

6 ADVERSE REACTIONS

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7.1 Effects of Other Drugs on Combined Oral Contraceptives 7.2 Effects of Combined Oral Contraceptives on Other Drugs

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FULL PRESCRIBING INFORMATION WARNING: CIGARETTE SMOKING AND SERIOUS CARDIOVASCULAR EVENTS

(COC) use. This risk increases with age, particularly in women over 35 years of age, and with the number of cigarettes smoked. For this reason, COCs should not be used by women who are over 35 years of age and smoke [see Contraindications (4)].

INDICATIONS AND USAGE

CONTRAINDICATIONS

7 DRUG INTERACTIONS

5 WARNINGS AND PRECAUTIONS

DOSAGE AND ADMINISTRATION I How to Take Drospirenone and Ethinyl Estradiol Tablets

directed, in the order directed on the blister pack. Single missed pills should be taken as soon as remembered

2.2 How to Start Drospirenone and Ethinyl Estradiol Tablets

period (Day 1 Start) or on the first Sunday after the onset of her menstrual period (Sunday Start). During the first cycle of drospirenone and ethinyl estradiol tablets use, instruct the patient to take one yellow

drospirenone and ethinyl estradiol tablets daily, beginning on Day 1 of her menstrual cycle. (The first day of menstruation is Day 1.) She should take one yellow drospirenone and ethinyl estradiol tablets daily for 21 consecutive days, followed by one white tablet daily on Days 22 through 28. Drospirenone and ethinyl estradio tablets should be taken in the order directed on the package at the same time each day, preferably after the evening meal or at bedtime with some liquid, as needed. Drospirenone and ethinyl estradiol tablets can be taken without regard to meals. If drospirenone and ethinyl estradiol tablets are first taken later than the first day of the menstrual cycle, drospirenone and ethinyl estradiol tablets should not be considered effective as a contraceptive until after as back-up during the first 7 days. The possibility of ovulation and conception prior to initiation of medication

During the first cycle of drospirenone and ethinyl estradiol tablets use, instruct the patient to take one yellow drospirenone and ethinyl estradiol tablets daily, beginning on the first Sunday after the onset of her menstrual period. She should take one yellow drospirenone and ethinyl estradiol tablets daily for 2 consecutive days, followed by one white tablet daily on Days 22 through 28. Drospirenone and ethinyl estradiol tablets should be taken in the order directed on the package at the same time each day, preferably after the evening meal or at bedtime with some liquid, as needed. Drospirenone and ethinyl estradiol tablets should not be considered effective as a contraceptive until after the first 7 consecutive days of product administration. Instruct the patient to use a non-hormonal contraceptive as back-up during the first 7 days. The possibility of ovulation and conception prior to initiation of medication should be considered.

The postion bedfined being her nest and ellipside and ethinyl estradiol tablets use, instruct the patient to take one yellow drospirenone and ethinyl estradiol tablets daily, preferably aday regimens of drospirenone and ethinyl estradiol if an arterial or venous thromboeits (VTE) event occurs.

Stop drospirenone and ethinyl estradiol piscoders and Other Vascular Problems

Stop drospirenone and ethinyl estradiol of an extent of the risk of very consistent on drospirenone and ethinyl estradiol in an extent of the risk of very constant of v During the first cycle of drospirenone and ethinyl estradiol tablets use, instruct the patient to take one yellow

taking her yellow tablets on the next day after ingestion of the last white tablet, regardless of whether or not a menstrual period has occurred or is still in progress. Anytime a subsequent cycle of drospirenone and ethinyl estradiol tablets are started later than the day following administration of the last white tablet, the patient should

Table 1: Estimates (Hazard Ratios) of Venous Thromboembolism Risk in Current Users of use another method of contraception until she has taken a yellow drospirenone and ethinyl estradiol tablets daily for seven consecutive days.

When switching from a different birth control pill When switching from another birth control pill, drospirenone and ethinyl estradiol tablets should be started on the same day that a new pack of the previous oral contraceptive would have been started.

When switching from a method other than a birth control pill When switching from a transdermal patch or vaginal ring, drospirenone and ethinyl estradiol tablets should be started when the next application would have been due. When switching from an injection, drospirenone and ethinyl estradiol tablets should be started when the next dose would have been due. When switching from an intrauterine contraceptive or an implant, drospirenone and ethinyl estradiol tablets should be started on the day

Withdrawal bleeding usually occurs within 3 days following the last yellow tablet. If spotting or breakthrough bleeding occurs while taking drospirenone and ethinyl estradiol tablets, instruct the patient to continue taking drospirenone and ethinyl estradiol tablets by the regimen described above. Coursel her that this type of bleeding is usually transient and without significance; however, advise her that if the bleeding is persistent or prolonged,

she should consult her healthcare provider. Although the occurrence of pregnancy is low if drospirenone and ethinyl estradiol tablets are taken according to directions, if withdrawal bleeding does not occur, consider the possibility of pregnancy. If the patient has not adhered to the prescribed dosing schedule (missed one or more active tablets or started taking them on a day later than she should have), consider the possibility of pregnancy at the time of the first missed period and take opriate diagnostic measures. If the patient has adhered to the prescribed regimen and misses two consecutive

periods, rule out pregnancy.
Discontinue drospirenone and ethinyl estradiol tablets if pregnancy is confirmed.

The risk of pregnancy increases with each active yellow tablet missed. For additional patient instructions regarding missed pills, see the "WHAT TO DO IF YOU MISS PILLS" section in the FDA-Approved Patient Labeling. breakthrough bleeding occurs following missed tablets, it will usually be transient and of no consequence. If the patient misses one or more white tablets, she should still be protected against pregnancy provided she begins taking a new cycle of yellow tablets on the proper day.

For postpartum women who do not breastfeed or after a second trimester abortion, start drospirenone and ethinyl estradiol tablets no earlier than 4 weeks postpartum due to the increased risk of thromboembolism. If the patient starts drospirenone and ethinyl estradiol tablets postpartum and has not yet had a period, evaluate for possible pregnancy, and instruct her to use an additional method of contraception until she has taken drospirenone and

light of her risk of a VTE (5.1).

Hyperkalemia: DRSP has anti-mineralocorticoid activity. Do not use in patients predisposed to hyperkalemia. Check serum potassium concentration during the first treatment cycle in when with medications that may increase serum potassium concentration. (5.2, 7.1, 7.2) <u>disease:</u> Discontinue drospirenone and ethinyl estradiol tablets if jaundice occurs. (5.4) <u>blood pressure:</u> Do not prescribe drospirenone and ethinyl estradiol tablets for women ht uncontrolled hypertension or hypertension with vascular disease. (5.5)

srbohydrate and lipid metabolic effects: Monitor prediabetic and diabetic women taking drospirenone and hinyl estradiol tablets. Consider an alternate contraceptive method for women with uncontrolled dyslipidemia.

Uterine bleeding: Evaluate irregular bleeding or amenorrhea. (5.9) ----ADVERSE REACTIONS-----The most frequent adverse reactions (2 2%) are premenstrual syndrome (13.2%), headache/migraine (10.7%), breast pain/tenderness/discomfort (8.3%), nausea/vomiting (4.5%), abdominal pain/tenderness/discomfort (8.3%), and (1.3%), abdominal pain/tenderness/discomfort (8.3%), (6.3%

<u>Headache:</u> Evaluate significant change in headaches and discontinue drospirenone and ethinyl estradiol

Risk ratios displayed on logarithmic scale; risk ratio < 1 indicates a lower risk of VTE for DRSP, > 1 indicates an increase breakthrough bleeding. Counsel patients to use a back-up or alternative method of contraception when enzyme inducers are used with COCs. (7.1)

See 17 for PATIENT COUNSELING INFORMATION and FDA-approved patient labeling.

7.3 Concomitant Use of HCV Combination Therapy – Liver Enzyme Elevation 7.4 Interference with Laboratory Tests 8 USE IN SPECIFIC POPULATIONS

Nursing Mothers Pediatric Use Patients with Renal Impairme

Patients with Hepatic Impairm 11 DESCRIPTION

13 NONCLINICAL TOXICOLOGY

14 CLINICAL STUDIES REFERENCES 16 HOW SUPPLIED/STORAGE AND HANDLING 16.1 How Supplied 16.2 Storage

discomfort (2.3%), mood changes (2.3%). (6.1)

PATIENT COUNSELING INFORMATION

Sections or subsections omitted from the full prescribing information are not listed

2.3 Advice in Case of Gastrointestinal Disturbances In case of severe vomiting or diarrhea, absorption may not be complete and additional contraceptive measures should be taken. If vomiting occurs within 3 to 4 hours after tablet-taking, this can be regarded as a missed tablet.

enone and ethinyl estradiol tablets, USP are available in blister nacks olister pack contains 28 film-coated, round, biconvex tablets in the following order: 21 pale yellow tablets each containing 3 mg drospirenone (DRSP) and 0.03 mg ethinyl estradiol (EE) marked

7 inert white tablets marked with "PL" on one side. CONTRAINDICATIONS

prescribe drospirenone and ethinyl estradiol tablets to women who are known to have the following:

women who also smoke. COCs also increase the risk for stroke in women with other underlying risk factors.

In high risk of arterial or venous thrombotic diseases. Examples include women who are known to:

Smoke, if over age 35 [see Boxed Warning and Warnings and Precautions (5.1)]

Have deep vein thrombosis or pulmonary embolism, now or in the past [see Warnings and Precautions]

Stop drospirenone and ethinyl estradiol if there is unexplained loss of vision, proptosis, diplopia, papilledema,

re cerebrovascular disease [see Warnings and Precautions (5.1)] Have coronary artery disease *[see Warnings and Precautions (5.1)]*Have thrombogenic valvular or thrombogenic rhythm diseases of the heart (for example, subacute bacterial endocarditis with valvular disease, or atrial fibrillation) *[see Warnings and Precautions (5.1)]*

ve inherited or acquired hypercoagulopathies [see Warnings and Precautions (5.1)] ve uncontrolled hypercoagulopathies [see Warnings and Precautions (5.1)] ve diabetes mellitus with vascular disease [see Warnings and Precautions (5.5)] ved diabetes mellitus with vascular disease [see Warnings and Precautions (5.7)] Have headaches with focal neurological symptoms or have migraine headaches with or without aura if over age 35 [see Warnings and Precautions (5.8)]

Precautions (5.3)]
Liver tumor (benign or malignant) or liver disease [see Warnings and Precautions (5.4) and Use in Specific Populations (8.7)]
Strong CYP3A4 inhibitors include a zole antifungasi (e.g. ketoconazole, traconazole, voriconazole), HIV/HCV protease inhibitors (e.g., indinavir, boceprevir), and clarithromycin [see Clinical Pharmacology (12.3)]. Pregnancy, because there is no reason to use COCs during pregnancy [see Warnings and Precautions (5.10) 5.3 Carcinoma of the Breasts and Reproductive Organs

due to the potential for ALT elevations (see Warnings and Precautions (5.5) and Drug Interactions (7.2)].

Epidemiologic Study (Author, Year of Publication) Population Studied	Comparator Product (all are low-dose COCs; with ≤ 0.04 mg of EE)	Hazard Ratio (HR) (95% CI)
8 Ingenix Seeger 2007) nitiators, including new sers a	All COCs available in the US during the conduct of the study ^b	HR: 0.9 (0.5-1.6)
EURAS (Dinger 2007) Initiators, including new users ^a	All COCs available in Europe during the conduct of the study °	HR: 0.9 (0.6-1.4)
	Levonorgestrel/EE	HR: 1 (0.6-1.8)
"FDA-funded study" (2011)		
New users ^a	Other COCs available during the course of the study ^d	HR: 1.8 (1.3-2.4)
	Levonorgestrel/0.03 mg EE	HR: 1.6 (1.1-2.2)
All users (i.e., initiation and continuing use of study combination hormonal contraception)	Other COCs available during the course of the study ^d	HR: 1.7 (1.4-2.1)
	Levonorgestrel/0.03 mg EE	HR: 1.5 (1.2-1.8)

"New users" - no use of combination hormonal contraception for at least the prior 6 months

Vascular risks: Stop drospirenone and ethinyl estradiol tablets if a thrombotic event occurs. Stop at least 4 weeks before and through 2 weeks after major surgery. Start no earlier than 4 weeks after delivery in women who are not breastfeeding (5.1). COSc containing DRSP may be associated with a higher risk of venous thromboembolism (VTE) than COCs containing levonorgestrel or some other progestins. Before see Table 1), and two from Denmark [Lidegaard 2009, Lidegaard 2011]. There are two case-control studies: the aceptive that does not contain DRSP, consider the risks and benefits of a DRSP-containing ČOC in Dutch MEGÁ study analysis [van Hylckama Vlieg 2009] and the German case-control study [Dinger 2010]. There are two nested case-control studies that evaluated the risk of non-fatal idiopathic VTE: the PharMetrics 2011] and the GPRD study [Parkin 2011]. The results of all of these studies are presented in Figure 1

Figure 1: VTE Risk with Yasmin Relative to LNG-Containing COCs (adjusted risk#) Ingenix (Hazard Ratio*,b,c,d)* ---LASS (Hazard Ratio e.f.s.h)* --FDA-funded study (Hazard Ratio^{e,j,r}) Retrospective Cohort Studies Danish (Rate Ratio e.J.k.) -Danish re-analysis (Rate Ratio^{c,j,k}) German case-control (Odds Ratiofich PharMetrics (Odds Ratio^a) **—•**— GPRD study (Odds Ratio¹) · •

*Comparator "Other COCs", including LNG-containing COCs † LASS is an extension of the EURAS study

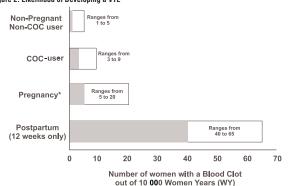
#Some adjustment factors are indicated by superscript letters: a) Current heavy smoking, b) hypertension, c) obesity, d) family history, e) age, f) BMI, g) duration of use, h) VTE history, i) period of inclusion, j) calendar year, $k)\ education,\ l)\ length\ of\ use,\ m)\ parity,\ n)\ chronic\ disease,\ o)\ concomitant\ medication,\ p)\ smoking,\ q)\ duration$ of exposure, r) site

(References: Ingenix [Seeger 2007]¹, EURAS (European Active Surveillance Study) [Dinger 2007]², LASS (Long-Term Active Surveillance Study) [Dinger, unpublished document on file], FDA-funded study [Sidney 2011]³, Danish

DRSP causes an increase in plasma renin activity and plasma aldosterone induced by its mild anti-mineralocorticoid [Lidegaard 2009]⁴, Danish reanalysis [Lidegaard 2011]⁵, MEGA study [van Hylckama Vlieg 2009]⁶, German Case-Control study [Dinger 2010]⁷, PharMetrics [Jick 2011]⁸, GPRD study [Parkin 2011]⁹) 5.14 Mi Although the absolute VTE rates are increased for users of hormonal contraceptives compared to non-users, the rates during pregnancy are even greater, especially during the post-partum period (see Figure 2). The risk of VTE rates during pregnancy are even greater, especially during the post-partum period (see Figure 2). The risk of VTE in women using COCs has been estimated to be 3 to 9 per 10,000 woman-years. The risk of VTE is highest during the first year of use. Data from a large, prospective cohort safety study of various COCs suggest that this increased risk, as compared to that in non-COC users, is greatest during the first 6 months of COC use. Data from this safety study indicate that the greatest risk of VTE is present after initially starting a COC or restarting (following a 4 week or greater pill-free interval) the same or a different COC.

The risk of thromboembolic disease due to oral contraceptives gradually disappears after COC use is discontinued. 6 ADVERSE REACTIONS Figure 2 shows the risk of developing a VTE for women who are not pregnant and do not use oral contraceptives.

Figure 2: Likelihood of Developing a VTE



If feasible, stop drospirenone and ethinyl estradiol at least 4 weeks before and through 2 weeks after major surgery or other surgeries known to have an elevated risk of thromboembolism. Start drospirenone and ethinyl estradiol no earlier than 4 weeks after delivery, in women who are not breastfeeding. The risk of postpartum thromboembolism decreases after the third postpartum week, whereas the risk of ovulation 6.2 Postmarketing Experienc increases after the third postpartum week.

in women with other risk factors for these events. COCs have been shown to increase both the relative and attributable risks of cerebrovascular events (thrombotic and hemorrhagic strokes), although, in general, the risk is greatest among older (>35 years of age), hypertensive

or retinal vascular lesions. Evaluate for retinal vein thrombosis immediately. [See Adverse Reactions (6).] 5.2 Hyperkalemia

Drospirenone and ethinyl estradiol tablets contains 3 mg of the progestin DRSP, which has anti-mineralocorticoid activity, including the potential for hyperkalemia in high-risk patients, comparable to a 25 mg dose of spironolactore Drospirenone and ethinyl estradiol is contraindicated in patients with conditions that predispose to hyperkalemia (that is, renal impairment, hepatic impairment, and adrenal insufficiency). Women receiving daily, long-term treatment for chronic conditions or diseases with medications that may increase serum potassium concentration contraceptives or the potential for enzyme alterations. should have their serum potassium concentration checked during the first treatment cycle. Medications that may increase serum potassium concentration include ACE inhibitors, angiotensim—II receptor antagonists, potassium-sparing diuretics, potassium supplementation, heparin, aldosterone antagonists, and NSAIDs. Consider monitoring set cancer or other estrogen-or progestin-sensitive cancer, now or in the past [see Warnings and serum potassium concentration in high-risk patients who take a strong CYP3A4 inhibitor long-term and concomitantly.

There is substantial evidence that COCs do not increase the incidence of breast cancer. Although some past studies

neoplasia. However, there is controversy about the extent to which these findings may be due to differences in

Henatic adenomas are associated with COC use. An estimate of the attributable risk is 3.3 cases/100,000,000. Studies have shown an increased risk of developing hepatocellular carcinoma in long-term (> 8 years) COC users.

However, the attributable risk of liver cancers in COC users is less than one case per million users. ral contraceptive-related cholestasis may occur in women with a history of pregnancy-related cholestasis. Women with a history of COC-related cholestasis may have the condition recur with subsequent COC use. 15.5 Risk of Liver Enzyme Elevations with Concomitant Henatitis C Treatment

During clinical trials with the Hepatitis C combination drug regimen that contains ombit with or without dasabuvir, ALT elevations greater than 5 times the upper limit of normal (ULN), including some 7.2 Effects of Combined Oral Contraceptives on Other Drugs cases greater than 20 times the ULN, were significantly more frequent in women using ethinyl estradiol-containing tions, such as COCs. Discontinue drospirenone and ethinyl estradiol prior to starting therapy with the combination drug regimen ombitasvir/paritaprevir/ritonavir, with or without dasabuvir [see Contraindications (4)]. Prospirenone and ethinyl estradiol can be restarted approximately 2 weeks following completion of treatment with the Hepatitis C combination drug regimen

For women with well-controlled hypertension, monitor blood pressure and stop drospirenone and ethinyl estradio if blood pressure rises significantly. Women with uncontrolled hypertension or hypertension with vascular disease An increase in blood pressure has been reported in women taking COCs, and this increase is more likely in older

5.7 Gallbladder Disease es suggest a small increased relative risk of developing gallbladder disease among COC users.

5.8 Carbohydrate and Lipid Metabolic Effects Carefully monitor prediabetic and diabetic women who are taking drospirenone and ethinyl estradiol tablets. COCs may decrease glucose tolerance in a dose-related fashion. Consider alternative contraception for women with uncontrolled dyslipidemia. A small proportion of women will

7.3 Concomitant Use with HCV Combination Therapy – Liver Enzyme Elevation have adverse lipid changes while on COCs.

event) may be a reason for immediate discontinuation of the COC

during the first three months of use. If bleeding persists or occurs after previously regular cycles, check for causes Guide for Using Drospirenone and Ethinyl Estradiol Tablets over time or with a change to a different COC.

Data from ten contraceptive efficacy clinical trials (N=2,467) show that the percent of women who took drospirence 13). A total of 24 subjects out of 2,837 in the drospirenone and ethinyl estradiol trials (<1%) discontinued due to bleeding complaints. These are described as metrorrhagia, vaginal hemorrhage, menorrhagia, abnormal 📗 withdrawal bleeding, and menometrorrhagia. The average duration of scheduled bleeding episodes in the majority of subjects (86% to 88%) was 4 to 7 days.

women per cycle experienced no withdrawal bleeding. Some women may encounter post-pill amenorrhea or oligomenorrhea, especially when such a condition was pre-existent. f withdrawal bleeding does not occur, consider the possibility of pregnancy. If the patient has not adhered to the Birth control pills help to lower the chances of becoming pregnant. The drospirenone and ethinyl estradiol tablets pill pack has 21 yellow in a row, call your healthcare provider because you prescribed dosing schedule (missed one or more active tablets or started taking them on a day later than she I when taken as directed. They do not protect against HIV infection prescribed dosing schedule (missed one or more active labels of state labels o

5.11 COC Use Before or During Early Pregnancy

Extensive epidemiological studies nave revealed no increased risk of birth defects in women who have used of all contains two female hormones, a synthetic estrogen called ethinyl

b) In what order to take the pills (follow the arrows) The administration of oral contraceptives to induce withdrawal bleeding should not be used as a test for pregnancy. The progestin drospirenone may increase potassium. Therefore, you [see Use in Specific Populations (8.1)]. 5.12 Depression

diagnostic measures. If the patient has adhered to the prescribed regimen and misses two consecutive periods

f depression recurs to a serious degree. 5.13 Interference with Laboratory Tests

I test to check your potassium level.

and for other indicated healthcare. 5.15 Other Conditions

In women with hereditary angioedema, exogenous estrogens may induce or exacerbate symptoms of angioedema.
Chloasma may occasionally occur, especially in women with a history of chloasma gravidarum. Women with a tendency to chloasma should avoid exposure to the sun or ultraviolet radiation while taking COCs. The following serious adverse reactions with the use of COCs are discussed elsewhere in the labelin

Serious cardiovascular events and stroke [see Boxed Warning and Warnings and Precautions (5.1)] Liver disease [see Warnings and Precautions (5.4)] Adverse reactions commonly reported by COC users are:

Irregular uterine bleeding Nausea

Breast tenderness

Because clinical trials are conducted under widely varying conditions, the adverse reaction rates observed cannot | the directions, the less chance you have of getting pregnant. was a multicenter, open-label trial in healthy women aged 18 to 35 who were treated for up to 13 cycles. The second pivotal study (N=442) was a multicenter, randomized, open-label comparative European study of drospirenone and ethinyl estradiol vs. 0.150 mg desogestrel/0.03 mg EE conducted in healthy women aged 17 to 40 who were ' The following chart shows the chance of getting pregnant for women

(10.7%), breast pain/tenderness/discomfort (8.3%), nausea/vomiting (4.5%) abdominal pain/discomfort/tenderness

Of 2,837 women, 6.7% discontinued from the clinical trials due to an adverse reaction; the most frequent adverse

reaction leading to discontinuation was headache/migraine (1.5%).

Depression, pulmonary embolism, toxic skin eruption, and uterine leiomyoma.

The following adverse reactions have been identified during post-approval use of drospirenone and ethinyl estradiol. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure. Adverse reactions, including fatalities, are grouped into System Organ Classes and ordered by frequency.

Vascular disorders: Venous and arterial thromboembolic events (including pulmonary emboli, deep vein thrombosi intracardiac thrombosis, intracranial venous sinus thrombosis, sagittal sinus thrombosis, retinal vein occlusio myocardial infarction and stroke), hypertension Hepatobiliary disorders: Gallbladder disease

Metabolism and nutrition disorders: Hyperkalemia Skin and subcutaneous tissue disorders: Chloasma

7 DRUG INTERACTIONS

7.1 Effects of Other Drugs on Combined Oral Contraceptive cytochrome P450 3A4 (CYP3A4), may decrease the effectiveness of COCs or increase breakthrough bleeding. Some drugs or herbal products that may decrease the effectiveness of hormonal contraceptives include phenytoin, barbiturates, carbamazepine, bosentan, felbamate, griseofulvin, oxcarbazepine, rifampin, topiramate and products containing St. John's wort. Interactions between oral contraceptives and other drugs may lead to breakthrough How Do I Take Drospirenone and Ethinyl Estradiol Tablets? oleeding and/or contraceptive failure. Counsel women to use an alternative method of contraception or a backup method when enzyme inducers are used with COCs, and to continue back-up contraception for 28 days after 1. Be sure to read these directions before you start taking your pills discontinuing the enzyme inducer to ensure contraceptive reliability.

Substances increasing the plasma concentrations of COCs: Co-administration of atorvastatin and certain COCs containing EE increase AUC values for EE by approximately 20%. Ascorbic acid and acetaminophen may increase 1 2. The right way to take the pill is to take one pill every day at the plasma EE concentrations, possibly by inhibition of conjugation.

grapefruit juice can increase the plasma concentrations of the estrogen or the progestin or both. In a clinical drug-drug interaction study conducted in premenopausal women, once daily co-administration of DRSP 3 mg/EE 0.02 mg containing tablets with strong CYP3A4 inhibitor, ketoconazole 200 mg twice daily for 10 days resulted to meals. in a moderate increase of DRSP systemic exposure. The exposure of EE was increased mildly [see Warnings and Precautions (5.2) and Clinical Pharmacology (12.3)1.

Antibiotics: There have been reports of pregnancy while taking hormonal contraceptives and antibiotics, but clinical 1 3. Many women have spotting or light bleeding at unexpected times,

7.2 Effects of Combined Oral Contraceptives on Other Drugs
COCs containing EE may inhibit the metabolism of other compounds. COCs have been shown to significantly decrease plasma concentrations of lamotrigine, likely due to induction of lamotrigine glucuronidation. This may reduce seizure control; therefore, dosage adjustments of lamotrigine may be necessary. Consult the labeling of does not go away, check with your healthcare provider. the concurrently-used drug to obtain further information about interactions with COCs or the potential for enzyme

COCs Increasing the Plasma Concentrations of CYP450 Enzymes: In clinical studies, administration of a hormonal you make up these missed pills. ontraceptive containing EE did not lead to any increase or only to a weak increase in plasma concentrations of CYP3A4 substrates (e.g., midazolam) while plasma concentrations of CYP2C19 substrates (e.g., omeprazole and Unit of the days you take two pills, to make up for missed pills, you could voriconazole) and CYP1A2 substrates (e.g., theophylline and tizanidine) can have a weak or moderate increase. Clinical studies did not indicate an inhibitory potential of DRSP towards human CYP enzymes at clinically relevant concentrations [see Clinical Pharmacology (12.3)].

Women on thyroid hormone replacement therapy may need increased doses of thyroid hormone because serum concentration of thyroid-binding globulin increases with use of COCs. Potential to Increase Serum Potassium Concentration: There is a potential for an increase in serum potassium

potassium concentration [see Warnings and Precautions (5.2) and Clinical Pharmacology (12.3)]. Do not co-administer drospirenone and ethinyl estradiol with HCV drug combinations containing on the condition of the standing Women with hypertriglyceridemia, or a family history thereof, may be at an increased risk of pancreatitis when ombitasvir/paritaprevir/ritonavir, with or without dasabuvir, due to potential for ALT elevations [see Warnings and

Includes low-dose COCs containing the following progestirs: norgestimate, norrethindrome, levonorgestrel, desogestrel, nedroxyprogesters, corrections acetate, gestodene, cyproterone acetate,

FDA Approved Patient Labeling

and ethinyl estradiol and experienced unscheduled bleeding decreased over time from 12% at cycle 2 to 6% (cycle | | | Do not use drospirenone and ethinyl estradiol tablets if you smoke cigarettes and are over 35 years old. Smoking increases your risk of serious cardiovascular side effects (heart and blood vessel problems) from birth control pills, including death from heart attack. Women who use drospirenone and ethinyl estradiol may experience absence of withdrawal bleeding, even if they are not pregnant. Based on subject diaries from contraceptive efficacy trials, during cycles 2 to 13, 1 to 11% of cycles 2 to 13, 1 to 13,

What are drospirenone and ethinyl estradiol tablets?

estradiol and a progestin called drospirenone. should not take drospirenone and ethinyl estradiol tablets if you have Momen with a history of depression should be carefully observed and drospirenone and ethinyl estradiol discontinued I kidney, liver or adrenal disease because this could cause serious I heart and health problems. Other drugs may also increase potassium. If you are currently on daily, long-term treatment for a chronic tolerance, and binding proteins. Women on thyroid hormone replacement therapy may need increased doses of 1 condition with any of the medications below, you should consult your hyroid hormone because serum concentrations of thyroid-binding globulin increase with use of COCs Isee Drug | healthcare provider about whether drospirenone and ethinyl estradiol tablets are right for you, and during the first month that you take drospirenone and ethinyl estradiol tablets, you should have a blood

A woman who is taking COCs should have a yearly visit with her healthcare provider for a blood pressure check | • NSAIDs (ibuprofen [Motrin, Advil], naproxen [Aleve and others] when taken long-term and daily for treatment of arthritis or other

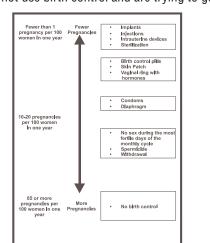
> Potassium-sparing diuretics (spironolactone and others) Potassium supplementation

ACE inhibitors (Capoten, Vasotec, Zestril and others) Angiotensin-II receptor antagonists (Cozaar, Diovan, Avapro and others)

Aldosterone antagonists

! Your chance of getting pregnant depends on how well you follow the (such as a condom and spermicide) as a back-up method until you I directions for taking your birth control pills. The better you follow have taken 7 yellow pills. The data provided reflect the experience with the use of drospirenone and ethinical studies, about 1 woman out of EE) in the adequate and well-controlled studies for contraception (N=2,837). The US pivotal study (N=326) 1 100 women may get pregnant during the first year they use 1.00 women may get pregnant during the first year they use drospirenone and ethinyl estradiol tablets.

who use different methods of birth control. Each box on the chart contains a list of birth control methods that are similar in effectiveness. (2.3%) and mood changes (depression, depressed mood, irritability, mood swings, mood altered and affect lability | The most effective methods are at the top of the chart. The box on I the bottom of the chart shows the chance of getting pregnant for



or anytime you are not sure what to do. same time in the order directed on the package. Preferably, take the time. This means you may take two pills in one day.

If you miss pills you could get pregnant. This includes starting the **pack**: Human immunodeficiency virus (HIV)/Hepatitis C virus (HCV) protease inhibitors and non-nucleoside reverse transcriptase inhibitors: Significant changes (increase or decrease) in the plasma concentrations of estrogen and programs. See "IV/HAT TO DO IF YOU MISS, BULLS" below. transcription and the properties and the properties are the properties

pharmacokinetic studies have not shown consistent effects of antibiotics on plasma concentrations of synthetic I or may feel sick to their stomach during the first 1 to 3 packs of pills. If you do have spotting or light bleeding or feel sick to your stomach,

also feel a little sick to your stomach.

PILLS." If you have diarrhea or if you take certain medicines, including as a condom and spermicide) as a back-up for those 7 days. concentration in women taking drospirenone and ethinyl estradiol with other drugs that may increase serum some antibiotics and some herbal products such as St. John's Wort, your pills may not work as well.

check with your healthcare provider.

using another method of birth control.

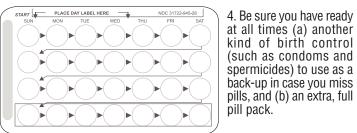
7. If you have any questions or are unsure about the information 2. If you are a Sunday Starter: in this leaflet, call your healthcare provider. Before You Start Taking Your Pills

. Decide What Time of Day You Want to Take Your Pill It is important to take drospirenone and ethinyl estradiol tablets in 3. You could become pregnant if you have sex in the the order directed on the package at the same time every day, 7 days after you restart your pills. You must use another preferably after the evening meal or at bedtime, with some liquid, as birth control method (such as condoms and spermicides) needed. Drospirenone and ethinyl estradiol tablets can be taken as a back-up for those 7 days. without regard to meals.

2. Look at Your Pill Pack - It has 28 Pills pills (with hormones) to be taken for three weeks, followed by <u>7 white</u> might be pregnant.

3. Also look for: Drospirenone and ethinyl estradiol tablets is a birth control pill. It a) Where on the pack to start taking pills,

<u>pills</u> (without hormones) to be taken for one week.



When To Start the First Pack of Pills

You have a choice for which day to start taking your first pack of pills. Decide with your healthcare provider which is the best day for you. Pick a time of day which will be easy to remember.

1. Take the first yellow pill of the pack during the first 24 hours of vour period.

2. You will not need to use a back-up method of birth control, because you are starting the Pill at the beginning of your period. However, if you start drospirenone and ethinyl estradiol tablets later than the first How Well Does Drospirenone And Ethinyl Estradiol Tablets Work? day of your period, you should use another method of birth control

period starts, even if you are still bleeding. If your period begins on inday, start the pack that same day. 2. Use another method of birth control (such as a condom and

spermicide) as a back-up method if you have sex anytime from the Sunday you start your first pack until the next Sunday (7 days). This also applies if you start drospirenone and ethinyl estradiol tablets women who do not use birth control and are trying to get pregnant. after having been pregnant and you have not had a period since your

When You Switch From a Different Birth Control Pil When switching from another birth control pill, drospirenone and ethinvl estradiol tablets should be started on the same day that a new

pack of the previous birth control pill would have been started. When You Switch From Another Type of Birth Control Method When switching from a transdermal patch or vaginal ring, drospirenone and ethinyl estradiol tablets should be started when the next application would have been due. When switching from an injection, drospirenone. and ethinyl estradiol tablets should be started when the next dose would have been due. When switching from an intrauterine contraceptive or an implant, drospirenone and ethinyl estradiol tablets

should be started on the day of removal. Take one pill at the same time every day until the pack is empty. Finally, if you are still not sure what to do about the Do not skip pills even if you are spotting or bleeding between monthly

periods or feel sick to your stomach (nausea). Do not skip pills even if you do not have sex very often. 2. When you finish a pack of pills, start the next pack on the day after Contact your healthcare provider and continue taking your last white pill. Do not wait any days between packs.

Vhat to Do if You Miss Pills If you miss 1 yellow pill of your pack:

Concomitant administration of moderate or strong CYP3A4 inhibitors such as azole antitungals (e.g., ketoconazole, itraconazole, voriconazole, fluconazole), verapamil, macrolides (e.g., clarithromycin, erythromycin), diltiazem, and itraconazole, voriconazole, voriconazole, fluconazole), verapamil, macrolides (e.g., clarithromycin, erythromycin), diltiazem, and itraconazole, voriconazole, voriconazole, fluconazole), verapamil, macrolides (e.g., clarithromycin, erythromycin), diltiazem, and itraconazole, voriconazole, fluconazole, fluconazole, voriconazole, fluconazole, voriconazole, fluconazole, fluconazole, voriconazole, fluconazole, f

If you miss 2 yellow pills in a row in Week 1 or Week 2 of your 1. Take two pills on the day you remember and two pills the next • Ever had a heart attack

Then take one pill a day until you finish the pack. 3. You could become pregnant if you have sex in the 7 days after you restart your pills. You must use another birth control method (such as a condom and spermicide) as a back-up for those 7 days. If you miss 2 yellow pills in a row in Week 3 or Week 4 of your

If you are a Day 1 Starter: 4. Missing pills can also cause spotting or light bleeding, even when Throw out the rest of the pill pack and start a new pack that same

Keep taking one pill every day until Sunday. On Sunday, throw out the rest of the pack and start a new pack of pills that same day. 5. If you have vomiting (within 3 to 4 hours after you take your pill), 3. You could become pregnant if you have sex in the 7 days after you • Have liver disease, including liver tumors you should follow the instructions for "WHAT TO DO IF YOU MISS restart your pills. You must use another birth control method (such • Take any Hepatitis C drug combination containing 4. You may not have your period this month but this is expected. However, if you miss your period two months in a row, call your

> If you are a Day 1 Starter: Throw out the rest of the pill pack and start a new pack that same

Keep taking 1 pill every day until Sunday. On Sunday,

throw out the rest of the pack and start a new pack of pills that same day.

4. You may not have your period this month but this is expected. However, if you miss your period two months

If you miss any of the 7 white pills in Week 4:

Throw away the pills you missed. Keep taking one pill each day until the pack is empty. You do not need a back-up method.

> Sealing area Area para sellado (adhesive / adhesivo)



Drospirenone and Ethinyl Estradiol Tablets, USP 3 mg/0.03 mg

L-----

Sealing area Area para sellado (adhesive / adhesivo)

pills you have missed: Use a back-up method (such as condoms and spermicides) anytime you have sex. one active yellow pill each day until otherwise directed.

WHO SHOULD NOT TAKE Drospirenone and Ethinyl Estradiol Tablets? Take it as soon as you remember. Take the next pill at your regular Your healthcare provider will not give you drospirenone

and ethinyl estradiol tablets if you: Ever had blood clots in your legs (deep vein

thrombosis), lungs (pulmonary embolism), or eyes (retinal thrombosis) Ever had a stroke

 Have certain heart valve problems or heart rhythm abnormalities that can cause blood clots to form in the heart

 Have an inherited problem with your blood that makes it clot more than normal Have high blood pressure that medicine can't control Have diabetes with kidney, eye, nerve, or blood

vessel damage Ever had certain kinds of severe migraine headaches with aura, numbness, weakness or changes in vision Ever had breast cancer or any cancer that is sensitive

to female hormones

ombitasvir/paritaprevir/ritonavir, with or without dasabuvir. This may increase levels of the liver enzyme "alanine aminotransferase" (ALT) in the

Have adrenal disease

Also, do not take birth control pills if you: Smoke and are over 35 years old

Are or suspect you are pregnant

2. If you are a Sunday Starter:

healthcare provider because you might be pregnant.

Tell your healthcare provider if you have ever had any recommend another method of birth control).

and Ethinyl Estradiol Tablets?

Birth control pills do not protect you against any sexually

transmitted disease, including HIV, the virus that causes Do not skip any pills, even if you do not have sex often. If you miss a period, you could be pregnant. However, some women miss periods or have light periods on

birth control pills, even when they are not pregnant.

Sealing area Area para sellado (adhesive / adhesivo)

Sealing area Area para sellado (adhesive / adhesivo)

Contact your healthcare provider for advice if you:

- Think you are pregnant Miss one period and have not taken your birth control
- pills on time every day Miss two periods in a row

Birth control pills should not be taken during pregnancy. Less common side effects are: However, birth control pills taken by accident during • Acne pregnancy are not known to cause birth defects.

Due to an increased risk of blood clots, you should stop

Blotchy darkening of the skin, especially on the face drospirenone and ethinyl estradiol tablets at least four

High blood sugar, especially in women who already have diabetes weeks before you have major surgery and not restart

High fat (cholesterol; triglyceride) levels in the blood it until at least two weeks after the surgery.

If you are breastfeeding, consider another birth control Call your healthcare provider immediately if you have any thoughts method until you are ready to stop breastfeeding. Birth of harming yourself. control pills that contain estrogen, like drospirenone • Problems tolerating contact lenses and ethinyl estradiol tablets, may decrease the amount • Weight changes pass into breast milk.

If you have vomiting or diarrhea, your birth control pills may not work as well. Take another pill if you vomit

No serious problems have been reported from a birth control pill within 3 to 4 hours after taking your pill, or use another overdose, even when accidentally taken by children. birth control method, like condoms and a spermicide, **Do Birth Control Pills Cause Cancer?** until you check with your healthcare provider.

doctor you are taking birth-control pills. Certain blood birth control pills because some breast cancers are sensitive to hormones. tests may be affected by birth-control pills.

Tell your healthcare provider about all the medicines **you take**, including prescription and over-the-counter such as having more sexual partners. medicines, vitamins and herbal supplements. Drospirenone and ethinyl estradiol tablets may affect and Ethinyl Estradiol Tablets? tablets works. Know the medicines you take.

and pharmacist when you get a new medicine.

pills with drospirenone (like drospirenone and ethinyl estradiol tablets) be cause for alarm as long has you have taken the pills regularly on | 8.3 Nursing Mothers What Else Should I Know about Taking Drospirenone may have a higher risk of getting a blood clot. Some studies reported time. may nave a nigher risk of getting a blood clot. Some studies reported that the risk of blood clots was higher for women who use birth

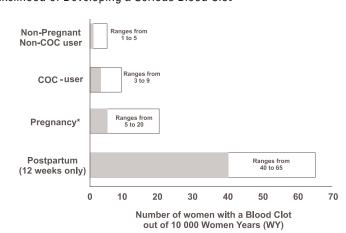
The date in line as wanted in this is less likely to occur once that the risk of blood clots was higher for women who use birth

What if I Miss My Scheduled Period when Taking Drospirenone | Sacretion | Sacr

control pills that do not contain drospirenone. Talk with your healthcare provider about your risk of getting a blood periods in a row or miss one period when you have not taken your | DRSP in an infant. clot before deciding which birth control pill is right for you.

- of serious clots are blood clots in the:
- Legs (deep vein thrombosis or DVT) Lungs (pulmonary embolus or PE)
- Eyes (loss of eyesight)
- Heart (heart attack) Brain (stroke)

To put the risk of developing a blood clot into perspective: If 10,000 women who are not pregnant and do not use birth control pills are women, and for women in the first 12 weeks after delivering a baby. tablets out of the reach of children. Likelihood of Developing a Serious Blood Clot



Pregnancy data based on actual duration of pregnancy in the reference studies. Based on a nodel assumption that pregnancy duration is nine months, the rate is 7 to 27 per 10,000 WY

- A few women who take birth control pills may get: High blood pressure
- Gallbladder problems
- Rare cancerous or noncancerous liver tumors All of these events are uncommon in healthy women.
- Call your healthcare provider right away if you have:
- Persistent leg pain
- Sudden shortness of breath Sudden blindness, partial or complete
- Severe pain in your chest Sudden, severe headache unlike your usual headaches Weakness or numbness in an arm or leg, or trouble speaking

Yellowing of the skin or eyeballs What are the Common Side Effects of Birth Control Pills?

- The most common side effects of birth control pills are:
- Spotting or bleeding between menstrual periods
- Breast tenderness

These side effects are usually mild and usually disappear with time.

- Less sexual desire
- Depression, especially if you have had depression in the past.

of milk you make. A small amount of the pill's hormones This is not a complete list of possible side effects. Talk to your healthcare provider if you develop any side effects that concern you. You may report side effects to the FDA at 1-800-FDA-1088.

Birth control pills do not seem to cause breast cancer. However, if If you are scheduled for any laboratory tests, tell your

you have breast cancer now, or have had it in the past, do not use

> Women who use birth control pills may have a slightly higher chance of getting cervical cancer. However, this may be due to other reasons

> What Should I Know about My Period when Taking Drospirenone

the way other medicines work, and other medicines Irregular vaginal bleeding or spotting may occur while you are taking may affect how well drospirenone and ethinyl estradiol drospirenone and ethinyl estradiol tablets. Irregular bleeding may vary from slight staining between menstrual periods to breakthrough Keep a list of them to show your healthcare provider bleeding, which is a flow much like a regular period. Irregular bleeding occurs most often during the first few months of oral contraceptive

Birth control pills may not be a good choice for you if What are the Most Serious Risks of Taking Birth Control Pills? use, but may also occur after you have been taking the pill for some you have ever had jaundice (yellowing of the skin or Like pregnancy, birth control pills increase the risk of serious blood time. Such bleeding may be temporary and usually does not indicate ! eyes) caused by pregnancy (also called cholestasis of clots (see following graph), especially in women who have other risk any serious problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in full wing a various problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in full wing a various problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. It is important to continue taking your pills on I Epidemiologic studies and meta-analyses have not found an increased risk of genital or non-genital birth defects in the problems. factors, such as smoking, obesity, or age greater than 35. This schedule. If the bleeding occurs in more than one cycle, is unusually I or during early pregnancy. increased risk is highest when you first start taking birth control pills heavy, or lasts for more than a few days, call your healthcare provider. | The administration of COCs to induce withdrawal bleeding should not be used as a test for pregnancy. of the above conditions (your healthcare provider can of the above conditions) of the above conditions (your healthcare provider can of the above conditions) of the above conditions (your healthcare provider can not using them for a month or more. Women who use birth control pills after not using them for a month or more. Women who use birth control pills after not using them for a month or more. Women who use birth control pills after not using them for a month or more. Women who use birth control pills after not using them for a month or more and the control pills after not using them for a month or more. Women who use birth control pills after not using them for a month or more and the control pills after not using them for a month or more. Women who use birth control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using them for a month or more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using the more and the control pills after not using

control pills that contain drospirenone than for women who use birth and Ethinyl Estradiol Tablets?

birth control pills regularly on time, call your healthcare provider. | 8.4 Pediatric Use It is possible to die or be permanently disabled from a problem caused Also notify your healthcare provider if you have symptoms of pregnancy 📗 by a blood clot, such as a heart attack or a stroke. Some examples such as morning sickness or unusual breast tenderness. It is important | older. Use of this product before menarche is not indicated. that your healthcare provider checks you to find out if you are pregnant. | 8.5 Geriatric Use Stop taking drospirenone and ethinyl estradiol tablets if you are population.

What if I Want to Become Pregnant?

You may stop taking the pill whenever you wish. Consider a visit with I in subjects with creatinine clearance (CLcr) of 50 to 79 mL/min, serum DRSP concentrations were comparable your healthcare provider for a pre-pregnancy checkup before you to those in a control group with older by indication with older by indication with older by indication with renal impairment whose serum potassium is in the upper reference range,

followed for one year, between 1 and 5 of these women will develop General Advice about Drospirenone and Ethinyl Estradiol Tablets 8.7 Patients with Hepatic Impairment a blood clot. The figure below shows the likelihood of developing a serious blood clot for women who are not pregnant and do not use birth control pills, for women who use hith control pills for women who use hith control pills for pregnant and do not use thirth control pills. For women who use hith control pills for pregnant and do not use thirth control pills for pregnant and do not use thirth control pills. For women who use hith control pills for pregnant and do not use thirth control pills for pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the pregnant and do not use the first of the pregnant and do not use the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the pregnant and do not use the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the pregnant and do not use the pregnant and do not use the first of the pregnant and do not use the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the first of the pregnant and do not use the pre birth control pills, for women who use birth control pills, for pregnant tablets with anyone else. Keep drospirenone and ethinyl estradiol estradiol estradiol estradiol has not been studied in women with severe hepatic impairment.

If you have concerns or questions, ask your healthcare provider. You | No clinically significant difference was observed between the pharmacokinetics of DRSP or EE in Japanese versus Caucasian women [see Clinical Pharmacology (12.3)]. may also ask your healthcare provider for a more detailed label written | 10 OVERDOSAGE for medical professionals.

Manufactured by: Cyndea Pharma, S.L., Olvega (Soria), 42110

Distributed by:

Camber Pharmaceuticals, Inc. Piscataway, NJ 08854, USA.

Revised: 04/2020

ontraceptive steroids and/or metabolites are present in breast milk.

Safety and efficacy of drospirenone and ethinyl estradiol has been established in women of reproductive age. Efficacy is expected to be the same for postpubertal adolescents under the age of 18 and for users 18 years and

8.6 Patients with Renal Impairment and Warnings and Precautions (5.2)].

re have been no reports of serious ill effects from overdose, including ingestion by children. Overdosage may

and sodium, and evidence of metabolic acidosis, should be monitored in cases of overdose. DESCRIPTION

21 yellow tablets each contains 3 mg DRSP and 0.03 mg EE

inactive ingredients in the yellow tablets are corn starch, iron oxide yellow, lactose monohydrate, magnesiu stearate, polyethylene glycol, polyvinyl alcohol, povidone, pregelatinized starch (maize), talc and titanium dioxide.

The white inert film-coated tablets contain magnesium stearate, microcrystalline cellulose, lactose monohydrate, polyethylene glycol, polyvinyl alcohol, talc and titanium dioxide.

Effects of Other Drugs on Combined Oral Contraceptives

Substances diminishing the efficacy of COCs: Drugs or herbal products that induce certain enzymes, including CYP3A4, may decrease the effectiveness of COCs or increase breakthrough bleeding. is a synthetic progestational compound and has a molecular weight of 366.49 and a molecular formula of C24H30O3. plasma EE concentrations, possibly by inhibition of conjugation. In a clinical drug-drug interaction study conducted Ethinyl estradiol 19-Nor-17α-pregna-1,3,5(10)-trien-20-yne-3,17β-diol is a synthetic estrogenic compound and

12.1 Mechanism of Action s lower the risk of becoming pregnant primarily by suppressing ovulation. Other possible mechanisms m

12.2 Pharmacodynamics

ethinyl estradiol is ethinyl estradiol (EE). No specific pharmacodynamic studies were conducted with drospirenone and ethinyl estradiol 12.3 Pharmacokinetics

of drospirenone and ethinyl estradiol, which is a combination tablet of DRSP and EE, has not been evaluated. VIVO. concentrations of DRSP and EE reached peak levels within 1 to 2 hours after administration of drospirenone Two additional clinical drug-drug interaction studies using simvastatin and midazolam as marker substrates for and ethinyl estradiol.

faily dosing of drospirenone and ethinyl estradiol, steady state DRSP concentrations were observed after 8 days. There was about 2 to 3 fold accumulation in serum Cmax and AUC (0 to 24h) values of DRSP following multiple Women on thyroid hormone replacement therapy may need increased doses of thyroid hormone because serum dose administration of drospirenone and ethinyl estradiol (see Table 2).

I of drospirenone and ethinyl estradiol serum Cmax and AUC(0 to 24h) values of EE accumulate by a factor of about for an increase in serum potassium concentration in women taking dro

Table 2: Mean Pharmacokinetic Parameters of Drospirenone and Ethinyl Estradiol Tablets (DRSP 3 mg and EE 0.03 mg)

		Mean (%CV) Va	alues		
Cycle / Day	No. of Subjects	C _{max} (ng/mL)	T _{max} (h)	AUC (0-24h) (ng•h/mL)	t _{1/2} (h)
1/1	12	36.9 (13)	1.7 (47)	288 (25)	NA
1/21	12	87.5 (59)	1.7 (20)	827 (23)	30.9 (44)
6/21	12	84.2 (19)	1.8 (19)	930 (19)	32.5 (38)
9/21	12	81.3 (19)	1.6 (38)	957 (23)	31.4 (39)
13/21	12	78.7 (18)	1.6 (26)	968 (24)	31.1 (36)
		EE Mean (%CV) Va	alues		
Cycle / Day	No. of Subjects	C _{max} (pg/mL)	T _{max} (h)	AUC (0-24h) (pg•h/mL)	t _{1/2} (h)
1/1	11	53.5 (43)	1.9 (45)	280 (87)	NA
1/21	11	92.1 (35)	1.5 (40)	461 (94)	NA
6/21	11	99.1 (45)	1.5 (47)	346 (74)	NA
9/21	11	87 (43)	1.5 (42)	485 (92)	NA
13/21	10	90.5 (45)	1.6 (38)	469 (83)	NA

NA - Not available

The rate of absorption of DRSP and EE following single administration of a formulation similar to Irospirenone and ethinyl estradiol was slower under fed (high fat meal) conditions with the serum C_{max} being reduced about 40% for both components. The extent of absorption of DRSP, however, remained unchanged. In contrast, the extent of absorption of EE was reduced by about 20% under

DRSP and EE serum concentrations decline in two phases. The apparent volume of distribution of DRSP is approximately 4 L/kg and that of EE is reported to be approximately 4 to 5 L/kg.

DRSP does not bind to sex hormone binding globulin (SHBG) or corticosteroid binding globulin (CBG) but binds about 97% to other serum proteins. Multiple dosing over 3 cycles resulted in no ange in the free fraction (as measured at trough concentrations). EE is reported to be highly but non-specifically bound to serum albumin (approximately 98.5 %) and induces an increase in the serum concentrations of both SHBG and CBG. EE induced effects on SHBG and CBG were not affected v variation of the DRSP dosage in the range of 2 to 3 mg.

The two main metabolites of DRSP found in human plasma were identified to be the acid form of DRSP generated

transformed by methylation and glucuronidation prior to urinary and fecal excretion.

by opening of the lactone ring and the 4,5-dihydrodrospirenone-3-sulfate, formed by reduction and subse

16.1 How Supplied its oxidative metabolites occur primarily by conjugation with glucuronide or sulfate. CYP3A4 in the liver is consible for the 2-hydroxylation which is the major oxidative reaction. The 2-hydroxy metabolite is further

after both single and multiple dose regimens. Excretion of DRSP was nearly complete after ten days and amounts • 21 yellow, round, biconvex, film-coated tablets marked with a "30" on one side each containing 3 mg After oral administration of drospirenone and ethinyl estradiol, about 0.02% of the DRSP dose was excreted into excreted were slightly higher in feces compared to urine. DRSP was extensively metabolized and only trace amounts It is not uncommon to miss your period. However, if you miss two in the breast milk of postpartum women within 24 hours. This results in a maximal daily dose of about 0.003 mg of unchanged DRSP were excreted in urine and feces. At least 20 different metabolites were observed in urine and feces. At least 20 different metabolites were observed in urine and feces. At least 20 different metabolites were observed in urine and feces. At least 20 different metabolites were observed in urine and feces. and feces. About 38 to 47% of the metabolites in urine were glucuronide and sulfate conjugates. In feces, about 16.2 Storage 17 to 20% of the metabolites were excreted as glucuronides and sulfates.

For EE the terminal disposition phase half-life has been reported to be approximately 24 hours. EE is not excreted 17 PATIENT COUNSELING INFORMATION unchanged. EE is excreted in the urine and feces as glucuronide and sulfate conjugates and undergoes enterohepatic circulation.

**Advise the patient to read the FDA-approved patient labeling (Patient Information).

**Counsel patients that cigarette smoking increases the risk of serious cardiovascular events from COC use, and that women who are over 35 years old and smoke should not use COCs.

Pediatric Use: Safety and efficacy of drospirenone and ethinyl estradiol has been established in women of users 18 years and older. Use of this product before menarche is not indicated.

to those in a control group with CLcr ≥80 mL/min. In subjects with CLcr of 30 to 49 mL/min, serum DRSP

**Race: No clinically significant difference was observed between the pharmacokinetics of DRSP or EE in Japanese versus Caucasian women (age 25 to 35) when 3 mg DRSP/0.02 mg EE was administered daily for 21 days. Other

> Renal Impairment: Drospirenone and ethinyl estradiol is contraindicated in patients with renal impairment serum DRSP concentrations in the group with CLcr of 50 to 79 mL/min were comparable to those in the control CLcr of 30 to 49 mL/min compared to those in the control group. DRSP treatment did not show any clinically inificant effect on serum potassium concentration. Although hyperkalemia was not observed in the study, in concentrations increased by up to 0.33 mEq/L. [See Contraindications (4) and Warnings and Precautions (5.2).]

The mean exposure to DRSP in women with moderate liver impairment is approximately three times higher than the exposure in women with normal liver function. Drospirenone and ethinyl estradiol has not been studied in

Consult the labeling of all concurrently used drugs to obtain further information about interactions with oral

Manufactured by:

Drospirenone (6*R*,7*R*,8*R*,9*S*,10*R*,13*S*,14*S*,15*S*,16*S*,17*S*)-1,3',4',6,6a,7,8,9,10,11,12,13,14,15,15a,16-Hexadecahydro-10,13-dimethylspiro-[17H-dicyclopropa [6,7:15,16]cyclopenta[a]phenanthrene-17,2'(5'H)-furan]-3,5'(2H)-dione containing EE increase AUC values for EE by approximately 20%. Ascorbic acid and acetaminophen may increase in 20 premenopausal women, co-administration of a DRSP (3 mg)/EE (0.02 mg) COC with the strong CYP3A4 inhibitor ketoconazole (200 mg twice daily) for 10 days increased the AUC(0 to 24h) of DRSP and EE by 2.68fold (90% CI: 2.44, 2.95) and 1.40-fold (90% CI: 1.31, 1.49), respectively. The increases in C_{max} were 1.97-fold Camber Pharmaceuticals, Ir (90% CI: 1.79, 2.17) and 1.39-fold (90% CI: 1.28, 1.52) for DRSP and EE, respectively. Although no clinically Piscataway, NJ 08854, USA. relevant effects on safety or laboratory parameters including serum potassium were observed, this study only assessed subjects for 10 days. The clinical impact for a patient taking a DRSP-containing COC concomitantly with chronic use of a CYP3A4/5 inhibitor is unknown [see Warnings and Precautions (5.2)].

HIV/HCV protease inhibitors and non-nucleoside reverse transcriptase inhibitors: Significant changes (increase or decrease) in the plasma concentrations of estrogen and progestin have been noted in some cases of co-administration with HIV/HCV protease inhibitors or with non-nucleoside reverse transcriptase inhibitors.

Antibiotics: There have been reports of pregnancy while taking hormonal contraceptives and antibiotics, but clinical

Effects of Combined Oral Contraceptives on Other Drugs
COCs containing EE may inhibit the metabolism of other compounds. COCs have been shown to significantly decrease plasma concentrations of lamotrigine, likely due to induction of lamotrigine glucuronidation. This may reduce seizure control; therefore, dosage adjustments of lamotrigine may be necessary. Consult the labeling of the concurrently-used drug to obtain further information about interactions with COCs or the potential for enzyme

include cervical mucus changes that inhibit sperm penetration and endometrial changes that reduce the likelihood of implantation.

In vitro, EE is a reversible inhibitor of CYP2C19, CYP1A1 and CYP1A2 as well as a mechanism-based inhibitor of CYP3A4/5, CYP2C8, and CYP2J2. Metabolism of DRSP and potential effects of DRSP on hepatic CYP enzymes have been investigated in in vitro and in vivo studies. In in vitro studies DRSP did not affect turnover of mode substrates of CYP1A2 and CYP2D6, but had an inhibitory influence on the turnover of model substrates of CYP1A CYP2C9, CYP2C19, and CYP3A4, with CYP2C19 being the most sensitive enzyme. The potential effect of DRSF In the study with 24 postmenopausal women [including 12 women with homozygous (wild type) CYP2C19 genotype and 12 women with heterozygous CYP2C19 genotypel the daily oral administration of 3 mg DRSP for 14 days The absolute bioavailability of DRSP from a single entity tablet is about 76%. The absolute bioavailability of EE is approximately 40% as a result of presystemic conjugation and first-pass metabolism. The absolute bioavailability omerprazole sulfone was found. These results demonstrate that DRSP did not inhibit CYP2C19 and CYP3A4 in

> hat pharmacokinetics of the CYP3A4 substrates were not influenced by steady state DRSP concentrations achieved after administration of 3 mg DRSP/day.

concentration of thyroid-binding globulin increases with use of COCs. Interactions With Drugs That Have the Potential to Increase Serum Potassium Concentration: The

drugs that may increase serum potassium concentration [see Warnings and Precautions (5.2)]. A drug-drug interaction study of DRSP 3 mg/estradiol (E2) 1 mg versus placebo was performed in 24 mildly hypertensive postmenopausal women taking enalapril maleate 10 mg twice daily. Potassium concentrations were obtained every other day for a total of 2 weeks in all subjects. Mean serum potassium concentrations in the DRSP/E2 treatment group relative to baseline were 0.22 mEq/L higher than those in the placebo group. Serum potassium concentrations also were measured at multiple time points over 24 hours at baseline and on Day 14. On Day 14, the ratios for serum potassium C_{max} and AUC in the DRSP/E2 group to those in the placebo group were 0.955 (90% CI: 0.914, 0.999) and 1.010 (90% CI: 0.944, 1.08), respectively. No patient in either treatment group developed hyperkalemia (serum potassium concentrations > 5.5 mEg/L).

13 NONCLINICAL TOXICOLOGY 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

J Fam Plann Reprod Health Care 36, 123 to 129.

In a 24 month oral carcinogenicity study in mice dosed with 10 mg/kg/day DRSP alone or 1 + 0.01, 3 + 0.03 and 0.1 mg/kg/day of DRSP and EE, 0.1 to 2 times the exposure (AUC of DRSP) of women taking a contraceptive dose, there was an increase in carcinomas of the harderian gland in the group that received the high dose of DRSF alone. In a similar study in rats given 10 mg/kg/day DRSP alone or 0.3 + 0.003, 3 + 0.03 and 10 + 0.1 mg/kg/day DRSP and EE, 0.8 to 10 times the exposure of women taking a contraceptive dose, there was an increased incidence of benign and total (benign and malignant) adrenal gland pheochromocytomas in the group receiving the high dose of DRSP. Mutagenesis studies for DRSP were conducted *in vivo* and *in vitro* and no evidence of mutagenic activity was observed.

In the clinical efficacy studies of up to 2 years duration, 2,629 subjects completed 33,160 cycles of use without any other contraception. The mean age of the subjects was 25.5 ± 4.7 years. The age range was 16 to 37 years. he racial demographic was: 83% Caucasian, 1% Hispanic, 1% Black, <1% Asian, <1% other, <1% missing da 14% not inquired and <1% unspecified. Pregnancy rates in the clinical trials were less than one per 100 woman vears of use.

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renone and Ethinyl Estradiol Tablets, USP are available in package of one blister pack (NDC 31722-945-The active film-coated tablets are rounded with biconvex faces, one side is marked with 30. The placebo filmoated tablets are rounded with biconvex faces, one side is debossed with PL.

drospirenone (DRSP) and 0.03 mg ethinyl estradiol (EE

7 white, round, biconvex, film-coated tablets marked with "PL" on one side. Store at 20° to 25°C (68° to 77°F); excursions permitted to 15° to 30°C (59° to 86°F) [see USP Controlled Room

Counsel patients that the increased risk of VTE compared to non-users of COCs is greatest after initially starting a COC or restarting (following a 4-week or greater pill-free interval) the same or a different COC Counsel patients about the information regarding the risk of VTE with DRSP-containing COCs compared

to COCs that contain levonorgestrel or some other progestins.

Counsel patients that drospirenone and ethinyl estradiol tablets does not protect against HIV infection (AIDS) and other sexually transmitted diseases

Counsel patients on Warnings and Precautions associated with COCs.

Counsel patients that drospirenone and ethinyl estradiol tablets contains DRSP. Drospirenone may increase potassium. Patients should be advised to inform their healthcare provider if they have kidney, liver or adrenal

disease because the use of drospirenone and ethinyl estradiol tablets in the presence of these conditions could cause serious heart and health problems. They should also inform their healthcare provider if they are currently on daily, long-term treatment (NSAIDs, potassium-sparing diuretics, potassium supplementation, ACE inhibitors, angiotensin-II receptor antagonists, heparin or aldosterone antagonists) for a chronic condition

Inform patients that drospirenone and ethinyl estradiol tablets are not indicated during pregnancy. If pregnance occurs during treatment with drospirenone and ethinyl estradiol tablets, instruct the patient to stop further

in the event pills are missed. See "What to Do if You Miss Pills" section in FDA-Approved Patient Labeling unsel patients to use a back-up or alternative method of contraception when enzyme inducers are used

Counsel patients who are breastfeeding or who desire to breastfeed that COCs may reduce breast milk production. This is less likely to occur if breastfeeding is well established.

Counsel any patient who starts COCs postpartum, and who has not yet had a period, to use an additional method of contraception until she has taken a vellow tablet for 7 consecutive day

Counsel patients that amenorrhea may occur. Rule out pregnancy in the event of amenorrhea in two or more

Cyndea Pharma, S.L.

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