

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Ovreena 30 micrograms/150 micrograms coated tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 150 micrograms levonorgestrel and 30 micrograms ethinylestradiol.

Excipients with known effect: Each tablet contains 33 mg of lactose monohydrate and 22.46 mg of sucrose.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Coated tablet

White, biconvex, circular tablets.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Oral hormonal contraception.

The decision to prescribe Ovreena should take into consideration the individual woman's current risk factors, particularly those for venous thromboembolism (VTE), and how the risk of VTE with Ovreena compares with other combined hormonal contraceptives (CHCs) (see sections 4.3 and 4.4).

4.2 Posology and method of administration

Posology

How to use Ovreena?

Tablets must be taken orally in the order directed on the blister package at about the same time every day, with some liquid if necessary.

One tablet is to be taken daily for 21 consecutive days. Every subsequent blister pack is started after a 7-day tablet-free interval during which time a withdrawal bleeding usually occurs. This bleeding will usually start on the 2nd or 3rd day after the last tablet has been taken and it may not have stopped, before the next blister pack is started.

How to start the use of Ovreena

No preceding hormonal contraceptive use in the past month.

Tablet-taking is started on day 1 of the woman's natural cycle (= the first day of her menstrual bleeding).

Changing from another combined hormonal contraceptive (combined oral contraceptive (COC) vaginal ring or transdermal patch):

Take the first tablet the day after the dose of the last active tablet of the previous contraceptive or, at the latest, the day after the usual period of stopping the tablets.

In case of vaginal ring or transdermal patch, take the first tablet the day of removal or at the latest the day scheduled for application of the new device or ring.

Changing from a progestogen-only method (mini pill, injection, implant or from a progestogen-releasing intrauterine system (IUS))

Switching from the mini pill can be performed at any time in the cycle and Ovreena coated tablet should be commenced the day after stopping.

Switching from an implant or IUS should occur on the day of removal and for an injectable contraceptive on the day scheduled for the new injection. In all cases, using an additional method of contraception for the 7 first days of treatment is recommended.

After abortion in 1st trimester

The woman may start the tablet intake immediately. In this case, it is not necessary to take further contraceptive precautions.

After delivery or abortion in 2nd trimester

The woman should be advised to start on day 21-28 after delivery in non-lactating women or abortion in the 2nd trimester, because there is an increased risk of thromboembolic disorders during the post-partum period. If she starts later than this, she should be advised to use a concomitant barrier method during the first 7 days of tablet intake. However, if she already has had intercourse, pregnancy must be excluded, before she starts the tablets, or she should wait for her first menstrual bleeding.

In case of breast-feeding

See section 4.6.

Missed tablets

Contraceptive efficacy can be reduced in case a forgotten dose, especially if the dose is forgotten for > 12 hours.

If the woman has forgotten tablet intake for less than 12 hours, the contraceptive protection is not reduced. The woman should take the tablet as soon as she remembers this, and the remaining tablets should be taken at the usual time.

If the delay exceeds 12 hours, the contraceptive protection may be reduced. Handling of missed tablets may be managed by the following two basic rules:

1. Tablets should never be delayed for longer than 7 days.
2. Seven days of uninterrupted tablet taking is required to maintain adequate suppression of the hypothalamus-pituitary-ovarian-axis.

Thus, the following advice may be given in daily practice:

Week 1:

The woman should take the last missed tablet as soon as she remembers this, even if this means that she has to take 2 tablets at the same time. Hereafter, she continues taking the tablets at the usual time point.

She should use a barrier method concomitantly, e.g. a condom, for the next 7 days. If intercourse has taken place during the previous 7 days, the possibility of pregnancy must be considered. The more forgotten tablets, and the closer to the usual tablet-free interval this takes place, the greater the risk of pregnancy.

Week 2:

The woman should take the last missed tablet as soon as she remembers this, even if this means that she has to take 2 tablets at the same time. Hereafter, she continues taking the tablets at the usual time point.

Provided that the tablets have been taken correctly during the 7 days preceding the forgotten tablet, it is not necessary to take further contraceptive precautions. However, if this is not the case, or if more than 1 tablet has been forgotten, the woman should be advised to additionally use a barrier method (such as a condom) for 7 days.

Week 3:

The risk of reduced reliability is imminent because of the forthcoming tablet-free interval. The reduced contraceptive protection may, however, be prevented by adjusting the tablet intake. Therefore, by following one of the following two alternatives, it is not necessary to take further contraceptive precautions, provided that all tablets have been taken correctly during the 7 days preceding the forgotten tablet. If this is not the case, the woman should be advised to follow the first of the

two alternatives. Additionally a barrier method (such as a condom) should be used concomitantly for the next 7 days.

1. The woman should take the last missed tablet as soon as she remembers this, even if this means that she has to take 2 tablets at the same time. Thereafter, she should continue to take the tablets at the usual time point. She should start on the next blister pack immediately after taking the last tablet in the current blister pack, i.e. there will be no tablet-free interval between the blister packs. A withdrawal bleeding is unlikely until the end of the second blister pack, but she may experience spotting or break through bleeding on the days she is taking tablets.
2. The woman may also be advised to stop taking tablets from the current blister pack. In this case, she should keep a tablet-free interval of up to 7 days, including the days she forgot to take her tablets, and thereafter continue with the next blister pack.

If the woman has missed tablets and does not get a withdrawal bleeding during the first, normal tablet-free interval, the possibility of pregnancy must be considered.

Advice in the case of gastro-intestinal disturbances

If case of severe gastro-intestinal symptoms (e.g. vomiting or diarrhoea), absorption of the active ingredients may not be complete and additional contraceptive measures should be taken.

If vomiting or severe diarrhoea occurs within 3 to 4 hours after taking a tablet, a new tablet should be taken as a replacement as soon as possible. The new tablet should be taken if possible within 12 hours of the usual dose time. If more than 12 hours elapse, the same instructions as those provided for missed tablets should apply (see section 4.2).

If the woman does not want to change her usual tablet intake, she should take the required extra tablet(s) from another blister pack.

How to delay or shift a withdrawal bleeding

In order to delay a withdrawal bleeding, the woman should continue the next blister pack of Ovreea, after taking the last tablet in the current pack, without a tablet-free interval. The extension can be carried on for as long as desired until the end of the second blister pack. During the extension the woman may experience break through bleeding or spotting. Regular intake of Ovreea is resumed after the usual 7 days tablet-free interval.

To shift her withdrawal bleeding to another day of the week, rather than the one the woman is used to with the present tablet intake, she may be advised to shorten the forthcoming tablet-free interval by as many days as she likes. The shorter the interval, the greater the risk that she will not have a withdrawal bleeding and that she may have breakthrough bleeding or spotting during the second blister pack (which is also the case when delaying a period). It is important to emphasise that the tablet-free interval should not be extended.

Paediatric population

There is no relevant use of Ovreea in the paediatric population before the pubertal age.

Method of administration

For oral administration.

4.3 Contraindications

Combined oral contraceptives (COCs) must not be used in the presence of any of the conditions listed below. If such a condition should occur for the first time during use of COCs, the use must be discontinued immediately:

- Presence or risk of venous thromboembolism (VTE)
- Venous thromboembolism – current VTE (on anticoagulants) or history of (e.g. deep venous thrombosis [DVT] or pulmonary embolism [PE])
- Known hereditary or acquired predisposition for venous thromboembolism, such as APC-resistance, (including Factor V Leiden), antithrombin-III-deficiency, protein C deficiency, protein S deficiency
- Major surgery with prolonged immobilisation (see section 4.4)
- A high risk of venous thromboembolism due to the presence of multiple risk factors (see section 4.4)
- Presence or risk of arterial thromboembolism (ATE)
- Arterial thromboembolism – current arterial thromboembolism, history of arterial thromboembolism (e.g. myocardial infarction) or prodromal condition (e.g. angina pectoris)
- Cerebrovascular disease – current stroke, history of stroke or prodromal condition (e.g. transient ischaemic attack, TIA)
- Known hereditary or acquired predisposition for arterial thromboembolism, such as hyperhomocysteinaemia and anti-phospholipid antibodies (anticardiolipin-antibodies, lupus anticoagulant)
- History of migraine with focal neurological symptoms.
- A high risk of arterial thromboembolism due to multiple risk factors (see section 4.4) or to the presence of one serious risk factor such as:
 - diabetes mellitus with vascular symptoms
 - severe hypertension
 - severe dyslipoproteinaemia
 - Severe hepatic disease, current or previous, as long as liver function values have not returned to normal.
 - Presence or history of liver tumours (benign or malignant).
 - Known or suspected hormone-dependent malignant tumour (e.g. genital organ or breast tumours);
 - Undiagnosed vaginal bleeding.
 - Concomitant use with St. John's wort (see section 4.5).
 - Hypersensitivity to the active substances levonorgestrel, ethinylestradiol or to any of the excipients listed in section 6.1.

Ovreena is contraindicated for concomitant use with the medicinal products containing ombitasvir/paritaprevir/ritonavir, dasabuvir, glecaprevir/pibrentasvir and sofosbuvir/velpatasvir/voxilaprevir (see sections 4.4 and 4.5).

4.4 Special warnings and precautions for use

Warnings

If any of the conditions or risk factors mentioned below is present, the suitability of Ovreena should be discussed with the woman.

In the event of aggravation, or first appearance of any of these conditions or risk factors, the woman should be advised to contact her doctor to determine whether the use of Ovreena should be discontinued.

1. Circulatory disorders

Risk of venous thromboembolism (VTE)

The use of any combined hormonal contraceptive (CHC) increases the risk of venous thromboembolism (VTE) compared with no use. **Products that contain levonorgestrel, such as Ovreena, norgestimate or norethisterone are associated with the lowest risk of VTE. The decision to use Ovreena should be taken after a discussion with the woman to ensure she understands the risk of VTE with Ovreena, how her current risk factors influence this risk, and that her VTE risk is highest in the first ever year of use. There is also some evidence that the risk is increased when a CHC is re-started after a break in use of 4 weeks or more.**

In women who do not use a CHC and are not pregnant, about 2 out of 10,000 will develop a VTE over the period of one year. However, in any individual woman the risk may be far higher, depending on her underlying risk factors (see below).

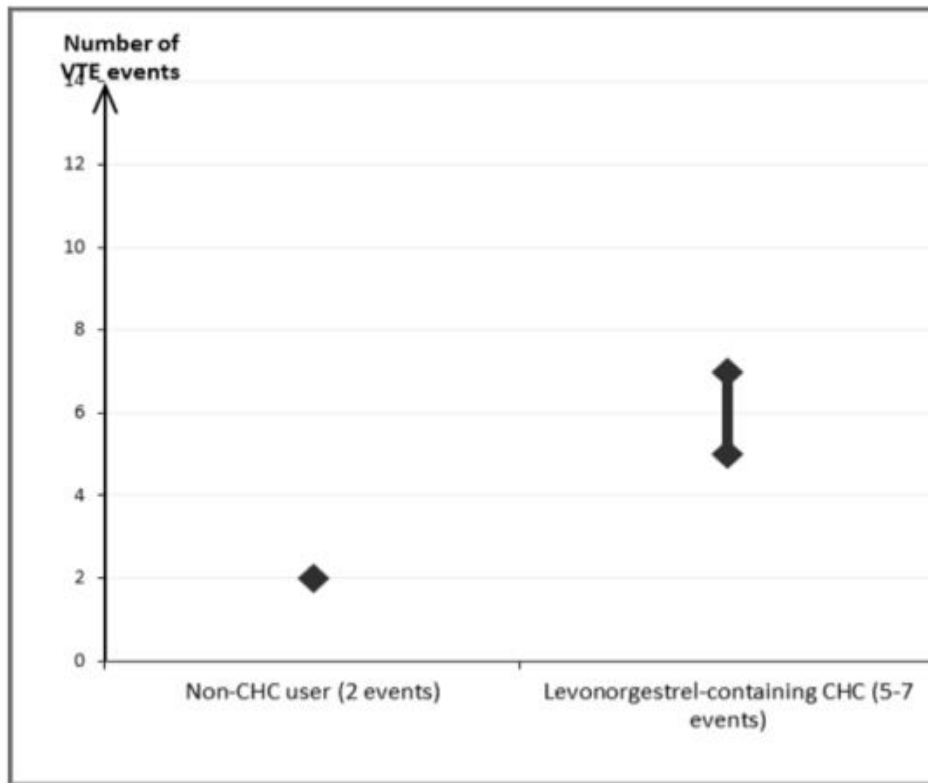
Epidemiological studies in women who use low dose combined oral contraceptives (<50 µg ethinylestradiol) have found that out of 10,000 women between about 6 and 12 will develop a VTE in one year.

It is estimated that out of 10,000 women who use a CHC that contains levonorgestrel, about 6^[1] will develop a VTE in one year.

This number of VTEs per year is fewer than the number expected in women during pregnancy or in the postpartum period.

VTE is fatal in 1% to 2% of the cases.

Number of VTE events per 10,000 women in one year



^[1] Mid-point of range of 5-7 per 10,000 WY, based on a relative risk for CHCs containing levonorgestrel versus non-use of approximately 2.3 to 3.6

Extremely rarely, thrombosis has been reported to occur in CHC users in other blood vessels, e.g. hepatic, mesenteric, renal or retinal veins and arteries.

Risk factors for VTE

The risk for venous thromboembolic complications in COC users may increase substantially in a woman with additional risk factors, particularly if there are multiple risk factors (see table).

Ovreea is contraindicated if a woman has multiple risk factors that put her at high risk of venous thrombosis (see section 4.3). If a woman has more than one risk factor, it is possible that the increase in risk is greater than the sum of the individual factors – in this case her total risk of VTE should be considered. If the balance of benefits and risks is considered to be negative a COC should not be prescribed (see section 4.3).

Table: Risk factors for VTE

Risk factor	Comment
Obesity (body mass index over 30 kg/m ²)	Risk increases substantially as BMI rises. Particularly important to consider if other risk factors also present.
Prolonged immobilisation, major surgery, any surgery to the legs or pelvis, neurosurgery, or major trauma Note: temporary immobilisation including air travel >4 hours can also be a risk factor for VTE, particularly in women with other risk factors	In these situations it is advisable to discontinue use of the patch/pill/ring (in the case of elective surgery at least four weeks in advance) and not resume until two weeks after complete remobilisation. Another method of contraception should be used to avoid unintentional pregnancy.

	Antithrombotic treatment should be considered if Ovreena has not been discontinued in advance.
Positive family history (venous thromboembolism ever in a sibling or parent especially at a relatively early age e.g. before 50).	If a hereditary predisposition is suspected, the woman should be referred to a specialist for advice before deciding about any CHC use.
Other medical conditions associated with VTE	Cancer, systemic lupus erythematosus, haemolytic uraemic syndrome, chronic inflammatory bowel disease (Crohn's disease or ulcerative colitis) and sickle cell disease
Increasing age	Particularly above 35 years.

There is no consensus about the possible role of varicose veins and superficial thrombophlebitis in the onset or progression of venous thrombosis.

The increased risk of thromboembolism in pregnancy, and particularly the 6 week period of the puerperium, must be considered (for information on "Fertility, pregnancy and lactation" see section 4.6).

Symptoms of VTE (deep vein thrombosis and pulmonary embolism)

In the event of symptoms women should be advised to seek urgent medical attention and to inform the healthcare professional that she is taking a CHC.

Symptoms of deep vein thrombosis (DVT) can include:

- unilateral swelling of the leg and/or foot or along a vein in the leg;
- pain or tenderness in the leg which may be felt only when standing or walking,
- increased warmth in the affected leg; red or discoloured skin on the leg. Symptoms of pulmonary embolism (PE) can include:
- sudden onset of unexplained shortness of breath or rapid breathing;
- sudden coughing which may be associated with haemoptysis;
- sharp chest pain;
- severe light headedness or dizziness;
- rapid or irregular heartbeat.

Some of these symptoms (e.g. "shortness of breath", "coughing") are non-specific and might be misinterpreted as more common or less severe events (e.g. respiratory tract infections).

Other signs of vascular occlusion can include: sudden pain, swelling and slight blue discoloration of an extremity.

If the occlusion occurs in the eye symptoms can range from painless blurring of vision which can progress to loss of vision. Sometimes loss of vision can occur almost immediately.

Risk of arterial thromboembolism (ATE)

Epidemiological studies have associated the use of CHCs with an increased risk for arterial thromboembolism (myocardial infarction) or for cerebrovascular accident (e.g. transient ischaemic attack, stroke). Arterial thromboembolic events may be fatal.

Risk factors for ATE

The risk of arterial thromboembolic complications or of a cerebrovascular accident in CHC users increases in women with risk factors (see table).

Ovreena is contraindicated if a woman has one serious or multiple risk factors for ATE that puts her at high risk of arterial thrombosis (see section 4.3). If a woman has more than one risk factor, it is possible that the increase in risk is greater than the

sum of the individual factors - in this case her total risk should be considered. If the balance of benefits and risks is considered to be negative a CHC should not be prescribed (see section 4.3).

Table: Risk factors for ATE

Risk factor	Comment
Increasing age	Particularly above 35 years.
Smoking	Women should be advised not to smoke if they wish to use a CHC. Women over 35 who continue to smoke should be strongly advised to use a different method of contraception.
Hypertension	
Obesity (body mass index over 30 kg/m ²)	Risk increases substantially as BMI increases. Particularly important in women with additional risk factors.
Positive family history (arterial thromboembolism ever in a sibling or parent especially at relatively early age e.g. below 50).	If a hereditary predisposition is suspected, the woman should be referred to a specialist for advice before deciding about any CHC use
Migraine	An increase in frequency or severity of migraine during CHC use (which may be prodromal of a cerebrovascular event) may be a reason for immediate discontinuation.
Other medical conditions associated with adverse vascular events	Diabetes mellitus, hyperhomocysteinaemia, valvular heart disease and atrial fibrillation, dyslipoproteinaemia and systemic lupus erythematosus.

Symptoms of ATE

In the event of symptoms women should be advised to seek urgent medical attention and to inform the healthcare professional that she is taking a CHC.

Symptoms of a cerebrovascular accident can include:

- sudden numbness or weakness of the face, arm or leg, especially on one side of the body;
- sudden trouble walking, dizziness, loss of balance or coordination;
- sudden confusion, trouble speaking or understanding;
- sudden trouble seeing in one or both eyes;
- sudden, severe or prolonged headache with no known cause;
- loss of consciousness or fainting with or without seizure.

Temporary symptoms suggest the event is a transient ischaemic attack (TIA).

Symptoms of myocardial infarction (MI) can include:

- pain, discomfort, pressure, heaviness, sensation of squeezing or fullness in the chest, arm, or below the breastbone;
- discomfort radiating to the back, jaw, throat, arm, stomach;
- feeling of being full, having indigestion or choking;
- sweating, nausea, vomiting or dizziness;
- extreme weakness, anxiety, or shortness of breath;
- rapid or irregular heartbeats.

2. Tumours

Cervical cancer

An increased risk of cervical cancer in long-term users of COCs has been reported in some epidemiological studies, but there continues to be controversy about the extent to which this finding is attributable to the confounding effects of sexual behavior and other factors such as human papilloma virus (HPV).

Breast cancer

A meta-analysis of 54 epidemiological studies showed that there is a slightly increased relative risk (RR = 1.24) of having breast cancer diagnosed in women who are currently using COCs. The excess risk gradually disappears during the course of the 10 years after cessation of COC use. Because breast cancer is rare in women under 40 years of age, the excess number of breast cancer diagnoses in current and recent COC users is small in relation to the overall risk of breast cancer. These studies do not provide evidence for causation.

The observed pattern of increased risk may be due to an earlier diagnosis of breast cancer in COC users, the biological effects of COCs or a combination of both. The breast cancers diagnosed in ever-users tend to be less advanced clinically than the cancers diagnosed in never-users.

Liver tumours

In rare cases, benign liver tumours (e.g. hepatic adenoma, focal nodular hyperplasia), and even more rarely, malignant liver tumors have been reported in users of COCs. In isolated cases, these tumors have led to life-threatening intra-abdominal hemorrhages. A hepatic tumor should be considered in the differential diagnosis when severe upper abdominal pain, liver enlargement or signs of intra-abdominal hemorrhage occur in women taking COCs.

The use of high dose CHCs (50 µg ethinylestradiol) reduces the risk of endometrial and ovarian cancer. This has not yet been confirmed with lower-dosed CHC.

3. Other conditions

Depression

Depressed mood and depression are well-known undesirable effects of hormonal contraceptive use (see section 4.8). Depression can be serious and is a well-known risk factor for suicidal behaviour and suicide. Women should be advised to contact their physician in case of mood changes and depressive symptoms, including shortly after initiating the treatment.

Hypertriglyceridaemia

Women with hypertriglyceridaemia, or a family history thereof, may be at increased risk of pancreatitis when taking COCs.

Liver conditions

Acute or chronic disturbances of liver function may necessitate the discontinuation of COC use until the liver function values returned to normal.

Hypertension

Although small increases in blood pressure have been reported in many women taking COCs, clinically important increases are rare. Only in these rare cases an immediate discontinuation of COC use is justified. If, during the use of a COC in preexisting hypertension, constantly elevated blood pressure values or a significant increase in blood pressure do not respond adequately to antihypertensive treatment, the COC must be withdrawn. Where considered appropriate, COC use may be resumed if normotensive values can be achieved with antihypertensive therapy.

Angioedema

Exogenous estrogens may induce or exacerbate symptoms of hereditary and acquired angioedema.

Glucose intolerance/diabetes

Although COCs may have an effect on peripheral insulin resistance and glucose tolerance, there is no evidence for a need to alter the therapeutic regimen in diabetics using low-dose COCs (containing less than 0.05 mg of ethinylestradiol). However, diabetic women should be carefully monitored, particularly in the early stage of COC use.

Others

The relapse of a cholestatic jaundice or pruritus related to cholestasis that occurred during a previous pregnancy or prior intake of steroid hormones should lead to discontinuation of the COC.

The occurrence or exacerbation of the following pathologies has been observed during pregnancy or in women taking COCs, although the liability of the COC has not been set out: jaundice and/or pruritus because of a cholestasis, biliary lithiasis, porphyria, disseminated lupus erythematosus, haemolytic-uraemic syndrome, Sydenham's Chorea, gestational herpes, hearing loss because of otosclerosis.

Some cases of aggravation of endogenous depression, Crohn's disease and ulcerative colitis have been observed when taking COCs.

Chloasma may occur, in particular in women with a medical history of chloasma gravidarum. Women with a predisposition to chloasma under COCs should avoid exposing themselves to sun or ultra-violet rays.

Medical examination/consultation

Prior to the initiation or reinstitution of Ovreena a complete medical history (including family history) should be taken and pregnancy must be ruled out. Blood pressure should be measured and a physical examination should be performed guided by the contraindications (see section 4.3) and warnings (see section 4.4). It is important to draw a woman's attention to the information on venous and arterial thrombosis, including the risk of Ovreena compared with other COCs, the symptoms of VTE and ATE, the known risk factors and what to do in the event of a suspected thrombosis. The woman should also be instructed to carefully read the user leaflet and to adhere to the advice given. The frequency and nature of examinations should be based on established practice guidelines and be adapted to the individual woman.

Women should be advised that oral contraceptives do not protect against HIV infections (AIDS) and other sexually transmitted diseases (STD).

Reduced efficacy

The efficacy of oral contraceptives may be reduced in the case of missed tablets (see section 4.2) vomiting or diarrhoea (see section 4.2) or concomitant medication (see section 4.5).

Reduced cycle control

With all combined oral contraceptives, irregular bleeding (spotting or break through bleeding) may occur, especially during the first months. Hence, the evaluation of any irregular bleeding should be considered after a period of adaptation of approximately 3 cycles.

If bleeding irregularities occur after previously regular cycles, then non-hormonal causes should be considered, and adequate

diagnostic measures are indicated to exclude malignancy or pregnancy. These may include curettage.

Occasionally withdrawal bleeding during the tablet-free interval may not occur at all. If the tablets have been taken according to the instructions described in section 4.2, it is unlikely that the woman is pregnant. However, if the tablets have not been taken according to the instructions, before the first absent withdrawal bleeding, or if two withdrawal bleedings are overdue, pregnancy should be excluded before COC use is continued.

ALT elevations

During clinical trials with patients treated for hepatitis C virus infections (HCV) with the medicinal products containing ombitasvir/paritaprevir/ritonavir and dasabuvir with or without ribavirin, transaminase (ALT) elevations higher than 5 times the upper limit of normal (ULN) occurred significantly more frequent in women using ethinylestradiol-containing medications such as combined hormonal contraceptives (CHCs). ALT elevations have also been observed with HCV anti-viral medicinal products containing glecaprevir/pibrentasvir and sofosbuvir/velpatasvir/voxilaprevir (see sections 4.3 and 4.5).

Excipients

Lactose and sucrose

Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Patients with rare hereditary problems of fructose intolerance, glucosegalactose malabsorption or sucrase-isomaltase insufficiency should not take this medicine.

Sodium

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

4.5 Interaction with other medicinal products and other forms of interaction

Note: The prescribing information of concomitant medications should be consulted to identify potential interactions.

Interactions between combined contraceptives and other substances may lead to an increase or decrease in oestrogen and progestogen plasma concentrations.

The reduction in oestrogen and progestogen plasma concentrations may lead to an increased incidence of intermenstrual bleeding and may reduce the efficacy of the combined contraceptive.

Contraindicated combinations

+ St. John's wort (see section 4.3)

Reduced plasma concentrations of hormonal contraceptive because of the enzyme inducer effect of St. John's wort, with risk of lowered efficacy or even cancellation of the effect whose consequences may be serious (pregnancy).

+ Ombitasvir/Paritaprevir/Ritonavir and Dasabuvir (see section 4.3)

Increased hepatotoxicity.

Pharmacodynamic interactions

Concomitant use with medicinal products containing ombitasvir/paritaprevir/ritonavir, dasabuvir, with or without ribavirin, glecaprevir/pibrentasvir and sofosbuvir/velpatasvir/voxilaprevir may increase the risk of ALT elevations (see sections 4.3 and 4.4). Therefore, Ovreena users must switch to an alternative method of contraception (e.g., progestagen-only contraception or non-hormonal methods) prior to starting therapy with these drug regimens. Ovreena can be restarted 2 weeks following completion of treatment with these drug regimens.

Pharmacokinetic interactions

- Effects of other medicinal products on Ovreena

Interactions can occur with drugs that induce microsomal enzymes which can result in increased clearance of sex hormones and which may lead to breakthrough bleeding and/or contraceptive failure.

Management

Enzyme induction can already be observed after a few days of treatment. Maximal enzyme induction is generally seen within a few weeks. After the cessation of drug therapy enzyme induction may be sustained for about 4 weeks.

Short-term treatment

Women on treatment with enzyme inducing drugs should temporarily use a barrier method or another method of contraception in addition to the COC. The barrier method must be used during the whole time of the concomitant drug therapy and for 28 days after its discontinuation.

If the drug therapy runs beyond the end of the tablets in the COC pack containing 21 tablets, the next COC pack should be started right after the previous one without the usual tablet-free interval.

Long-term treatment

In women on long-term treatment with enzyme-inducing active substances, another reliable, nonhormonal, method of contraception is recommended.

The following interactions have been reported in the literature.

Substances increasing the clearance of COCs (diminished efficacy of COCs by enzyme-induction), e.g.

Barbiturates, bosentan, carbamazepine, phenytoin, primidone, rifampicin, and HIV medication ritonavir, nevirapine and efavirenz and possibly also felbamate, griseofulvin, oxcarbazepine, topiramate and products containing the herbal remedy St. John's Wort (*Hypericum perforatum*).

Substances with variable effects on the clearance of COCs:

When co-administered with COCs, many combinations of HIV protease inhibitors and non-nucleoside reverse transcriptase inhibitors, including combinations with HCV inhibitors can increase or decrease plasma concentrations of estrogen or progestins. The net effect of these changes may be clinically relevant in some cases.

Therefore, the prescribing information of concomitant HIV/HCV medications should be consulted to identify potential interactions and any related recommendations. In case of any doubt, an additional barrier contraceptive method should be used by women on protease inhibitor or non-nucleoside reverse transcriptase inhibitor therapy.

- Effects of Ovreea on other medicinal products

COCs may affect the metabolism of certain other active substances. Accordingly, plasma and tissue concentrations may either increase (e.g. ciclosporin) or decrease (e.g. lamotrigine).

- Other forms of interaction

Modafinil

Risk of reduction of contraceptive efficacy during the treatment and a cycle after discontinuation of the treatment with modafinil, because of its enzyme inducer potential.

Use normodosed oral contraceptives or another contraceptive method.

Vemurafenib

Risk of reduction of estrogen and progestogen concentrations, with a consequent risk of lack of efficacy.

Perampanel

For perampanel doses greater or equal to 12 mg/d: risk of reduced contraceptive efficacy.

Preferably use another contraceptive method, especially mechanical.

Ulipristal

Risk of antagonism of the effects of the progestogen. Do not resume combined contraception for at least 12 days after discontinuation of ulipristal.

Rufinamide

Moderate reduction in ethinylestradiol concentrations. Preferably use another contraceptive method, especially mechanical.

Etoricoxib

Increased concentrations of ethinylestradiol with etoricoxib.

Laboratory tests

The use of contraceptive steroids may influence the results of certain laboratory tests, including biochemical parameters of liver, thyroid, adrenal and renal function; plasma levels of (carrier) proteins, e.g. corticosteroid-binding globulin and lipid/lipoprotein fractions; parameters of carbohydrate metabolism and parameters of blood coagulation and fibrinolysis. The changes generally remain within the normal laboratory range.

4.6 Fertility, pregnancy and lactationPregnancy

Ovreena is not indicated during pregnancy

If pregnancy occurs during medication with Ovreena, treatment should be withdrawn immediately.

Extensive epidemiological studies have revealed neither an increased risk of birth defects in children born to women who used COCs prior to pregnancy, nor a teratogenic effect at unintentional intake of contraceptive pills in early pregnancy.

The increased risk of VTE during the postpartum period should be considered when re-starting Ovreena (see section 4.2 and 4.4).

Breast-feeding

Lactation may be influenced by contraceptive pills as they may reduce the amount of breast milk and change its composition. Thus, the use of combined oral contraceptives generally not be recommended until the nursing mother weaned her child off breast milk. Small amounts of contraceptive steroids and/or their metabolites may be excreted in the milk. These amounts may affect the child. If the woman wishes to breastfeed, another means of contraception should be proposed.

4.7 Effects on ability to drive and use machines

No study on the ability to drive and use machines has been performed. No effects on the ability to drive and use machines in COC users have been observed.

4.8 Undesirable effects

The following adverse effects have been reported during use of ethinylestradiol/levonorgestrel:

System Organ Class 17.1	Common (≥ 1/100 to <1/10)	Uncommon (≥ 1/1,000 to <1/100)	Rare (≥ 1/10,000 to <1/1,000)	Very rare (<1/10,000)	Not known (frequency cannot be estimated from the available data)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)				Hepatocellular carcinoma, benign liver tumours (e.g. focal nodular hyperplasia, hepatic adenoma).	
Infections and infestations	Vaginitis including vaginal candidiasis				
Immune system disorders			Anaphylactic reactions with very rare cases of	Exacerbation of disseminated	Exacerbation of symptoms of hereditary

			urticaria, angioedema, circulatory and severe respiratory disorders	lupus erythematosus.	and acquired angioedema
Metabolism and nutrition disorders		Altered appetite (increase or decrease)	Glucose intolerance	Exacerbation of a porphyria	
Psychiatric disorders	Mood swings including depression, Altered libido				
Nervous system disorders	Nervousness, Dizziness			Exacerbated chorea	
Eye disorders			Contact lens intolerance	Optic neuritis, Retinal vascular thrombosis	
Vascular disorders		Hypertension	Venous thromboembolism and arterial thromboembolism	Aggravated varicose veins	
Gastrointestinal disorders	Nausea, Vomiting, Abdominal pain	Abdominal cramps, Bloating		Ischaemic colitis	Inflammatory bowel disease (Crohn's disease, ulcerative colitis)
Hepatobiliary disorders			Cholestatic jaundice	Pancreatitis, Cholelithiasis, Cholestasis	Hepatocellular condition (e.g. hepatitis, abnormal liver function)
Skin and subcutaneous tissue disorders	Acne	Rashes, Chloasma (melasma) which may persist, Hirsutism, Alopecia	Erythema nodosum	Erythema multiforme	
Renal and urinary disorders				Haemolytic- uraemic syndrome	
Reproductive system and breast disorders	Breast pain, breast tenderness, swelling and secretions, Dysmenorrhoea, Altered periods, Altered ectropion and vaginal secretions, Amenorrhoea				
General disorders and administration site conditions	Fluid retention/edema, Altered weight (increase or decrease)				
Investigations		Modified plasma lipids, including hypertriglyceridaemia		Reduced serum folates	

Description of selected adverse reactions

An increased risk of arterial and venous thrombotic and thromboembolic events, including myocardial infarction, stroke, transient ischemic attacks, venous thrombosis and pulmonary embolism has been observed in women using CHCs, which are discussed in more detail in section 4.4.

The following serious adverse events have been reported in women using COCs, which are discussed in section 4.4 Special warnings and precautions for use.

- Venous thromboembolic disorders
- Arterial thromboembolic disorders
- Hypertension
- Cervical cancer
- Liver tumours
- Skin and subcutaneous disorders: chloasma; erythema nodosum.
- Crohn's disease, ulcerative colitis, porphyria, systemic lupus erythematosus, herpes gestationis, Sydenham's chorea, haemolytic uremic syndrome, cholestatic jaundice.

The frequency of diagnosis of breast cancer is very slightly increased among COC-users. As breast cancer is rare in women under 40 years of age the excess number is small in relation to the overall risk of breast cancer. Causation with COC use is unknown. For further information, see sections 4.3 and 4.4.

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 HPRA Pharmacovigilance, Website: www.hpra.ie

4.9 Overdose

Symptoms of overdose of oral contraceptive have been reported in adults, adolescents and children aged 12 and under. Symptoms of overdose can manifest by nausea, vomiting, breast pains, dizziness, abdominal pains, drowsiness/fatigue and vaginal bleeding in young girls. There is no antidote and treatment should only be symptomatic.

5 PHARMACOLOGICAL PROPERTIES**5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Sex hormones and modulators of the genital system; Progestogens and estrogens, fixed combinations; ATC code: G 03 AA 07

Mechanism of action

The contraceptive effect of Ovreena is based on the interaction of various factors. The most important of these factors are the inhibition of ovulation and changes in the endometrium and the cervical mucus.

Combined oral contraceptives, when taken correctly, have a failure rate of approximately 1% per year. The failure rate may increase when pills are missed or taken incorrectly.

Clinical trials have been performed in 2498 women aged 18 to 40 years. The overall Pearl Index calculated from these trials was 0.69 (95% confidence interval 0.30 – 1.36) based on 15,026 treatment cycles.

5.2 Pharmacokinetic propertiesLevonorgestrelAbsorption

Levonorgestrel is rapidly and almost completely absorbed after oral administration of Ovreena. Following oral administration, the levonorgestrel plasma peak is reached in 30 to 120 minutes. The bioavailability is approximately 100% and levonorgestrel is not subject to first-pass metabolism.

Distribution

Levonorgestrel is to a large extent bound to albumin and SHBG (Sex Hormon Binding Globulin) in plasma.

Biotransformation

Metabolism is mainly by reduction of the $\Delta 4$ -3-oxo group and hydroxylation at the positions 2 α , 1 β and 16 β , followed by conjugation. The majority of the metabolites circulating in the blood are sulphates of 3 α , 5 β -tetrahydro-levonorgestrel, while excretion mainly takes place as glucuronides. Some of the original levonorgestrel is also circulating as 17 β -sulphate. Metabolic clearance is subject to marked inter-individual variation which may partly explain the wide variation in the concentrations of levonorgestrel observed among patients.

Elimination

Levonorgestrel is eliminated with a mean $T_{1/2}$ of approximately 36 hours at steady state. Levonorgestrel and its metabolites are primarily excreted in the urine (40%-68%) and approximately 16%-48% is excreted in the faeces.

EthinylestradiolAbsorption

Ethinylestradiol is rapidly and almost completely absorbed via the gastrointestinal tract, and peak plasma levels are reached in 60 to 180 minutes.

Following presystemic conjugation and first-pass metabolism, the mean bioavailability is 40 to 45%. The area under curve and C_{max} may over time be expected to increase slightly.

Distribution

Ethinylestradiol is to 98.8% bound to plasma proteins, almost entirely to albumin.

Biotransformation

Ethinylestradiol undergoes presystemic conjugation both in the small intestinal mucosa and in the liver. Hydrolysis of the direct conjugates of ethinylestradiol by the intestinal flora gives ethinylestradiol, which can be re-absorbed, thereby creating an enterohepatic circulation. The primary route of metabolism of ethinylestradiol is cytochrome P-450-mediated hydroxylation, where the primary metabolites are 2-OH-Ethinylestradiol and 2-methoxy-Ethinylestradiol. 2-OH-Ethinylestradiol is further metabolised to chemically reactive metabolites.

Elimination

Ethinylestradiol disappears from plasma with a $T_{1/2}$ of approximately 29 hours (26-33 hours), plasma clearance varies from 10-30 L/hour. The excretion of conjugates of ethinylestradiol and its metabolites takes place via urine and faeces (ratio 1:1).

5.3 Preclinical safety data

Acute toxicity of ethinylestradiol and levonorgestrel is low. Because of marked species differences preclinical results possess a limited predictive value for the application of estrogens in humans.

In experimental animals estrogens displayed an embryo-lethal effect already at relatively low doses; malformations of the urogenital tract and feminisation of male fetuses were observed. Levonorgestrel displayed a virilising effect in female fetuses. Reproduction toxicology studies in rats, mice and rabbits revealed no hint for teratogenicity beyond the effect on sexual differentiation.

Preclinical data based on conventional studies of repeated dose toxicity, genotoxicity and carcinogenic potential revealed no particular human risks beyond those discussed in other sections of the Summary of Product Characteristics.

6 PHARMACEUTICAL PARTICULARS**6.1 List of excipients**Core:

- silica, colloidal anhydrous
- magnesium stearate
- talc
- maize starch
- lactose monohydrate

Coating:

- sucrose

- talc
- calcium carbonate
- titanium dioxide (E171)
- copovidone K90
- Macrogol 6000
- silica, colloidal anhydrous
- povidone K30
- carmellose sodium

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store below 25°C.

6.5 Nature and contents of container

Aluminium-PVC/PVDC blister

Pack sizes: 1×21, 3×21, 6×21 and 13×21 coated tablets

Not all pack size may be marketed.

6.6 Special precautions for disposal and other handling

No special requirements.

7 MARKETING AUTHORISATION HOLDER

Gedeon Richter Plc
Gyömroi út 19-21
H-1103, Budapest
Hungary

8 MARKETING AUTHORISATION NUMBER

PA1330/015/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

First date of authorisation: 20 January 2006

Date of last renewal: 10 March 2008

10 DATE OF REVISION OF THE TEXT

September 2022