ANNEX I SUMMARY OF PRODUCT CHARACTERISTICS



1. NAME OF THE MEDICINAL PRODUCT

Nustendi 180 mg/10 mg film-coated tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each film-coated tablet contains 180 mg of bempedoic acid and 10 mg of ezetimibe.

Excipient(s) with known effect

Each 180 mg/10 mg film-coated tablet contains 71.6 mg of lactose.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Film-coated tablet.

Blue, oval, film-coated tablet of approximately 15.00 mm \times 7.00 mm \times 5.00 mm debossed with "818" on one side and "ESP" on the other side.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Nustendi is indicated in adults with primary hypercholesterolaemia (heterozygous familial and non-familial) or mixed dyslipidaemia, as an adjunct to diet:

- in combination with a statin in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin in addition to ezetimibe (see sections 4.2, 4.3, and 4.4),
- alone in patients who are either statin-intolerant or for whom a statin is contraindicated, and are unable to reach LDL-C goals with ezetimibe alone,
- in patients already being treated with the combination of bempedoic acid and ezetimibe as separate tablets with or without statin.

4.2 Posology and method of administration

Posology

The recommended dose of Nustendi is one film-coated tablet of 180 mg/10 mg taken once daily.

Coadministration with bile acid sequestrants

Dosing of Nustendi should occur either at least 2 hours before or at least 4 hours after administration of a bile acid sequestrant.

Concomitant simvastatin therapy

When Nustendi is coadministered with simvastatin, simvastatin dose should be limited to 20 mg daily (or 40 mg daily for patients with severe hypercholesterolaemia and high risk for cardiovascular complications, who have not achieved their treatment goals on lower doses and when the benefits are expected to outweigh the potential risks) (see sections 4.4 and 4.5).

Special populations

Elderly patients

No dose adjustment is necessary in elderly patients (see section 5.2).

Patients with renal impairment

No dose adjustment is necessary in patients with mild or moderate renal impairment. There are limited data available in patients with severe renal impairment (defined as estimated glomerular filtration rate [eGFR] < 30 mL/min/1.73 m²), and patients with end-stage renal disease (ESRD) on dialysis have not been studied with bempedoic acid. Additional monitoring for adverse reactions may be warranted in these patients when Nustendi is administered (see section 4.4).

Patients with hepatic impairment

No dose adjustment is necessary in patients with mild hepatic impairment (Child-Pugh A). Treatment with Nustendi is not recommended in patients with moderate (Child-Pugh B) or severe (Child-Pugh C) hepatic impairment due to the unknown effects of the increased exposure to ezetimibe (see section 4.4).

Paediatric population

The safety and efficacy of Nustendi in children aged less than 18 years have not been established. No data are available.

Method of administration

Each film-coated tablet should be taken orally with or without food. Tablet should be swallowed whole.

4.3 Contraindications

- Hypersensitivity to the active substances or to any of the excipients listed in section 6.1.
- Pregnancy (see section 4.6).
- Breast-feeding (see section 4.6).
- Concomitant use with simvastatin > 40 mg daily (see sections 4.2, 4.4, and 4.5).
- Nustendi coadministered with a statin is contraindicated in patients with active liver disease or unexplained persistent elevations in serum transaminases.
- When Nustendi is coadministered with a statin, please refer to the summary of product characteristics (SmPC) for that particular statin therapy.

4.4 Special warnings and precautions for use

Potential risk of myopathy with concomitant use of statins

Bempedoic acid increases plasma concentrations of statins (see section 4.5). Statins occasionally cause myopathy. In rare cases, myopathy may take the form of rhabdomyolysis with or without acute renal failure secondary to myoglobinuria, and can lead to fatality. In postmarketing experience with ezetimibe, very rare cases of myopathy and rhabdomyolysis have been reported. Most patients who developed rhabdomyolysis were taking a statin concomitantly with ezetimibe.

Patients receiving Nustendi as adjunctive therapy to a statin should be monitored for adverse reactions that are associated with the use of high doses of statins. All patients receiving Nustendi in addition to a statin should be advised of the potential increased risk of myopathy and told to report promptly any unexplained muscle pain, tenderness, or weakness. If such symptoms occur while a patient is receiving treatment with Nustendi and a statin, a lower maximum dose of the same statin or an alternative statin, or discontinuation of Nustendi and initiation of an alternative lipid-lowering therapy should be considered under close monitoring of lipid levels and adverse reactions. If myopathy is confirmed by a creatine phosphokinase (CPK) level > 10× upper limit of normal (ULN), Nustendi and any statin that the patient is taking concomitantly should be immediately discontinued.

Myositis with a CPK level $> 10 \times$ ULN was rarely reported with bempedoic acid and background simvastatin 40 mg therapy. Doses of simvastatin > 40 mg should not be used with Nustendi (see sections 4.2 and 4.3).

Increased serum uric acid

Bempedoic acid may raise the serum uric acid level due to inhibition of renal tubular OAT2 and may cause or exacerbate hyperuricaemia and precipitate gout in patients with a medical history of gout or predisposed to gout (see section 4.8). Treatment with Nustendi should be discontinued if hyperuricaemia accompanied with symptoms of gout appear.

Elevated liver enzymes

In clinical trials, elevations of $> 3 \times$ ULN in the liver enzymes alanine aminotransferase (ALT) and aspartate aminotransferase (AST) have been reported with bempedoic acid. These elevations have been asymptomatic and not associated with elevations $\geq 2 \times$ ULN in bilirubin or with cholestasis and have returned to baseline with continued treatment or after discontinuation of therapy. In controlled coadministration trials in patients receiving ezetimibe with a statin, consecutive transaminase elevations ($\geq 3 \times$ ULN) have been observed. Liver function tests should be performed at initiation of therapy. Treatment with Nustendi should be discontinued if an increase in transaminases of $> 3 \times$ ULN persists (see sections 4.3 and 4.8).

Renal impairment

There is limited experience with bempedoic acid in patients with severe renal impairment (defined as $eGFR < 30 \text{ mL/min/1.73 m}^2$), and patients with ESRD on dialysis have not been studied with bempedoic acid (see section 5.2). Additional monitoring for adverse reactions may be warranted in these patients when Nustendi is administered.

Hepatic impairment

Due to the unknown effects of the increased exposure to ezetimibe in patients with moderate to severe hepatic impairment (Child-Pugh B and C), Nustendi is not recommended in these patients (see section 5.2).

Fibrates

The safety and efficacy of ezetimibe administered with fibrates have not been established. If cholelithiasis is suspected in a patient receiving Nustendi and fenofibrate, gallbladder investigations are indicated and this therapy should be discontinued (see sections 4.5 and 4.8).

Ciclosporin

Caution should be exercised when initiating Nustendi in the setting of ciclosporin. Ciclosporin concentrations should be monitored in patients receiving Nustendi and ciclosporin (see section 4.5).

Anticoagulants

If Nustendi is added to warfarin, other coumarin anticoagulants, or fluindione, the International Normalised Ratio (INR) should be appropriately monitored (see section 4.5).

Contraception

Women of childbearing potential must use effective contraception during treatment. Patients should be advised to stop taking Nustendi before stopping contraceptive measures if they plan to become pregnant.

Excipients

Nustendi contains lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency, or glucose-galactose malabsorption should not take this medicinal product.

This medicine contains less than 1 mmol sodium (23 mg) per 180 mg/10 mg film-coated tablet (daily dose), that is to say essentially 'sodium free'.

4.5 Interaction with other medicinal products and other forms of interaction

No specific pharmacokinetic drug interaction studies with Nustendi have been conducted. Drug interactions that have been identified in studies with bempedoic acid or ezetimibe determine the interactions that may occur with Nustendi.

Effects of other medicinal products on individual components of Nustendi

Fibrates

Concomitant fenofibrate or gemfibrozil administration modestly increased total ezetimibe concentrations (approximately 1.5- and 1.7-fold, respectively). Fenofibrate may increase cholesterol excretion into the bile, leading to cholelithiasis. In a preclinical study in dogs, ezetimibe increased cholesterol in the gallbladder bile (see section 5.3). A lithogenic risk associated with the therapeutic use of Nustendi cannot be ruled out.

If cholelithiasis is suspected in a patient receiving Nustendi and fenofibrate, gallbladder studies are indicated and alternative lipid-lowering therapy should be considered (see section 4.4).

Ciclosporin

In a study of eight post-renal transplant patients with creatinine clearance of > 50 mL/min on a stable dose of ciclosporin, a single 10 mg dose of ezetimibe resulted in a 3.4-fold (range 2.3- to 7.9-fold) increase in the mean area under the curve (AUC) for total ezetimibe compared to a healthy control population, receiving ezetimibe alone, from another study (n=17). In a different study, a renal transplant patient with severe renal impairment who was receiving ciclosporin and multiple other medicinal products demonstrated a 12-fold greater exposure to total ezetimibe compared to concurrent controls receiving ezetimibe alone. In a two-period crossover study in twelve healthy subjects, daily administration of 20 mg ezetimibe for 8 days with a single 100 mg dose of ciclosporin on day 7 resulted in a mean 15% increase in ciclosporin AUC (range 10% decrease to 51% increase) compared to a single 100 mg dose of ciclosporin alone. A controlled study on the effect of coadministered ezetimibe on ciclosporin exposure in renal transplant patients has not been conducted. Caution should be exercised when initiating Nustendi in the setting of ciclosporin. Ciclosporin concentrations should be monitored in patients receiving Nustendi and ciclosporin (see section 4.4).

Cholestyramine

Concomitant cholestyramine administration decreased the mean AUC of total ezetimibe (ezetimibe plus ezetimibe glucuronide) approximately 55%. The incremental low-density lipoprotein cholesterol (LDL-C) reduction due to adding Nustendi to cholestyramine may be lessened by this interaction (see section 4.2).

Transporter-mediated drug interactions

In vitro drug interaction studies suggest bempedoic acid, as well as its active metabolite and glucuronide form, are not substrates of commonly characterised drug transporters with the exception of bempedoic acid glucuronide, which is an OAT3 substrate.

Probenecid

Probenecid, an inhibitor of glucuronide conjugation, was studied to evaluate the potential effect of these inhibitors on the pharmacokinetics of bempedoic acid. Administration of bempedoic acid 180 mg with steady-state probenecid resulted in a 1.7-fold increase in bempedoic acid AUC and a 1.9-fold increase in bempedoic acid active metabolite (ESP15228) AUC. These elevations are not clinically meaningful and do not impact dosing recommendations.

Effects of individual components of Nustendi on other medicinal products

Statins

The pharmacokinetic interactions between bempedoic acid 180 mg and simvastatin 40 mg, atorvastatin 80 mg, pravastatin 80 mg, and rosuvastatin 40 mg were evaluated in clinical trials. Administration of a single dose of simvastatin 40 mg with steady-state bempedoic acid 180 mg resulted in a 2-fold increase in simvastatin acid exposure. Elevations of 1.4-fold to 1.5-fold in AUC of atorvastatin, pravastatin, and rosuvastatin (administered as single doses) and/or their major metabolites were observed when coadministered with bempedoic acid 180 mg. Higher elevations have been observed when these statins were coadministered with a supratherapeutic 240 mg dose of bempedoic acid (see section 4.4).

No clinically significant pharmacokinetic interactions were seen when ezetimibe was coadministered with atorvastatin, simvastatin, pravastatin, lovastatin, fluvastatin or rosuvastatin.

Transporter-mediated drug interactions

Bempedoic acid and its glucuronide weakly inhibit OATP1B1 and OATP1B3 at clinically relevant concentrations. Coadministration of Nustendi with medicinal products that are substrates of OATP1B1 or OATP1B3 (i.e., bosentan, fimasartan, asunaprevir, glecaprevir, grazoprevir, voxilaprevir, and statins such as atorvastatin, pravastatin, fluvastatin, pitavastatin, rosuvastatin, and simvastatin [see section 4.4]) may result in increased plasma concentrations of these medicinal products.

Bempedoic acid inhibits OAT2 *in vitro*, which may be the mechanism responsible for minor elevations in serum creatinine and uric acid (see section 4.8). Inhibition of OAT2 by bempedoic acid may also potentially increase plasma concentrations of medicinal products that are substrates of OAT2. Bempedoic acid may also weakly inhibit OAT3 at clinically relevant concentrations.

Anticoagulants

Concomitant administration of ezetimibe (10 mg once daily) had no significant effect on bioavailability of warfarin and prothrombin time in a study of twelve healthy adult males. However, there have been postmarketing reports of increased INR in patients who had ezetimibe added to warfarin or fluindione.

If Nustendi is added to warfarin, other coumarin anticoagulants, or fluindione, INR should be appropriately monitored (see section 4.4).

Other interactions studied

Bempedoic acid had no effect on the pharmacokinetics of oral contraceptive norethindrone/ethinyl estradiol. In clinical interaction studies, ezetimibe had no effect on the pharmacokinetics of oral contraceptives ethinyl estradiol and levonorgestrel. Bempedoic acid had no effect on the pharmacokinetics or pharmacodynamics of metformin.

In clinical interaction studies, ezetimibe had no effect on the pharmacokinetics of dapsone, dextromethorphan, digoxin, glipizide, tolbutamide, or midazolam, during coadministration.

4.6 Fertility, pregnancy and lactation

Pregnancy

Nustendi is contraindicated during pregnancy (see section 4.3).

There are no or limited amount of data from the use of Nustendi in pregnant women. Studies in animals with bempedoic acid have shown reproductive toxicity (see section 5.3).

Because bempedoic acid decreases cholesterol synthesis and possibly the synthesis of other cholesterol derivatives needed for normal foetal development, Nustendi may cause foetal harm when administered to pregnant women. Nustendi should be discontinued prior to conception or as soon as pregnancy is recognized (see section 4.3).

Women of childbearing potential

Women of childbearing potential should use effective contraception during treatment (see section 4.4).

Breast-feeding

It is unknown whether bempedoic acid/metabolites or ezetimibe/metabolites are excreted in human milk. Because of the potential for serious adverse reactions, women taking Nustendi should not breast-feed their infants. Nustendi is contraindicated during breast-feeding (see section 4.3).

Fertility

No data on the effect of Nustendi on human fertility are available. Based on animal studies, no effect on reproduction or fertility is expected with Nustendi (see section 5.3).

4.7 Effects on ability to drive and use machines

Nustendi has minor influence on the ability to drive and use machines. When driving vehicles or using machines, it should be taken into account that dizziness has been reported with bempedoic acid and ezetimibe (see section 4.8).

4.8 Undesirable effects

Summary of the safety profile

The most commonly reported adverse reactions are hyperuricaemia (4.7%) and constipation (4.7%).

In pooled placebo-controlled clinical trials with bempedoic acid, more patients on bempedoic acid compared to placebo discontinued treatment due to muscle spasms (0.7% versus 0.3%), diarrhoea (0.5% versus < 0.1%), pain in extremity (0.4% versus 0), and nausea (0.3% versus 0.2%) although differences between bempedoic acid and placebo were not significant.

Tabulated list of adverse reactions

Adverse reactions reported with Nustendi are displayed by system organ class and frequency in table 1. Any additional adverse reactions that have been reported with bempedoic acid or ezetimibe have also been presented to provide a more comprehensive adverse reaction profile for Nustendi.

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 ($\geq 1/10,000$); very rare (< 1/10,000); and not known (cannot be estimated from the available data).

Table 1: Adverse reactions

System organ class (SOC)	Adverse reactions	Frequency categories	
System organiciass (500)	,	Trequency categories	
	Adverse reactions with Nustendi		
Blood and lymphatic system	Anaemia	Common	
disorders	Decreased haemoglobin		
Metabolism and nutrition	Hyperuricaemia ^a	Common	
disorders	Decreased appetite	Common	
Nervous system disorders	Dizziness	Common	
	Headache		
Vascular disorders	Hypertension	Common	
Respiratory, thoracic and mediastinal disorders	Cough	Common	
Gastrointestinal disorders	Constipation	Common	
Gastromicstmar disorders	Diarrhoea	Common	
	Abdominal pain		
	Nausea		
	Dry mouth		
	Flatulence		
	Gastritis		
Hepatobiliary disorders	Liver function test increased ^b	Common	
Musculoskeletal and	+		
connective tissue disorders	Back pain	Common	
connective tissue disorders	Muscle spasms		
	Myalgia		
	Pain in extremity		
Danal and minama disandana	Arthralgia	Common	
Renal and urinary disorders General disorders and	Blood creatinine increased	Common	
	Fatigue	Common	
administration site conditions	Asthenia		
	nal adverse reactions with bemped	oic acid	
Metabolism and nutrition	Gout	Common	
disorders			
Hepatobiliary disorders	Aspartate aminotransferase	Common	
-	increased		
	Alanine aminotransferase	Uncommon	
	increased		
Renal and urinary disorders	Blood urea increased	Uncommon	
,	Glomerular filtration rate		
	decreased		
Add	itional adverse reactions with ezetin	mibe	
Blood and lymphatic system	Thrombocytopaenia	Not known	
disorders	_ ^		
Immune system disorders	Hypersensitivity, including	Not known	
•	rash, urticaria, anaphylaxis and		
	angio-oedema		
Psychiatric disorders	Depression	Not known	
Nervous system disorders	Paraesthesia ^c	Not known	
Vascular disorders	Hot flush	Uncommon	
, abbaiai dibolatib	1100 110011	Chedimion	
Respiratory, thoracic and	Dyspnoea	Not known	

System organ class (SOC)	Adverse reactions	Frequency categories
Gastrointestinal disorders	Dyspepsia	Uncommon
	Gastrooesophageal reflux	
	disease	
	Pancreatitis	Not known
Hepatobiliary disorders	Aspartate aminotransferase	Uncommon
	increased	
	Alanine aminotransferase	
	increased	
	Gammaglutamyltransferase	
	increased	
	Hepatitis	Not known
	Cholelithiasis	
	Cholecystitis	
Skin and subcutaneous tissue	Pruritus ^c	Uncommon
disorders	Erythema multiform	Not known
Musculoskeletal and connective tissue disorders	Blood CPK increased	Common
	Neck pain	Uncommon
	Muscular weakness ^c	
	Myopathy/rhabdomyolysis	Not known
General disorders and	Chest pain	Uncommon
administration site conditions	Pain	
	Oedema peripheral ^c	

- a. Hyperuricaemia includes hyperuricaemia and uric acid increased
- b. Liver function test increased includes liver function test increased and liver function test abnormal
- c. Adverse reactions with ezetimibe coadministered with a statin

Description of selected adverse reactions

Increased serum uric acid

Nustendi increases serum uric acid possibly due to inhibition of renal tubular OAT2 by bempedoic acid (see section 4.5). A mean increase of 0.6 mg/dL (35.7 micromole/L) in uric acid compared to baseline was observed with Nustendi at week 12. The elevations in serum uric acid usually occurred within the first 4 weeks of treatment and returned to baseline following discontinuation of treatment. There were no reports of gout with Nustendi. In the pooled placebo-controlled trials of bempedoic acid, gout was reported in 1.4% of patients treated with bempedoic acid and 0.4% of patients treated with placebo. In both treatment groups, patients who reported gout were more likely to have a medical history of gout and/or baseline levels of uric acid above the ULN (see section 4.4).

Effects on serum creatinine and blood urea nitrogen

Nustendi increases serum creatinine and blood urea nitrogen (BUN). A mean increase of 0.02 mg/dL (1.8 micromole/L) in serum creatinine and a mean increase of 2.7 mg/dL (1.0 mmol/L) in BUN compared to baseline was observed with Nustendi at week 12. The elevations in serum creatinine and BUN usually occurred within the first 4 weeks of treatment, remained stable, and returned to baseline following discontinuation of therapy.

The observed elevations in serum creatinine may be associated with bempedoic acid inhibition of OAT2-dependent renal tubular secretion of creatinine (see section 4.5), representing a drugendogenous substrate interaction, and does not appear to indicate worsening renal function. This effect should be considered when interpreting changes in estimated creatinine clearance in patients on Nustendi therapy, particularly in patients with medical conditions or receiving medicinal products that require monitoring of estimated creatinine clearance.

Hepatic enzyme elevations

Hepatic transaminase (AST and/or ALT) elevations of \geq 3× ULN were reported in 2.4% of patients treated with Nustendi compared with no patients on placebo. In four controlled clinical trials of bempedoic acid, the incidence of elevations (\geq 3× ULN) in hepatic transaminase levels (AST and/or ALT) was 0.7% for patients treated with bempedoic acid and 0.3% for placebo. In controlled clinical combination trials of ezetimibe initiated concurrently with a statin, the incidence of consecutive elevations (\geq 3× ULN) in hepatic transaminase levels was 1.3% for patients treated with ezetimibe administered with statins and 0.4% for patients treated with statins alone. The elevations in transaminases with bempedoic acid or ezetimibe were not associated with other evidence of liver dysfunction (see section 4.4).

Decreased haemoglobin

In the pooled placebo-controlled trials of bempedoic acid, a decrease in haemoglobin from baseline of ≥ 20 g/L and < lower limit of normal (LLN) was observed in 4.6% of patients in the bempedoic acid group compared with 1.9% of patients on placebo. Greater than 50 g/L and < LLN decreases in haemoglobin were reported at similar rates in bempedoic acid and placebo groups (0.2% versus 0.2%, respectively). The decreases in haemoglobin usually occurred within the first 4 weeks of treatment and returned to baseline following discontinuation of treatment. Among patients who had normal haemoglobin values at baseline, 1.4% in the bempedoic acid group and 0.4% in the placebo group experienced haemoglobin values below LLN while on treatment. Anaemia was reported in 2.5% of patients treated with bempedoic acid and 1.6% of patients treated with placebo.

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 listed in Appendix V.

4.9 Overdose

In the event of overdose, the patient should be treated symptomatically, and supportive measures instituted as required.

Bempedoic acid

Doses up to 240 mg/day (1.3 times the approved recommended dose) have been administered in clinical trials with no evidence of dose limiting toxicity. No adverse events were observed in animal studies at exposures up to 14-fold higher than those in patients treated with bempedoic acid at 180 mg once daily.

Ezetimibe

In clinical studies, administration of ezetimibe, 50 mg/day to 15 healthy subjects for up to 14 days, or 40 mg/day to 18 patients with primary hypercholesterolaemia for up to 56 days, did not result in an increase in the rate of adverse events. In animals, no toxicity was observed after single oral doses of 5000 mg/kg of ezetimibe in rats and mice and 3000 mg/kg in dogs.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Lipid modifying agents in combination with other drugs, ATC code: C10BA10

Mechanism of action

Nustendi contains bempedoic acid and ezetimibe, two LDL-C lowering compounds with complementary mechanisms of action. Nustendi reduces elevated LDL-C through dual inhibition of cholesterol synthesis in the liver and cholesterol absorption in the intestine.

Bempedoic acid

Bempedoic acid is an adenosine triphosphate-citrate lyase (ACL) inhibitor that lowers LDL-C by inhibition of cholesterol synthesis in the liver. ACL is an enzyme upstream of 3-hydroxy-3-methyl-glutaryl-coenzyme A (HMG-CoA) reductase in the cholesterol biosynthesis pathway. Bempedoic acid requires coenzyme A (CoA) activation by very long-chain acyl-CoA synthetase 1 (ACSVL1) to ETC-1002-CoA. ACSVL1 is expressed primarily in the liver and not in skeletal muscle. Inhibition of ACL by ETC-1002-CoA results in decreased cholesterol synthesis in the liver and lowers LDL-C in blood via upregulation of low-density lipoprotein receptors. Additionally, inhibition of ACL by ETC-1002-CoA results in concomitant suppression of hepatic fatty acid biosynthesis.

Ezetimibe

Ezetimibe reduces blood cholesterol by inhibiting the absorption of cholesterol by the small intestine. The molecular target of ezetimibe has been shown to be the sterol transporter, Niemann-Pick C1-Like 1 (NPC1L1), which is involved in the intestinal uptake of cholesterol and phytosterols. Ezetimibe localizes at the brush border of the small intestine and inhibits the absorption of cholesterol, leading to a decrease in the delivery of intestinal cholesterol to the liver.

Pharmacodynamic effects

Administration of bempedoic acid and ezetimibe alone and in combination with other lipid modifying medicinal products decreases LDL-C, non-high density lipoprotein cholesterol (non-HDL-C), apolipoprotein B (apo B), and total cholesterol (TC) in patients with hypercholesterolaemia or mixed dyslipidaemia.

Because patients with diabetes are at elevated risk for atherosclerotic cardiovascular disease, the clinical trials of bempedoic acid included patients with diabetes mellitus. Among the subset of patients with diabetes, lower levels of HbA1c were observed as compared to placebo (on average 0.2%). In patients without diabetes, no difference in HbA1c was observed between bempedoic acid and placebo and there were no differences in the rates of hypoglycaemia.

Cardiac electrophysiology

A QT trial has been conducted for bempedoic acid. At a dose of 240 mg (1.3 times the approved recommended dose), bempedoic acid does not prolong the QT interval to any clinically relevant extent.

The effect of ezetimibe or the combination regimen Nustendi on QT interval has not been evaluated.

Clinical efficacy and safety

Ezetimibe 10 mg has been shown to reduce the frequency of cardiovascular events. The effect of bempedoic acid on cardiovascular morbidity and mortality has not been determined.

The efficacy of Nustendi was assessed in a sensitivity analysis of 301 patients who received treatment in Study 1002-053. This analysis excluded all data from 3 sites (81 patients) due to systematic patient non-compliance with all the four treatments. The study was a 4-arm, multi-centre, randomised, double-blind, parallel-group, 12-week trial in patients with high cardiovascular risk and hyperlipidaemia. Patients randomised 2:2:2:1, received either Nustendi orally at a dose of 180 mg/10 mg per day (n=86), bempedoic acid 180 mg per day (n=88), ezetimibe 10 mg per day (n=86), or placebo once daily (n=41) as add-on to a maximum tolerated statin therapy. Maximum tolerated statin therapy could include statin regimens other than daily dosing or no statin. Patients were stratified by cardiovascular risk and baseline statin intensity. Patients on simvastatin 40 mg per day or higher were excluded from the trial.

Demographics and baseline disease characteristics were balanced between the treatment arms. Overall, the mean age at baseline was 64 years (range: 30 to 87 years), 50% were ≥ 65 years old, 50% were women, 81% White, 17% were Black, 1% Asian, and 1% other. At the time of randomisation, 61% of patients on Nustendi, 69% of patients on bempedoic acid, 63% of patients on ezetimibe and 66% of patients on placebo were receiving statin therapy; 36% of patients on Nustendi, 35% of patients on bempedoic acid, 29% of patients on ezetimibe and 41% of patients on placebo were receiving high intensity statin therapy. The mean baseline LDL-C was 149.7 mg/dL (3.9 mmol/L). Most patients (94%) completed the study.

Nustendi significantly reduced LDL-C from baseline to week 12 compared with placebo (-38.0%; 95% CI: -46.5%, -29.6%; p < 0.001). The maximum LDL-C lowering effects were observed as early as week 4 and efficacy was maintained throughout the trial. Nustendi also significantly reduced non-HDL-C, apo B, and TC (see table 2).

Table 2: Treatment effects of Nustendi on lipid parameters in patients with high cardiovascular risk and hyperlipidaemia on background statin regimens (mean % change from baseline to week 12)

	Nustendi 180 mg/10 mg n=86	Bempedoic acid 180 mg n=88	Ezetimibe 10 mg n=86	Placebo n=41
LDL-C, n	86	88	86	41
LS Mean (SE)	-36.2 (2.6)	-17.2 (2.5)	-23.2 (2.2)	1.8 (3.5)
non-HDL-C, n	86	88	86	41
LS Mean (SE)	-31.9 (2.2)	-14.1 (2.2)	-19.9 (2.1)	1.8 (3.3)
apo B, n	82	85	84	38
LS Mean (SE)	-24.6 (2.4)	-11.8 (2.2)	-15.3 (2.0)	5.5 (3.0)
TC, n	86	88	86	41
LS Mean (SE)	-26.4 (1.9)	-12.1 (1.8)	-16.0 (1.6)	0.7 (2.5)

apo B=apolipoprotein B; HDL-C=high-density lipoprotein cholesterol, LDL C=low-density lipoprotein cholesterol; LS=least squares; TC=total cholesterol.

Background statin: atorvastatin, lovastatin, pitavastatin, pravastatin, rosuvastatin, simvastatin.

Administration of bempedoic acid on background ezetimibe therapy

Study 1002-048 was a multi-centre, randomised, double-blind, placebo-controlled 12-week trial evaluating the efficacy of bempedoic acid versus placebo in lowering LDL-C when added to ezetimibe in patients with elevated LDL-C who had a history of statin intolerance and were unable to tolerate more than the lowest approved starting dose of a statin. The trial included 269 patients randomised 2:1 to receive either bempedoic acid (n=181) or placebo (n=88) as add-on to ezetimibe 10 mg daily for 12 weeks.

Overall, the mean age at baseline was 64 years (range: 30 to 86 years), 55% were ≥ 65 years old, 61% were women, 89% White, 8% were Black, 2% Asian, and 1% other. The mean baseline LDL-C was 127.6 mg/dL (3.3 mmol/L). At the time of randomisation, 33% of patients on bempedoic acid versus 28% on placebo were receiving statin therapy at less than or equal to lowest approved doses.

Administration of bempedoic acid to patients on background ezetimibe therapy significantly reduced LDL-C from baseline to week 12 compared with placebo and ezetimibe (p < 0.001). Administration of bempedoic acid with background ezetimibe therapy also significantly reduced non-HDL-C, apo B, and TC (see table 3).

Table 3: Treatment effects of bempedoic acid compared with placebo in statin intolerant patients on background ezetimibe therapy (mean percent change from baseline to week 12)

	Study 1002-048 (N=269)		
	Bempedoic acid 180 mg + Background Ezetimibe 10 mg n=181	Placebo + Background Ezetimibe 10 mg n=88	
LDL-C ^a , n	175	82	
LS Mean	-23.5	5.0	
non-HDL-C ^a , n	175	82	
LS Mean	-18.4	5.2	
apo B ^a , n	180	86	
LS Mean	-14.6	4.7	
TC ^a , n	176	82	
LS Mean	-15.1	2.9	

apo B=apolipoprotein B; HDL-C=high-density lipoprotein cholesterol; LDL C=low-density lipoprotein cholesterol; LS=least squares; TC=total cholesterol.

Background statin: atorvastatin, simvastatin, rosuvastatin, pravastatin, lovastatin

Paediatric population

The European Medicines Agency has waived the obligation to submit the results of studies with Nustendi in all subsets of the paediatric population in the treatment of elevated cholesterol (see section 4.2 for information on paediatric use).

5.2 Pharmacokinetic properties

Absorption

Nustendi

The bioavailability of Nustendi tablets was similar relative to that from the individual tablets, coadministered. C_{max} values for bempedoic acid and its active metabolite (ESP15228) were similar between formulations, but ezetimibe and ezetimibe glucuronide C_{max} values were approximately 13% and 22% lower, respectively, for Nustendi relative to the individual tablets, coadministered. Given a similar overall extent of ezetimibe and ezetimibe glucuronide exposure (as measured by AUC), a 22% lower C_{max} is unlikely to be clinically significant.

No clinically significant pharmacokinetic interaction was seen when ezetimibe was coadministered with bempedoic acid. Total ezetimibe (ezetimibe and its glucuronide form) and ezetimibe glucuronide AUC and C_{max} increased approximately 1.6- and 1.8-fold, respectively, when a single dose of ezetimibe was taken with steady-state bempedoic acid. This increase is likely due to inhibition of OATP1B1 by bempedoic acid, which results in decreased hepatic uptake and subsequently decreased elimination of ezetimibe-glucuronide. Increases in the AUC and C_{max} for ezetimibe were less than 20%.

a. Percent change from baseline was analysed using analysis of covariance (ANCOVA), with treatment and randomisation strata as factors and baseline lipid parameter as a covariate.

Bempedoic acid

Pharmacokinetic data indicate that bempedoic acid is absorbed with a median time to maximum concentration of 3.5 hours when administered as Nustendi 180 mg tablets. Bempedoic acid pharmacokinetic parameters are presented as the mean [standard deviation (SD)] unless otherwise specified. Bempedoic acid can be considered a prodrug that is activated intracellularly by ACSVL1 to ETC-1002-CoA. The steady-state C_{max} and AUC following multiple dose administration in patients with hypercholesterolaemia were 24.8 (6.9) microgram/mL and 348 (120) microgram·h/mL, respectively. Bempedoic acid steady-state pharmacokinetics were generally linear over a range of 120 mg to 220 mg. There were no time-dependent changes in bempedoic acid pharmacokinetics following repeat administration at the recommended dose, and bempedoic acid steady-state was achieved after 7 days. The mean accumulation ratio of bempedoic acid was approximately 2.3-fold.

Ezetimibe

After oral administration, ezetimibe is rapidly absorbed and extensively conjugated to a pharmacologically active phenolic glucuronide (ezetimibe-glucuronide). Mean C_{max} occur within 1 to 2 hours for ezetimibe-glucuronide and 4 to 12 hours for ezetimibe. The absolute bioavailability of ezetimibe cannot be determined as the compound is virtually insoluble in aqueous media suitable for injection. Ezetimibe undergoes extensive enterohepatic cycling, multiple peaks of ezetimibe can be observed.

Effect of food

After the administration of Nustendi with a high-fat, high calorie breakfast in healthy subjects, the AUC for bempedoic acid and ezetimibe were comparable to the fasted state. Compared to the fasted state, the fed state resulted in 30% and 12% reductions in C_{max} of bempedoic acid and ezetimibe, respectively. Relative to the fasted state, the fed state resulted in 12% and 42% reductions in ezetimibe glucuronide AUC and C_{max} , respectively. This effect of food is not considered to be clinically meaningful.

Distribution

Bempedoic acid

The bempedoic acid apparent volume of distribution (V/F) was 18 L. Plasma protein binding of bempedoic acid, its glucuronide and its active metabolite, ESP15228, were 99.3%, 98.8% and 99.2%, respectively. Bempedoic acid does not partition into red blood cells.

Ezetimibe

Ezetimibe and ezetimibe-glucuronide are bound 99.7% and 88% to 92% to human plasma proteins, respectively.

Biotransformation

Bempedoic acid

In vitro metabolic interaction studies suggest that bempedoic acid, as well as its active metabolite and glucuronide forms are not metabolised by and do not inhibit or induce cytochrome P450 enzymes.

The primary route of elimination for bempedoic acid is through metabolism to the acyl glucuronide. Bempedoic acid is also reversibly converted to an active metabolite (ESP15228) based on aldo-keto reductase activity observed *in vitro* from human liver. Mean plasma AUC metabolite/parent drug ratio for ESP15228 following repeat-dose administration was 18% and remained constant over time. Both bempedoic acid and ESP15228 are converted to inactive glucuronide conjugates *in vitro* by UGT2B7. Bempedoic acid, ESP15228 and their respective conjugated forms were detected in plasma with bempedoic acid accounting for the majority (46%) of the AUC_{0-48h} and its glucuronide being the next most prevalent (30%). ESP15228 and its glucuronide represented 10% and 11% of the plasma AUC_{0-48h}, respectively.

The steady-state C_{max} and AUC of the equipotent active metabolite (ESP15228) of bempedoic acid in patients with hypercholesterolaemia were 3.0 (1.4) microgram/mL and 54.1 (26.4) microgram·h/mL, respectively. ESP15228 likely made a minor contribution to the overall clinical activity of bempedoic acid based on systemic exposure and pharmacokinetic properties.

Ezetimibe

In preclinical studies, it has been shown that ezetimibe does not induce cytochrome P450 drug metabolising enzymes. No clinically significant pharmacokinetic interactions have been observed between ezetimibe and drugs known to be metabolised by cytochromes P450 1A2, 2D6, 2C8, 2C9, and 3A4, or N-acetyltransferase. Ezetimibe is metabolised primarily in the small intestine and liver via glucuronide conjugation (a phase II reaction) with subsequent biliary excretion. Minimal oxidative metabolism (a phase I reaction) has been observed in all species evaluated. Ezetimibe and ezetimibe-glucuronide are the major drug-derived compounds detected in plasma, constituting approximately 10% to 20% and 80% to 90% of the total drug in plasma, respectively. Both ezetimibe and ezetimibe-glucuronide are slowly eliminated from plasma with evidence of significant enterohepatic recycling.

Elimination

Bempedoic acid

The steady-state clearance (CL/F) of bempedoic acid determined from a population PK analysis in patients with hypercholesterolaemia was 12.1 mL/min after once-daily dosing; renal clearance of unchanged bempedoic acid represented less than 2% of total clearance. The mean (SD) half-life for bempedoic acid in humans was 19 (10) hours at steady-state.

Following single oral administration of 240 mg of bempedoic acid (1.3 times the approved recommended dose), 62.1% of the total dose (bempedoic acid and its metabolites) was recovered in urine, primarily as the acyl glucuronide conjugate of bempedoic acid, and 25.4% was recovered in faeces. Less than 5% of the administered dose was excreted as unchanged bempedoic acid in faeces and urine combined.

Ezetimibe

Following oral administration of 14C-ezetimibe (20 mg) to human subjects, total ezetimibe (ezetimibe and ezetimibe-glucuronide) accounted for approximately 93% of the total radioactivity in plasma. Approximately 78% and 11% of the administered radioactivity were recovered in the faeces and urine, respectively, over a 10-day collection period. After 48 hours, there were no detectable levels of radioactivity in the plasma. The half-life for ezetimibe and ezetimibe-glucuronide is approximately 22 hours.

Special populations

Renal impairment

Bempedoic acid

Pharmacokinetics of bempedoic acid was evaluated in a population PK analysis performed on pooled data from all clinical trials (n=2,261) to assess renal function on the steady-state AUC of bempedoic acid and in a single-dose pharmacokinetic study in subjects with varying degrees of renal function. Compared to patients with normal renal function, the mean bempedoic acid exposures were higher in patients with mild or moderate renal impairment by 1.4-fold (90% PI: 1.3, 1.4) and 1.9-fold (90% PI: 1.7, 2.0), respectively (see section 4.4).

There is limited information in patients with severe renal impairment; in a single dose study, the bempedoic acid AUC was increased by 2.4-fold in patients (n=5) with severe renal impairment (eGFR $< 30 \text{ mL/min}/1.73 \text{ m}^2$) compared to those with normal renal function. Clinical studies of Nustendi did not include patients with ESRD on dialysis (see section 4.4).

Ezetimibe

After a single 10 mg dose of ezetimibe in patients with severe renal disease (n=8; mean $CrCl \leq 30$ mL/min/1.73 m²), the mean AUC for total ezetimibe was increased approximately 1.5-fold, compared to healthy subjects (n=9). This result is not considered clinically significant. An additional patient in this study (post-renal transplant and receiving multiple medicinal products, including ciclosporin) had a 12-fold greater exposure to total ezetimibe.

Hepatic impairment

Nustendi is not recommended in patients with moderate or severe hepatic impairment due to the unknown effects of increased exposure to ezetimibe.

Bempedoic acid

The pharmacokinetics of bempedoic acid and its metabolite (ESP15228) was studied in patients with normal hepatic function or mild or moderate hepatic impairment (Child-Pugh A or B) following a single dose (n=8/group). Compared to patients with normal hepatic function, the bempedoic acid mean C_{max} and AUC were decreased by 11% and 22%, respectively, in patients with mild hepatic impairment and by 14% and 16%, respectively, in patients with moderate hepatic impairment. This is not expected to result in lower efficacy. Bempedoic acid was not studied in patients with severe hepatic impairment (Child-Pugh C).

Ezetimibe

After a single 10 mg dose of ezetimibe, the mean AUC for total ezetimibe was increased approximately 1.7-fold in patients with mild hepatic impairment (Child-Pugh A), compared with healthy subjects. In a 14-day, multiple-dose study (10 mg daily) in patients with moderate hepatic impairment (Child-Pugh B), the mean AUC for total ezetimibe was increased approximately 4-fold on Day 1 and Day 14 compared with healthy subjects.

Other special populations

Bempedoic acid

Of the 3,621 patients treated with bempedoic acid in the placebo-controlled studies, 2,098 (58%) were > 65 years old. No overall differences in safety or efficacy were observed between these patients and younger patients.

The pharmacokinetics of bempedoic acid were not affected by age, gender, or race. Body weight was a statistically significant covariate. The lowest quartile of body weight (< 73 kg) was associated with an approximate 30% greater exposure. The increase in exposure was not clinically significant and no dose adjustments are recommended based on weight.

Ezetimibe

Geriatrics

In a multiple-dose study with ezetimibe given 10 mg once daily for 10 days, plasma concentrations for total ezetimibe were about 2-fold higher in older (≥ 65 years) healthy subjects compared to younger subjects. LDL-C reduction and safety profile are comparable between elderly and young subjects treated with ezetimibe.

Gender

Plasma concentrations for total ezetimibe are slightly higher (approximately 20%) in women than in men. LDL-C reduction and safety profile are comparable between men and women treated with ezetimibe.

5.3 Preclinical safety data

Nustendi

Coadministration of bempedoic acid with doses of ezetimibe in rats at systemic total exposures > 50 times the human clinical exposure did not alter the toxicologic profile of either bempedoic acid or ezetimibe. Bempedoic acid in combination with ezetimibe did not alter the effects on embryo-fetal development profile of bempedoic acid or ezetimibe.

Bempedoic acid

The standard battery of genotoxicity studies have not identified any mutagenic or clastogenic potential of bempedoic acid. In full lifetime carcinogenicity studies in rodents, bempedoic acid increased the incidence of hepatocellular and thyroid gland follicular tumours in male rats and hepatocellular tumours in male mice. Because these are common tumours observed in rodent lifetime bioassays and the mechanism for tumourigenesis is secondary to a rodent-specific PPAR alpha activation, these tumours are not considered to translate to human risk.

Increased liver weight and hepatocellular hypertrophy were observed in rats only and were partially reversed after the 1-month recovery at ≥ 30 mg/kg/day or 4 times the exposure in humans at 180 mg. Reversible, non-adverse changes in laboratory parameters indicative of these hepatic effects, decreases in red blood cell and coagulation parameters, and increases in urea nitrogen and creatinine were observed in both species at tolerated doses. The NOAEL for adverse response in the chronic studies was 10 mg/kg/day and 60 mg/kg/day associated with exposures below and 15 times the human exposure at 180 mg in rats and monkeys, respectively.

Bempedoic acid was not teratogenic or toxic to embryos or foetuses in pregnant rabbits at doses up to 80 mg/kg/day or 12 times the systemic exposure in humans at 180 mg. Pregnant rats given bempedoic acid at 10, 30, and 60 mg/kg/day during organogenesis had decreased numbers of viable foetuses and reduced foetal body weight at $\geq 30 \text{ mg/kg/day}$ or 4 times the systemic exposure in humans at 180 mg. An increased incidence of foetal skeletal findings (bent scapula and ribs) were observed at all doses, at exposures below the systemic exposure in humans at 180 mg. In a pre- and post-natal development study, pregnant rats administered bempedoic acid at 5, 10, 20 and 30 mg/kg/day throughout pregnancy and lactation had adverse maternal effects at $\geq 20 \text{ mg/kg/day}$ and reductions in numbers of live pups and pup survival, pup growth and learning and memory at $\geq 10 \text{ mg/kg/day}$, with maternal exposures at 10 mg/kg/day, less than the exposure in humans at 180 mg.

Administration of bempedoic acid to male and female rats prior to mating and through gestation day 7 in females resulted in changes in estrous cyclicity, decreased numbers of corpora lutea and implants at $\geq 30 \text{ mg/kg/day}$ with no effects on male or female fertility or sperm parameters at 60 mg/kg/day (4 and 9 times the systemic exposure in humans at 180 mg, respectively).

Ezetimibe

Animal studies on the chronic toxicity of ezetimibe identified no target organs for toxic effects. In dogs treated for four weeks with ezetimibe (≥ 0.03 mg/kg/day) the cholesterol concentration in the cystic bile was increased by a factor of 2.5 to 3.5. However, in a one-year study in dogs given doses of up to 300 mg/kg/day no increased incidence of cholelithiasis or other hepatobiliary effects were observed. The significance of these data for humans is not known. A lithogenic risk associated with the therapeutic use of ezetimibe cannot be ruled out.

In coadministration studies with ezetimibe and statins the toxic effects observed were essentially those typically associated with statins. Some of the toxic effects were more pronounced than observed during treatment with statins alone. This is attributed to pharmacokinetic and pharmacodynamic interactions in coadministration therapy. Myopathies occurred in rats only after exposure to doses that

were several times higher than the human therapeutic dose (approximately 20 times the AUC level for statins and 500 to 2,000 times the AUC level for the active metabolites).

In a series of *in vivo* and *in vitro* assays ezetimibe, given alone or coadministered with statins, exhibited no genotoxic potential. Long-term carcinogenicity tests on ezetimibe were negative.

Ezetimibe had no effect on the fertility of male or female rats, nor was it found to be teratogenic in rats or rabbits, nor did it affect prenatal or postnatal development. Ezetimibe crossed the placental barrier in pregnant rats and rabbits given multiple doses of 1,000 mg/kg/day. The coadministration of ezetimibe and statins was not teratogenic in rats. In pregnant rabbits a small number of skeletal deformities (fused thoracic and caudal vertebrae, reduced number of caudal vertebrae) were observed. The coadministration of ezetimibe with lovastatin resulted in embryolethal effects.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Tablet core

Lactose monohydrate
Microcrystalline cellulose (E460)
Sodium starch glycolate (Type A grade)
Hydroxypropyl cellulose (E463)
Magnesium stearate (E470b)
Silica, colloidal anhydrous (E551)
Sodium laurilsulfate (E487)
Povidone (K30) (E1201)

Film-coating

Partially hydrolyzed poly(vinyl alcohol) (E1203) Talc (E553b) Titanium dioxide (E171) Indigo Carmine Aluminium Lake (E132) Glycerol monocaprylocaprate Sodium laurilsulfate (E487) Brilliant Blue FCF Aluminium Lake (E133)

6.2 Incompatibilities

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

6.3 Shelf life

36 months

6.4 Special precautions for storage

This medicinal product does not require any special temperature storage conditions. Store in the original package in order to protect from moisture.

6.5 Nature and contents of container

Polyvinyl chloride (PVC)/PCTFE/aluminum blisters. Pack sizes of 10, 14, 28, 30, 84, 90, 98 or 100 film-coated tablets. Polyvinyl chloride (PVC)/PCTFE/aluminum perforated unit dose blisters. Pack sizes of 10 x 1, 50 x 1 or 100 x 1 film-coated tablets.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Daiichi Sankyo Europe GmbH Zielstattstrasse 48 81379 Munich Germany

8. MARKETING AUTHORISATION NUMBER(S)

EU/1/20/1424/001 - 011

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 27/03/2020

10. DATE OF REVISION OF THE TEXT

Detailed information on this medicinal product is available on the website of the European Medicines Agency http://www.ema.europa.eu

ANNEX II

- A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer(s) responsible for batch release

Daiichi Sankyo Europe GmbH Luitpoldstrasse 1 85276 Pfaffenhofen Germany

B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Medicinal product subject to medical prescription.

C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION

• Periodic safety update reports (PSURs)

The requirements for submission of PSURs for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal.

The marketing authorisation holder shall submit the first PSUR for this product within 6 months following authorisation.

D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

• Risk management plan (RMP)

The marketing authorisation holder (MAH) shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

ANNEX III LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGING

OUTER CARTON

1. NAME OF THE MEDICINAL PRODUCT

Nustendi 180 mg/10 mg film-coated tablets bempedoic acid / ezetimibe

2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each tablet contains 180 mg of bempedoic acid and 10 mg of ezetimibe.

3. LIST OF EXCIPIENTS

Contains lactose. See leaflet for further information.

4. PHARMACEUTICAL FORM AND CONTENTS

Film-coated tablets

10 film-coated tablets

14 film-coated tablets

28 film-coated tablets

30 film-coated tablets

84 film-coated tablets

90 film-coated tablets

98 film-coated tablets

100 film-coated tablets

10 x 1 film-coated tablet

50 x 1 film-coated tablet

100 x 1 film-coated tablet

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Read the package leaflet before use.

Oral use

6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children.

7. OTHER SPECIAL WARNING(S), IF NECESSARY

8. EXPIRY DATE
6. EATKI DATE
EXP
O CDECIAL CTODACE CONDITIONS
9. SPECIAL STORAGE CONDITIONS
Store in the original package in order to protect from moisture.
brote in the original package in order to protect from moistare.
10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS
OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF
APPROPRIATE
11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER
Daiichi Sankyo Europe GmbH
81366 Munich,
Germany
12. MARKETING AUTHORISATION NUMBER(S)
12. WARRETH'G ACTIONISATION NUMBER(S)
EU/1/20/1424/001 10 film-coated tablets
EU/1/20/1424/007 14 film-coated tablets
EU/1/20/1424/002 28 film-coated tablets
EU/1/20/1424/003 30 film-coated tablets
EU/1/20/1424/008 84 film-coated tablets
EU/1/20/1424/004 90 film-coated tablets
EU/1/20/1424/005 98 film-coated tablets EU/1/20/1424/006 100 film-coated tablets
EU/1/20/1424/000 100 Hini-coated tablets EU/1/20/1424/009 10 x 1 film-coated tablet
EU/1/20/1424/010 50 x 1 film-coated tablet
EU/1/20/1424/011 100 x 1 film-coated tablet
13. BATCH NUMBER
Lot
Lot
14. GENERAL CLASSIFICATION FOR SUPPLY
15. INSTRUCTIONS ON USE
16. INFORMATION IN BRAILLE

Nustendi 180 mg/10 mg

17. UNIQUE IDENTIFIER – 2D BARCODE

2D barcode carrying the unique identifier included

18. UNIQUE IDENTIFIER - HUMAN READABLE DATA

PC

SN

NN

MINIMUM PARTICULARS TO APPEAR ON BLISTERS OR STRIPS			
BLISTER			
1. NAME OF THE MEDICINAL PRODUCT			
Nustendi 180 mg/10 mg film-coated tablets bempedoic acid / ezetimibe			
2. NAME OF THE MARKETING AUTHORISATION HOLDER			
Daiichi-Sankyo (logo)			
3. EXPIRY DATE			
EXP			
4. BATCH NUMBER			
Lot			
5. OTHER			

B. PACKAGE LEAFLET

Package leaflet: Information for the patient

Nustendi 180 mg/10 mg film-coated tablets

bempedoic acid / ezetimibe



Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

- 1. What Nustendi is and what it is used for
- 2. What you need to know before you take Nustendi
- 3. How to take Nustendi
- 4. Possible side effects
- 5. How to store Nustendi
- 6. Contents of the pack and other information

1. What Nustendi is and what it is used for

What Nustendi is and how it works

Nustendi is a medicine that lowers levels of 'bad' cholesterol (also called "LDL-cholesterol"), a type of fat, in the blood.

Nustendi contains two active substances, which reduce your cholesterol in two ways:

- bempedoic acid decreases the production of cholesterol in the liver and increases the removal of LDL-cholesterol from the blood;
- ezetimibe works in your bowel by reducing the amount of cholesterol absorbed from food.

What Nustendi is used for

Nustendi is given to adults with primary hypercholesterolaemia or mixed dyslipidaemia, which are conditions that cause a high cholesterol level in the blood. It is given in addition to a cholesterol-lowering diet.

Nustendi is given:

- if you have been using a statin (such as simvastatin, a commonly used medicine that treats high cholesterol) together with ezetimibe and this does not lower your LDL-cholesterol sufficiently;
- if you have been using ezetimibe and this does not lower your LDL-cholesterol sufficiently;
- to replace bempedoic acid and ezetimibe if you have been using these medicines as separate tablets.

2. What you need to know before you take Nustendi

Do not take Nustendi:

- if you are allergic to bempedoic acid, ezetimibe or any of the other ingredients of this medicine (listed in section 6);
- if you are pregnant;
- if you are breast-feeding;
- if you take more than 40 mg of simvastatin daily (another medicine used to lower cholesterol);
- with a statin if you currently have liver problems.
- Nustendi contains ezetimibe. When Nustendi is given together with a statin, you should also read the information relating to ezetimibe in the Package leaflet of that specific statin.

Warnings and precautions

Talk to your doctor or pharmacist before taking Nustendi:

- if you ever had gout;
- if you have severe kidney problems;
- if you have moderate or severe liver problems. Nustendi is not recommended in this case.

Your doctor should do a blood test before you start taking Nustendi with a statin. This is to check how well your liver is working.

Children and adolescents

Do not give Nustendi to children and adolescents under 18 years of age. The use of Nustendi has not been studied in this age group.

Other medicines and Nustendi

Tell your doctor or pharmacist if you are taking, have recently taken or might take any other medicines. In particular, tell your doctor if you are taking medicine(s) with any of the following active substances:

- atorvastatin, fluvastatin, pitavastatin, pravastatin, rosuvastatin, simvastatin (used to lower cholesterol and known as statins).
 - The risk of muscle disease may increase when taking both a statin and Nustendi. Tell your doctor immediately about any unexplained muscle pain, tenderness or weakness.
- bosentan (used to manage a condition called pulmonary artery hypertension).
- fimasartan (used to treat high blood pressure and heart failure).
- asunaprevir, glecaprevir, grazoprevir, voxilaprevir (used to treat hepatitis C).
- fenofibrate (also used to lower cholesterol).
 No information is available on the effects of using Nustendi with cholesterol-lowering medicines called fibrates.
- ciclosporin (often used in organ transplant patients).
- colestyramine (also used to lower cholesterol), because it affects the way ezetimibe works.
- medicines to prevent blood clots, such as warfarin as well as acenocoumarol, fluindione, and phenprocoumon.

Pregnancy and breast-feeding

Do not take this medicine if you are pregnant, trying to get pregnant, or think you may be pregnant, as there is a possibility that it could harm an unborn baby. If you get pregnant while taking this medicine, call your doctor immediately and stop taking Nustendi.

Pregnancy

Before starting treatment, you should confirm you are not pregnant and are using effective contraception, as advised by your doctor. If you use contraceptive pills and suffer from an episode of diarrhoea or vomiting that lasts more than 2 days, you must use an alternative method of contraception (e.g. condoms, diaphragm) for 7 days following resolution of symptoms.

If, after you have started treatment with Nustendi, you decide that you would like to become pregnant, tell your doctor, as your treatment will need to be changed.

Breast-feeding

Do not take Nustendi if you are breast-feeding because it is not known if Nustendi passes into milk.

Driving and using machines

Nustendi has minor influence on the ability to drive and use machines.

However, some people may get dizzy after taking Nustendi. Avoid driving or using machines if you think your ability to react is reduced.

Nustendi contains lactose and sodium

If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicine.

This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

3. How to take Nustendi

Always take this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

The recommended dose is one tablet once daily.

If you are taking colestyramine, take Nustendi either at least 2 hours before or at least 4 hours after taking colestyramine.

Swallow the tablet whole with food or between meals.

If you take more Nustendi than you should

Contact your doctor or pharmacist immediately.

If you forget to take Nustendi

If you notice that you forgot:

- a dose late in a day, take the missed dose and take the next dose at your regular time the next day.
- the previous day's dose, take your tablet at the regular time and do not make up for the forgotten dose.

If you stop taking Nustendi

Do not stop taking Nustendi without your doctor's permission as your cholesterol may rise again.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Contact your doctor immediately if you have any of the following serious side effects (frequencies are unknown):

- muscle pain or weakness
- yellowish skin and eyes, abdominal pain, dark urine, swollen ankles, decreased appetite, and feeling tired that could be signs of liver problems
- allergic reactions including rash and hives; raised red rash, sometimes with target-shaped lesions (erythema multiforme)
- gallstones or inflammation of the gallbladder (which may cause abdominal pain, nausea, vomiting), inflammation of the pancreas often with severe abdominal pain
- reduction in blood platelets, which may cause bruising/bleeding (thrombocytopenia)

Other side effects can occur with the following frequencies:

Common (may affect up to 1 in 10 people)

- lower number of red blood cells (anaemia)
- decreased haemoglobin (a protein in red blood cells that carries oxygen)
- increased levels of uric acid in blood, gout
- decreased appetite
- dizziness, headache
- high blood pressure
- cough
- constipation, diarrhoea, abdominal pain
- nausea
- dry mouth
- abdominal bloating and gas, inflammation of the stomach lining (gastritis)
- blood test results indicating liver abnormalities
- muscle spasm, muscle pain, pain in shoulders, legs or arms, back pain, blood test showing raised creatine kinase (a laboratory test of muscle damage), muscle weakness, joint pain (arthralgia)
- raised creatinine and blood urea nitrogen (laboratory tests of kidney function)
- unusual tiredness or weakness

Uncommon (may affect up to 1 in 100 people)

- hot flush
- pain in the upper part of stomach, heartburn, indigestion
- itching
- swelling of the legs or hands
- neck pain, chest pain, pain
- decreased glomerular filtration rate (a measure of how well your kidneys are working)

Not known (frequency cannot be estimated from available data)

- tingling sensation
- depression
- shortness of breath

Reporting of side effects

If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in Appendix V. By reporting side effects, you can help provide more information on the safety of this medicine.

5. How to store Nustendi

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the blister and carton after EXP. The expiry date refers to the last day of the month.

This medicine does not require any special temperature storage conditions. Store in the original package in order to protect from moisture.

Do not throw away any medicine via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Nustendi contains

- The active substances are bempedoic acid and ezetimibe. Each film-coated tablet contains 180 mg of bempedoic acid and 10 mg of ezetimibe.
- The other ingredients are:
 - lactose monohydrate (see end of section 2 under 'Nustendi contains lactose and sodium')
 - microcrystalline cellulose (E460)
 - sodium starch glycolate (Type A grade) (see end of section 2 under 'Nustendi contains lactose and sodium')
 - hydroxypropyl cellulose (E463)
 - magnesium stearate (E470b)
 - silica, colloidal anhydrous (E551)
 - sodium laurilsulfate (E487) (see end of section 2 under 'Nustendi contains lactose and sodium')
 - povidone (K30) (E1201)
 - partially hydrolysed poly(vinyl alcohol) (E1203), talc (E553b), titanium dioxide (E171), Indigo Carmine Aluminium Lake (E132), glycerol monocaprylocaprate, Brilliant Blue FCF Aluminium Lake (E133)

What Nustendi looks like and contents of the pack

Film-coated tablets are blue, oval, debossed with "818" on one side and "ESP" on the other side. Tablet dimensions: $15 \text{ mm} \times 7 \text{ mm} \times 5 \text{ mm}$.

Nustendi is supplied in plastic/aluminium blisters in cartons of 10, 14, 28, 30, 84, 90, 98 or 100 film-coated tablets or unit dose blisters in cartons of 10 x 1, 50 x 1, or 100 x 1 film-coated tablets.

Not all pack sizes may be marketed in your country.

Marketing Authorisation Holder

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Manufacturer

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Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: http://www.ema.europa.eu.