pen with care. Rough handling or misuse may cause inaccurate dosing. If this happens you might		
not g	get the intended effect of this medicine.	
•	Do not inject Ozempic which has been frozen. If you do that, you might not get the intended effect	
	of this medicine.	
•	Do not inject Ozempic which has been exposed to direct sunlight. If you do that, you might not	
	get the intended effect of this medicine.	
•	Do not expose your pen to dust, dirt or liquid.	
•	Do not wash, soak or lubricate your pen. If necessary, clean it with a mild detergent on a moistened	
	cloth.	
•	<b>Do not drop your pen</b> or knock it against hard surfaces. If you drop it or suspect a problem attach a	

- **Do not drop your pen** or knock it against hard surfaces. If you drop it or suspect a problem, attach a new needle and check the flow before you inject.
- **Do not try to refill your pen.** Once empty, it must be disposed of.
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