

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

<invented name> tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each white tablet contains <75 micrograms> <0.075 mg> gestodene and <20 micrograms> <0.020 mg> ethinylestradiol

Excipients with known effect:

Each tablet contains 59.12 mg lactose monohydrate.

For the full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM

Tablets.

Round, white tablets, with a diameter of 5.7 mm approximately. The white tablet is debossed with a 'C' on one side and '34' on the other side.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Oral contraception.

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

4.2 Posology and method of administration

Route of administration: oral use

How to take <invented name>

The tablets must be taken every day at approximately the same time, if necessary with a little liquid, in the order indicated on the blister pack. One tablet per day should be taken for 21 days. Each subsequent pack should be started after a 7-day tablet-free interval during which time a withdrawal bleeding will occur. This bleeding usually starts on the 2nd or 3rd day after taking the last tablet, and may not stop until the next pack is started.

How to start taking <invented name>

If no preceding hormonal contraceptive use in the past month

Taking of the tablets should begin on the first day of the woman's natural cycle (i.e. on the first day of the woman's menstrual bleeding). One may begin taking the pills on day 2-5, but in these cases, it is recommended that a barrier method also be used for the first 7 days on which pills are taken during the first cycle.

Changing from a combined hormonal contraceptive (combined oral contraceptive (COC), vaginal ring, or transdermal patch

The woman should start taking <invented name> on the next day after taking the last active tablet in her previous package of contraceptive pills – but no later than the day after the usual tablet-free or placebo-tablet period of her previous contraceptive pill. In case a vaginal ring or transdermal patch has been used, the woman should start using <invented name> preferably on the day of removal, but at the latest when the next application would have been due.

When changing from progestogen-only preparations (progestogen-only pills, injection, implant, or from a progestogen-releasing intrauterine system (IUS)):

The woman may change from progestogen-only pills (POPs) on any day. The first tablet should be taken on the day after any tablet of the POP package. When changing from an implant or the IUS, <invented name> should be started on the day the implant is removed. When changing from injections, <invented name> should be started when the next injection is due to be given. In all these cases, the woman is advised to also use a barrier method for the first 7 days of taking the pills.

After an abortion in the first trimester

The woman may start taking the pills immediately. If she does so, no further contraceptive steps need be taken.

After delivery or abortion in the second trimester

For breastfeeding women - see section 4.6.

The woman should be advised to begin taking the tablets on day 21- 28 after delivery in non-lactating women or after abortion in the second trimester. If she starts later, she should be advised to also use a barrier method during the first 7 days of taking the pills. If she has already had intercourse, the possibility of pregnancy should be excluded before she begins taking the pills, or she should wait for her first menstruation.

Management of missed tablets

Missing a tablet for less than 12 hours does not diminish the contraceptive protection. The woman should take the tablet as soon as she remembers, and continue taking the rest of the tablets as usual.

Missing a tablet for more than 12 hours can diminish the contraceptive protection. The two following rules may be helpful in dealing with missed tablets.

1. Taking of the tablets should never be discontinued for longer than 7 days.
2. It takes 7 days of uninterrupted ingestion of the tablets to achieve sufficient suppression of the hypothalamus-pituitary-ovarian axis. Thus, the following advice can be given in daily practice:

Week 1

The user should take the last missed tablet as soon as she remembers, even if this means that she needs to take 2 tablets at the same time. From then on, she should continue to take the tablets at the usual time. At the same time, she should use a barrier method, i.e. a condom, for the next 7 days. If she had intercourse during the past 7 days, she should consider the possibility that she might be pregnant. The more tablets have been missed, and the closer this happened to the monthly tablet-free period, the higher the risk of pregnancy.

Week 2

The user should take the last missed tablet as soon as she remembers, even if this means that she needs to take 2 tablets at the same time. From then on, she should continue to take the tablets at the usual time. If the tablets have been taken correctly for the 7 days prior to the missed tablet, it is not necessary to take any additional contraceptive precautions. If this is not the case, however, or if more than 1 tablet has been missed, the woman should use a barrier method, i.e. a condom for the next 7 days.

Week 3

The risk of reduced protection is imminent because of the approaching of the tablet-free period. The reduced contraceptive protection can be prevented, however, by adjusting the intake of the tablets. By adhering to either of the following two options, it is, therefore, not necessary to take any additional contraceptive precautions, provided that the tablets have been taken correctly for the 7 days prior to the missed tablet. If this is not the case, the woman should be advised to follow the first of the two choices, and at the same time use a barrier method, i.e. a condom for the next 7 days.

1. The user should take the last missed tablet as soon as she remembers even if this means that she needs to take 2 tablets at the same time. From then on, she should continue to take the tablets at the usual time. She begins the next pack immediately after she took the last tablet from the current package; that means no pause between packages. The user will probably not get her menstruation before the end of the second package, but she may experience spotting or withdrawal bleeding on the days when she takes the tablets.

2. The woman can also be advised to stop taking tablets from the current package. In that case, she should have a tablet-free period for up to 7 days, including the days when she missed the tablets, and subsequently continue with the next pack.

If the woman missed the tablets, and subsequently did not get her menstruation in the first normal tablet-free, she should consider the possibility that she may be pregnant.

Advice in case of gastro-intestinal disturbances

In case of severe gastro-intestinal disturbances (e.g., vomiting or diarrhoea), absorption may not be complete and additional contraceptive measures should be taken. If vomiting occurs within 3- 4 hours after tablet-taking, a new (replacement) tablet should be taken as soon as possible. The new tablet should be taken within 12 hours of the usual time of tablet-taking if possible. If more than 12 hours elapse, the advice concerning missed tablets, as given in section 4.2 “Management of missed tablets”, is applicable. If the woman does not want to change her normal tablet-taking schedule, she has to take the extra tablet(s) from another blister pack.

How to postpone a withdrawal bleed

To delay a period the woman should continue with another blister pack of <invented name> without a tablet free period. The extension can be carried on for as long as wished until the end of the second pack. During the extension the woman may experience breakthrough-bleeding or spotting. Regular intake of <invented name> is then resumed after the usual 7-day tablet-free period.

To shift her periods to another day of the week than the woman is used to with her current scheme, she can be advised to shorten her forthcoming interval tablet-free period by as many days as she likes. The shorter the interval, the higher the risk that she does not have a withdrawal bleed and will experience breakthrough-bleeding and spotting during the subsequent pack (just as when delaying a period).

4.3 Contraindications

Combined hormonal contraceptives (CHCs) should not be used in the following conditions.

- 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 antiphospholipid-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
- Current or previous pancreatitis if associated with serious hypertriglyceridemia
- Known or suspected sex-steroid influenced malignancies (e.g. of the genital organs or the breast)
- Presence or history of severe hepatic disorders, as long as liver function tests are not normalised
- Presence or history of benign or malignant liver tumours
- Undiagnosed vaginal bleeding
- Hypersensitivity to the active substances or to any of the excipients

<Invented name> is contraindicated for concomitant use with the medicinal products containing ombitasvir/paritaprevir/ritonavir and dasabuvir, (see sections 4.4 and section 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 <invented name> 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 <invented name> should be discontinued.

In case of suspected or confirmed VTE or ATE, CHC use should be discontinued. In case anti-coagulant therapy is started, adequate alternative contraception should be initiated because of the teratogenicity of anticoagulant therapy (coumarins).

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, norgestimate or norethisterone are associated with the lowest risk of VTE. Other products such as <invented name> may have up to twice this level of risk. The decision to use any**

product other than one with the lowest VTE risk should be taken only after a discussion with the woman to ensure she understands the risk of VTE with <invented name>, 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.

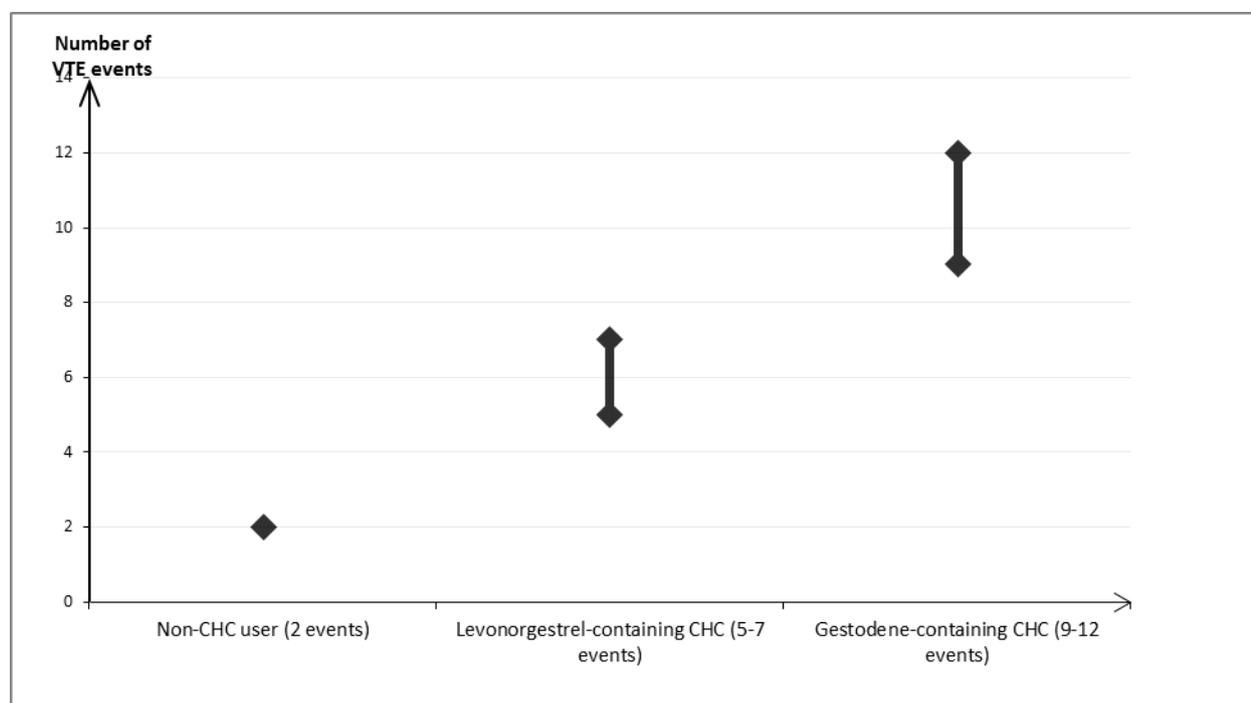
In women who do not use a CHC and are not pregnant about 2 out of 10,000 will develop a VTE over the period of one year. However, in any individual woman the risk may be far higher, depending on her underlying risk factors (see below).

It is estimated¹ that out of 10,000 women who use a CHC containing gestodene between 9 and 12 women will develop a VTE in one year; this compares with about 6² in women who use a levonorgestrel-containing CHC.

In both cases, the number of VTEs per year is fewer than the number expected during pregnancy or in the postpartum period.

VTE may be fatal in 1-2% of the cases.

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



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 CHC users may increase substantially in a woman with additional risk factors, particularly if there are multiple risk factors (see table).

<invented name> 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

¹ These incidences were estimated from the totality of the epidemiological study data, using relative risks for the different products compared with levonorgestrel-containing CHCs.

² 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

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 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 <invented name> 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 "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). <invented name> 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

Risk factor	Comment
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.

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) (see sections 4.3 and 4.5).

Tumours:

Cervical cancer

In some epidemiological studies an increased risk of cervical cancer has been reported in long term users of COCs, but it is still not clear to which extent this finding may be influenced by impacts of sexual behaviour and other factors, such as human papilloma virus (HPV).

Breast cancer

A meta-analysis from 54 epidemiological studies reported that there is a slightly increased relative risk (RR=1.24) of having breast cancer diagnosed in woman 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 below 40 years of age, the excess number of breast cancer diagnoses in current and recent users of COC 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 and malignant liver tumours have been reported in users of COCs. These tumours have, in isolated cases, lead to life threatening, intra-abdominal haemorrhage. A liver tumour must be taken into consideration as a differential diagnosis when severe pain occurs in the upper abdomen, if there is hepatomegaly, or if there are signs of intra-abdominal haemorrhage in women taking COCs.

Other conditions

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

In the case of acute or chronic impairment of liver function, the use of <invented name> should be stopped until liver function tests have returned to normal. Steroid hormones may be poorly metabolised in patients with impaired liver function.

Even though slight increases in blood pressure have been reported in many women taking COCs, clinically important increases in blood pressure are rare. If persistent clinical hypertension develops during COC use, intake should be discontinued and the hypertension treated. Use of COCs may be resumed, if appropriate, when normotensive values are reached with antihypertensive therapy.

It has been reported that the following conditions may occur, or worsen both during pregnancy and during use of COCs, but the evidence of a relationship is inconclusive: Jaundice and/or pruritus in connection with cholestasis; development of gallstones; porphyria; systemic lupus erythematosus; haemolytic uraemic syndrome; Sydenham's chorea; herpes gestationis; loss of hearing due to otosclerosis.

COCs may have an influence on the peripheral insulin resistance and glucose tolerance. Therefore, diabetics should be closely monitored during COC use.

Worsening of endogenous depression, of epilepsy (see section 4.5 interactions), of Crohn's disease and of ulcerative colitis has been reported during COC use.

Chloasma may occur, in particular in women with a medical history of chloasma gravidarum. Women with a tendency to chloasma should avoid exposure to sunlight or ultraviolet radiation while taking COCs.

Herbal preparations containing St John's wort (*Hypericum perforatum*) should not be used while taking <invented name> due to the risk of decreased plasma concentrations and reduced clinical effects of <invented name> (see section 4.5).

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.

<invented name> contains lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Medical examination/consultation

Prior to the initiation or reinstatement of <invented name> 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 contra-indications (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 <invented name> compared with other CHCs, 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 hormonal contraceptives do not protect against HIV infections (AIDS) and other sexually transmitted diseases.

Reduced efficacy

The efficacy of oral contraceptives may be reduced in the case of missed tablets, gastro-intestinal disturbances (see section 4.2) or concomitant use of other medicinal product (see section 4.5).

Reduced cycle control

With all COCs, irregular bleeding (spotting or breakthrough bleeding) may occur, especially during the first months of use. Therefore, the evaluation of any irregular bleeding is only meaningful after an adaptation interval of about three cycles.

If bleeding irregularities persist or 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.

In some women withdrawal bleeding may not occur during the tablet-free period. If the COC has been taken according to the directions described in section 4.2, it is unlikely that the woman is pregnant. However, if the COC has not been taken according to these directions prior to the first missed withdrawal bleed or if two withdrawal bleeds are missed, pregnancy must be ruled out before COC use is continued.

•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.

Pharmacodynamic interactions

Concomitant use with the medicinal products containing ombitasvir/paritaprevir/ritonavir and dasabuvir, with or without ribavirin may increase the risk of ALT elevations (see sections 4.3 and 4.4).

Therefore, <Invented name>-users must switch to an alternative method of contraception (e.g., progestagen-only contraception or non-hormonal methods) prior to starting therapy with this combination drug regimen. <Invented name> can be restarted 2 weeks following completion of treatment with this combination drug regimen.

Effect of other medical products on <invented name>

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, 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, non-hormonal, method of contraception is recommended.

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*).

The following interactions have been reported in the literature:

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 <invented name> on other medicinal products

Oral contraceptives may affect the metabolism of other drugs. Accordingly, plasma and tissue concentrations may either increase (e.g. cyclosporine) or decrease (e.g. lamotrigine).

Laboratory tests

The use of contraceptive steroids can influence the results of certain laboratory tests, including the biochemical parameters of liver, thyroid, adrenal, and kidney function; plasma levels of (transport) proteins, such as corticosteroid-binding globulin and lipid/lipoprotein fractions; the parameters of carbohydrate metabolism, and the parameter of coagulation and fibrinolysis. The changes usually remain within the normal test ranges.

4.6 Fertility, pregnancy and lactation

Pregnancy

<invented name> is not indicated during pregnancy (see section 4.3). If pregnancy occurs during medication with <invented name>, the preparation 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 when COCs were taken inadvertently during pregnancy.

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

Breast-feeding

Contraceptive steroids can influence breastfeeding, as they can lower the amount and change the composition of breast milk. Small amounts of contraceptive steroids and/or their metabolites have been identified in the milk of nursing mothers and a few adverse effects on the child have been reported, including jaundice and breast enlargement. The use of contraceptive steroids should, therefore, generally not be advised to a breastfeeding mother before her child is completely weaned.

4.7 Effects on ability to drive and use machines

Gestodene/ethinylestradiol has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Description of selected adverse reactions

An increased risk of arterial and venous thrombotic and thrombo-embolic 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 most commonly reported ADRs (> 1/10) are irregular bleeding, nausea, weight increase, breast tenderness and headache. They occur usually at the beginning of therapy and are transient.

Organ system class	Common ($\geq 1/100$ to $< 1/10$)	Uncommon ($\geq 1/1,000$ to $< 1/100$)	Rare ($\geq 1/10,000$ to $< 1,000$)	Very rare ($< 1/10,000$)
Nervous system disorders	Headache Nervousness			Chorea
Eye disorders	Ocular irritation when wearing contact lenses Visual disturbances			
Ear and labyrinth disorders			Otosclerosis	
Gastrointestinal disorders	Nausea	Vomiting	Cholelithiasis	Pancreatitis
Skin and Subcutaneous tissue disorders	Acne		Chloasma	
Metabolism and nutrition disorders		Hyperlipidaemia		
Vascular disorders	Migraine	Hypertension	Venous thromboembolism Arterial thromboembolic disorders	
General disorders and administration site conditions	Weight increase Fluid retention			
Immune system disorders			Lupus erythematosus	
Reproduction system and breast disorders	Irregular bleeding Amenorrhoea Hypomenorrhoea Breast tenderness		Changes in vaginal secretion	
Psychiatric disorders	Changes in libido Depression Irritability			

The following serious adverse events have been reported in women using COCs, see sections 4.3 and 4.4.

- Venous thromboembolism, i.e. deep leg or pelvic venous thrombosis and pulmonary embolism.

- Arterial thromboembolic disorders
- Liver tumours
- Skin and subcutaneous disorders: chloasma.

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.

Interactions

Breakthrough bleeding and/or contraceptive failure may result from interactions of other drugs (enzyme inducers) with oral contraceptives (see section 4.5).

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

No serious harmful effects have been reported with overdoses. Symptoms that can arise in connection with

an overdose are: Nausea, vomiting, and vaginal bleeding. There is no antidote, and further treatment should be symptomatic.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Hormonal contraceptives for systemic use, Progestogens and estrogens, fixed combinations. ATC code: G03 AA10

The overall Pearl index (pregnancies due to method failure + pregnancies due to patient failure) for Ethinylestradiol/Gestodene 20/75 µg is 0.31 (upper limit 95% confidence interval: 0.59). Pearl index for method failure is 0.16 (upper limit 95% confidence interval: 0.36).

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

5.2 Pharmacokinetic properties

Gestodene

Absorption

Gestodene, when taken orally, is absorbed quickly and completely. Following a single dose the maximum serum concentration of 4 ng/ml is reached in approximately one hour. Bioavailability is approximately 99%.

Distribution

Gestodene is bound to serum albumin and to sex hormone binding globulin (SHBG). Only 1-2% of the total amount of gestodene in serum is found as free steroid, while 50-70% is specifically bound to SHBG. The ethinylestradiol-induced increase in SHBG influences the distribution of serum proteins, which causes an increase of the SHBG-bound fraction, and a decrease of the albumin-bound fraction. The apparent distribution volume of gestodene is 0.7 l/kg.

Biotransformation

Gestodene is metabolised completely via the known pathways of steroid metabolism. The metabolic clearance rate from serum is 0.8 ml/min/kg. No interaction occurs when gestodene is taken together with ethinylestradiol.

Elimination

Serum level of gestodene is reduced at 2 rates. The last rate is characterised by a half-life of 12 – 15 hours.

Gestodene is not excreted unchanged. Its metabolites are excreted in urine and in bile at a ratio of 6:4.

The half-life of metabolite excretion is approximately 1 day.

Pharmacokinetic/pharmacodynamics relationship

Pharmacokinetics of gestodene is influenced by the levels of SHBG in serum, which increase to triple values with ethinylestradiol. Upon daily intake, the level of gestodene in serum increases till approximately four times the single dose value, and reaches steady-state within the second half of the treatment cycle.

Ethinylestradiol

Absorption

Ethinylestradiol, taken orally, is absorbed quickly and completely. Maximal serum concentration of about 80 pg/ml is reached within 1-2 hours. Complete bioavailability, resulting from pre-systemic conjugation and first-pass metabolism, is approximately 60%.

Distribution

During lactation, 0.02% of the daily maternal dose passes into breast milk.

Ethinylestradiol is predominantly bound non-specifically to albumin (approx. 98.5), and causes increase in serum concentration of SHBG. The apparent distribution volume is found to be approximately 5 l/kg.

Biotransformation

Ethinylestradiol undergoes pre-systemic conjugation both in the mucosa of the small intestine, and in the liver. Ethinylestradiol is primarily metabolised by aromatic hydroxylation, but many different hydroxylated and methylated metabolites are formed, and found as free metabolites and as glucuronide and sulphate conjugates. The metabolic clearance rate is approximately 5 ml/min/kg.

Elimination

Serum level of ethinylestradiol is reduced at 2 rates, the last one with a half-life of 24 hours.

Unchanged Ethinylestradiol is not excreted, but its metabolites are excreted in urine and in bile at a ratio of 4:6. The half-life of metabolite excretion is approximately 1 day.

Pharmacokinetic/pharmacodynamics relationship

Steady-state occurs after 3-4 days, and the serum levels of ethinylestradiol are 30-40% higher than at single dose.

5.3 Preclinical safety data

Ethinylestradiol and gestodene are not genotoxic. Carcinogenicity studies with ethinylestradiol alone or in combination with various progestogens do not indicate any particular carcinogenic hazard to women when used as indicated for contraception. However it should be noted that sex hormones can advance the growth of certain hormone-dependent tissues and tumours.

Reproductive toxicity studies on fertility, development of the fetus or reproductive ability with ethinylestradiol alone or in combination with progestogens revealed no undesirable effects for humans when used as recommended.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Lactose monohydrate

Microcrystalline cellulose

Povidone K-30

Magnesium stearate

Polacrilin potassium.

6.2 Incompatibilities

None known.

6.3 Shelf life

24 months

6.4 Special precautions for storage

Do not store above 30°C. Keep the blister in the outer carton, in order to protect from light.

6.5 Nature and contents of container <and special equipment for use, administration or implantation>

Clear to slightly opaque transparent - PVC/PVdC-Al blister.

Pack sizes:

1 x 21 tablets

3 x 21 tablets

6 x 21 tablets

Not all pack sizes may be marketed.

6.6 Special precautions for disposal <and other handling>

No special requirements.

7. MARKETING AUTHORISATION HOLDER

<To be completed nationally>

8. MARKETING AUTHORISATION NUMBER(S)

<To be completed nationally>

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

<Date of first authorisation: {DD month YYYY}>

<Date of latest renewal: {DD month YYYY}>

10. DATE OF REVISION OF THE TEXT

<{MM/YYYY}>