Contraindications to the OCP

Absolute contraindications

- < 6 wks postpartum
- smoker over the age of 35 (>15 cigarettes per day)
- hypertension (systolic > 160mmHg or diastolic > 100mmHg)
- current of past histroy of venous thromboembolism (VTE)
- ischemic heart disease
- history of cerebrovascular accident
- complicated valvular heart disease (pulmonary hypertension, atrial fibrillation, histroy of subacute bacterial endocarditis)
- migraine headache with focal neurological symptoms
- breast cancer (current)
- diabetes with retinopathy/nephropathy/neuropathy
- severe cirrhosis
- liver tumour (adenoma or hepatoma)

Relative contraindications

- smoker over the age of 35 (< 15 cigarettes per day)
- adequately controlled hypertension
- hypertension (systolic 140 - 159mmHg or diastolic 90 - 99mmHg)
- migrain headache over the age of 35
- currently symptomatic gallbladder disease
- mild cirrhosis
- history of combined OCP-related cholestasis
- users of medications that may interfere with OCP metabolism

SIDE-EFFECTS

- Weight gain
- Headache.
- Bloating
- Nausea
- Acne
- Break through bleeding
- Lowering libido and mood changes
- Breast tenderness
- Choloasma.

Non-contraceptive advantages of CHCs:

A number of significant beneficial effects arising from the use of COCs have now been documented:

- Reduction in most menstrual cycle disorders, including dysmenorrhea, symptoms of endometriosis and heavy menstrual bleeding
- Reduction in the incidence of functional ovarian cysts and benign ovarian tumors
- Reduced incidence of ovarian and endometrial cancer
- Can reduce acne
- Can be useful in managing symptoms of Polycystic ovarian syndrome
- Can assist with perimenopausal symptoms.
- Can be used to manage premenstrual syndrome (PMS) and its more severe form (PMDD) in some women can reduce the risk of bowel cancer

You are working in a general practice. A 24-year-old woman has come to see you for advice as to the most appropriate pill she should go on for contraception for the next two to three years. She knows that various types of pills are available and wants to know how to decide which the most appropriate pill is for her.

TASKS

- Take a further relevant and focused history.
- Ask the examiner about findings you wish to elicit on general and gynecological examination.
- Advise the patient of the appropriateness of oral contraceptive pill (OCP) therapy, which pill should be given, and how it should be administered.

CONTRACEPTIVE ADVICE

APPROACH

- **History**
  - Hi Jane, I'm Dr._____ Your GP today. I understand from the notes that you are here today for advice regarding pill use, is that correct?
  - Is it alright if I ask you a few questions so we'd know which pill would be most appropriate for you?
  - Exclude absolute contraindications to OCP use:
    - Focal migraines: any history of migraine?
    - Breast cancer:
      - Any weight loss, loss of appetite, lumps and bumps around the body?
      - Have you noticed any lumps in your breast? Any breast tenderness?
    - Any previous history of heart disorders, liver disorders, stroke, high blood pressure, diabetes, breast malignancy or severe depression?
    - Active liver disease or previous cholestatic jaundice:
      - Have you noticed any yellowing of your skin? Any abnormal striae in your abdomen? Any palmar erythema, finger clubbing?
    - Pregnancy:
      Are you sexually active? Do you have a stable partner?
      Do you use contraception at the moment?
      Any previous pregnancy before?
      Any chance that you might be pregnant right now?
    - Unexplained vaginal bleeding: do you have any bleeding from down below?
    - Deep vein thrombosis: (ADD COST VMPF)
      - What is your occupation?
      - Have you had any surgeries in the past 3 months, or any trauma?
      - Any recent travel, especially greater than 12 hours? Did you walk around during the flight?
      - Have you noticed any prominent veins in your legs? Any calf pain? Any previous DVT?
      - Any family history of DVT or any coagulation disorders?

        - Do you take any over the counter or prescription medications? Have you taken contraceptive pills before?

    - Exclude relative contraindications to OCP use:
        - Hypertension and diabetes: Do you experience frequent thirsts? Do you have to urinate more than usual?
        - Very irregular cycles or oligomenorrhea:
        - Do you smoke, drink alcohol or take recreational drugs?
- Period history:
    - When was your last menstrual period?
    - Are your cycles regular?
    - What is the average duration of your period?
    - Is your bleeding mild, moderate and severe?
    - Any pain or clots during periods?
    - Any bleeding in between periods?
- Pap: When did you last do your pap smear and what was the result?

Physical Examination

- General appearance:
    - What is the BMI of my patient?
    - Any pallor, icterus, lymph node enlargement, any abnormal hair growth?
- Vital signs: What are the BP, PR, RR, Temp
- Systemic examination:
    - CVS: How is the heart sounds? Is the rhythm regular? Any murmurs?
    - R/S: Is air entry equal? Any adventitious breath sounds?
    - CNS: How is the motor and sensory exam of the upper and lower limbs? (stroke symptoms)
    - Abdomen: Is there any visible distention or mass of the abdomen? Is there any hepatosplenomegaly, any mass or tenderness?
    - Musculoskeletal: Any edema or tenderness of the lower leg?
    - Breast: Any palpable breast lumps, tenderness or visible distortion or dimpling?
    - Pelvic exam:
        - Inspection of the vulva and vagina: Are there any visible lesions in the vulva and vagina? Any discharge or bleeding? Any rash or vesicles?
        - Speculum exam: is the cervix healthy? Is there any bleeding or discharge from the cervix?
        - Per vaginal exam: CMT, uterine size and tenderness, adnexal mass and tenderness
    - Office tests: I'd like to do a urine dipstick test and a blood sugar level.

- ## Management

Okay, it seems like it would be possible for you to start on combined OCPs. I would recommend you to take a low dose estrogen pill. This has a low breakthrough bleeding and low failure rate. And because your cycles are irregular, it would be better to choose a triphasic preparation as this has less post pill amenorrhea or cessation of periods after taking the pill. Combined OCPs contain 2 hormones, estrogen and progesterone which are normally present in your body which regulates your periods.

What it does? It inhibits ovulation, the release of egg from the ovary. To a lesser extent, it increases the thickness of your cervical secretions so the sperm will find it difficult to get through. And just in case fertilization happens, it changes the lining of your womb so that implantation does not happen, because only after implantation does a full bloom pregnancy happens.

(TAKE PILL PACK) In a pill pack, there are 28 pills, 21 are hormonal pills, 7 are sugar-coats or dummy pills. Starting taking the hormonal pill from the 1st day of your next period, 1 pill a day, at the same time every day. Continue the hormonal pills for 21 days and then on starting the sugar pills, you get your periods. However if you want to start taking the pill right away without waiting For your next period, you may, but use alternate methods like condoms for 7 days. Contraceptive efficacy is satisfactory after seven hormone tablets have been taken.

While taking the pill, you may experience side effects such as nausea and vomiting, abdominal bloating and breast tenderness. Breakthrough bleeding or bleeding in between periods will usually settle in 3-4 months. Your breasts will just feel sore in the first 1-2 cycles. Major side effects such as DVT, stroke and MI could happen but are rare with low dose pills, such as what you will be taking.

Advantages of the pill include periods become more regular, lighter and shorter. There is less dysmenorrhea. There is decreased incidence of benign breast lumps and pelvic inflammatory diseases, decreased incidence of endometrial and ovarian cancer, and thyroid disorders.

However, you must remember that OCPs do not protect against sexually transmitted infections, so you must use condoms along with it just in case you're concerned about STIs.

If you experience **diarrhea and vomiting** within 2 hours of taking the pill, take a pill again and keep going with the rest. You need to use condoms as long as the diarrhea and vomiting lasts. If you **go to a doctor** or pharmacist, make sure you tell them that you're on pills as there are medications that decrease the efficacy of pills like vitamin C, some antibiotics or antifungals, and anti- epileptics.

If you **miss one pill** for less than 24 hours, take the missed pill and just keep going with the rest even if it means taking 2 pills on the same day.

If you miss a pill for more than 24 hours, take the recently missed pill and just keep going with the rest even if it means taking 2 pills on the same day. Use alternative method (condoms) for the next 7 days.

If the missed pill falls in the 1st week, use an emergency contraception if had unprotected sexual intercourse in the last 5 days.

If it falls in the 3rd week, skip the sugar pills and start the hormonal pills of the next cycle.

I will need to follow-up with you in about three months after starting on the pill so I could check your blood pressure and to check whether the pills are working well for you or it needs to be changed because of any problems.
I will give you some reading materials about combined OCPs for further insight.

CRITICAL ERRORS

- Failure to exclude absolute contraindications to OCP use.

IMPORTANT POINT FROM THE COMMENTARY

- A young woman needs to be fully informed of all the benefits and side effects and risks of taking the OCP
- She also needs to be carefully assessed to ensure that she has no condition making her unsuitable to take the pill
- Any patient prescribed the OCP must have a full explanation of how to commence taking the pill, when it becomes effective as a contraceptive, and what to do if a pill is missed accidentally.
- As part of the assessment of a patient who is to be prescribed the OCP, the type of pill and its cost, should be taken into account as part of the advice to the patient.
- Having excluded absolute and relative contraindications to use of the OCP (as is the case in this patient), an appropriate low dose oestrogen pill should be advised with a low breakthrough.

Other Contraceptive methods

- Barrier methods like condoms for males, vaginal rings or diaphragms for females.
- Progesterone only pills
  - Content: progesterone alone, thus it does not interfere with your breast milk supply
  - Contraindications: unexplained vaginal bleeding (before she became pregnant, did she have bleeding), breast cancer, liver disorder, stroke, **previous history of ectopic pregnancy, or on anti-epileptic medications/enzyme-inducing agents**
  - Action: it acts by thickening the cervical secretions making it hard for the sperm to get through. To a lesser extent, it also changes the lining of the womb so that just in case fertilization happens, implantation is prevented.
  - Administration: a pack contains 28 pills, all are hormonal pills. You can start taking the pill 3 weeks or 21 days post-partum. Take 1 pill a day, at the same time every day. Protection will be achieved after taking 3 pills.
  - Side effects: irregular bleeding, breast tenderness, weight gain
  - It does not protect against sexually-transmitted infections

- If you miss a pill for more than 3 hours, you have to take the recently missed pill and just keep going with the rest but you need to use alternate method of contraception for the next 48 hours.

- **Depo-Provera**
  - Content: injectable contraceptive which contains progestogen, thus it does not interfere with your breast milk supply. Medroxyprogesterone acetate
  - Contraindications: bleeding disorders, breast cancer, undiagnosed vaginal bleed, severe medical illnesses like cardiac illness, if she wants to become pregnant within 1 year (can cause delay in the return of ovulation)
  - Action: inhibits the secretion of gonadotropins which, in turn, prevents follicular maturation and ovulation and results in endometrial thinning, lesser extent cervical mucus thickening
  - Administration: IM every 12 weeks, contraception lasts for 12 weeks. Take it 6 weeks postpartum (do not give immediately after delivery even if it can work because depo can go to breast milk, the baby's liver is not mature enough to handle the depo)
  - Side effects: amenorrhea, weight gain, breast tenderness, delay in the return of fertility (6 months to 1 year to return after you stop Depo), bone thinning, osteoporosis (especially if given for more than 2 years)
  - Advantages: high efficacy, compliance, doesn't interfere with oral medications
  - Disadvantage: does not protect against STIs
  - Advise lifestyle modifications such as take a diet rich in calcium to prevent osteoporosis.

- **Implanon**
  - Content: progestogen does not interfere with breast milk supply. Etonogestrel
  - Contraindications: bleeding disorders, severe liver disease, breast cancer, **enzyme-inducing agents**
  - Action: inhibiting ovulation, cervical mucus thickening and change in the lining
  - Administration: 4cm rod containing progestogen that will be inserted just below the skin on the inner aspect of the upper part of the non-dominant arm, under local anesthesia; can give implanon 3 weeks postpartum; contraception acts for 3 years
  - Side effects: bleeding, amenorrhea, weight gain, breast tenderness, headaches, acne, mood swings
  - Advantages: high efficacy, compliance, doesn't interfere with oral medications, rapid return of fertility (major advantage over Depo)
  - Disadvantages: does not protect against sexually-transmitted infections

- **IUCD/IUS**

- There are two types: inert type which contains copper called Multiload, and progestogen/hormonal IUCD called Mirena
- Contraindications: previous history of ectopic, active PID, undiagnosed vaginal bleeds, valvular heart disease, increased risk of PID (multiple sexual partners)
- Multiload – unknown; Mirena: releases the progesterone into the system which inhibits ovulation and also makes the cervical mucus thick. But all these IUCD, because it is in the uterus, it can prevent the sperm from reaching the egg, and also prevents the implantation of the fertilized egg just in case fertilization happens
- Administration: after 6 weeks if NVD, 12 weeks if C-section; Mirena: 5 years, Multiload: 10 years; it is a T-shaped rod with a sting attached to its bottom end that will be inserted into your uterine cavity by using an applicator. The string will be hanging down into the vagina which is cut short. It will not interfere with sexual intercourse and will not produce any pain as well.
- Side effects: tummy pain, low back pain, which usually settles in a few weeks' time, breakthrough bleeding for 2-3months, which settles by its own.

Complications: risk of PID, extrusion (be expelled by the body) which usually happens in the first month of insertion --Teach self-palpation of strings; needs to check it once a month to ensure that it is in place. Translocation – it can go somewhere else, perforation – can perforate the uterus and go to the abdominal cavity