شعبة المعلومات الدوائية / مستشفى الملك المؤسس عبد الله الجامعي

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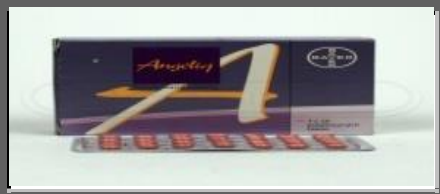
Oral contraceptives available in Jordan

#	Combined Oral Contraceptives					
	Generic Name		Brand Name	Picture	Dose	Price
1	Levonorgestrel	Ethinyl Estradiol	Microgynon		0.15 mg / 0.03 mg	1.6 JD
			Nordiol		250 mcg/ 50mcg	1.34 JD
2	Desogestrel		Gracial		0.025+0.125 mg / 0.04+0.03 mg	5.27 JD
			Marvelon		0.15 mg/ 0.030 mg	2.83 JD
3	Norethindrone		Kliogest		1 mg/ 2 mg	5.53 JD
4	Dydrogesterone		Femoston		10mg/ 1mg	6.86 JD
					10mg/ 2mg	7.24 JD

5	Drospirenone	Ethinyl Estradiol		Yasmin		3mg/ 30 mcg	6.66 JD
				Angeliq		2mg/ 1mg	16.63 JD
6	Cyproterone			Diane		2mg/ 0.035 mg	4.84 JD
				CLIMEN		4mg/ 2mg	6.69 JD
7	Chlormadinone			Belara		2mg/ 0.03mg	3.8 JD
8	Norgestrel			Ovral		500mcg/ 50mcg	1.34 JD
9	Norethisterone	Estriol	Ethinyl Estradiol	Trisequens		0+1+0 mg/ 1+1+0.5 mg/ 2+2+1 mg	5.09 JD

Progestin Only Mini Pills

#	Generic Name	Brand Name	Picture	Dose	Price
1	Primolut	Norethisterone		5mg	3.46 JD
2	Aminor	Norethindrone		5mg	2.39 JD

Table 1: Contraindications and Precautions

❖ Contraindications:

- active thromboembolic disease
- undiagnosed vaginal bleeding
- acute or chronic obstructive liver disease
- known or suspected breast cancer
- known or suspected pregnancy

❖ Precautions :

- Hypertension - can use Ocs if hypertension controlled
- CVD, hyperlipidemia- OCs with new progestins preferred because of more favorable lipid profile
- Diabetes - low dose OCs unlikely to affect glucose control but estrogen may complicate vascular disease
- Epilepsy - some anticonvulsants ↓ OCs efficacy due to ↑ metabolism; may require use of OCs with >35ug EE
- Hepatitis, cirrhosis - avoid OCs if active disease; may use if liver enzymes have returned to normal
- Gallbladder disease - may be exacerbated by OCs
- Migraine - avoid OCs if classic or complex (↑ risk of stroke)
- Inflammatory bowel disease - active diarrhea may reduce absorption and efficacy of OCs and require backup method
- Systemic lupus erythematosus - avoid OCs as estrogens can complicate vascular disease
- Smoking women over age 35 - if light smoker (<15cigs/day) or on nicotine patch, can use 20 ug EE product with caution

Table 2: Benefits & Risks

Benefits:

- Simple and highly effective
- Reduces need for sterilization & abortion

❖ Significantly improves menstrual symptoms&regularity

- Reduces dysmenorrhea and mittelschmerz
- Reduces menstrual blood loss (up to 50%)
- Reduces risk of anemia
- Reduces PMS
- Alleviates menorrhagia/hot flashes in perimenopausal women

❖ Decreases incidence of disease

- bacterial pelvic inflammatory disease (60%)
- ectopic pregnancy
- endometriosis
- *endometrial cancer (>50%)
- *ovarian cancer (>40%)
- ovarian cysts (>60%)
- acne and hirsuitism
- fibrocystic breast disease (50-75%)
- osteoporosis
- rheumatoid arthritis (50%)
- benefit greatest with long term use (>5yr)
- after discontinuing

Risks:

❖ Venous thromboembolism = ↑ 3-4x with low dose OCs and further ↑ 2x with new progestins (estrogens ↓ activation of Protein C so ↑ risk of thrombus)

❖ Arterial thrombosis (myocardial infarction and stroke) - related to estrogen dose ≥ 50 ug , age >35, smoking, hypertension, and other risk factors for CVD (↑ ~2-3x); otherwise no ↑ risk over baseline in young non-smoking

❖ Breast cancer = ↑ 1.5x ; women who started OCs at early age for long duration at greatest risk; persists for 10yrs after d/c (also related to nulliparity/delay in childbearing)

❖ Cervical cancer = ↑ 1.5x with long term use (>5yr) ;also related to early sexual activity & multiple partners

❖ Gall bladder disease = ↑ 1.5x during 1st 5yrs of OC use

does not protect against STDs may exacerbate and/or precipitate: hypertension, diabetes, gallbladder and liver disease, SLE, migraine headaches, depression, GERD, vaginal yeast infections

- **#1 compliance problem especially if no set routine so should try to associate with some activity of daily living**
- **risk of pregnancy greatest if pills started late or missed at the beginning or very end of a cycle**
- **a single missed dose of little consequence if remembered within the window of opportunity (12-24 hrs after last dose)**
- **CHECK WITH PHYSICIAN IF 2 MENSTRUAL PERIODS ARE MISSED IN A ROW**

Miss 1 pill :

Take it now and take subsequent pills as usual

Miss 2 pills in a row :

- **1st 2 weeks:**

Take 2 pills now and 2 pills the next day
Take subsequent pills as usual
Use backup method for the 7 days following missed pills

- **3rd week*:**

Discard remainder of pill pack and start new pack that same day
Use backup method for the next 7 days
May not have a period this month

Miss 3 pills in a row * :

Discard remainder of pill pack and start new pack that same day;
Use backup method for the next 7 days
May not have a period this month

*** Sunday starters should continue taking 1 pill daily until Sunday and then follow instructions as above**

International Planned Parenthood Federation Guidelines:
(for 21-day pill packs)

How long since last pill taken??

12 hours or less:
Take missed pill now
Take subsequent pills as usual

More than 12 hours:
Take missed pill now
Discard any other missed pills
Use backup method for next 7 days
If >7 pills left, finish package as usual and start new one 7 days later as usual
If < 7 pills left, finish package as usual but start a new one the next day (no pill free break) - **may not have a period this month**

Not

It is recommended to wait 3 months before managing the Side effects because they will disappear after this period. If they persist beyond that then management is recommended.

Adverse Effects	Management
Estrogen excess	
Nausea, breast tenderness, headaches, cyclic weight gain due to fluid retention	Decrease estrogen content in CHC Consider progestin-only methods or IUD
Dysmenorrhea, menorrhagia, uterine fibroid growth	Decrease estrogen content in CHC Consider extended-cycle or continuous regimen OC Consider progestin-only methods or IUD NSAIDs for dysmenorrhea
Estrogen deficiency	
Vasomotor symptoms, nervousness, decreased libido	Increase estrogen content in CHC
Early-cycle (days 1–9) breakthrough bleeding and spotting	Increase estrogen content in CHC
Absence of withdrawal bleeding (amenorrhea)	Exclude pregnancy Increase estrogen content in CHC if menses is desired Continue current CHC if amenorrhea acceptable

Note

Women should be instructed to immediately discontinue oral contraceptives if they experience these warning signs.

ACHES - OCs Early Danger Signs

SIGN	PROBLEM
Abdominal pain (severe)	Gallbladder disease, pancreatitis, hepatic adenoma, thrombosis
Chest pain (severe), SOB	Pulmonary embolus or acute MI
Headaches (severe)	Stroke, hypertension, migraine
Eye problems - blurred vision, flashing lights, blindness	Stroke, hypertension, vascular insufficiency
Severe leg pain (calf or thigh)	Deep vein thrombosis (DVT)

AGENT	EFFECT AND MECHANISM	MANAGEMENT
***Anticonvulsants:** Carbamazepine Ethosuximide Barbiturates Primidone Phenytoin	↓ OCs efficacy due to ↑ hepatic metabolism ↑ phenytoin conc. due to ↓ metabolism	Use OCs with 50 ug EE Change to alternate anticonvulsant Use alternate method of birth control (BC) Monitor serum phenytoin and ↓ dose prn
***Antibiotics:** Penicillins (esp.ampi) Cephalosporins Macrolides Metronidazole Sulfas/Cotrimoxazole Tetracycline **Rifampin**	↓ OCs efficacy due to ↑ intestinal transport (diarrhea) and ↓ enterohepatic reabsorption of estrogen •interaction with rifampin most significant! ↓ OCs efficacy due to ↑ metabolism	Estimated failure rate is approximately 1% per year Likely subgroup at ↑ risk due to dependence on enterohepatic reabsorption but unable to identify these ♀ so counsel all If long term treatment, use alternate method of BC; if short term, use back-up method of BC for that cycle Management as above for either long-term or short term
Antifungals: *Griseofulvin	↓ OCs efficacy due to ↑ metabolism	Management as above
Benzodiazepines: Alprazolam, Chlordiazepoxide, Diazepam, Nitrazepam, Triazolam Oxazepam, Lorazepam, Temazepam	↑ benzodiazepine conc. due to ↓ oxidative metabolism ↓ benzodiazepine conc. due to ↑ glucuronidative metabolism	Monitor for ↑ side effects and possible toxicity; reduce dose prn Monitor for loss of benzodiazepine effect and ↑ dose if needed
***Corticosteroids**	↑ steroid conc. due to ↓ metabolism	Monitor for side effects and toxicity; reduce dose as needed
***Cyclosporin**	↑ cyclosporin conc. due to ↓ metabolism	Monitor for side effects and toxicity and reduce dose as needed
Grapefruit juice	↑ estrogen levels due to ↓ metabolism	Monitor for side effects and switch to lower dose EE if needed May consider avoiding grapefruit juice; orange juice OK
Insulin and Hypoglycemics	OCs with 50 ug EE may impair glucose tolerance in predisposed women	Use OCs with 35 ug or less EE; monitor blood sugars and ↑ dose of insulin or hypoglycemic; Use alternate method of BC
Imipramine **Clomipramine**	↑ TCA conc. due to ↓ metabolism	Monitor for side effects and toxicity and reduce dose prn
Theophylline	OCs with ≥ 35 ug EE may ↑ theophylline conc. due to ↓ metabolism	Monitor theophylline levels and reduce dose prn Use OCs with < 35 ug EE
Thyroid	↓ levels of free thyroxine due to estrogen - induced ↑ in thyroxine binding globulin	May need to ↑ dose
***Warfarin**	OCs ↑ risk of thromboembolism and may ↑↓ anticoagulant effect due to changes in metabolism	Avoid OCs and use alternate method of contraception Monitor PT times and adjust dose esp. if OCs started, stopped, or changed (brand, dose, etc)