

SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Norethisterone 5mg Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 5mg of norethisterone.

Excipient with known effect

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Tablet.

White to off-white, round-shaped, flat tablets, beveled edge debossed "L" on one side and "12" on another side.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Metropathia haemorrhagica, premenstrual syndrome, postponement of menstruation, endometriosis, menorrhagia, and dysmenorrhoea.

4.2 Posology and method of administration

Posology

Metropathia haemorrhagica (dysfunctional uterine bleeding): 1 tablet 3 times daily for 10 days. Bleeding is arrested usually within 1-3 days. A withdrawal bleeding resembling normal menstruation occurs within 2-4 days after discontinuing treatment.

One tablet twice daily from the 19th to the 26th day of the two subsequent cycles should be given to prevent the recurrence of the condition.

To ensure treatment success, Norethisterone Tablets must be taken for the full 10 days. Occasionally, slight bleeding may occur after the initial suspension of bleeding. Treatment should not be interrupted or suspended in these cases.

If vaginal bleeding does not stop, despite correct tablet intake, an organic cause or an extra-genital factor (e.g., polyps, carcinoma of the cervix uteri or endometrium, myoma, residua of abortion, extra-uterine pregnancy, or coagulation disorders) must be considered so that other measures are then mostly required. This also applies to cases where after an initial suspension of bleeding, fairly heavy bleeding reoccurs during tablet intake.

Premenstrual syndrome (including premenstrual mastalgia): Premenstrual symptoms such as headache, migraine, breast discomfort, water retention, tachycardia, and psychological disturbances may be relieved by the administration of 1-3 tablets daily from the 19th to the 26th day of the cycle. Treatment should be repeated for several cycles. When treatment is stopped, the patient may remain symptom-free for a number of months.

Postponement of menstruation: In cases of too frequent menstrual bleeding, and in special circumstances (e.g., operations, travel, sports) the postponement of menstruation is possible. The dosage is 1 tablet of norethisterone three times daily, starting 3 days before the expected onset of menstruation and continuing for not longer than 10 to 14 days. A normal period should occur 2-3 days after the patient has stopped taking tablets. This method should be restricted to users who are not at risk of pregnancy during the treatment cycle.

Endometriosis (pseudo-pregnancy therapy): Treatment should begin between the first and 5th day of the cycle with 1 norethisterone tablet twice daily. In the event of spotting, the dose can be increased to 2 tablets twice daily. If bleeding ceases, dose reduction to the initial dose should be considered. Treatment is to be continued for at least 4 to 6 months. With uninterrupted daily intake, ovulation and menstruation do not usually occur.

Menorrhagia (hypermenorrhoea): 1 tablet 2-3 times a day from the 19th to the 26th day of the cycle (counting the first day of menstruation as day 1).

Dysmenorrhoea: Functional or primary dysmenorrhoea is almost invariably relieved by the suppression of ovulation. 1 tablet three times daily for 20 days, starting on the fifth day of the cycle (the first day of menstruation counting as day 1). Treatment should be maintained for three to four cycles followed by treatment-free cycles. A further course of therapy may be employed if symptoms return.

Paediatric population

Not intended for use in children.

Method of administration

Oral use. The tablets are to be swallowed whole with some liquid.

4.3 Contraindications

Norethisterone should not be used in the presence of any of the conditions listed below. Should any of the conditions appear during the use of norethisterone, the use of the product should be stopped immediately.

1. Hypersensitivity to the active substance or to any of the excipients listed in section 6.1
2. Known or suspected pregnancy
3. Lactation
4. Previous idiopathic or current venous thromboembolism (deep vein thrombosis, pulmonary embolism)
5. Active or recent arterial thromboembolic disease (e.g., angina, myocardial infarction)
6. Presence or a history of prodromi of a thrombosis (e.g., transient ischaemic attack, angina pectoris)
7. A high risk of venous or arterial thrombosis (see section 4.4)
8. History of migraine with focal neurological symptoms
9. Diabetes mellitus with vascular involvement
10. Presence or history of severe hepatic disease as long as liver function values have not returned to normal
11. Previous or existing liver tumours (benign or malignant).
12. Known, past or suspected sex hormone-dependent malignancies, (e.g., of the genital organs or the breasts)
13. History during pregnancy of idiopathic jaundice or severe pruritus
14. Undiagnosed genital bleeding
15. Untreated endometrial hyperplasia

Norethisterone is contraindicated for concomitant use with the medicinal products containing ombitasvir/paritaprevir/ritonavir and dasabuvir (see section 4.4 and 4.5).

4.4 Special warnings and precautions for use

Medical Examination

A complete personal and family medical history should be taken for each woman. Physical examination should be guided by this and by the contraindications (section 4.3) and warnings (section 4.4) for this product. The frequency and nature of these assessments should be based upon relevant guidelines which should be adapted to the individual woman and should include measurement of blood pressure, and if judged appropriate by the clinician, breast, abdominal and pelvic examination including cervical cytology.

Therapy should be discontinued immediately if the following occur:

- New onset of migraine-type headaches or more frequent occurrence of unusually severe headaches
- Sudden perceptual disorders (e.g., disturbances of vision or hearing)
- First signs of thrombophlebitis or thromboembolic symptoms, feeling of pain and tightness in the chest
- Pending operations (six weeks beforehand), immobilisation (e.g., after accidents)
- Onset of jaundice or deterioration in liver function, anicteric hepatitis, general pruritus
- Significant increase in blood pressure
- Pregnancy.

If any of the conditions/risk factors mentioned below are present or deteriorates while using Norethisterone, an individual risk-benefit analysis should be done before norethisterone is started or continued.

- Circulatory disorders

It has been concluded from epidemiological surveys that the use of oral oestrogen/progestogen containing ovulation inhibitors is associated by an increased incidence of thromboembolic diseases. Therefore, one should keep the possibility of an increased thromboembolic risk in mind, particularly where there is a history of thromboembolic diseases.

A patient who develops symptoms suggestive of thromboembolic complications should stop treatment immediately. The need for treatment should be reassessed before continuing therapy.

Generally recognised risk factors for venous thromboembolism (VTE) include

1. Positive personal or family history (VTE in a sibling or a parent at a relatively early age)
2. Age
3. Obesity
4. Systemic lupus erythematosus (SLE)
5. Prolonged immobilisation

6. Major surgery

7. Major trauma

Patients with a history of VTE or known thrombophilic states have an increased risk of VTE. The treatment with steroid hormone may add to this risk. Personal or strong family history of thromboembolism or recurrent spontaneous abortion should be investigated in order to exclude a thromboembolic predisposition. Until a thorough evaluation of thrombophilic factors has been made or anticoagulant treatment initiated, use of progestogens in these patients should be viewed as contraindicated.

Where a patient is already taking anticoagulants, the risk and benefits of progestogen therapy should be carefully considered.

The risk of VTE may be temporarily increased with prolonged immobilisation, major trauma or major surgery. As in all post-operative patients, scrupulous attention should be given to prophylactic measures to prevent VTE. Where prolonged immobilisation is likely to follow elective surgery, particularly abdominal or orthopaedic surgery to the lower limbs, consideration should be given to stopping progestogen therapy 4-6 weeks pre-operatively. Treatment should not be restarted until the patient is fully remobilised.

There is no consensus about the possible role of varicose veins and superficial thrombophlebitis in venous thromboembolism.

- Known Hyperlipidaemias

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

Women with hyperlipidaemia are at increased risk of arterial disease (see section 4.4 "Circulatory disorders"). However, routine screening of women on COCs is not appropriate.

- Tumours

In rare cases, benign liver tumours, and even more rarely, malignant liver tumours have been reported in users of hormonal substances such as the one contained in norethisterone.

In isolated cases, these tumours have led to life-threatening intra-abdominal haemorrhages.

If severe upper abdominal complaints, liver enlargement or signs of intra-abdominal haemorrhage occur, a liver tumor should be included in the differential diagnosis and, if necessary, the preparation should be withdrawn.

- Other

Norethisterone can influence carbohydrate metabolism. Parameters of carbohydrate metabolism should be examined carefully in all diabetics before and regularly during treatment.

Chloasma may occasionally occur, especially in women with a history of chloasma gravidarum. Women with a tendency to chloasma should minimise exposure to the sun or ultraviolet radiation when taking norethisterone.

Patients who have a history of depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree.

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

Any patient who develops an acute impairment of vision, proptosis, diplopia or migraine headache should be carefully evaluated ophthalmologically to exclude papilloedema or retinal lesions before continuing medication.

Progestogens may cause fluid retention. Special care should be taken when prescribing norethisterone in patients with conditions which might be aggravated by this factor

- Epilepsy
- Migraine
- Asthma
- Cardiac dysfunction
- Renal dysfunction

If menstrual bleeding should fail to follow a course of norethisterone, or if the patient wishes to postpone menstruation in special circumstances, the possibility of pregnancy must be excluded before a further course is given.

Additional warnings based on the partial metabolisation of norethisterone to ethinylestradiol

After oral administration, norethisterone is partly metabolised to ethinylestradiol resulting in an equivalent dose of about 4-6 micrograms ethinylestradiol per 1 milligram of orally administered norethisterone or norethisterone acetate (see section 5.2).

Due to the partial conversion of norethisterone to ethinylestradiol, administration of norethisterone is expected to result in similar pharmacological effects as seen with COCs. Therefore, the following general warnings associated with the use of COCs should also be considered:

- Circulatory disorders (thromboembolic events)

Venous thromboembolic events (VTE)

Epidemiological studies have shown that the incidence of venous thromboembolism (VTE) in users of oral contraceptives with low oestrogen content (<50 µg ethinylestradiol) ranges from about 20 to 40 cases per 100,000 women-years, but this risk estimate varies according to the progestogen. This compares with 5 to 10 cases per 100,000 women-years for non-users. The use of any combined oral contraceptive carries an increased risk of VTE compared with no use. This increased risk is less than the risk of VTE associated with pregnancy, which is estimated as 60 cases per 100,000 pregnancies. The excess risk of VTE is highest during the first year a woman initially starts using a COC or when she restarts COC use after a pill-free interval of at least a month.

VTE may be life-threatening or may have a fatal outcome (in 1-2 % of the cases).

VTE manifesting as deep venous thrombosis and/or pulmonary embolism, may occur during the use of all COCs.

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

Common signs/symptoms of VTE include

- Severe pain in the calf of one leg; swelling of the lower leg
- Sudden breathlessness, chest pain

Arterial thromboembolic related conditions

The use of a combined oral contraceptive may also increase the risk of conditions such as stroke and myocardial infarction which are secondary to arterial thromboembolic events.

Common signs/symptoms associated with arterial thromboembolism include:

- Sudden severe pain in the chest, whether or not reaching to the left arm
- Sudden coughing for no apparent reason
- Any unusual severe, prolonged headache, especially if it occurs for the first time or gets progressively worse, or is associated with any of the following symptoms:
 - Sudden partial or complete loss of vision or diplopia
 - Aphasia
 - Vertigo
 - Collapse with or without focal epilepsy
 - Weakness or very marked numbness suddenly affecting one side or one part of the body

Risk Factors for Thromboembolic Events

- Age
- Obesity (body mass index over 30 kg/m²)
- A positive family history (i.e., venous or arterial thromboembolism ever in a sibling or parent at a relatively early age). If a hereditary predisposition is known or suspected, the woman should be referred to a specialist for advice before deciding about any COC use
- Prolonged immobilisation, major surgery, any surgery to the legs, or major trauma. In these situations, it is advisable to discontinue COC use (in the case of elective surgery at least four weeks in advance) and not to resume until two weeks after complete remobilisation
- Smoking (with heavier smoking and increasing age the risk further increases, especially in women over 35 years of age)
- Dyslipoproteinaemia
- Hypertension
- Migraine (An increase in frequency or severity of migraine during COC use may be prodromal of a cerebrovascular event and therefore a reason for immediate discontinuation of the COC)
- Valvular heart disease
- Atrial fibrillation

Other factors affecting circulatory events

Other medical conditions which have been associated with adverse circulatory events include

- Diabetes mellitus
- Systemic lupus erythematosus (SLE)
- Haemolytic uremic syndrome
- Chronic inflammatory bowel disease (Crohn's disease/Ulcerative colitis)
- Sickle cell disease.

Biochemical factors that may be indicative of hereditary or acquired predisposition for venous or arterial thrombosis include

- Activated Protein C (APC) resistance
- Hyperhomocysteinaemia
- Antithrombin-III deficiency
- Protein C deficiency
- Protein S deficiency
- Antiphospholipid antibodies (anticardiolipin antibodies, lupus anticoagulant)

When considering risk/benefit, the physician should take into account that adequate treatment of a condition may reduce the associated risk of thrombosis and that the risk associated with pregnancy is higher than that associated with COC use (<0.05mg ethinylestradiol).

- Tumours

Cervical Cancer

The most important risk factor for cervical cancer is persistent HPV infection. Some epidemiological studies have indicated that long-term use of COCs may further contribute to this increased risk but there continues to be controversy about the extent to which this finding is attributable to confounding effects, e.g., cervical screening and sexual behaviour including use of barrier contraceptives.

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 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.

Malignancies may be life-threatening or may have a fatal outcome.

- Other

Blood pressure

Although small increases in blood pressure have been reported in many women taking COCs, clinically relevant increases are rare. However, if a sustained clinically significant hypertension develops during the use of a COC then it is prudent for the physician to withdraw the COC and treat the hypertension. Where considered appropriate, COC use may be resumed if normotensive values can be achieved with antihypertensive therapy.

Conditions which deteriorate in pregnancy or during previous COC use

The following conditions have been reported to occur or deteriorate with both pregnancy and COC use, but the evidence of an association with COC use is inconclusive

- Jaundice and/or pruritus related to cholestasis
- Gallstone formation
- Porphyria
- Systemic Systemic lupus erythematosus (SLE)
- Haemolytic Haemolytic uremic syndrome
- Sydenham's chorea
- Herpes Herpes gestationis
- Otosclerosisotosclerosis-related hearing loss

In women with hereditary angioedema exogenous estrogens may induce or exacerbate symptoms of angioedema.

Acute or chronic disturbances of liver function may necessitate the discontinuation of COC use until markers of liver function return to normal. Recurrence of cholestatic jaundice which occurred first during pregnancy or previous use of sex steroids necessitates the discontinuation of COCs.

Crohn's disease and ulcerative colitis have been associated with COC use.

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). As norethisterone is partly metabolized into ethinylestradiol, this warning applies to women using norethisterone (see sections 4.3 and 4.5).

4.5 Interaction with other medicinal products and other forms of interaction

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

Effects of other medicinal products on Norethisterone

Interactions can occur with drugs that induce microsomal enzymes, which can result in increased clearance of sex hormones, and which may lead to changes in the uterine bleeding profile and/or reduction of the therapeutic effect.

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.

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

Phenytoin, barbiturates, bosentan, primidone, carbamazepine, rifampicin and HIV medication ritonavir, nevirapine and efavirenz, and possibly also oxcarbazepine, topiramate, felbamate, griseofulvin and products containing St. John's wort (*Hypericum perforatum*).

Substances with variable effects on the clearance of sex hormones, e.g.:

When co-administered with sex hormones, many HIV/HCV protease inhibitors and non-nucleoside reverse transcriptase inhibitors can increase or decrease plasma concentrations of estrogen or progestin. These changes may be clinically relevant in some cases.

Substances decreasing the clearance of sex hormones (enzyme inhibitors):

The clinical relevance of potential interactions with enzyme inhibitors remains unknown.

Strong and moderate CYP3A4 inhibitors such as azole antifungals (e.g., itraconazole, voriconazole, fluconazole), verapamil, macrolides (e.g. clarithromycin, erythromycin), diltiazem and grapefruit juice can increase plasma concentrations of the estrogen or the progestin or both.

Etoricoxib doses of 60 to 120mg/day have been shown to increase plasma concentrations of ethinylestradiol 1.4 to 1.6-fold, respectively when taken concomitantly with a combined hormonal medicinal product containing 0.035mg ethinylestradiol.

Effects of Norethisterone on other medicinal products

Progestogens may interfere with the metabolism of other drugs. Accordingly, plasma and tissue concentrations may either increase (e.g., ciclosporin) or decrease (e.g., lamotrigine).

Clinical data suggest that ethinylestradiol inhibits the clearance of CYP1A2 substrates, leading to a weak (e.g. theophylline) or moderate (e.g. tizanidine) increase in plasma concentration.

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). Norethisterone can be restarted 2 weeks following completion of treatment with this combination drug regimen.

Other forms of interaction

The use of progestogens may influence the results of certain laboratory tests (e.g. tests for hepatic function, thyroid function and coagulation).

4.6 Fertility, pregnancy and lactation

Pregnancy

The administration of norethisterone during pregnancy is contraindicated.

Breast-feeding

Norethisterone can pass into breast milk and therefore should be avoided during lactation.

4.7 Effects on ability to drive and use machines

None known.

4.8 Undesirable effects

Undesirable effects are more common during the first months after the start of intake of norethisterone preparations and subside with duration of treatment. The frequencies are based on reporting rates from post marketing experience and literature.

System Organ Class (MeDRA)	Very common ($\geq 1/10$)	Common ($\geq 1/100$ to $< 1/10$)	Uncommon ($\geq 1/1,000$ to $< 1/100$)	Rare ($\geq 1/10,000$ to $< 1/1000$)	Very rare ($< 1/10,000$)	Frequency (not known)
Immune system disorders				Hyper- Sensitivity reactions		
Nervous system disorders		Headache	Migraine			Dizziness
Psychiatric disorders						Depression aggravated
Eye disorders					Visual disturbance s	
Respiratory, thoracic and mediastinal disorders					Dyspnoea	
Gastro- intestinal disorders		Nausea				Abdominal pain
Hepato- biliary disorders						Cholestasis Jaundice
Skin and subcutaneous tissue Disorders				Urticaria Rash		

System Organ Class (MeDRA)	Very common ($\geq 1/10$)	Common ($\geq 1/100$ to $< 1/10$)	Uncommon ($\geq 1/1,000$ to $< 1/100$)	Rare ($\geq 1/10,000$ to $< 1/1,000$)	Very rare ($< 1/10,000$)	Frequency (not known)
Reproductive system and breast disorders	Uterine/Vaginal bleeding including Spotting* Hypomenorrhoea*	Amenorrhoea*				
General disorders and administration site conditions		Oedema				

* in the indication Endometriosis

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 Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

There have been no reports of ill-effects from overdosage and treatment is generally unnecessary. There are no special antidotes, and treatment should be symptomatic.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: sex hormones and modulators of the genital system; Progestogens, Estren derivatives.

ATC Code: G03DC02.

Norethisterone has progestational actions similar to those of progesterone, but is a more potent inhibitor of ovulation and has weak oestrogenic and androgenic properties. It is used to treat a number of disorders of the menstrual cycle.

5.2 Pharmacokinetic properties

Norethisterone is absorbed from the gastro-intestinal tract and its effects last for at least 24 hours. It is excreted in the urine.

Metabolism

Norethisterone is partly metabolized to ethinylestradiol after oral administration of norethisterone or norethisterone acetate in humans. This conversion results in an equivalent dose of about 4-6 µg ethinylestradiol per 1mg orally administered norethisterone / norethisterone acetate.

5.3 Preclinical safety data

Non-clinical data on norethisterone or its esters reveal no special risk for humans based on conventional studies of repeated dose toxicity, genotoxicity and carcinogenic potential which is not already included in other relevant sections.

However, it should be kept in mind that sexual steroids might stimulate the growth of hormone-dependent tissues and tumours.

Reproduction toxicity studies showed the risk of masculinisation in female fetuses when administered at high doses at the time of the development of the external genitalia. Since epidemiological studies show that this effect is relevant in humans after high doses, it must be stated that norethisterone may provoke signs of virilisation in female fetuses if administered during the hormone-sensitive stage of somatic sexual differentiation (from day 45 of pregnancy onwards). Apart from this, no indications of teratogenic effects were obtained from the studies.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Microcrystalline cellulose

Maize starch

Ethyl cellulose
Ethanol
Magnesium stearate

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

This medicinal product does not require any special storage conditions.

6.5 Nature and contents of container

30 tablets are packed in Aluminium/PVC/PVDC blisters in a carton.

6.6 Special precautions for disposal

No special requirements.

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

7 MARKETING AUTHORISATION HOLDER

Key Pharmaceuticals Ltd.
Galen House, 83 High Street, Somersham,

Cambridgeshire PE28 3JB, UK

8 MARKETING AUTHORISATION NUMBER(S)

PL 34424/0072

**9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE
AUTHORISATION**

01/08/2024

10 DATE OF REVISION OF THE TEXT

01/08/2024