Manned OSCE File

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References:

- 436 Slides & Notes
- 436 Doctor's Notes.
- 435 teamwork
- Books: Hacker and Moore's, Ten Teacher Book
- Teach me OBGYN
- Geeky Medics

Color Code:

Important | Notes | Extra | Hacker and Moore's

Editing file:

Here

اللهم لا سهل إلا ما جعلته سهلا وأنت تجعل الحزن إذا شئت سهلا

سموا بالله وتوكلوا عليه الاختبار بيكون سهل لطيف خفيف بإذن الله،
اغلب المعلومات هي من المحاضرات النظرية فما راح تأخذ منكم وقت..
قولوا اللهم لا سهل الا ما جعلته سهلا وانت تجعل الحزن إذا شئت سهلا، رب اشرح لي صدري ويسر لي امري واحلل عقدة من لساني يفقهُ قولي.

- OSCE exam is 15 stations. **5 Manned** and **10 Unmanned** "SAQs" stations.
- This file contains **manned stations only** (history, examination, counseling and discussion). At these stations there will be an examiner and stimulated patient with you. While in SAQ there will be you and your paper only.
- Don't forget to check SAQ's File after finishing this file.
- This file references are previous cases, doctor notes, and theoretical lectures, most of cases came previously so please don't skip any case.
- For the history part: focus on the specific histories but please go through general history in case of any new station. You will have 5 minutes so please try to ask the specific related questions.
- For the examination part: you have to speak and verbalize what you're doing, and don't forget to mention (washing hands, chaperone, privacy and **all inspections elements**) because **all of them** are in the check list.
- For the counseling, there is one page to explain how to approach any counseling stations, please go through it before studying the counseling part it will make it easier.
- You may notice the difference in the number of pages between us and 435, because we have added some missing stations and extra explanations and pics.

Thanks to everyone who worked on this file ♡ It is a single file but requires a lot of effort and time in order to complete it.
Thank you all ♡

Table of content:

الله يوفقكم وينوّر عليكم ♡

It's important to know how to calculate the EDD and GA since it came always in the exams.

General Obstetrics history

Before starting the history there are some terms that we should be familiar with and know how to calculate them.

1. G (Gravidity) → The number of times the woman has been pregnant **regardless how they ended**. If no previous pregnancy G=0
2. P (Parity) → Number of live births at any gestation or stillbirths **after** 20 weeks of gestation (anything after 20-24 of gestations).
3. A (Abortion) → This number mean any pregnancy loss or terminated **before** 20 weeks of gestation (until week 24 is considered an abortion)

Examples:

- G1P0 = the woman is pregnant for the first time and has not yet delivered.
- G1P1 = the woman has had one pregnancy and has delivered once.

There can be 4 numbers after the "P" for "para."

1. The first number is how many term pregnancies.
2. The second number is how many premature babies.
3. The third number is how many abortions or miscarriages.
4. The fourth number is how many living children survive.

Examples:

- G4P1111 = the woman is currently pregnant with her fourth pregnancy. She had one full-term delivery, one premature delivery which did not survive, one abortion or miscarriage, and has one living child.
- G6P2124 = the woman is pregnant with her sixth pregnancy. She had 2 abortions or miscarriages, and surviving children include 2 full-term pregnancies and one premie which survived. Since the last number indicates she has 4 living kids, then you have to figure that one of the pregnancies was a twin pregnancy and both the babies survived.

4. Gestational Age → Weeks as calculated from ultrasound. pregnancy is 40w and the 1st day start from 1st day in her last LMP. In early stages, it's accurate but in late stages if baby was small that mean baby is not growing or if he's big maybe the mother has gestational diabetes so count on LMP. How to calculate the GA accurately? Watch this video (This vedio is the same way explained by dr. Malak).

إذا طلبوا حساب أسبوع الحمل اتبعوا طريقة الدكتورة او أي طريقة صحيحة للحساب، لو حسبتوها بنفس الأسبوع بس الأيام مو دقيقة عادي ولو حسبتوها أسبوع بعد او أسبوع قبل عادي ما يأثر، بس اكثر من أسبوع سواء بالزيادة او بالنقصان ينقصون عليها

5. EDD (Estimated due date) → By using naegele's rule: add one year to LMP, subtract three months, and add 7 days or by adding one year to the years, 9 month to the months and 7 days to days. Remember that if it was on January-February don't add a year. Ex: LMP was in 15/2/2019 → EDD is 22/11/2019. Sometimes after adding 9 months you will be in the next year, so be careful to put the new year. Ex: LMP was in 20/9/2019 → EDD is 27/6/2020

1. Personal Information:

Name…… Age…… Nationality…… Marital Status…… occupation[1] ……
Residency…… G……P……A……..Gestational Age…… LMC…… EDD……

An example of how this paragraph is presented: Sara Ahmed Khalid, a 35 years old Saudi married housewife who lives in Riyadh G3P3+2. At 38 weeks of gestation, her LMP was in 22/12/2018 and her EDD is 29/9/2019.

According to most of the consultants and based on the text bock, you have to mention all this information in beginning of your history (in the personal information) before the CC.

2. Chief Complaint:

She presented to the {ER – Clinic – admitted electively} when she came/admitted…… Because of …… stared with her ……ago.

An example of how this paragraph is presented: Sara presented to the ER one day ago because of vaginal bleeding started with her day ago.
Another Example: Sara admitted electively today for elective CS that is indicated by two previous CS.

1. Don't forget to present this part by using patient's own words not medical words.

3. History of presenting Illness:

Question's in this part depends on the complaint (Pain? Bleeding? etc.) (We will discuss in details the most important questions in the presenting illness that are frequently repeated in the previous exams, you will find this part in specific history section).

2. At the end of this part don't forget to ask about **constitutional symptoms**: Fever- Weight loss - Night sweats- Loss of appetite and the **risk factors** that the patient have. It's very important to mention the risk factors at the end of HPI after you talked in details about the main problem and the positive/ negative symptoms. Some of them come just for following and others come for something else.

4. History of the present Pregnancy:

[1] The patient's type of work and lifestyle may affect the pregnancy. Exposure to solvents (carbon tetrachloride) or insulators (polychlorobromine compounds) in the workplace may lead to teratogenesis or hepatic toxicity. If her work doesn't affect the pregnancy, it can be mentioned in social history instead.

- G……P……A……. Gestational Age…… LMC…… EDD……
- Type of conception is it spontaneous? or Ivf?
- Pregnancy detected by …… and confirmed by ……
- Number of fetuses …… (chorionicity), US at 14 weeks: GA ……., placenta location…… (all by ultra sound)
- Have there been any other problems in this pregnancy? (bleeding, contractions, vaginal discharge, loss of fluid, fever, GDM, GHTN) discharge usually normal but we mean gush of fluid here.
- Booked as if it's her first visit to your clinic or follow up? …… Numbers of antenatal visits…… and if there were any complications…….. **If booked ask for her previous ultrasounds and how was her pregnancy from the beginning**.
- Blood transfusion…….. Rh typing……..
- Fetal movement: detected? if yes, when was the first movement …… does she notice diminished or changes in the movement …… **(fetal movement can be detected in the 17-20 weeks)**
- Any invasive tests or procedures has been done? If yes, when? …… why? …… any Cerclage?……
- Any hospital admission? If yes, when? …… why? …… how it was controlled?……

5. History of Previous pregnancies:

Take details of each prior pregnancy start from first to last pregnancy. If the number of children is three or less, details should be given to all of them. However, if the number of children is more than three just mention the age of the eldest and youngest + the details of any delivery that isn't normal vaginal, otherwise just say (the eldest is .. the youngest is .. and they all were normal deliveries)

For Term pregnancies (>20 weeks):

- Type of conception spontaneous or IVF?……
- Date of delivery …… Location of delivery ……
- Type of delivery: normal vaginal?, CS? If yes, why? …… assisted? (vacuum, forceps), was episiotomy induced, If yes why?[2]
- Duration of labor in hours[3]…… Duration of gestation in weeks……
- Number of children's (in one pregnancy) ……
- Type of anesthesia…… any complications from it?……
- Any history of preterm delivery? …… unexplained stillbirth?
- Maternal complications[4]: antenatal? Intrapartum? Postpartum? If yes, what?…… how it was controlled? ……
- Fetal complications? If yes, what?…… how it was controlled?
- For babies: Newborn weight[5] …… Age …… Gender[6]…… baby ICU admission? If yes, why? …… for how many days? …… Anomaly? …… baby's Present health, still alive? Breastfeeding?……

For Other pregnancies (<20 weeks)

- Type of conception spontaneous or IVF?……
- Miscarriage? If yes Clarify the gestation of the trimester…… the cause? ……
- Date of termination of pregnancy …… Location of termination of pregnancy ……
- Type of termination of pregnancy[7]: …… medical or surgical managements?
- Type of anesthesia…… any complications from it?……
- Maternal complications: antenatal? Intrapartum? If yes, what?…… how it was controlled? ……
- Molar pregnancy? If yes Clarify medical or surgical managements. ……
- Ectopic pregnancy? If yes Clarify the site and the management……

6. Menstrual History[8]:

Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle[9] …… Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any intermenstrual bleeding?…… impact on her life? …… Dysmenorrhea, menorrhagia, midcyclic pain? If yes, take full SOCRATES history, Date of LMP…… Age of menopause……Menopausal symptoms…… any postmenopausal bleeding?……

7. Gyne History:

[2] This information is important for planning the method of delivery in the present pregnancy.

[3] This may alert the physician to the possibility of an unusually longer or short labor

[4] Maternal complications such as urinary tract infections, vaginal bleeding, hypertension, postpartum complications may be repetitive; such knowledge is helpful in anticipating and preventing problems with the present pregnancy.

[5] This information may give indications of gestational diabetes, fetal growth problems, shoulder dystocia, or cephalopelvic disproportion.

[6] This may indicate certain genetic risk factors.

[7] The gestational age of any spontaneous abortion is of importance in any subsequent pregnancy.

[8] A good menstrual history is essential because it is the determination for establishing the expected date of delivery. assumes a normal 28-day cycle, and adjustments must be made for longer or shorter cycles. Any bleeding or spotting since the last normal menstrual period should be reviewed in detail and taken into account when calculating an EDD.

[9] If she says it's irregular, ask here more she may say every month it gets delayed 2 days then this regular.

- Ectopic pregnancy? Endometriosis? If yes, when? …… how it was controlled?……
- Previous infections? ……. When? how it was controlled?……
- Last Pap smear ……. was it normal? …… If it was abnormal what was the management? ……
- Malignancies? (Cervical, endometrial, ovarian) ……..

8. Sexual History:

Regular sex?..... Protective sex? …… any Pain(Dyspareunia)? …… any bleeding(postcoital bleeding)?.....

9. Past Medical History:

Renal diseases, SLE, migraine with aura[10], VTE, bleeding disorder, breast cancer. etc. In addition to common disorders, which are known to affect pregnancy outcome, all serious medical conditions should be recorded.

10. Medication History:

- If any, what? ……. why? …… Duration? ……
- **Supplements history.**
- **History of contraception.** Type? ……. duration? …… Compliance? …… To see if we can use her LMP as guide or not. If she was using OCP and stop, If she get pregnant without periods that's LMP is not reliable because it was withdrawal bleed not an ovulation bleed then go by US but if get pregnant with 2 or more periods then that is an ovulation bleed. Also this information is important for risk assessment. Oral contraceptives taken during early pregnancy have been associated with birth defects, and retained intrauterine devices (IUDs) can cause early pregnancy loss, infection, and premature delivery.

11. Past Surgical History:

- If any, what? ……. When? …… Complications? …… trauma?..... (like fractured pelvis may result in diminished pelvic capacity)
- Type of anesthesia…… any complications from it?.....
- **Previous gynecological surgery**. scars can lead to adhesions → weak uterus may rupture during contraction → will go with CS. And to know if she took GA with no complications (sometimes she could have an emergency C/S and there is no time for epidural anesthesia you need to use GA)

12. Blood transition History:

If any, when? ……. why? …… How many? …… Any complications? ……

13. Allergy History:

14. Vaccine History:

15. Family History: (for both partner its important to know about any family history that can impact on baby)

- Hereditary illness: DM, HTN, thalassemia, sickle cell disease, hemophilia? ……
- Congenital defects: neural tube defects? …… Down syndrome? …… Twins? ……
- Malignancy? (Breast, ovaries, uterine, colon, prostate cancer) ……..

16. Psychiatric History:

Postpartum blues or depression? ……. Depression unrelated to pregnancy? …… Major psychiatric illness? ……

17. Social History:

Illicit drugs? Alcohol? Smoking? Family Support? domestic violence? Animal's contact[11]? Physical activity? Diet?

18. Review of systems:

19. Summary

[10] Estrogen containing medications (e.g. combined oral contraceptive) would be contraindicated

[11] Particularly cats (which carry a risk for toxoplasmosis).

General Gynecology history

1. Personal Information:

Name…… Age…… Nationality…… Marital Status…… occupation ……
Residency…… LMC……
An example of how this paragraph is presented: Sara Ahmed Khalid, a 35 years old Saudi married housewife who lives in Riyadh G3P3+2.Her LMP was in 22/12/2018.
According to most of the consultants and based on the text bock, you have to mention all this information in beginning of your history (in the personal information) before the CC.

2. Chief Complaint:

She presented to the {ER – Clinic – admitted electively} when she came/admitted…… Because of ……. stared with her ……ago.
An example of how this paragraph is presented: Sara presented to the clinic one day ago because of vaginal discharge started with her week ago.

- Don't forget to present this part by using patient's own words not medical words.

3. History of presenting lines:

Question's in this part depends on the complaint (Pain? Bleeding? etc.) (We will discuss in details the most important questions in the presenting illness that are frequently repeated in the previous exams, you will find this part in specific history section).

3. At the end of this part don't forget to ask about **constitutional symptoms**: Fever- Weight loss - Night sweats- Loss of appetite and the **risk factors** that the patient have. It's very important to mention the risk factors at the end of HPI after you talked in details about the main problem and the positive/ negative symptoms.

4. Gyne History:

- **Menstrual History:** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle[12] ……. Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any clot or flooding?…… impact on her life? …… Menstrual cycle symptoms (dysmenorrhea, menorrhagia, mittelschmerz[13] discomfort, Irritability, Depression, Pelvic pain, Vaginal dryness, Vaginal discharge)? If yes, take full history about it……..Date of LMP…….
- Other bleeding from other places? postcoital bleeding?[14] Intermenstrual bleeding (metrorrhagia)?[15] If yes, take a full history.
- Previous infections? …… When? how it was controlled?……
- Last Pap smear …… was it normal? …… If it was abnormal what was the management? ……
- Gynecological problems? …… Anomalies? ……
- **If she menopause:** Age of menopause? ……HRT[16] uses? …… any menopausal symptoms (vaginal bleeding or discharge, weight loss, back pain, pelvic pressure, bloating, bowel, bladder complaints)?…… any postmenopausal bleeding?……

5. Ob history:

Take details of each prior pregnancy start from first to last pregnancy. If the number of children is three or less, details should be given to all of them. However, if the number of children is more than three just mention the age of the eldest and youngest + the details of any delivery that isn't normal vaginal, otherwise just say (the eldest is .. the youngest is .. and they all were normal deliveries)

For Term pregnancies (>20 weeks):	For Other pregnancies (<20 weeks)
- Type of conception spontaneous or IVF?……	- Type of conception spontaneous or IVF?……
- Date of delivery …… Location of delivery ……	- Miscarriage? If yes Clarify the gestation of the trimester…… the cause? ……
- Type of delivery: normal vaginal?, CS? If yes, why? …… assisted? (vacuum, forceps), was episiotomy induced, If yes why?[17]	- Date of termination of pregnancy …… Location of termination of pregnancy ……

[12] If she says it's irregular, ask here more she may say every month it gets delayed 2 days then this regular.
[13] Midcycle pain (mittelschmerz) wich increase in vaginal secretions (both are usually indicative of ovulatory cycles)
[14] Bleeding after sex (usually she could have cervical pathology).
[15] Bleeding between her periods.
[16] Hormonal replacement therapy
[17] This information is important for planning the method of delivery in the present pregnancy.

- Duration of labor in hours[18]…… Duration of gestation in weeks……..
- Number of children's (in one pregnancy) ……
- Type of anesthesia…….. any complications from it?.....
- Any history of preterm delivery? …….. unexplained stillbirth?
- Maternal complications[19]: antenatal? Intrapartum? Postpartum? If yes, what?…… how it was controlled? ……
- Fetal complications? If yes, what?…… how it was controlled?
- For babies: Newborn weight[20] …… Age …… Gender[21]…… baby ICU admission? If yes, why? ……. for how many days? …… Anomaly? …….. baby's Present health, still alive? Breastfeeding?.....
- Type of termination of pregnancy: …… medical or surgical managements?
- Type of anesthesia…… any complications from it?.....
- Maternal complications: antenatal? Intrapartum? If yes, what?…… how it was controlled? ……
- Molar pregnancy? If yes Clarify medical or surgical managements. ……
- Ectopic pregnancy? If yes Clarify the site and the management. ……

6. Sexual History:[22]

If the lady is sexually active ask about:

Regular sex?..... Protective sex? …… any Pain(Dyspareunia)? …… any bleeding(postcoital bleeding)?.....

7. Past Medical History:

Fibroids, endometrioses, Renal diseases, SLE, migraine with aura[23], VTE, bleeding disorder, breast cancers, any thyroid problems.

8. Medication History:

- If any, what? …… why? …… Duration? ……
- **History of contraception.** Type? …… duration? …… Compliance? …… **Complications? ……**(Ex. Amenorrhea, thromboembolic disease with hormonal contraceptives, dysmenorrhea, menorrhagia, pelvic infection with IUD, contraceptive failure with diaphragm or other barrier method)

9. Past Surgical History:

- If any, what? …… When? …… Complications? …… trauma?.....
- Type of anesthesia…….. any complications from it?.....
- **Previous gynecological surgery**. scars can lead to adhesions → weak uterus may rupture during contraction.

10. Blood transition History:

If any, when? …… why? …… How many? …… Any complications? ……

11. Allergy History:

12. Vaccine History:

13. Family History:

- Hereditary illness: DM, HTN, thalassemia, sickle cell disease, hemophilia? ……
- Endometrioses? …… Fibroids?.....
- Malignancy? (Breast, ovaries, uterine, colon, prostate cancer) ……
- Congenital defects: neural tube defects? …… Down syndrome? ……

14. Psychiatric History:

any blues or depression? …… Depression unrelated to pregnancy? …… Major psychiatric illness? ……

15. Social History:

Illicit drugs? Alcohol? Smoking? Family Support? domestic violence? Animal's contact? Physical activity? Diet?

16. Review of systems:

17. Summary

[18] This may alert the physician to the possibility of an unusually long or short labor.

[19] Maternal complications such as urinary tract infections, vaginal bleeding, hypertension, postpartum complications may be repetitive; such knowledge is helpful in anticipating and preventing problems with the present pregnancy.

[20] This information may give indications of gestational diabetes, fetal growth problems, shoulder dystocia, or cephalopelvic disproportion.

[21] This may indicate certain genetic risk factors.

[22] May give insight on present complain

[23] Estrogen containing medications (e.g. combined oral contraceptive) would be contraindicated

History of Infertility

- In the specific history we will focus on the questions that is related to each case, so please make sure to go through the general history first to know the questions that asked for full history.
- In infertility history there is questions for both partners.
- Infertility is: Inability to become pregnant despite 12 months of trying to conceive without using contraception in women <35 years-old1. Or 6 months in women >35 years-old.

Case: A couple came to your clinic complaining of infertility. Please take history from them

A. What are you going to ask the wife in the Hx?

Personal Information:

- Name.
- Age (female fertility declines with age and age is one of the most important prognostic factors for prognosis and treatment outcome).
- Marital Status (Age and years of marriage and if there are any pregnancies with previous partners) if they married 5 months ago this is normal duration to not get pregnant.
- Occupation (if there are any exposures to solvents, lead, paint, pesticides, metal fumes, vibration, radiation)
- Residency (Sometimes the wife is in one city, and the husband works in another city and this may be the cause of infertility)

Chief Complaint:

Can't get pregnant. For how long (duration)? important to differentiate between primary infertility and secondary infertility.

- Primary infertility refers to partners who have not become pregnant after at least 1 year having sex without using birth control methods.
- Secondary infertility refers to partners who have been able to get pregnant at least once, but now are unable.

History of presenting Illness:

Ask details about infertility:

- For how long?
- Did they try any infertility medication? If yes, when? ..... Any response? .....What was the outcome?
- What was the type of ovulation induction? (Clomiphene Citrate tablets, Human Menopausal Gonadotropins, Intrauterine insemination).
- Previous IVF?
- Any hyperpresence?
- Methods to monitor ovulation: (cervical mucus, BBT "basal body temperature", LH Kit).

Ask about associated risk factors: (You can ask for symptoms in details or just ask about diseases in the past medical history)

- **PCOS symptoms:** hirsutism, acne, wight change, acanthosis nigrican.
- **Menopausal symptoms:** hot flushes, sleeping difficulties, night sweats and dry vagina.
- **Pelvic inflammatory disease symptoms:** pelvic pain, discharge.
- Gynecological problems? ..... **Anomalies?** .....
- **BMI:** (>29 or <19 will lead to difficulty conceiving).

Gyne History:

You want to know Is she is probably ovulating? So ask about **Menstrual History:**

- Age of menarche..... regular or irregular?..... Menstruation duration..... Menstrual cycle ..... Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) ..... any clot or flooding?..... Menstrual cycle symptoms (dysmenorrhea, menorrhagia, oligomenorrhea, discomfort, Irritability, Depression, Pelvic pain, Vaginal dryness, Vaginal discharge, mittelschmerz)[24]? Date of LMP.....
- Intermenstrual bleeding (metrorrhagia)?[25]
- Previous infections? ..... When? how it was controlled?.....
- Last Pap smear ..... was it normal? ..... If it was abnormal what was the management? .....

Ob history:

In case of secondary infertility ask about:

- G....P....A.....
- Type of conception spontaneous or IVF?.....

[24] Midcycle pain wich increase in vaginal secretions (both are usually indicative of ovulatory cycles)
[25] Bleeding between her periods.

- Type of delivery: normal vaginal?, CS? If yes, why? …… assisted? (vacuum, forceps), was episiotomy induced, If yes why?
- Number of children's (in one pregnancy) ……
- Any history of preterm delivery? …… unexplained stillbirth?……
- Maternal complications[26]: antenatal? Intrapartum? Postpartum? If yes, what?…… how it was controlled? ……
- Fetal complications? If yes, what?…… how it was controlled?
- Molar pregnancy? If yes, clarify medical or surgical managements. ……
- Ectopic pregnancy? If yes, clarify the site and the management. ……
- Abortions? If yes, clarify the gestation of the trimester…… the cause? ……

Sexual History:

- Regular intercourse?…… frequency? (recommended is 2 or 3 / week), timing intercourse? …… sexual dysfunction……? Dyspareunia …… postcoital bleeding?……

Past Medical History:

PCOS, Pelvic inflammatory diseases or sexual inflammatory diseases[27], DM, , Infections e.g. mumps, Galactorrhea, Thyroid diseases, fibroids, endometrial polyps.

Medication History:

- Any medication known to inhibit ovulation (NSAID)
- History of chemotherapy or radiotherapy.
- History of contraception.

Past Surgical History:

- Previous gynecological surgery.
- Tubal ligation?

Family History:

- History of infertility, early menopause.

Social History:

Illicit drugs? Alcohol? Smoking? Diet?

Psychiatric History[28]:

B. What are you going to the husband in the Hx?

Personal Information:

- Name.
- Age
- Marital Status (Age and years of marriage and if there are any pregnancies with previous partners) if they married 5 months ago this is normal duration to not get pregnant.
- Occupation (if there are any exposures to solvents, lead, paint, pesticides, metal fumes, vibration, radiation)
- Residency (Sometimes the wife is in one city, and the husband in another city and this may be the cause of infertility)

Sexual History:

Regular intercourse?…… frequency? (recommended is 2 or 3 / week), timing of intercourse? …… erectile dysfunction……? any barrier use?

Past Medical History:

DM, Sexual transmitted diseases, infections (orchitis)

Medication History:

- Any medication that are known to affect sperm quality? (opioids)
- History of chemotherapy or radiotherapy.

Past Surgical History:

- History of trauma or surgery (hernia repair, torsion or vasectomy), varicocele repair.

[26] Maternal complications such as urinary tract infections, vaginal bleeding, hypertension, postpartum complications may be repetitive; such knowledge is helpful in anticipating and preventing problems with the present pregnancy.

[27] Can cause inflammation and permanent scarring of the fallopian tubes.

[28] Social support that patients receive can have significant effect in stress level.

Family History:

History of infertility.

Social History:

Illicit drugs? Alcohol? Smoking?

Discussion Questions:

- **What are the etiologies of infertility?**
    - **Female causes:** ovulatory dysfunctions, tubal, pelvic and uterine abnormality**.**
    - **Male factors:** decreased sperm count, decreased motility or low normal forms.

- **What is the best investigation for ovulation?**
    - Normal TSH.
    - Prolactin
    - Evaluation for ovulation: Progesterone day 21.
    - Basal body temperature.
    - Pre-ovulatory cervical mucus.
    - Urinary LH.
    - Semen analysis

- **What are the components of semen analysis?**
    - Sperm concentration >15million.
    - Semen volume 2-5 ml.
    - Normal morphology 4%.
    - Sperm motility > 50%.
    - pH 7.2 – 7.8.
    - Liquefaction time: less than 30 min.

History of Postmenopausal bleeding

Case: 61 years old female with postmenopausal bleeding, take a focused history regarding the complaint.

Before starting, think what is the deferential diagnose and start to ask about their symptoms and risk factors to rule it out or confirm the diagnose.

Possible causes: Endometrial cancer[29], vaginal atrophy[30], hormonal replacement therapy.

Personal Information:

Name…… Age…… P……A……. LMC……

Chief Complaint:

She presented Because of Postmenopausal bleeding. For how long (duration)?

History of presenting lines:

Ask about bleeding details:

- How many time since menopause?.....is it every day? ……. How much the amount (no. of pads & fullness, make sure it is not for hygiene) any clot or flooding? Is there fresh blood (red) or old (darker, brown) blood?
- Other bleeding from other places? Any ER visiting?
- Progression? For example: Spotting until 2 days ago. Now it is like a period.
- Is it provoked bleeding: Is the bleeding spontaneous or after intercourse or defecation? This could indicate a cervical origin of the problem, e.g. infections and malignancies or even hemorrhoids.

Ask about associated symptoms: (atrophy symptoms, endometrial cancer symptoms, pressures symptoms)

- vaginal dryness, vaginal burning, vaginal discharge[31], postcoital bleeding, bloating, pain or burning with urination, more frequent urinary tract infections, urinary incontinence, pain in the lower abdomen, back, or legs, weight loss.

Gyne History:

- Age of menarche…… Age of menopause? ……[32] was the menstruation regular?…….. Menstruation duration……. Menstrual cycle.
- Previous infections? ……. When? how it was controlled?……
- Last Pap smear ……. was it normal? ……. If it was abnormal what was the management? ……

Ob history:

Take details of each prior pregnancy from first to last pregnancy. History of infertility & nulliparity are risk factors for endometrial cancers.

Sexual History:

If she is sexually active ask about: Dyspareunia? …… postcoital bleeding?.....

Past Medical History:

History of gynecological problems, breast cancer, thyroid disease, HTN and DM, Obesity, coagulopathy, Gallbladder disease.

Medication History:

- Aspirin, heparin and any anticoagulant medications, NSAIDs, Coumadin.
- History of contraception. Type? ……. duration? ……
- History of hormonal therapy. If any, what? ……. why? ……. Duration? ……
- History of chemotherapy, radiation therapy.

Past Surgical History:

- If any, what? ……. When? ……. Complications? ……. trauma?.....
- Previous gynecological surgery.

Blood transition History:

If any, when? ……. why? ……. How many? ……. Any complications? ……

Allergy History:

Family History:

Malignancy? Breast, ovaries, uterine, colon.

Social History:

[29] The most serious cause of postmenopausal bleeding

[30] The most common cause of postmenopausal bleeding

[31] That may range from pink and watery to thick, brown, and foul smelling

[32] Early menarche and late menopause are risk factors for endometrial cancer.

Occupation? Any hazard exposer? Smoking?[33]

Discussion Questions:

- **How to approach woman with postmenopausal bleeding?**
    - **History:** as mentioned above**.**
    - **Physical Examination:**
        - Start with general exam.
        - Then do focused complete pelvic exam. On lithotomy position, inspect the vulva rule out any vulvar lesions, then do speculum exam look at the cervix & vagina make sure there's no any masses or polyps, check the bleeding source then do bimanual exam to assess uterus size.
        - End up doing rectal exam: to rule out rectal cancer, may the patient mixed up the source of bleeding.
    - **Investigations:** 3 test you should do
        - **Pap smear:** to rule out cervical cancer.
        - **U\S:** look for the uterine thickness (if more than 4 MM) not always mean cancer but mean suspicion of cancer you have to do further investigations.
        - **Endometrial Biopsy:** to rule out endometrial cancer.

- **Differential diagnosis of postmenopausal bleeding?**
    - **Benign causes:** Endometrial Atrophy, Estrogen Replacement therapy, Endometrial polyps, Endometrial hyperplasia.
    - **Malignant causes:** Endometrial cancer, colon cancer.

- **What are Risk factors for uterine cancer?**

  Nulliparity, Obesity, early menarche, late menopause, estrogen replacement treatment, history of breast or ovarian cancer, DM.

    - **What are the protective factors associated with endometrial cancer?**

  Hysterectomy, smoking, oral contraceptives pills, intra uterine devices, pregnancy.

- **Treatment of this condition?**

  The mainstay of treatment of endometrial carcinoma is a total abdominal hysterectomy (TAH) and bilateral salpingooophorectomy (BSO), pelvic and para-aortic lymphadenectomy, and peritoneal washings.

- **What is the most common histological type of endometrial cancer?** Adenocarcinoma.

[33] Smoking is a protective factor for endometrial cancer.

History of Cervical incompetence

Case: A 32 years old G 3 P1+2, she had 2 abortions. Take a focused history regarding the complaint.

Personal Information:

Name…… Age…… occupation[34] …… P……A…… LMC……

OB history: Take details of each prior abortions or complete pregnancy start from first to last pregnancy

- **For each complete pregnancy ask about:**
- Type of conception is it spontaneous? or IVf?
- Pregnancy detected by …… and confirmed by ……
- Type of delivery: normal vaginal? CS? If yes, why? …… assisted? (vacuum, forceps), was episiotomy induced, If yes why?
- Duration of labor in hours.
- Any history of preterm delivery? …… unexplained stillbirth?
- Maternal complications: antenatal? Intrapartum? Postpartum? If yes, what?…… how it was controlled? ……
- Fetal complications? If yes, what?…… how it was controlled?
- Newborn weight …… baby ICU admission? If yes, why?

- **For each abortion ask about:**
- When?…… Her age?…… Gestational age?……
- The cause? maternal and fetal causes, ask about if the baby had any congenital problems. Most spontaneous miscarriages are caused by an abnormal (aneuploid) karyotype of the embryo.
- Any contraction felt, bleeding, rupture membranes, passing of tissue.
- Type of termination of pregnancy: spontaneous, medical or surgical managements?
- Maternal complications: antenatal? Intrapartum? If yes, what?…… how it was controlled? ……

Gyne History:

- Any anatomic abnormalities?
  - Uterine septum (the anomaly most commonly associated with pregnancy loss)
  - Hemiuterus (unicornuate uterus), Bicornuate uterus.
  - Short cervix or collagen disorder.
- History of fibroids, Uterine polyps.
- History of incompetent cervix, trauma to the cervix.
- Previous infections? …… When? how it was controlled?……

Past Medical History:

Antiphospholipid syndrome(APLS)[35], DM[36], Thyroid disease, PCOS, Thrombosis[37], Asherman syndrome[38], infectious diseases (Rubella, toxoplasmosis).

Medication History:

- If any, what? …… why? ……
- History of contraception. Type? …… duration? ……

Past Surgical History:

Previous gynecological surgery, Cerclage, D&C, cone biopsy.

Family History:

Congenital abnormality or hereditary disease in the family.

Social History:

Alcohol? Smoking? Diet?

Discussion Questions:

[34] Could be the could if she works in the radiation area for example.

[35] Also known as lupus anticoagulant syndrome and Hugh syndrome. This disorder is characterized by the presence of APL antibodies, which are frequently linked to pregnancy losses.

[36] Poorly controlled diabetes, as evidenced by high glycosylated HgA1c levels in the first trimester, are at a significantly increased risk of both miscarriage and fetal malformation.

[37] Because it's a risk factor to APLS.

[38] Acquired condition of the uterus. In women with this condition, scar tissue or adhesions form in the uterus due to some form of trauma.

- **If she has a history of painless dilation of the cervix and loss of pregnancy. What is the diagnosis?** Cervical incompetence.

- **What are you going to do for her for this pregnancy? When?**
  Cervical cerclage, performed at 13-14 week. The stitch should be removed at 37-38 weeks' pregnancy or whenever the patient goes into labor.

- **Mention one investigation you are going to do for her?**
  - **US:** The three ultrasound signs are shortening of the endocervical canal, funneling of the internal os, and sacculation or prolapse of the membranes into the cervix.
  - High vaginal swab & pap smear → for infections

History of Ectopic Pregnancy

Came 4 times before

Case: A lady presented to the ER complaining of lower abdominal pain with a Hx of amenorrhea for 6 weeks. Take a focused history regarding the complaint.

Personal Information:

Name…… Age…… P……A…… LMC[39]……

Chief Complaint:

She presented because of lower abdominal pain and amenorrhea stared with her 6 weeks ago.

History of presenting lines:

Start with SOCRATES for pain details:

- Where exactly the pain? Is it in one side of the pelvis or all over.
- Onset.
- Characteristic of the pain: is it sharp, colicky…etc
- Course of the pain: is it continues, intermittent.
- Radiation.
- Aggravating and reliving factors
- Severity.

The ectopic pain is usually sudden, continues very sever sharp pain that felt in the left or right iliac fossa and can radiate to the breast, shoulders and back.

Ask about associated symptoms: (ectopic symptoms, UTI symptoms, appendicitis and IBD symptoms to roll it out)

- Vomiting[40], nausea, vaginal bleeding.
- Urinary frequency, urgency, burning, fever, chills, diarrhea.

Gyne History:

- **Menstrual History (to know the type of her amenorrhea):** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle[41] …… Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any clot or flooding?…… Midcycle pain. …… Date of LMP……
- History of pelvic inflammatory disease? gonorrhea, or chlamydia infections[42]? …… When? how it was controlled?
- Gynecological problems? …… Congenital uterine malformation?
- Previous ectopic pregnancy?

Ob history:

Take details of each prior pregnancy start from first to last pregnancy

[39] To know if she is pregnant or not

[40] Nausea and fainting might indicate shock due to heavy (intra-abdominal) bleeding in ectopic pregnancy.

[41] If she says it's irregular, ask here more she may say every month it gets delayed 2 days then this regular.

[42] can cause inflammation in the tubes and other nearby organs, and increase your risk of an ectopic pregnancy.

Sexual History:
Regular sex? Is it possible that you might be pregnant? Did pregnancy test?
Past Medical History:
Endometrioses?
Medication History:
- Any fertility treatments? - History of contraception. History of IUD.
Past Surgical History:
- Previous gynecological or abdomen surgery.[43] - Tubal ligation
Family History:
- Malignancy? (Breast, ovaries, uterine, colon) - History of ectopic pregnancy.
Social History:
Smoking?

Discussion Questions:

- **What is your Ddx?**
  - Abortion
  - Ectopic pregnancy

- **How to confirm the diagnosis?**
  By serial 48 hours beta HCG measurement and transvaginal US.

- **What is the medications used for this case?** Methotrexate.

- **Mention 3 prerequisites to use it:**
  - She should be hemodynamically stable.
  - Unruptured sac < 3.5 cm
  - No fetal cardiac activity.
  - hCG level isn't more than 6000 mIU/ml.
  - No contraindications for Methotrexate, for e.g. anemia, thrombocytopenia, decreased WBC and immunosuppression.

- **Mention another option for the treatment of ectopic pregnancy:**
  Surgery:
  - Salpingectomy
  - Salpingostomy
  - Salpingiotomy.

  If she's stable laparoscopy
  If she's unstable laparotomy

[43] Scar tissue from a previous infection or a surgical procedure on the tube may also impede the egg's movement.

Came 4 times before

History of Early Pregnancy Bleeding

Case: 30 years old pregnant lady at 16 weeks of gestation presented with vaginal bleeding and abdominal pain. Take a focused history regarding the complaint.

Personal Information:

Name…… Age…… G……P……A……..Gestational Age…… LMC…… EDD……

Chief Complaint:

She presented because of lower abdominal pain and vaginal bleeding. Duration?

History of presenting Illness:

Start with SOCRATES for pain details:

- Where exactly the pain? Is it in one side of the pelvis or all over.
- Onset.
- Characteristic of the pain: is it sharp, colicky…etc.
- Course of the pain: is it continues, intermittent.
- Radiation.
- Aggravating and reliving factors
- Severity.

Ask about bleeding details:

- How many times?.....is it every day? ……. How much the amount (no. of pads & fullness, make sure it is not for hygiene) any clot or flooding? Is there fresh blood (red) or old (darker, brown) blood?
- Did she lose any tissue vaginally? This might point towards an incomplete abortion.
- Other bleeding from other places? Any ER visiting?
- Progression? For example: Spotting until 2 days ago. Now it is like a period.
- Is it provoked bleeding: Is the bleeding spontaneous or after intercourse or defecation? This could indicate a cervical origin of the problem, e.g. infections and malignancies or even hemorrhoids.
- Did she fall? Any history of trauma?

Ask about associated symptoms:

Vaginal burning, vaginal discharge, fever[44], pain in the lower abdomen, back, pain or burning with urination[45].

History of the present Pregnancy:

- Type of conception is it spontaneous? or Ivf?
- Pregnancy detected by …… and confirmed by …… Number of fetuses
- Any invasive tests or procedures has been done? If yes, when? …… why? …… any Cerclage?……

History of Previous pregnancies:

Take details of each prior pregnancy start from first to last pregnancy.

Any history if abortion? History bleeding in first trimester.

Gyne History:

- Ectopic pregnancy? Endometriosis?
- History of pelvic inflammatory disease or previous infections? …… When? how it was controlled?……
- Last Pap smear …… was it normal? …… If it was abnormal what was the management? ……

Sexual History:

Dyspareunia? …… postcoital bleeding?.....

Past Medical History:

VTE, bleeding disorder, SLE, HIV, Antiphospholipid syndrome, DM,HTN.

Medication History:

Diuretics, anti-epileptic drugs, non-steroidal anti-inflammatory drugs (NSAIDs), misoprostol.

[44] can be a result of recent aseptic procedures or of miscarriage which has been infected. It could also be a symptom of an infection which in itself is correlated with miscarriage, e.g. malaria.

[45] Sometimes UTI presents itself with fresh blood in the toilet or stains in her underwear

Past Surgical History:

Previous gynecological or abdominal surgery.

Family History:

History of abortions? Ectopic pregnancy?

Social History:

Illicit drugs? Alcohol? Smoking? Diet?

Discussion Questions:

- **On examination the cervix was closed. What is the most likely Dx?** Threatened abortion.
- **How are you going to manage her?** Expectant management and bed rest.
- **2 weeks later she presented complaining of loss of fetal movement. What is your most likely Dx?** Missed abortion.
- **How are you going to manage her then?** Elective D and C.

History of PROM

Came 2 times before

Case: 36 week of gestational Pregnant lady presented with gush of fluid. Take a focused history regarding the complaint.

Personal Information:

Name…… Age[46]…… G……P……A……..Gestational Age[47]…… LMC…… EDD……

Chief Complaint:

She presented because of gush of fluid. Onset?

History of presenting Illness:

Ask about fluid details:

- When she noticed?…… Spontaneous or provoked (on stress like: coughing, defecation)?
- Amount…….color…….any tissue, blood?…….odor……

Ask about associated symptoms:

- History of Fever, Pain, malaise, smelly discharge or bleeding from vagina following rupture of membranes? (may indicate chorioamnionitis)
- Any changed in fetal movement?
- Any contractions?
- History of fall or trauma?

History of the present Pregnancy:

- Type of conception is it spontaneous? or Ivf?
- Pregnancy detected by …… and confirmed by …… Number of fetuses …… placenta location……
- Any invasive tests or procedures has been done? (amniocentesis can induce preterm rupture of membranes)
- Does she diagnose with multiple pregnancy, polyhydramnios, malpresentation and any congenital abnormality of the fetus?
- HTN, GDM? (Can associated with premature rupture of membranes)

History of Previous pregnancies:

Take details of each prior pregnancy start from first to last pregnancy.
Any history of PROM? History of preterm delivery?

[46] More common in teenagers

[47] This is useful in further management as; premature rupture of membranes refers to rupture of membranes beyond 37 weeks of gestation. Preterm premature rupture of membranes is rupture of membranes before 37 weeks' gestation. Rupture of membranes after or with the onset of labor is termed as spontaneous premature rupture of the membrane.

Gyne History:

- Previous infections? ……. When? how it was controlled?……
- Last Pap smear …….. was it normal? …….. If it was abnormal what was the management? ……

Sexual History:

Regular intercourse?..... are the symptoms appears after intercourse? (important to ask this question because it may be semen).

Past Medical History:

History of UTI (Urinary tract infections are known to cause premature rupture of membranes).

Medication History:

If any, what? …… why? ……. Duration? ……

Past Surgical History:

History of cervical cerclage.

Family History:

History of PROM, preterm labor.

Social History:

Illicit drugs? Alcohol? Smoking? Animal's contact? Physical activity? Diet?

Discussion Questions:

- **What is your Ddx?**
  - PROM.
  - Vaginal discharge.
  - Urinary leakage (Incontinence).

- **Investigations to confirm the Dx:**
  Sterile speculum examination (pooling), nitrazine test, fering test , Amnisure, US for amniotic fluid assessment.

- **US revealed a high head. What are the 2 most likely complications can occur?**
  Premature delivery, cord prolapse, intrauterine infection (chorioamnionitis)

- **Can you send her home?** No because She's over 36 weeks pregnant.

- **How are you going to manage her?**

Deliver if patient has one of the following:	• Overt infection • Age ≥ 34 weeks • Non-reassuring fetal status
If gestational age viable (23+ weeks):	○ Admit to hospital on bedrest. ○ Prophylactic broad spectrum antibiotics (usually ampicillin and erythromycin, initially IV for 48 hours and then orally for 5 days to complete a 7-day course). ○ Screen for infectious causes of PPROM. ○ Guillain–Barré syndrome culture. ○ Antenatal corticosteroids to enhance fetal lung maturity. ○ If < 32 weeks consider magnesium sulfate for 12 hours for neuroprotection. ○ Fetal heart rate monitoring. ○ Ultrasound for growth. ○ Deliver for infection, abruption or nonreasoning fetal status.
Previable PPROM (< 22 weeks' gestation):	The patient and family should be given informed consent about the risks of pulmonary hypoplasia and outcomes. Corticosteroids and antibiotics are not recommended at this gestational age. Some practitioners will use tocolytic agents with PPROM to delay delivery for 48 hours, allowing the corticosteroids to have its effect. Others argue that preterm labor likely indicates subclinical infection and

	tocolysis causes harm. There is no clear consensus on this issue. Progesterone may be proven to be useful in women who have had PPROM in a prior pregnancy or who currently have PPROM.

History of Vaginal Discharge

Came 1 time before

Case: This 30 year old women presented with vaginal discharge. Take a focused history from her.

Personal Information:

Name…… Age…… Marital Status…… P……A……. LMC……

Chief Complaint:

She presented because of vaginal discharge. Duration?

History of presenting Illness:

Ask about discharge details:

- When she noticed?…… Spontaneous or provoked (on stress like: coughing, defecation)?
- Frequency……amount……. color……. consistency……..any blood?…….odor……
- Relation with menstrual cycle, intercourse, contraception.
- Is after using of soaps, douching?

Ask about associated symptoms:

- Vaginal dryness, Itching, burning, dyspareunia, fever, Pelvic pain, dysmenorrhea, bleeding, pruritus, Pain on defecation.
- Red flags: PID (bleeding, lower abdominal pain, dyspareunia , sexual history)

Gyne History:

- **Menstrual History:** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle[48] …… Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any clot or flooding?
- Other bleeding from other places? postcoital bleeding?[49] Intermenstrual bleeding?
- Previous infections? …… When? how it was controlled?……
- Last Pap smear …… was it normal? …… If it was abnormal what was the management? ……

Ob history:

- Take details of each prior pregnancy start from first to last pregnancy.
- Any history of infertility? Multiparty?

Sexual History:

If the lady is sexually active ask about:

- Regular Intercourse?…… more than one partner?……Partner with STD?……
- Does they used any barrier (condom)?
- Dyspareunia? postcoital bleeding?

Past Medical History:

STDs, Infertility, PCOS, history of pelvic inflammatory diseases, DM, Endometritis.

Medication History:

- If any, what? …… why? …… Duration? ……
- Use of immunosuppressant? Antibiotics?
- History of contraception. Type? …… duration? ……

Past Surgical History:

Previous gynecological or abdominal surgery.

Allergy History:

Vaccine History:

Family History:

[48] If she says it's irregular, ask here more she may say every month it gets delayed 2 days then this regular.

[49] Bleeding after sex (usually she could have cervical pathology).

History of pelvic inflammatory diseases, PCOS

Social History:

Illicit drugs? Alcohol? Smoking? chemical irritant?

Discussion Questions:

- **What is your Ddx?**
  - Infectious causes → Bacterial vaginosis, candidiasis, trichomonas, cervicitis
  - Post-menopausal →Atrophic vaginitis
  - Chemical irritant
  - Hormone deficiency → atrophic vaginitis
  - Physiological → normal discharge
  - Non vaginal→ abscess, urethral discharge

- **Comparison between different causes of Infectious vaginal discharge:**

	Bacterial vaginosis	Trichomonas	Candidiasis
Discharge	Fishy odor, thin grayish Especially after intercourse, why? Semen is alkaline.	Yellow, Greenish frothy	White curdy
PH	↑ 4.5	↑ 4.5	↓ 4.5
Sign and Symptoms	No inflammation	Inflammation: Vulvar Erythema, strawberry cervix, dysuria, itch	Inflammation: vulvar erythema, dysuria, itch, superficial dyspareunia
Wet Mount	Saline: clue cells	Saline: motile trichomonads	KOH: hyphae
Treatment	Metronidazole, Clindamycin	Metronidazole	Azole cream, fluconazole

History of Dysmenorrhea

Came 1 time before

Case A 35 years old female complains of pain 2 days before and 3 days after her period. Take a focused history regarding the complaint.

Personal Information:

Name…… Age…… Marital Status……P……A……. LMC……

Chief Complaint:

She presented because of 2 days before and 3 days after her period discharge. Since ?

History of presenting lines:

Start with SOCRATES for pain details:

- Where exactly the pain? Is it in one side of the pelvis or all over (Unilateral or bilateral)
- Onset. (new pain or started from menarche)
- Characteristic of the pain: is it sharp, colicky…etc.
- Course of the pain: is it continues, intermittent. Does it worsen with age?
- Radiation.
- Aggravating and reliving factors (is it responsive to meds like NSAID)
- Severity.
- The relationship of the pain with her period.

Ask about associated symptoms: (ask about endometriosis, PID, Adenomyosis symptoms)

Abnormal bleeding, Dyspareunia, Infertility, fever, abdominal pressure, bloating

Gyne History:

- **Menstrual History:** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle …… Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any clot or flooding? …… Menorrhagia?
- Previous infections? …… When? how it was controlled?……
- Last Pap smear …… was it normal? …… If it was abnormal what was the management? ……

Ob history:

Take details of each prior pregnancy start from first to last pregnancy.
Any history of infertility?

Sexual History:

If the lady is sexually active ask about:
Dyspareunia? …… postcoital bleeding?……

Past Medical History:

Fibroids, Endometrioses malignancy

Medication History:

- If any, what? …… why? …… Duration? ……
- History of contraception. Type? …… duration? …… Compliance? ……

Past Surgical History:

- If any, what? …… When? …… Complications? …… trauma?……
- Previous gynecological or abdominal surgery.

Family History:

- Endometrioses? …… Fibroids?……
- Malignancy? (Breast, ovaries, uterine, colon, prostate cancer) ……

Social History:

Smoking?

Discussion Questions:

- **What is your Ddx?** Secondary dysmenorrhea

- **What is your DDx?**
  - Pelvic Inflammatory Diseases
  - Adenomyosis
  - Leiomyoma
  - cervical stenosis
  - Pelvic congestion syndrome
  - Ovarian cysts

- **Name 2 investigations to do in this case?** Ultrasound and the diagnosis is confirmed by laparoscopy

- **What are the most likely complications can occur? Assuming she has endometriosis.**
  About one-third to one-half of women with endometriosis have trouble getting pregnant.

- **How to differentiate between primary and secondary dysmenorrhea?**

Types	Primary	Secondary
Onset	- Within 2 years of menarche. - Prior or at menses, lasting for 48-72 hours.	- 20-30 years of age. - May extend pre- or post-menstrually
Description	Cramping in lower abdomen, radiating to lower back and thighs	Dull, aching often
Associated symptoms	- Nausea and vomiting - Fatigue - Diarrhea - Headache	- Dyspareunia - Infertility - Abnormal bleeding
Pelvic examination	Normal	Variable, depending on the cause

- **How are you going to manage her?**
  - **Endometriosis:**
    - Medical (continuous progestin, OCP, danazol, GnRH agonist)
    - Surgical (conservative surgery and radical surgery)

Adenomyosis: NSAID, progesterone cream, Hysterectomy.

Pelvic inflammatory disease: medical treatment with antibiotics (Cephalosporins + Doxycycline) if failed > surgical treatment.

Cervical stenosis: cervical dilation under anesthesia.

Pelvic congestion syndrome: Stress reduction and counseling.

History of postpartum Hemorrhage

Came 1 time before

Case: A 37 year old diabetic lady. She delivered a 4.5 kg baby. She developed heavy bleeding after delivery. Take a focused history regarding the complaint.

Personal Information:

Name…… Age…… G……P……A……..

Chief Complaint:

Post-partum hemorrhage. Since?

History of presenting Illness:

Ask about bleeding details:

- Onset? primary (1st24 hours) or secondary (after 24 h).
- How much the amount (no. of pads & fullness, make sure it is not for hygiene) any clot or flooding? Color? Is there fresh blood (red) or old (darker, brown) blood?
- Did she lose any tissue vaginally?
- Duration of labor. Is it pronged?..... laceration? Episiotomy? Operative delivery?
- How many fetuses?
- Other bleeding from other places?
- Progression?
- Is it provoked bleeding?
- Baby birth weight? Polyhydramnios? Placenta location?

Ask about associated symptoms:

- History of Fever, Pain, malaise, smelly discharge.

Ask about risk factors:

DM, HTN, History of postpartum hemorrhage, Grand multiparity, Overdistention of the uterus, Prolonged labor, Chorioamnionitis, retained product of placenta.

History of Previous pregnancies:

Take details of each prior pregnancy start from first to last pregnancy.
Any history of postpartum hemorrhage.

Gyne History:

- **Menstrual History:** Age of menarche…… regular or irregular?..... Menstruation duration…… Menstrual cycle ……. Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) ……. any clot or flooding? ……. Menorrhagia?
- Previous infections? ……. When? how it was controlled?……
- Last Pap …….. was it normal? …….. If it was abnormal what was the management? ……

Past Medical History:

Hemophilia diseases, history of uterine atony, DIC,.

Medication History:
Aspirin, heparin and any anticoagulant medications.
Past Surgical History:
Previous gynecological or abdominal surgery.
Family History:
History of postpartum hemorrhage.
Social History:
Smoking.

Discussion Questions:

- **What is the Dx?** Postpartum hemorrhage.

- **What is the cause in this case?** Uterine atony.

- **From the Hx Mention 2 risk factors in this case?**
  Overdistention of the uterus, Multiple gestations, Polyhydramnios, fetal macrosomia, prolonged labor, multiparity.

- **Mention some investigations you are going to request for her?**
  Assess coagulation (in DIC: ↓plt and ↓fibrinogen,↑ D-dimer, ↑ PT and ↑PTT)

- **How to approach this patient?**
- **First Start with ABCs:**
  - Large bore IV access (fluid replacement)
  - CBC/crossmatch and typing

- **Second step is assessing the fundus:**
  - Bimanual uterine massage.
  - Rule out uterine inversion, retained placental fragments
  - May feel lower tract injury
  - Evacuate clot from vagina and/ or cervix

- **Drug therapy for PPH:** Oxytocin.
- **Additional Uterotonics:** Add If still no uterine contraction after oxytocin.

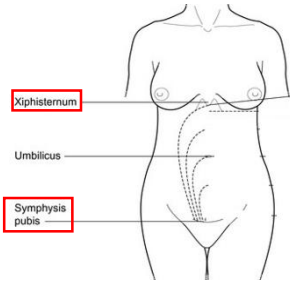
General and Focused Abdominal Obstetrics Examination

- Video: Dr. Ahmed focused OB exam
- Another video

- Obstetrics examination include general exam, focused Abdominal exam and pelvic exam with Bishop score system. Usually they ask for focused Abdominal exam only.
- It is unique in the fact that the clinician is simultaneously trying to assess the health of two individuals the mother and the fetus.

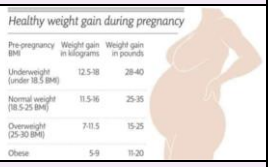
1. Preparation

- Introduce yourself to the patient.
- Confirm patient's Id.
- Explain to the patient what the examination involves and why it is necessary.
- Get patient's consent.
- Wash your hands.
- Prepare the necessary materials [Tape measure, stethoscope & fetal doppler].
- **Confirm Privacy.**
- **Position:** Position the patient lying in the bed (dorsal recumbent) and helps the patient to relax her muscles to enhance palpation.
- **Exposer:** The patient should be exposed the abdomen from the xiphisternum to the pubic symphysis. Cover above and below where appropriate.



2. General examination:

- Observe the patient's general appearance (General wellbeing). State of nutrition is important to record
- Take the weight, height and calculate the BMI $\frac{\text{Weight (kg)}}{[\text{height (m)}]^2}$
- Take the vital signs (blood pressure, pulse, respiratory rate, temperature).



3. Head and neck: (don't forget thyroid examination)

Inspect for melasma[50], conjunctival pallor (because of anemia), jaundice, edema. Inspect the thyroid for any **asymmetrical** enlargement.

4. Cardiovascular examination:

Routine auscultation for maternal heart sounds in asymptomatic women with no cardiac history is **unnecessary.**

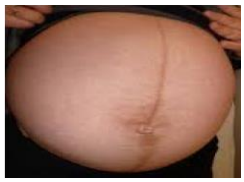
5. Breast examination:

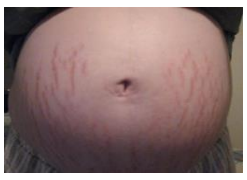
Formal breast examination is **not necessary**; self-examination is as reliable as a general physician examination in detecting breast masses. If she complains of something then do the exam

6. Focused Abdominal Examination: you will be asked to do this part only (be sure to mention and doing complete focused abdominal exam which contain **inspection**, **palpation** (fundal height and leopold's maneuver) & **auscultation**

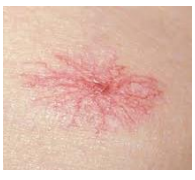
Inspection:

- Symmetrically distended Abdomen (comment if there is any asymmetry).
- Thoraco-abdominal Respiration.
- Assess shape of the uterus.
- Comment on visible fetal movement if present (>24 weeks).
- Scars of previous surgeries (C-section, hysterectomy) if yes, where? Any discharge?
- Presence of cutaneous signs of pregnancy: linea nigra[51], Striae gravidarum[52](pink→ new), striae albicans (white → old), spider telangiectasia & Dilated veins.
- Umbilicus: Site, shape (inverted, flat, everted), discharge, discoloration, swelling, nodule.
- Ask the patient to cough & check hernial orifices.


Linea nigra


Striae gravidarum


Striae albicans


Spider telangiectasia

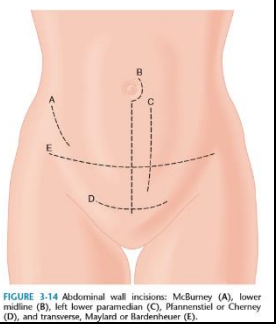


FIGURE 3-14 Abdominal wall incisions: McBurney (A), lower midline (B), left lower paramedian (C), Pfannenstiel or Cherney (D), and transverse, Maylard or Bardenheuer (E).

[50] Common pigmentation disorder that causes brown or gray patches to appear on the skin, primarily on the face.(الكُلَف)

[51] Pigmentation in the midline of the lower abdomen due to stimulation of melanophores by melanocytes stimulating hormone.

[52] Atrophic linear scars that represent because of separation of the underlying collagen tissue secondary to abdominal stretching during pregnancy.

Palpation:

Ask about areas of tenderness before starting the examination.

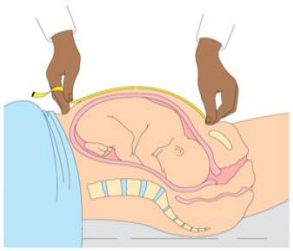
(You have to be on the right of the patient)

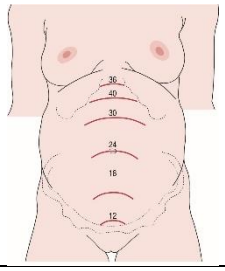
A. Fundal height: Fundal height is crude method and it use as screening test

- To Locate the upper part of the fundus palpate using ULNAR border of left hand moving from sternum downwards till you feel a firm part.
- Locate upper border of pubic symphysis.
- Measure the distance in cm from upper part of the symphysis pubis to the upper part of the fundus. Put the meter on the symphysis pubis to the end of the fundus if it 16 cm → she's 16w.

Uterine size: Symphysis fundal height in cm = Gestational age in weeks [Number in cm = approximates to the number of weeks of gestation ± 2]

- At 12-14 weeks become just palpable. uterus below symphysis pubis → hard to feel
- At 20-22 weeks it is palpable at the umbilicus. we start to feel the uterus when it comes out of the pelvis around 16w
- It's important for progression (the pattern) for example: we measure it today and we find it 20cm, after a month she supposes to be 24cm but we found it 30cm which is abnormal.
- In which case the fundal height is more than gestational age? Molar pregnancy.





You will have this paper tape in the station, so please make sure that you bend the tip of the tape to start from number 1 not from the beginning of the tape.

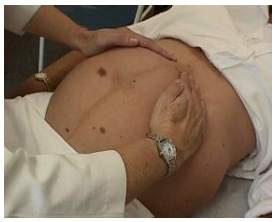
B. Leopold's maneuvers: to know the location of the baby

They are four maneuvers (4 grips):

1. Fundal Grip:

The purpose: to Know the part of the fetus occupying the fundus. If you find it bushy not too hard it's usually the baby buttocks because the head is hard.

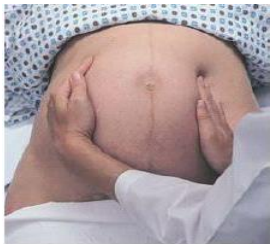
How to do it: By facing the mother, grasp **the fundus** of the uterus by the palms of the 2 hands with your fingers quite close together. Assess for shape, size, consistency and mobility.



2. Lateral grip:

The purpose: To determine on which side the fetal back lies. Usually one side is round and firm → it's the back. The other side is bumpy → it's the limps.

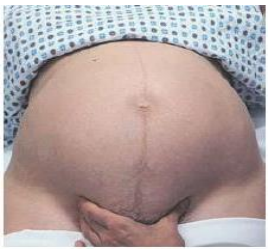
How to do it: place both palms **on the abdomen** (palpating the either side of the abdomen), Hold right hand still and with deep but gentle pressure, use left hand to feel for the firm, smooth back, Repeat using opposite hands. Confirm your findings by palpating the fetal extremities on the opposite side (small protrusions,"lumpy").



3. Pawlick's grip:

The purpose: determines the engagement of the presenting part (fetal position when the fetus is in a vertex presentation).

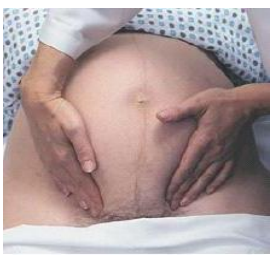
How to do it: Gently grasp the lower portion of the abdomen (just above symphysis pubis) with the thumb and third finger of the right hand confirm presenting part (opposite of what's in the fundus).

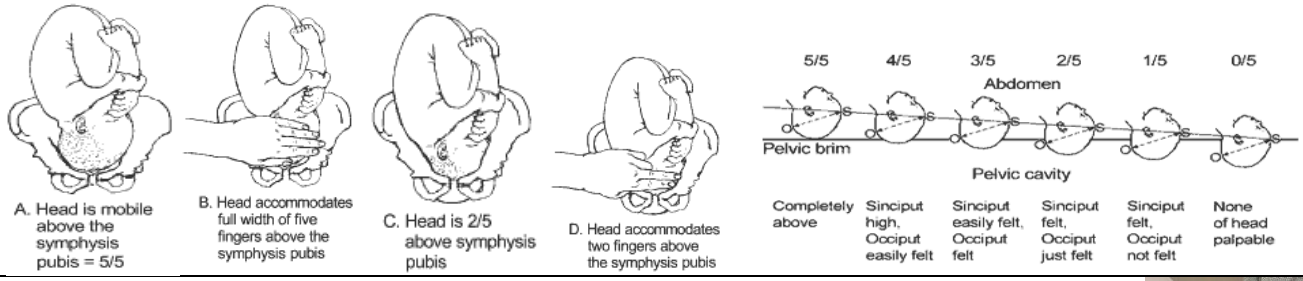
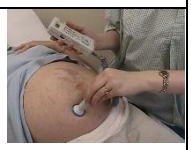


4. Pelvic grip: only done if fetal in cephalic presentation

The purpose: Determine the presenting part of the fetus (what part of the fetus is lying above the inlet or lower abdomen). If it's hard bone → head

How to do it: Now you turn your face towards the patient's feet. The two hands are placed flat on both sides of the lower part of the abdomen and push their downward towards the pelvis and feel the sides of the presenting part by your fingers. Involves palpating for the brow and the occiput of the fetus.



	Descent of the fetal head: not important to mention it in the OSCE exam • **The purpose:** Assess how much of the head is still felt per abdomen (engagement). • **How to do it:** Assessed abdominally using the rule of fifth to assess the **engagement** → With your fingers on the abdomen if all of your fingers can feel the head and it's mobile then 5 fingers out 5 fingers (5\5). When only 2/5 or less of the fetal head palpated above the level of the symphysis pubis, this implies the head is engaged → The vertex has passed or is at the level of the ischial spines. 
Auscultation:	Listening for the fetal heartbeat. 1st do the above maneuver to know where the back of the baby because it the best area to listen for the fetal heartbeat.  - If the head is down → listen below the umbilicus → right and left side in the lower abdomen. - If the head is up → listen above the umbilicus → right and left side in the upper abdomen. Please mention that you will use Doppler to listen to the fetal there is a marks for this point in the check list.

7. Lower limbs examination:

- Swelling (edema) bilateral usually normal, unilateral: may be DVT
- Varicosities.

8. After the examination:

- Thank the patient, cover her up and allow her to dress in private. Please mention this point there is a mark for it
- Wash your hands.
- Summarize your findings.

Discussion Questions:

What is the purpose of Leopold's maneuver?

- Determine the position of the baby in utero.
- Determine the expected presentation during labor and delivery.

Explain what's meant by: Fetal presentation, lie, attitude, and position.

- **Fetal presentation:** It is which part of the fetus occupies the pelvis eg. cephalic, breech, shoulder presentation. Portion of the fetus overlying the pelvic inlet. The most common presentation is cephalic.
- **Fetal lie:** the relationship of the longitudinal axis of the fetus to longitudinal axis of the mother. There are three lies:
  - Longitudinal: fetus and mother are in same vertical axis. The most common lie
  - Transverse: fetus at right angle to mother
  - Oblique: fetus at 45° angle to mother
- **Fetal attitude:** this is the relationship of the different parts of the baby to each other's, usually flexion attitude.
  - Vertex: head is maximally flexed (this is normal)
  - Military: head is partially flexed
  - Brow: head is partially extended
  - Face: head is maximally extended
- **Fetal position:** Relationship of a definite presenting fetal part to the maternal bony pelvis. It is expressed in terms stating whether the orientation part is anterior or posterior, left or right. The most common position at delivery is occiput anterior.

General Gynecology Examination

- Gynecological Examination are including general exam and Pelvic exam (speculum and bimanual exam). Usually they ask for pelvic exam only.

1. Preparation	
- Introduce yourself to the patient. - Confirm patient's Id. - Explain to the patient what the examination involves and why it is necessary. - Get patient's consent. - Wash your hands. - Prepare the necessary materials [stethoscope]. - **Confirm Privacy.** - **Position:** Position the patient lying in the bed. - **Exposer:** The patient should be exposed depending on the part that will be examined because it's a general exam and you will exam more than one area, so you have to expose one by one not all of them together.	
2. General examination:	
- Observe The Patient's General Appearance (General wellbeing). The patient's body build, posture, state of nutrition, demeanor and state of well-being should be recorded. - Take the weight, height and calculate the BMI $\frac{\mathbf{Weight\ (kg)}}{[\mathbf{height\ (m)}]^2}$ - Take the vital signs (blood pressure, pulse, respiratory rate, temperature).	
1. Hands, mucous membrane	
2. Head and neck: (don't forget thyroid examination)	
Evidence of supraclavicular lymphadenopathy, oral lesions, webbing of the neck, or goiter may be pertinent to the gynecologic assessment. Inspect the thyroid for any **symmetrical** or **asymmetrical** enlargement.	
3. Cardiovascular Examination	
4. Respiratory Examination	
5. Breast Examination	
6. Abdominal Examination (same as routine abdominal examination for any patient)	
Inspection:	- Symmetrically distended Abdomen (comment if there is any asymmetry). - Thoraco-abdominal Respiration. - Assess shape of the uterus. - Scars of previous surgeries (C-section, hysterectomy) if yes, where? Any discharge? - Presence of cutaneous signs of pregnancy: linea nigra[53], Striae gravidarum[54](pink→ new), striae albicans (white → old) & Dilated veins. - Umbilicus: Site, shape (inverted, flat, everted), discharge, discoloration, swelling, nodule. - Ask the patient to cough & check hernial orifices.
Palpation:	Ask about areas of tenderness before starting the examination. - Guarding, tenderness, masses.
Percussion:	Depending on her symptoms, It's useful if free fluid is suspected.
Inspection:	Not specifically useful for the gynecological examination, in case of acute abdomen with bowel obstruction or postoperative patient with ileus (listening of bowel sounds).

[53] Pigmentation in the midline of the lower abdomen due to stimulation of melanophores by melanocytes stimulating hormone.

[54] Atrophic linear scars that represent because of separation of the underlying collagen tissue secondary to abdominal stretching during pregnancy.

Came 9 times before
8 of them with pap smear
1 Endometrial biopsy

- Video: speculum exam
- Video: bimanual exam
- Another video speculum insertion
- Another video (speculum exam geeky medics)
- Another video (bimanual exam geeky medics)

Pelvic Examination

- Usually they ask for pelvic exam only which include speculum followed by bimanual exam all in 5 min only so practice well. Start with the speculum and take your smear so you don't contaminate the cells, then proceed with the bimanual exam.

Instruments: you will have same as these in the real OSCE stations, If you watched the video, skip this part.

During OSCE, if you asked to do pelvic exam or pap smear and you find two speculums on the table, choose Coscu's speculum or Bivalve. The other type need assistant to hold it with you.

In the stations you may have all the brushes, so if you asked to do a pap smear choose **cervical brush**. If you asked to take a swap choose **cytobrush** and if you asked to do endometrial biopsy use Pipelle Endometrial Suction Curette (**Pipelle Catheter**).

لا تمسكون الفرش من المقدمة (الجزء اللي بتدخلونه) لأنها بتصير غير معقمة وغير قابلة للإستخدام

1. Preparation

- Introduce yourself to the patient.
- Confirm patient's Id.
- Explain to the patient what the examination involves and why it is necessary. Example: I will be passing a speculum, which is a plastic/metal instrument, through the vagina to visualize the cervix and taking sample. The procedure shouldn't be painful however you will feel a little uncomfortable. If at any point you want me to stop the procedure, please let me know. You may also experience some light vaginal bleeding after the procedure.
- Get patient's consent.
- Ensure the presence of a female chaperone.
- Wash your hands & wear the gloves (not a sterile gloves)
- Prepare the necessary materials [Gloves, Gel, Cusco's speculum, brush depending on your examination, container filled with liquid].
- **Confirm Privacy.**
- **Position & Exposer:** The patient should be supine on a bed with their underwear removed, lower abdomen exposed and positioned in either **lithotomy** position (using stirrups) or **modified lithotomy** (flexed hip, flexed knee falling side to side and heels brought towards bottom) with good light exposure.

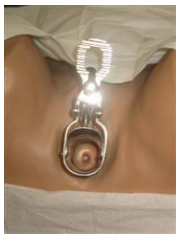
2. Inspection the Genitalia and perianal area:

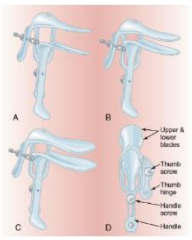
- Any lesion, such as a warty growth, erythema, a mass, cysts (sebaceous, Bartholin's) an ulcer, atrophy, abnormal discharge (describe the color), scars from previous surgery e.g. episiotomy.
- The **size** of the clitoris and the **development** of labia majora and minora should be noted.
- Ask the patient to cough to see if there any prolapse or incontinence.

3. Speculum examination:[55] Don't forget to explain to the patient every step you take

A. Inserting the speculum: you have to know how to inserted because the examiners will ask to show her how to inserted.

- Warn the patient you are about to insert the speculum.
- Use your left hand (index finger and thumb) to separate the labia.
- Lubricate the speculum by the gel.
- Gently insert the speculum sideways (blades closed, angled downwards and backwards).
- Once inserted, rotate the speculum back 90 degrees (so that the handle is facing upwards)
- Open the speculum blades until an optimal view of the cervix is achieved.
- Tighten the locking nut to fix the position of the blades.
- Inspecting the cervix (with a light source) and mention what are u looking to in the cervix:

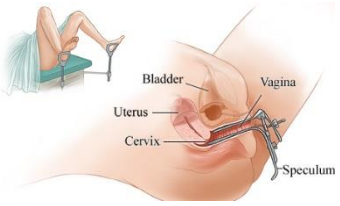




[55] It is very important that can been show up in your exam so you have to know how to use In real patient you have to move it slowly because it may cause pain.

- External os (note if open or closed).
- Cervical erosions e.g. Ectropion.
- Masses eg. cervical malignancy.
- Ulcers e.g. genital herpes.
- Abnormal discharge e.g. bacterial vaginosis.
- Polyps.

Mention them all, all of them are in check list.



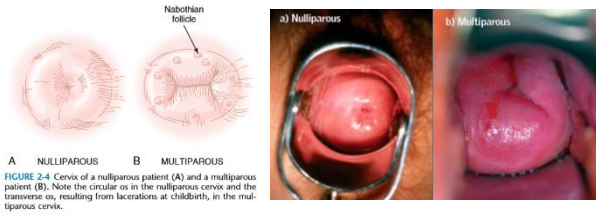
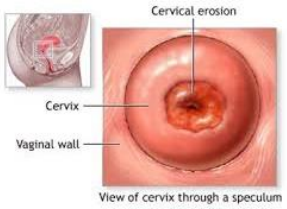
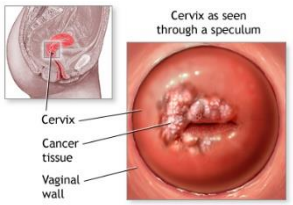


FIGURE 2-4 Cervix of a nulliparous patient (A) and a multiparous patient (B). Note the circular os in the nulliparous cervix and the transverse os, resulting from lacerations at childbirth, in the multiparous cervix.

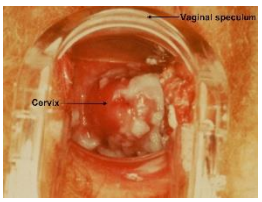
External OS in nulliparous & multiparous



Cervical erosion



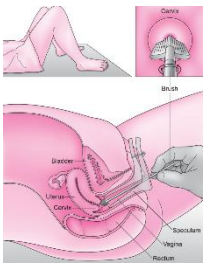
Cervical cancer



Cervical Discharge

B. Pap smear, Swap, endometria biopsy:

You will be asked to one of theme not all of them so please know how to do all of them not only the pap smear and focus on pap smear and endometrial biopsy because it came more than one time before.



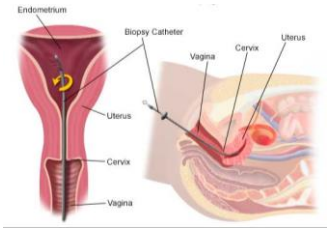
Pap smear:

- Insert the **cervical brush** through speculum into the endocervical canal, deep enough to allow the shorter bristles to fully contact the ectocervix.
- Rotate the brush 5 times, 360 degrees, in a clockwise direction. (if we rotate it clockwise and anticlockwise, that can lead to trauma and bleeding that can obscure the field)
- Remove it, and rinse it immediately into the liquid container by rotating the brush 10 times.

Endometrial biopsy:

In the endometrial biopsy only, we have to do bimanual examination to know before to know:

1. The uterus direction (retroverted or anteverted), 2. The size, to introduce it according the size. But in OSCE if you asked to take endometrial biopsy, do not do bimanual exam first but mention that you have to do bimanual exam first and do it at the end to not waste your time.

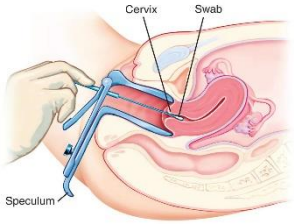


Steps:

- Cleanse the cervix with povidone iodine or other antiseptic.
- Introduce the pipette into the uterine cavity through the cervix.
- As the pipette has 2 openings "front-upper, back-lower", plug the back (lower) by your finger, then pull the plastic yellow part, that will create a negative pressure to suck the endometrial tissue, rotate it in all direction to make sure that you suck from all part of the cavity.
- Pull it outside, then put it inside a special media (formaldehyde) for pathology.
- Push it inside it to allow the tissue to be released.

Cervical or vaginal swap/sample: not important (don't go in details just understand what mentioned in the video)

- Pick up the sample tube with the right hand and place it in the left hand (with the speculum secured with the screw) and remove the lid if a separate one is present.
- Take out the swab with the right hand and perform swabs in this order: you don't need to know this details, just know how to take the swap in general.
  - **Hi-vaginal charcoal media swab:** circle around the high vaginal wall once (BV, TV, Candida, group B strep)
  - **Endocervical charcoal media swab:** place in endocervical canal and do a 360-degree sweep (gonorrhoea)
  - **Endocervical chlamydia swab:** scrub endocervical region for 10-30 seconds
- Place the used swab back into the tube in your left hand and close the lid.



Don't forget to mention that after you finished you will give the container to nurse immediately and ask her to put the patient name and ID and send it to the lap to not be lost.

C. Removing the speculum:

- Loosen lockingnut on the speculum and partially close the blades.
- Rotate speculum 90 degrees, back to its original insertion orientation.
- Gently remove the speculum, inspecting the walls of the vagina as you do so.
- Recover the patient.
- Dispose of the speculum and gloves, then wash hands.

4. Bimanual examination: During this portion of the examination, the urinary bladder should be empty

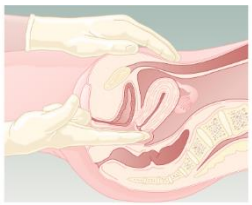
It means examining the pelvis between 2 hands to feel pelvic organs.

Before starting: explain to the patient what the examination will involve. Example: I will use one hand to feel your tummy and the other hand to place two fingers into your vagina. This will allow me to assess the vagina, uterus and ovaries. It shouldn't be painful, but you will feel a little uncomfortable and you can ask me to stop at any point. Don't forget to explain to the patient every step you take

(the first 4 steps are explaining how to insert the hand, please explain it to the examiner before moving to the palpation part)

1. Lubricate the gloved **index and middle** fingers on your **dominant hand.**
2. Carefully separate the labia's by the **thumb and index** finger of the **non- dominant hand.**
3. Gently insert the gloved index and middle finger of your dominant hand into the vagina.
4. Enter with palm facing laterally then rotate 90 degrees so its facing up. With 2 fingers facing upwards, move along the posterior wall of vagina.

5. **Palpate the vaginal wall** as you insert your fingers for any masses, cyst, or tenderness. Comment if there is any mass or irregularities and ask the patient do you feel any pain? Make sure that she feels actual pain not discomfort.
6. **Palpate the cervix**: Move up over cervix and feel it. Asses and comment the characteristics of the cervix:
   A. Position
   B. Mobility
   C. Consistency (hard, soft),
   D. Regularity (Smoothness, roughness)
   E. Internal os whether open or closed. Internal os only open in inevitable miscarriage and labor or postpartum
   F. **Check for cervical motion tenderness**: Gently move the cervix from side to side and watch patient face, is she in severe pain? If yes, this may suggest pelvic inflammatory disease or ectopic.
7. **Palpate the fornices:** Gently palpate the fornices either side of the cervix for any masses.
8. **Palpate the uterus:**
   A. Place your non-dominant hand 4cm above the pubis symphysis.
   B. Place your dominant hand's fingers into the posterior fornix.
   C. Push upwards with the internal fingers whilst simultaneously palpating the lower abdomen with your non-dominant hand. You should be able to feel the uterus between your hands. Asses and comment the characteristics of the uterus:
      - Size. It is impossible to discern uterine size accurately
      - Shape: may be distorted by masses such as fibroids
      - Position: anteverted or retroverted
      - Surface characteristics: smooth or nodular
      - Mobility
      - Any masses.
      - Note any tenderness during palpation.



(The normal uterus is pear-shape, about 9 cm in length. It is usually anterior antiverted, freely mobile and non-tender)

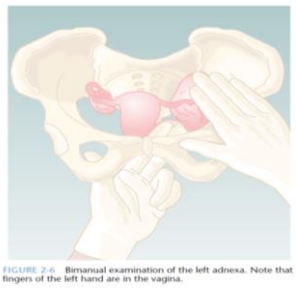


FIGURE 2-6 Bimanual examination of the left adnexa. Note that fingers of the left hand are in the vagina.

9. **Palpate the adnexa: (ovaries and tupes)**
   A. Place your internal fingers into the left lateral fornix.
   B. Place your external fingers onto the left iliac fossa.
   C. Perform deep palpation of the left iliac fossa whilst moving your internal fingers upwards and laterally (towards the left), while at the same time pushing down in the corresponding area with the fingers of the abdominal hand
   D. Feel for any palpable masses, noting their size and shape (e.g. ovarian cyst, ovarian tumors, fibroid)
   E. Repeat adnexal assessment on the opposite side. Don't forget that there is two ovaries and fallopian tapes so please remember to do it in each side.
   F. Remove fingers slowly and inspect for blood or discharge.
   G. Give patient cotton wool swab to wipe off lubricant.

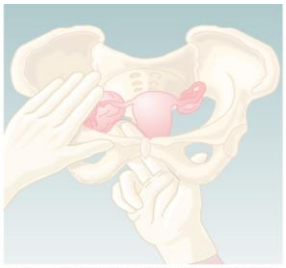


FIGURE 2-5 Bimanual examination of the right adnexa. Note that fingers of the right hand are in the vagina.

Rectal Examination: used as alternative to a virginal examination in children and in adults who are not sexually active.

5. After the examination:

- Thank the patient, cover her up and allow her to dress in private. Please mention this point there is a mark for it
- Dispose of equipment into a clinical waste bin
- Wash your hands

Discussion Questions:

- **How to perform the vaginal examination in not married ladies?** By rectal examination.
- **When do you need to do the pelvic examination for pregnant women?**
  - Routine pelvic examination is not necessary.
  - Circumstances in which a vaginal examination is necessary (in most cases a speculum examination is all that is needed), these include:
    - Excessive or offensive discharge.
    - Vaginal bleeding (in the known absence of a placenta previa).
    - To perform a cervical screen.
    - To confirm potential rupture of membrane.
- **When do we need to perform a digital examination (bimanual)?**
- A **digital examination** may be performed when an assessment of the cervix is required[56]. This can provide information about the consistency and effacement of the cervix **that is not obtainable from a speculum examination** (Modified Bishop score)
- **What are the contraindications of digital examination?**
  - Known placenta previa or vaginal bleeding when the placental site is unknown and the presenting part unengaged
  - Prelabor rupture of the membranes because it increased risk of ascending infection.
- **When a lady comes with post-coital pain, what are the most important things to do?** Pap smear and cervical examination.

[56] If she is contracting or she pass EDD to know how cervix is ready for delivery.

Placental Delivery

- Placental delivery is third stage of labor.
- Separation occurs 2-30 min of the end of the second stage of the labor. It shouldn't last more than 30 minutes
- IM Oxytocic's will be given immediately after delivery of the infant to enhance the uterine contraction in order to enhance the delivery of placenta.

How to deliver the placenta? The steps are dividing into 3 parts: before, during and after

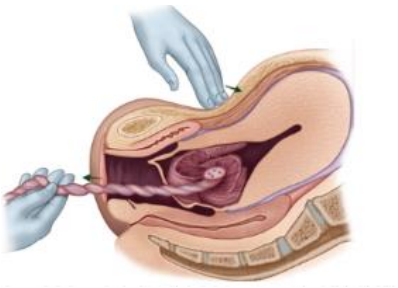
- Placental delivery is third stage of labor.
- Separation occurs 2-30 min of the end of the second stage of the labor. It shouldn't last more than 30 minutes
- IM Oxytocic's will be given immediately after delivery of the infant to enhance the uterine contraction in order to enhance the placental delivery.
- when the baby is delivered, we use 2 clamps, one toward the mother and one to the baby to prevent bleeding from the cord. Then we wait for the sings of placental separation.

1. **Before delivery of placenta→ (First Look for Signs of placental separation):** You have to mention this part before starting the delivery even if the examiner didn't ask you about it.
    - Umbilical cord lengthens.
    - Fundus of the uterus rises up and becomes firm and globular.
    - Fresh show of blood from the vagina (gush of blood). This is the last sign

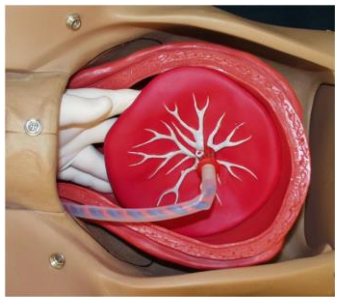
    Only when these signs have appeared you should attempt traction of the cord

2. **During delivery of the placenta:**

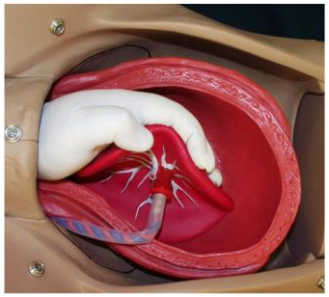
Once signs of **separation** have occurred, you should assist the placental delivery by doing **Controlled cord traction** technique:
The left hand is placed suprapubically holding the uterine fundus in the abdomen (keeps massaging the uterus upward to prevent uterus prolapse) while the right hand is placed on the cord and gentle downward traction.



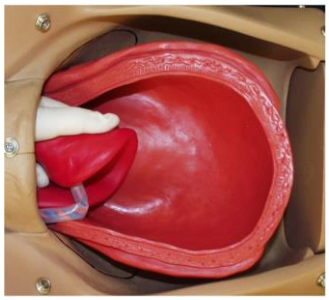
Controlled cord traction technique



Separate the placenta from the uterus with a sweeping motion.



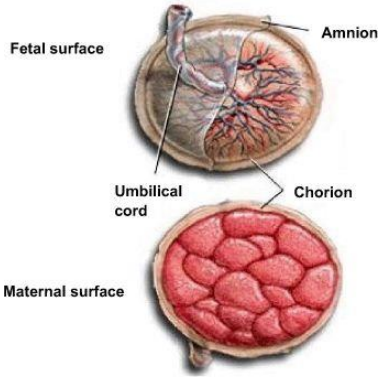
After the placenta is mostly separated, curl your palm around the bulk of it.

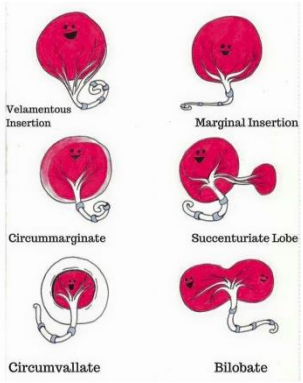


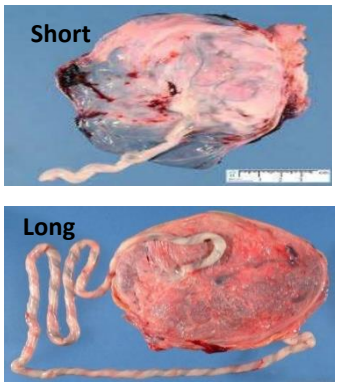
Continue to grasp the placenta as you remove it from the uterine cavity.

3. **After delivery of the placenta:** Inspect the placenta, Look at the:
    - Maternal surface check if its intact and there are no **missing cotyledon**
    - Fetal surface, smooth composed of amniotic membrane
    - Cord insertion
    - Length of the cord
    - 2 umbilical arteries and 1 vein (trivascular)
    - look for any bleeding that may originated from the implantation site, uterine contraction may be induced by **uterine massage** and **oxytocin** to reduce bleeding.

- Blood loss should be estimated; it is usually between 100 and 300ml
- Any tear or episiotomy should be repaired under local anaesthetic.





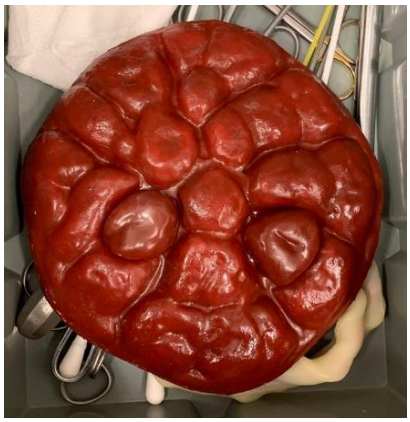


Marital & Fetal surface | Cord Insertion | Cord Length | 2 umbilical arteries and 1 vein

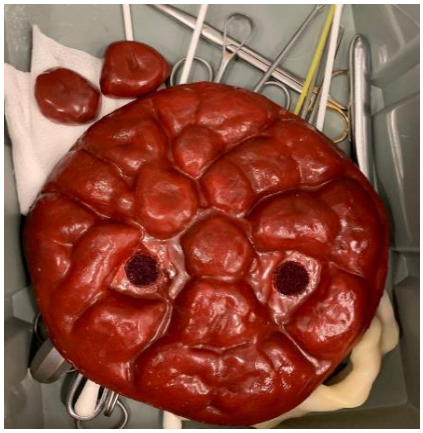
During the OSCE, after taking the placenta out please comment is it complete or incomplete? (they may put it incomplete). If there is a missing cotyledon (incomplete placenta), how you will take it out? Try manual removal, if failed perform curettage under anesthesia.

How the complete placenta looks like?

لاحظوا هنا فيه فراغ ابيض بالنص كأنها قطعة ناقصة. لكن انتبهوا الفراغ اللي بالنص ما يعتبر قطعة ناقصة، هذا شكلها الطبيعي.. الدوائر على اليمين واليسار لو وحدة منهم ما كانت موجودة او كلها ما كانت موجودة هنا تعتبر ناقصة.



How the incomplete placenta looks like?



Counseling

سموا بالله واقرؤوا هذي الخطوات قبل تنتقلون للي بعده، راح يسهل عليكم ترتيب الـ Counseling بمخكم وايش مفروض تسوون بالضبط بأي حالة تجيكم

Firstly: Introduce yourself, ask the patient about her name, explain for her what are you doing and make sure that she is comfortable and you are here to answer her and explain everything to her.

Then, read the case. If the patient comes to you ask for counseling from the beginning and has not taken any step yet for example: A patient who came to you to counsel her about OCP, but she hasn't yet taken it. Or a patient with a family history of a particular disease that came to you because she is warried to have the same disease at the future but she didn't diagnose with it yet. Or a patient treated from certain disease but she is worrying about recurrence. **In short: An event that has not yet occurred but may occur or the patient wants to take a specific step but has not yet begun to take it.** In such a case the counseling consists of three steps:

1. Take a brief and focused history from the patient based on her problem to know what are the risk factors to exclude her contraindications, so you can counsel her based on her risk factors & contraindications. For example; in OCP or any medications counseling you have to know what are the risk factors related to OCP taking (e.g CVS history, VTE history, malignances, family history…etc.) or if the patient diagnosed years ago with certain disease and she is come now because the treatment doesn't work or there is recurrence then you should take history first. Most of the time all the important questions are written in the case, so don't waste your time by asking the same questions again. Just ask her about the missing questions or move to the next step immediately.

2. In this step, you will start counseling her, you must tell her everything regarding her questions bad and good, so that she can understand everything and choose what she wants based on your explanation. Make sure the patient shares the conversation and make sure that she can understand what are you saying. For example; in OCP you should to tell her what are the types available, instruction about how to use them, what suits her and what constitutes a risk to her based on her risk factors from the history, what are the complications.

3. End your counseling by make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Suppose you have read the case and found the patient is already taking a step (for example: she already started OCP) or she already diagnosed with a certain disease. What you will do now? The counseling in this situation consists of two steps and we delete the history part because there is no need for it since the events are already happen.

1. In this step, you will start counseling her regarding her questions, you must tell her everything bad and good, so that she can understand everything and choose what she wants based on your explanation. Make sure the patient shares the conversation and make sure that she can understand what are you saying. For example; if she come to you to counsel her about disease, you should tell her what is the course of the disease, what are the symptoms, how it will affect her life, what treatments are possible (starting from simple one) …etc.

2. End your counseling by making sure that the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

In short:

[If the case is planning to something, recurrence or worrying → history, counseling, end your counseling]

[If the case is already something happened → skip the history part and start with counseling] ☺

وبس 😉

OCP for First Time Counseling

Case: A lady wants to take OCPs for the 1st time, counsel her.

As we explained before: If the case is planning to something, recurrence or worrying → history, counseling, end your counseling

A. Take a brief Hx: (to know what are the risk factors to exclude her contraindications)

Personal Information:
Name…… Age…… P……A…… LMP[57]……
Gyne History:
Menstrual History: Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle …… Menstrual volume (no. of pads or tempone & fullness, make sure it is not for hygiene) clots?[58] …… Menstrual cycle symptoms (dysmenorrhea, menorrhagia, Vaginal discharge) Midcycle pain (mittelschmerz) wich increase in vaginal secretions (both are usually indicative of ovulatory cycles) …… Intermenstrual bleeding (metrorrhagia)?
Ob history:
- Any pregnancy? You should wait for 2-3 weeks after delivery before giving combined pills as it increases the risk of DVT (which is already high) - Is she breastfeeding? progesterone-only pills only work efficiently with regular and frequent breastfeeding & the only safe contraceptive form during breastfeeding.
Sexual History:
Regular sex? (because if she is not sexually active, she doesn't need to take OCP)
Past Medical History:
Fibroids, endometrioses, migraine with/out aura[59], VTE, bleeding disorder, breast cancers, liver diseases[60], vascular diseases[61], HTN[62], DM.
Medication History:
- **History of contraception.** Type? …… duration? …… Compliance? …… **Complications? ……**(Ex. Amenorrhea, thromboembolic disease with hormonal contraceptives, dysmenorrhea, menorrhagia, pelvic infection with IUD, contraceptive failure with diaphragm or other barrier method)
Allergy History:
Family History:
- VTE history, migraine with aura, Malignancy (Breast, cevical, uterine)
Social History:
Smoking? (above 35 is contraindication to combined oral contraceptive due to significant risk for cardiovascular events and specifically DVT)

B. Start counseling & answering her questions: read the case carefully if they asked about OCP focus only on pills and waste your time taking about other methods.

- **What type of contraceptive pills do you know and what are the components of these pills?**
  - Combined oral contraceptive pills (estrogen and progesterone)
  - Mini-pills (progesterone only) only work efficiently with regular and frequent breastfeeding.
- **What type of estrogen is in OCP?** Estradiol.
- **How would you instruct a woman on how to take the OCP for the 1st time?**
  She should start in the 1st day of the cycle (period) then After 21 days she should stop for 7 days. During these 7 days she will have her period and so on…
- **How would you instruct a woman who has forgotten to take her pill?**
  Take the pill as soon as you remember it and take your regular pill as well.

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[57] Very important to ask her at the beginning to make sure that she is not pregnant.
[58] Estrogen-progesterone contraceptives are contraindicated.
[59] Combined oral contraceptive are contraindicated.
[60] Because estrogen is metabolized in the liver.
[61] Cerebrovascular disease or coronary artery disease
[62] Women with uncontrolled hypertension should not initiate oral contraceptive use until their hypertension is being managed.

- **Can I have a rest with no desire to conceive?** No.
- **What is their failure rate?** Typical use failure rate: 7%
- **Does it cause acne? And why?**
  No, Due to the decrease in androgen by the increase in the serum binding proteins that binds to testosterone and decreases the free testosterone level.
- **Is it contraindicated after 35 years of age?**
  Only in heavy smokers. otherwise if she's healthy with no contraindications, she can take it.
- **What are the absolute contraindications to combined OCPs?**
  - History of breast cancer.
  - History of vascular disease (DVT or thromboembolism)
  - Migraines with auras
  - Smoker >35
  - Uncontrolled HTN
  - Liver disease
- **What are the non-contraceptive uses of OCPs?**
  - Treatment of polycystic ovarian syndrome
  - Treatment of endometriosis
  - Dysmenorrhea
  - Ovarian cysts
- **Would you prescribe combined oral contraceptive pills in the postpartum period and give your justification?**
  No, because the pregnancy and the puerperium period are a state of hypercoagulable state, this would increase the risk of DVT/PE.

table for comparison between two types of COCP

3. **End the counseling:** Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

OCP with Breastfeeding Counseling

Came 3 times before

Case: A woman is breastfeeding and wants oral contraceptives, counsel her.

As we explained before: If the case is planning to something, recurrence or worrying → history, counseling, end your counseling

- **Take a brief Hx:** (to know what are the risk factors to exclude her contraindications)

Personal Information:
Name…… Age…… P……A…….
Past Medical History:
Fibroids, endometrioses, migraine with/out aura[63], VTE, bleeding disorder, breast cancers, liver diseases[64], vascular diseases[65], HTN[66], DM.
Medication History:
History of contraception. Type? …… duration? …… Compliance? …… **Complications? ……**(Ex. Amenorrhea, thromboembolic disease with hormonal contraceptives, dysmenorrhea, menorrhagia, pelvic infection with IUD, contraceptive failure with diaphragm or other barrier method)
Allergy History:

[63] Combined oral contraceptive are contraindicated.
[64] Because estrogen is metabolized in the liver.
[65] Cerebrovascular disease or coronary artery disease
[66] Women with uncontrolled hypertension should not initiate oral contraceptive use until their hypertension is being managed.

Family History:
VTE history, migraine with aura, Malignancy (Breast, cevical, uterine)
Social History:
Smoking? (above 35 is contraindication to combined oral contraceptive due to significant risk for cardiovascular events and specifically DVT)

B. Start counseling & answering her questions:

- **Does breastfeeding consider contraceptive?**
  In order to breastfeeding to be contraceptive, the effectiveness is dependent on the frequency (at least every 4-6 hours day & night) and intensity (infant suckling rather than pumping) of milk removal.

- **If she wants oral pills, what will you choose for her?**
  Progestin steroids (e.g. mini-pill, Depo-Provera, Nexplanon) don't diminish milk production so can safely be used during lactation. Progesterone is the only safe contraceptive form during breastfeeding and they can be begun immediately after delivery.

- **What is the mechanism of action of Progesterone only pills?**
  - ↑ cervical mucus
  - Thins endothelium

She'll stop breastfeeding soon and wants a more effective oral contraceptive pills: during the exam, focus on what patient asked and don't waste your time mentioning other types that are not taking orally.

- **What will you give her?** Oral combined contraceptive pills but not before 2-3 weeks after delivery because it increases the risk of DVT (which is already high)
- **What are the components of it?** Ethinyl estradiol and progestin.
- **What type of estrogen is in OCP?** Estradiol
- **What is the mechanism of action of COCP?**
  a. COCP have negative feedback on the hypothalamus (estrogen effect of diminishing milk production).
  b. Inhibiting ovulation
  c. ↑ cervical mucus
  d. Thins endothelium
- **What things will you ask her before you prescribe it?** Mentioned previously in the history part of OCP counseling.
- **What are the other options for contraception?** You have to know the mechanism of action for each type. All the risk factors and contraindications.

Mothed	Mechanism of action	Side effect	Contraindications
Progesterone IUD	works by increasing the thickness of cervical mucus to prevent sperm from entering the uterus.	lighter menstrual cycle or amenorrhea.	- Pelvic infection. - Cancer of the uterus. -Distortion or inappropriate size of the uterine cavity .
Copper IUD	Works by creating an unfavorable environment for the sperm to fertilize the egg.	heavier and crimpier periods.	
Implants	They work by inhibiting ovulation	Irregular bleeding spotting for the duration of insertion.	
Tube Ligation	Ligation of fallopian tube by clips, rings or removal of a small segment of the fallopian tube. It can be done laparoscopically or during the immediate postpartum time, it can be done through a small laparotomy incision.	- Ectopic pregnancy - Regret (increased risk of regret with low parity) - Bleeding - Infections	Any contraindication to laparoscopic surgery.
Hysteroscopy tube occlusion	Procedure performed vaginally either in the operating room or clinic. Metal coils are inserted into the fallopian tubes and scar tissue develops, effectively blocking the tube.		- Cervicitis. - Active pelvic infection.
Diaphragm	Fitting for a vaginal diaphragm should be performed after involution of pregnancy changes, usually at the 6-week postpartum visit.	Urinary tract infections (UTIs) and vaginal irritation	- Hypersensitivity to latex

3. **End the counseling:** Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Dysfunctional Uterine Bleeding (DUB) Counseling

Came 1 time before

Case: A 45 lady come to you diagnosed with DUB, Answer her questions.

As we mentioned before, If the case is already something happened (already diagnosed) → skip the history part and start with counseling

A. Start counseling & answering her questions:

- **Explain to her the nature of her problem.**

Dysfunctional uterine bleeding (DUB) is a common disorder of excessive uterine bleeding affecting premenopausal women that is not due to pregnancy or any recognizable uterine or systemic diseases. The underlying pathophysiology is believed to be due to ovarian hormonal dysfunction that cause **anovulation.**

- **What is the cause of her problem?**

  Usually due to anovulation that's unrelated to another illness. Dysfunctional uterine bleeding can occur with declining estrogen levels at the end of a woman's reproductive life.

- **What is prognosis?**

  The effects of unopposed estrogen on the uterine lining have been directly linked to endometrial hyperplasia and cancer.

- **Explain to her the management options with the benefits and risks of each options:**

  After she has received a diagnosis, she'll need treatment to stop the bleeding, restore a normal menstrual cycle, and maintain hemodynamic stability.

First: Progestin management; to decrease the menstrual flow and prevent endometrial hyperplasia, but won't cause ovulation:

- Cyclic Medroxyprogesterone acetate
- Oral contraceptive pills
- Progestin intrauterine system, delivers the progestin directly to the endometrium. This treatment can significantly decrease menstrual blood loss.

If progestin management is not successful in controlling blood loss, the following generic methods have been successful:

- **NSAIDs:** can decrease dysmenorrheal, improve clotting and reduce menstrual blood loss.
- **Tranexamic acid:** works by inhibiting fibrinolysis by plasmin. It is contraindicated with history of DVT, PE or CVA, and not recommended with E+P steroids.
- **Endometrial ablation**: procedure destroys the endometrium by heat, cold or microwaves It leads to a iatrogenic Asherman syndrome and minimal or no menstrual blood loss. Fertility will be affected.
- **Hysterectomy:** is a last resort and performed only after all other therapies have been unsuccessful.

2. **End the counseling:** Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Pregnant Not Immune to Rubella Counseling

Case: a 29 years old, first pregnancy at 8 weeks, she is NOT immune to Rubella, Counsel the patient.

As we mentioned before, If the case is already something happened (already pregnant) → skip the history part and start with counseling

1. Start counseling & answering her questions:

- **What you will advise her during pregnancy?**
  - **Expectant management**: There is no treatment for rubella infection.
  - To avoid contact with children who have upper respiratory tract infection (URTI) because the infection is transmitted via respiratory droplets (You'll just need to be careful to avoid anyone with a rash or virus as well as anyone who's recently been exposed to rubella and has not had it before).
  - She should take more precautions in early pregnancy.

- **Which time period is the most dangerous time period to the baby?**
  During the **first 20 weeks of pregnancy.**

- **What can happen to the fetus?**
  - Many mothers who contract rubella within the first critical trimester either have a **miscarriage or a stillborn baby.**
  - If the fetus **survives** will develop: **Congenital Rubella Syndrome** → which is characterized by congenital deafness (most common sequelae), congenital heart disease, cataracts, mental retardation, hepatosplenomegaly, thrombocytopenia, and blueberry muffin rash.

After delivery:

- **What is your next step?** She should receive Rubella vaccine.
- **What is the vaccine?** Live attenuated virus.
- **What is the amount?** 0.5 ml Subcutaneously.
- **What would you tell here next?** She should avoid pregnancy for at least 3 months because of the risk of the virus.
- **What precautionary measures should be taken to avoid pregnancy?** Is to use some form of contraception.
- **What form of contraception she should have?** This should be individualized.
- **Would you prescribe COCP in the post-partum period and give your justification?** No, because the pregnancy and the puerperium period are a state of hypercoagulable state, this would increase the risk of DVT & PE which is already high.

2. End the counseling:

Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Recurrent Abortions Counseling

Case: The simulated patient had 3 abortions and she is here to ask some questions.

As we explained before: If the case is planning to something, recurrence or worrying → history, counseling, end your counseling.

What does recurrent abortions mean? Recurrent pregnancy loss (RPL), also referred to as recurrent miscarriage or habitual abortion, is historically defined as **3 consecutive pregnancy losses prior to 20 weeks from the last menstrual period** both ectopic and molar pregnancies should not be included. The gestational age at the time of the abortion can provide clues about the cause. 70% in the first 12 weeks are due to chromosomal anomalies. However, losses due to antiphospholipid syndrome (APS) and cervical incompetence tend to occur after the first trimester.

1. **Take a brief Hx:** (to know what are the risk factors)

Personal Information:
Name…… Age…… occupation[67] …… P……A…… LMC……
OB history: Take details of each prior abortions or complete pregnancy start from first to last pregnancy
- Type of conception is it spontaneous? or Ivf? - Pregnancy detected by ……. and confirmed by …… **For each abortion ask about:** - When?…… Her age?…… Gestational age?…… - The cause? maternal and fetal causes, ask about if the baby had any congenital problems. Most spontaneous miscarriages are caused by an abnormal (aneuploid) karyotype of the embryo. - Any contraction felt, bleeding, rupture membranes, passing of tissue. - Type of termination of pregnancy: spontaneous, medical or surgical managements? - Maternal complications: antenatal? Intrapartum? If yes, what?…… how it was controlled? ……
Gyne History:

- Any anatomic abnormalities?
  ○ Uterine septum (the anomaly most commonly associated with pregnancy loss)
  ○ Hemiuterus (unicornuate uterus), Bicornuate uterus.
- History of fibroids, Uterine polyps.
- History of incompetent cervix, trauma to the cervix, short cervix.
- Previous infections? …… When? how it was controlled?……

Past Medical History:
Antiphospholipid syndrome(APLS)[68], DM[69], Thyroid disease, PCOS, Thrombosis[70], Asherman syndrome[71], infectious diseases (Rubella, toxoplasmosis).
Medication History:
- If any, what? ……. why? …… - History of contraception. Type? …… duration? ……
Past Surgical History:
Previous gynecological surgery, Cerclage, D&C, cone biopsy.
Family History:
Congenital abnormality or hereditary disease in the family.
Social History:
Alcohol? Smoking? Diet?

[67] Could be the could if she works in the radiation area for example.

[68] Also known as lupus anticoagulant syndrome and Hugh syndrome. This disorder is characterized by the presence of APL antibodies, which are frequently linked to pregnancy losses.

[69] Poorly controlled diabetes, as evidenced by high glycosylated HgA1c levels in the first trimester, are at a significantly increased risk of both miscarriage and fetal malformation.

[70] Because it's a risk factor to APLS.

[71] Acquired condition of the uterus. In women with this condition, scar tissue or adhesions form in the uterus due to some form of trauma.

2. Start counseling & answering her questions:

- **What tests/investigations will you order to find out the cause?** Ask her to do the test that roll out what did you asked her in the gyne and medical history.
    - Vaginal swabs.
    - Pelvic ultrasound.
    - Hysteroscopy or hysterography should be performed to evaluate the uterine cavity.
    - Thyroid function tests and thyroid antibody.
    - Elevated LH → indicate PCOS
    - Oral glucose tolerance test & Fasting plasma glucose.
    - Antiphospholipid antibodies (lupus anticoagulant or anticardiolipin antibodies).
    - Rh Factor.
    - Paternal and maternal chromosomes should be evaluated.
    - Karyotyping.
    - Mycoplasma, Listeria, Toxoplasma.

- **What can you do to prevent or decrease the chance of abortion in her next pregnancy?**
    - In the presence of a cause treatment is directed to control the cause
    - Advise her about general health: weight, diet, smoking & alcohol.

3. End the counseling: Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Diabetes with Pregnancy Counseling

Came 2 times before

Case: Pregnant lady came at your OB clinic for follow up, she had uncontrolled Glucose level which indicate diabetes. Counsel her.

As we explained before: If the case is planning to something, recurrence or worrying → history, counseling, end your counseling. This patient didn't diagnose yet if she has GDM[72] or other type, so you have to start from the history. But if the case changes and the patient come to you when she is already diagnosed, no need for the history and start counseling her.

1. Take a brief Hx: (to know the type)

Personal Information:
Name……Age[73]…… G……P……A……..Gestational Age[74]…… LMC…… EDD……
History of the present Pregnancy:
▪ Pregnancy detected by …… and confirmed by …… Number of fetuses …… (chorionicity), placenta location……
▪ Have there been any other problems in this pregnancy? (Polyhydramnios, GHTN)
▪ Her weight before got pregnant and now. Because obesity is one of the risk factor
History of Previous pregnancies:
- Type of delivery: normal vaginal?, CS? If yes, why? …… assisted? (vacuum, forceps), was episiotomy induced, If yes why? (previous traumatic delivery is a risk factor)
- Duration of labor in hours.
- Baby weight. (history of fetal macrosomia is one of the most important risk factors).
- Have there been any other problems in this pregnancy? (Polyhydramnios, GHTN, Previous history of GDM) very important risk factors.
- History of abortion? If yes, why? (Unexplained fetal loss is one of the risk factors)
Medication History:
If any, what? …… why? …… Duration? ……

[72] Carbohydrate intolerance that occurs in pregnancy after the 24th week of gestation.

[73] >30 is a risk factor

[74] If diagnosis is prior to 24 weeks of gestation, this is overt diabetes (or type 2 DM) and not gestational.

Family History:
Family history of diabetes, HTN, GDM

2. Start counseling & answering her questions:

- **What are the risk factors to have GDM?**
  - BMI above 30.
  - Age >30 years.
  - Previous history of GDM.
  - Previous baby weighing 4.5 kg or above.
  - Polyhydramnios.
  - Strong family history of diabetes, GDM.
  - Unexplained fetal loss.
  - Polyhydramnios.
  - Previous traumatic delivery.

- **What are the tests to diagnose diabetes in pregnancy?**

75g of glucose	**Fasting**	**Less than 95 mg/dl or 5.3mmol/L**
	1-hours	**Less than 180 mg/dl or10.0mmol/L**
	2-hours	**Less than 153mg/dl or 8.5mmol/L**

- **Management to control blood glucose:**

If newly diagnosed: Put her on diet x 3 day. Then Do BSS	**If controlled**	Continue with monitoring.
	If not controlled	1. Start oral hypoglycemic (Metformin, Glucophage) 2. If oral hypoglycemic fails to control blood sugar →Insulin

- **How to monitor the fetus:**
  Frequent U/S scanning to assess growth + Amniotic fluid volume. As well as fetal wellbeing and to look for anomalies in cases of overt diabetes. (reassure her that congenital anomalies and abortion are not a risks with gestational diabetes)

- **When to deliver baby? What is the rout?**
  - If controlled with diet → Induction at 40 weeks.
  - If uncontrolled and she is on medications → Induction at 38 weeks.
  - CS indications: macrosomia baby, failure to progress, fetal distress.

- **What are the complications of diabetes?** diabetes in general not GDM only
  - **Maternal:** Pre-eclampsia, eclampsia, Injury to the birth canal secondary to macrosomia.
  - **Fetal:** risk of congenital anomalies, abortion, preterm labor, neonatal morbidity (e.g. birth injury, shoulder dystocia, Brachial plexus injury, respiratory distress syndrome).

Remember that 50% of GD patients will be type 2 diabetics later in their life, so in counseling we must inform patients about that. After 6 weeks of birth we check her levels again to check if her glucose levels are still high. Then will be labeled as type 2.

3. End the counseling: Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

PCOS counseling

Case: Hx of young infertile female with obesity and hirsutism. Based on your diagnosis, counsel her.

As we mentioned before, If the case is already something happened (already diagnosed) → skip the history part and start with counseling. How to counsel about any disease? Course of the disease, symptoms, management. etc…. if she came and she hasn't diagnosed yet → take brief history then start to counsel her about the same things Course of the disease, symptoms, management. etc….
In this case she came not diagnosed yet, so → history, counseling, end your counseling. If the same case come but she already diagnosed with PCOS, start counseling and skip history.
If you will take a history, ask her about missing questions only and waste your time repeating the questions that is already mentioned in the case.

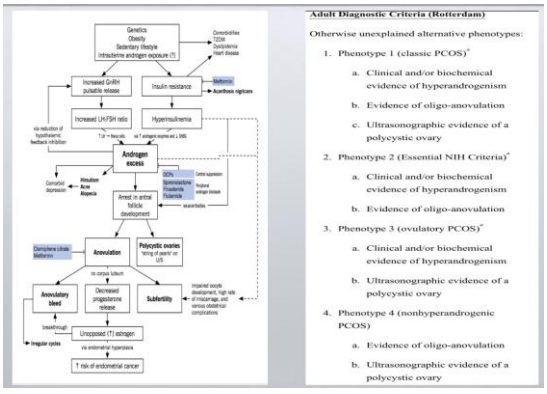
1. Take a brief Hx: to confirmed that she has PCOS, so you can diagnose her. The diagnosis of PCOS requires confirmation of ovarian dysfunction→ irregular or an ovulatory cycles, or polycystic morphology on scanning; and androgen excess → either clinical or biochemical.) so you want to confirm these two from history.

Personal Information:
Name…… Age…… Marital Status[75]…… P……A…… LMC……
Chief Complaint:
Ask about the duration of her symptoms.
History of presenting lines:
- Does the patient complain of acne? - Have there been any other skin changes? Has the patient or their family noticed increased redness of the skin, easy bruising or fragility? - What is the pattern of the weight distribution, and what is the timing of the weight gain in relation to other symptoms?[76] - Does the patient complain of obstructive sleep apnea? - Does the patient have other features of the metabolic syndrome: hypertension, DM?
Gyne History:
- **Menstrual History:** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle …… Menstrual volume (no. of pads or tempone & fullness, make sure it is not for hygiene) …… any clot or flooding?…… impact on her life? …… Menstrual cycle symptoms (dysmenorrhea, menorrhagia, Pelvic pain, mittelschmerz[77]).
Sexual History:[78]
Family History:
Family history of PCOS
Psychiatric History:
Has the patient noticed a change in mood, for example depression or emotional lability?

2. Start counseling & answering her questions:

- **What is your most likely diagnosis?** Polycystic ovarian syndrome.

- **How to confirm the diagnosis?**
  - LH/FSH ratio 3:1 (Normal 1.5:1).
  - Rotterdam criteria: →



[75] If she is married and plans to become pregnant, this changes the treatment.
[76] The symptoms of PCOS are typically exacerbated by weight gain, such that weight gain commonly predates other symptoms. A typical pattern would be of simple weight gain in childhood, particularly at the time of puberty, with gradual increase during the teenage years.
[77] Midcycle pain
[78] Women with adrenal or ovarian tumors secreting testosterone may develop an increase in well being and in libido.

- **What is nature of the disease and the prognosis?**
  - Normally sex hormones (estrogen and progesterone) have fluctuation state (up & down) but in PCOS the ovaries are bilaterally enlarged with multiple peripheral cysts. Why? This is due to high circulating androgens and high circulating insulin levels causing arrest of follicular development in various stages and the hormones will have steady state. This will lead to anovulation and infertility. How? No ovulation → No corpus luteum formation → No Progesterone. So there will be Estrogen effect only which will cause irregular bleeding and Endometrial hyperplasia (thickening).
  - How hirsutism developed? The combined effect of increased total testosterone and decreased sex hormone-binding globulin leads to mildly elevated levels of free testosterone. This results in hirsutism.
  - Insulin Resistance can cause Hyperandrogenism & Acanthosis Nigrican.

- **What are the management options?**

Treatment is directed toward the primary problem and the patient's desires, for Example:

  - **Irregular bleeding:** OCPs.
  - **Hirsutism**: Excess male pattern hair growth can be suppressed 2 ways: OCPs and Spironolactone.
  - **Infertility**: Clomiphene Citrate or Human Menopausal Gonadotropin (HMG; Pergonal) or Metformin.

- **How does these medications work?**

1. **Metformin:** can decrease insulin resistance and lower testosterone levels. Metformin enhance ovulation both with and without clomiphene.

2. **OCP:** The treatment of choice. It will normalize her bleeding and the progestin component will prevent endometrial hyperplasia. Also They will lower free testosterone levels in 2 ways:
   A. OCPs will lower testosterone production by suppressing LH stimulation of the ovarian follicle theca cells.
   B. OCPs will also increase SHBG, thus decreasing free testosterone level.

3. **Spironolactone:** suppresses hair follicle 5-α reductase enzyme conversion of androstenedione and testosterone the more potent dihydrotestosterone.

4. **Infertility medications:** if infertility is a problem, clomiphene citrate. Clomiphene induce ovulation.

3. End the counseling: Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Preconception Counseling

Came 1 time before
Very important

Case: A lady wants to get pregnant. Counsel her

As we explained before: If the case is planning to something, recurrence or worrying → history, counseling, end your counseling

1. Take a brief Hx:

Personal Information:
Name…… Age…… Nationality…… Marital Status…… occupation …… Residency…… LMC……
Gyne History:
- **Menstrual History:** Age of menarche…… regular or irregular?…… Menstruation duration…… Menstrual cycle…… Menstrual volume (no. of pads & fullness, make sure it is not for hygiene) …… any clot or flooding?…… impact on her life? …… Menstrual cycle symptoms (dysmenorrhea, menorrhagia, mittelschmerz discomfort, Irritability, Depression, Pelvic pain, Vaginal dryness, Vaginal discharge)? If yes, take full history about it.

- Other bleeding from other places? postcoital bleeding?[79] Intermenstrual bleeding (metrorrhagia)? If yes, take a full history. - Previous infections? ……. When? how it was controlled?…… - Last Pap smear …….. was it normal? …… If it was abnormal what was the management? …… - Gynecological problems? …… Anomalies? ……
Ob history:
Make sure this is the first time for her. If not, Take details of each prior pregnancy start from first to last pregnancy. Make sure to ask her if there is fetal loss, birth defect, preterm birth.
Sexual History:
Regular sex? Protective sex? …… any Dyspareunia? …… any postcoital bleeding?.....
Past Medical History:
Fibroids, endometrioses, DM, HTN, Rheumatic heart disease, Thromboembolism, Autoimmune diseases, Urogenital infections and STDs, Periodontal (surrounding a tooth) infections.
Medication History:
ACE inhibitors, angiotensin II receptor blockers (ARB), direct renin inhibitors. **History of contraception.** Type? …… duration? …… Compliance? …… **Complications? ……(**
Past Surgical History:
- If any, what? …… When? …… Complications? …… trauma?..... - **Previous gynecological surgery**.
Allergy History:
Immunizations & infections:
Infections: Rubella, HBV, HBC, HIV, Toxoplasmosis, syphilis. **Update immunization for:** Hepatitis B**,** Rubella**,** Varicella**,** Human papillomavirus, Influenza vaccines as needed
Family History:
- Hereditary illness: DM, HTN, thalassemia, sickle cell disease, hemophilia? …… - Malignancy? (Breast, ovaries, uterine, colon, prostate cancer) …… - Congenital defects: neural tube defects? …… Down syndrome? ……
Psychiatric History:
Screen for: Depression, Anxiety, Intimate-partner violence, Major psychosocial stressors
Social History:
Illicit drugs, Alcohol, Smoking, Toxins and teratogens, Family Support, domestic violence, Animal's contact, Physical activity, Diet.

2. **Start counseling & answering her questions:**

- **What specific topics need to be addressed to her?**
  Talk to her about her reproductive life plan, about the diet and BMI, infections and vaccines, nutrition's and supplements, what medication she should avoid, if she has any disease, how this disease will affect the pregnancy and how the pregnancy will affect the disease, …. Talk to her according to her condition and what written in the case but make sure to go through all these points.

3. **End the counseling:** Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

[79] Bleeding after sex (usually she could have cervical pathology).

Preeclampsia Counseling

Case: a pregnant woman diagnosed with preeclampsia, asking about the risks that could happen to her baby. Counsel her

As we mentioned before, If the case is already something happened (already pregnant) → skip the history part and start with counseling

1. Start counseling & answering her questions:

- **How does the physiology of preeclampsia lead to the clinical symptoms and findings?**
  - Hypoxia, hypoperfusion and ischemia lead to the clinical placental pathophysiology (with fetal compromise: IUGR, oligohydramios, placental abruption).
  - Systemic endothelial dysfunction leads to central & peripheral edema, proteinuria, and hypertension (from disruption of vascular regulation). Endothelial dysfunction in target organs leads to headache, epigastric pain, and renal dysfunction. Microvascular endothelial destruction leads to release of procoagulants and DIC.

- **What types of maternal and fetal complications are associated with preeclampsia-eclampsia syndrome?**

Maternal:

- **CNS:** eclamptic seizure, stroke.
- **Cardiopulmonary:** pulmonary edema.
- **Hepatic:** Sub capsular hematoma or hepatic rupture.
- **Renal:** renal failure or acute tubular necrosis.
- **Hematologic:** hemorrhage, DIC.

Fetal:

- Preterm delivery
- Placental abruption
- Fetal growth restriction
- Hypoxic ischemic encephalopathy
- Fetal death

2. End the counseling:

Make sure the patient understands everything, comfortable and able to make a decision. If she has any other questions, answer her.

Came 2 times before

Episiotomy Discussion

- **What is it?**
  Surgical incision made in the perineum to enlarge the vaginal opening and assist in childbirth.

- **When it's performed?**
  Incision is done at the time of head crowning.

- **Done by what?**
  Incision done by using Episiotomy scissor. You have to know how it looks like

Indications	Advantages	Complications	Contraindications
	They will ask you to mention 2-3 only		
- Shoulder dystocia. - Non-reassuring fetal monitor tracing. - Delayed second stage of labor. - Fetal distress in second stage. - In cases of prematurity to protect fetal head. - Forceps or vacuum extractor vaginal delivery. - Vaginal breech delivery. - Narrow birth canal. - Imminent perineal tear.	- Ensures quicker, easier and safer delivery of the fetus. - It saves unnecessary wear and tear upon the fetal skull. - Avoids irregular lacerations of the vagina of perineum. - Avoids injury to the maternal soft tissues with subsequent Uterovaginal (UV) prolapse.	- Tear and extension. - Excessive blood loss. - Hematoma. - Infection. - Incontinence. - Wound dehiscence. - Dyspareunia.	**Absolute:** - Patient's refusal for the procedure[80] - Women with bleeding abnormalities. **Relative:** - Women with HIV infection[81]. Rhesus negative mother with a rhesus positive child[82]. - Abnormalities of the perineum. - Inflammatory bowel disease, - Lymphogranuloma venereum. - Severe perineal scarring, and perineal malformation.

- **Mention the type of episiotomy?**

	Midline	Mediolateral
Procedure	Incision is made in the middle of the vaginal opening, straight down toward the anus	Incision begins in the middle of the vaginal opening and extends down toward the buttocks at a 45 degree angle
Advantages	○ Less perineal pain. ○ Less bleeding. ○ Easy repair and improved healing	Lower risk of extension into rectum.
Disadvantages	Increased risk for tears that extend through the anal muscles	○ More perineal pain. ○ More bleeding. ○ Harder to repair.

[80] The most important contraindication.
[81] This is relative contraindication and not absolute, hence may be done in some cases.
[82] This is relative contraindication and not absolute, as Rhogam anti D immunoglobulin may be given after delivery.

Menopause Discussion

- **What is the definition?**
  Menopause is a retrospective diagnosis and is defined as 12 months of amenorrhea.
- **What is the mean age of menopause?**
  The mean age of menopause is 51 years.
- **What can happen before the onset of menopause?**
  Menses typically become anovulatory and decrease during a period of 3-5 years known as perimenopause.
- **What is the predominant form of estrogen in menopause?**
  Estrone due to peripheral conversion of androgens to estrone in peripheral adipose tissues.
- **What are the clinical findings in menopausal women?**
  1. Amenorrhea: The most common symptom is secondary amenorrhea.
  2. Hot flashes.
  3. Atrophic vaginitis.
  4. Pelvic organ prolapse.
  5. Urinary tract: Low estrogen leads to increased urgency, frequency, nocturia, and urge incontinence.
  6. **Psychic:** Low estrogen leads to mood alteration, emotional lability, sleep disorders,and depression.
  7. **Cardiovascular disease:** This is the most common cause of mortality (50%) in postmenopausal women.
  8. **Osteoporosis:** first bone affected by osteoporosis is the vertebrae.
- **What are the laboratory findings in menopausal women?**
  - Elevation of gonadotropins (FSH and LH).
  - Lack of the active form of estrogen(estradiol).

- **What is management?**
  - **First line treatment** for the menopause should begin with lifestyle changes such as diet and exercise to control mild to moderate symptoms, reserving hormonal therapy for those women who have significant problems.
  - Any patient on systemic hormonal therapy:
    - If she has a uterus we give estrogen + progesterone. Because estrogen alone will increase the risk of endometrial cancer.
    - If she has no uterus we give estrogen only.
    - Atrophic vaginitis treated by topical estrogen.

- **If the woman told you i don't want to take hormone what you will give her.**
  SSRI antidepressants can be used as an alternative in women who are not candidates for hormonal therapy.

- **Discuss with her about the screening tests recommendations.**
  - Colonoscopy at age 50.
  - Bone density at age 65.
  - Mammogram.
  - Cervical cytology screening.

Table II-12-4. Osteoporosis

Lifestyle	Ca^{2+} and vitamin D intake
	Weight-bearing exercise
	Stop cigarettes and alcohol
Medical	Historic gold standard for comparing therapies: estrogen replacement
	Inhibit osteoclastics: bisphosphonates (alendronate, risedronate)
	Increase bone density: SERMs (raloxifene)

Definition of abbreviations: SERMS, selective estrogen receptor modulators.

Cervical Cancer Discussion

- **What are the risk factors associated with cervical cancer?**
  1. Smoking.
  2. Young age at first intercourse, Young age at first pregnancy.
  3. High parity.
  4. Sexual transmitted diseases, HPV, HIV infections.
  5. Low socioeconomic status.

- **What are the clinical features associated with cervical cancer?**
  - **Early stages:**
    - Abnormal vaginal bleeding (postcoital bleeding, intermenstrual, postmenopausal) In patients who are not sexually active, bleeding from cervical cancer usually does not occur until the disease is quite advanced.
  - **Middle stages:**
    - Postvoid bleeding, dysuria, hematuria.
  - **Advanced stage:**
    - Persistent watery vaginal discharge, weight loss, loss of appetite, Pelvic or back pain, leg swelling.

- **What are the diagnostic tests for cervical cancer?**
  - **Cervical biopsy:** The initial diagnostic test should be a cervical biopsy.
  - **Metastatic workup:** That includes pelvic examination, chest x-ray, intravenous pyelogram, cystoscopy and sigmoidoscopy.

Invasive cervical cancer is the only gynecologic cancer that is staged clinically; an abdominal pelvic CT scan or MRI cannot be used for clinical staging.

- **Clinical staging:**
  - **Physical exam:** complete pelvic exam (speculum and bimanual) to palpate tumor. Palpation of groin and supraclavicular lymph node. The cervix may be ulcerative or exophytic.
  - Colposcopy, ECG, cervical biopsy, cervical conization.
  - **Endoscopic exam:** Hysteroscopy to evaluate the uterine lining, proctoscopy to evaluate rectal involvement, cystoscopy to evaluate bladder involvement.
  - **Imaging studies:** Chest x-ray, intravenous pyelogram (IVP) to evaluate for urinary tract obstruction.

- **Staging for Cervical Cancer:**

Stage 0:	Carcinoma in-situ (CIS). The basement membrane is intact.
Stage I:	Spread limited to the cervix. This is the most common stage at diagnosis.
IA1	▪ Invasion is ≤3 mm deep (minimally invasive)
IA2	▪ Invasion is >3 but ≤5 mm deep (microinvasion)
IB	▪ Invasion is >5 mm deep (frank invasion)
Stage II:	Spread adjacent to the cervix Involves
IIA	○ upper two thirds of vagina
IIB	○ Invasion of the parametria
Stage III:	Spread further from the cervix
IIIA	○ Involves lower one third of vagina
IIIB	○ Extends to pelvic side wall or hydronephrosis
Stage IV:	Spread furthest from the cervix
IVA	- Involves bladder or rectum or beyond true pelvis
IVB	- Distant metastasis

- **Management of cervical cancer:**
  - **Stage Ial:** Total simple hysterectomy, either vaginal or abdominal.
  - **Stage Ia2:** Modified radical hysterectomy.
  - **Stage IB or IIA:** Either radical hysterectomy with pelvic and paraaortic lymphadenectomy (if premenopausal) and peritoneal washings or pelvic radiation (if postmenopausal). In patients who can tolerate surgery, a radical hysterectomy is preferred; however, studies have demonstrated equal cure rates with radiation or surgical treatment.
  - **Stage IIB,III, or IV:** Radiation therapy and chemotherapy for all ages.

Ovarian Cancer Discussion

Came 1 time before

- **What are the etiology of ovarian cancer?** Cause of ovarian cancer is unknown.

- **What are the risk factors & protective factors associated with epithelial ovarian cancer?**

Risk factors	protective factors
○ Excess estrogen: Nulliparity, early menarche, late menopause. ○ Advanced age. ○ Endometriosis ○ Family history of breast, colon, endometrial, ovarian cancers. ○ Inherited mutations (BRCA and HNPCC) ○ White, Caucasian race.	○ OCP. ○ Pregnancy & breastfeeding. ○ Tubal ligation. ○ Hysterectomy

- **Ovarian tumors classification and markers**

Epithelial cells:	Serous (55%)	CA-125
	Mucinous	
	Clear cell	
Stromal:	Granulosa cell	Inhibin
	Sertoli-Leydig	Androgens
Germ cell:	Dysgerminoma (most common)	LDH
	Yolk sac	AFB
	Choriocarcinoma	Beta-hCG
	Immature teratoma	none

- **What are the clinical features associated with ovarian cancer?** Most of the patients present with advanced stage disease. When present, symptoms may include:
  - **Abdominal symptoms:** Nausea, bloating, dyspepsia, anorexia, early satiety.
  - **Symptoms of mass effect:** Increase abdominal girth (from ascites or tumor itself), urinary frequency, constipation.
  - Postmenopausal bleeding, irregular menses if premenopausal (rare).

- **What is your differential diagnosis?**

Ovarian malignancy, ovarian benign neoplasms, and functional cysts of the ovaries must be differentiated.

- **Staging for ovarian cancer:** Surgical staging

Stage I: **IA** **IB** **IC**	Tumor limited to ovaries - Limited to one ovary, capsule intact, negative cytology. - Limited to both ovaries, capsule intact, negative cytology. - One or both ovaries raptured capsule, positive cytology.
Stage II: **IIA** **IIB** **IIC**	Extension to the pelvis. - Extension to the uterus or tubes. - Extension to other pelvic structures. - Extension to pelvis with positive cytology.
Stage III: **IIIA** **IIIB** **IIIC**	Peritoneal metastases or positive nodes. - Microscopic peritoneal metastases. - Macroscopic peritoneal metastases ≤ 2. - Macroscopic peritoneal metastases ≥ 2.
Stage IV: **IVA** **IVB**	Distant metastasis. - Involves bladder or rectum. - Distant metastasis.

- **Investigations:**
  - A women with suspected ovarian cancer based on history, physical examinations or investigations should be referred to a **gynecologic oncologist** to do → bimanual examination (solid, irregular, fixed pelvic mass), and risk of malignancy index (RMI).
  - Radiological imaging pelvic ultrasound is the best first line test.
  - **Blood work:** CA-125 for baseline, CBC, liver function tests, electrolytes, creatinine.
  - **Radiology:** Transvaginal ultrasound → to visualize ovaries, CT scan abdomen and pelvic → to look for metastases.
  - **Try to rule out primary sources:** colorectal, upper GI, endometrium (endometrial biopsy, abnormal vaginal bleeding), breast (lesions on examination, mammogram).

- **Management:**
  - Preoperative studies & medical evaluation.
  - **Surgical exploration:** Laparoscopic unilateral salpingo-oophorectomy (USO) and send it for frozen plasma.
  - **Benign Histology:**
    - If patient is not a good surgical candidate, or wants to maintain her uterus and contralateral ovary→ unilateral salpingo-oophorectomy is sufficient.
    - if she's a good candidate → Total abdominal hysterectomy & bilateral salpingo-oophorectomy.
  - **Malignant histology:**
    - Debulking procedure + Postoperative chemotherapy. they will ask u what do you mean by debulking? Total abdominal hysterectomy + bilateral salpingo-oophorectomy + omentectomy +\- Bowel resection (remove as much visible cancer as possible).
  - **Follow up:**
    - Benign: followed up in the office on a yearly basis for regular examination. If the pathology report is defined.
    - carcinoma: followed up every 3 months for the first 2 years and then every 6 months for the next 2 years with follow-up of the CA-125 tumor marker.

Antenatal Surveillance Discussion

- **What is the EDD?**

Estimated day of delivery → By using naegele's rule: add one year to LMP, subtract three months, and add 7 days or by adding one year to the years, 9 month to the months and 7 days to days. Remember that if it was on January-February don't add a year. Ex: LMP was in 15/2/2019 → EDD is 22/11/2019. Sometimes after adding 9 months you will be in the next year, so be careful to put the new year. Ex: LMP was in 20/9/2019 → EDD is 27/6/2020

- **What are the routine booking investigations at the first prenatal visit?**
  - **Blood test:**
    - CBC, Hb, WBC, Platelets, Blood group, Rh factor & Red cell antibody.
  - **Ultrasound:** to confirm pregnancy, determine the gestational age & EDD.
  - **Urine test:**
    - Mid stream urine → for asymptomatic Bacteriuria
  - **Glucose screen.**
  - **Routine Infections screen:** Rubella, HBV, HBC, HIV, Toxoplasmosis, syphilis.

- **Why we use US?**

To confirm pregnancy, determine the gestational age and EDD, Number of fetuses if one or twins (earlier sonograms are more accurate than later ones for both of them).

- **Mention 3 tests in antenatal visits?** The difference between this question and the previous one is that this question asked about all the tests that done during the prenatal period while the previous question asked for routine tests for the first visit only. It's important to know the differences since they may ask the questions.

Diagnostic Procedure	Gestational Age
Hemoglobin-hematocrit determination	Initial visit, repeat at 28-32 week
ABO and RH typing	Initial visit
venereal disease research laboratory (VDRL)[83]	Initial visit, repeat at 28 if negative
Urinalysis	At each visit to detect proteinuria
Urine culture and sensitivity	Initial visit to detect asymptomatic bacteriuria
Indirect coomb's test	Initial visit
Serum alpha fetoprotein test	16-18 week
Routine US	16-18 week
Screening test for GDM	24-28 week
Pap smear	Initial visit
Cervical smear gram stain and culture	Initial visit
HBsAg, HIV test	Initial visit

- **Timing of the visits?**

Every 4 week until 28 week, then every 2 week until 36 week , then weekly until delivery.

[83] Test designed to assess whether you have syphilis, a sexually transmitted infection (STI).

Preterm Labor Discussion

- **What is the definition of preterm labor?**

  The three criteria of preterm labor that need to be met:
  - **Gestational age:** pregnancy duration >20 weeks, but <37 weeks.
  - **Uterine contractions:** at least 3 contractions in 30 min.
  - **Cervical change:** serial examinations show a change in dilation or effacement. OR a single examination shows cervical dilation of >2 cm.

- **What are the clinical presentation of preterm labor?**

  Symptoms: Lower abdominal pain or pressure, lower back pain, increased vaginal discharge, leakage of fluid or bloody show.

- **What are the risk factors of preterm labor?**
  - **Common risk factors:** Prior preterm birth, short transvaginal cervical length (<25 mm) , PROM, multiple gestation, uterine anomaly.
  - **Less common risk factors:** low maternal pre-pregnancy weight, smoking, substance abuse, and short inter-pregnancy interval (<18 months)

- **Name 2 maternal & 2 fetal Complication:**
  - **Maternal complications:** Increase risk of infection, Risk of CS because of very small birth weight baby.
  - **Fetal complications:** risk of prematurity, necrotizing enterocolitis, respiratory distress syndrome, interventricular hemorrhage, retinopathy of prematurity.

- **What are the Management of preterm labor?**
  - Initiate IV hydration with isotonic fluids.
  - Confirm labor using the 3 criteria listed earlier.
  - Once the diagnosis of preterm labor has been made, the following laboratory tests should be obtained: CBC, random blood glucose level, serum electrolyte levels, urinalysis, and urine culture and sensitivity.
  - An ultrasonic examination of the fetus should be performed to assess fetal weight, document presentation, assess cervical length, and rule out the presence of any accompanying congenital malformation. Also, it can detect an underlying etiologic factor, such as twins or a uterine anomaly.
  - **Rule out contraindications to tocolysis using this criterion.**

Agent	Side effect	Contraindications
Magnesium sulfate	muscle weakness, respiratory depression, and pulmonary edema	myasthenia gravis. Antidote: IV calcium gluconate.
Beta 2-Adrenergic agonists include terbutaline	Hyperglycemia,Hypokalemia,hypertension,tachycardia.	DM, uncontrolled hyperthyroidism, cardiac disease.
Calcium-channel blockers e.g. nifedipine	Tachycardia, hypotension, and myocardial depression.	Hypotension
Prostaglandin synthetase inhibitors e.g. indomethacin	Oligohydramnios, in utero ductus arteriosus closure, and neonatal necrotizing enterocolitis.	gestational age >32 weeks.

- **If gestational age is between 23-34 weeks**: Administer maternal IM betamethasone and parenteral tocolytic for no longer than 48 hours to allow for antenatal steroid effect.
- At least 4 hours before anticipated birth (if <32 weeks): Start IV MgSo4 for fetal neuroprotection .

- **Name 2 maternal & 2 fetal tocolytic contraindications:** this question means all the agent of tocolytic
    - **Maternal conditions:** severe abruptio placenta, ruptured membranes, chorioamnionitis, eclampsia, severe preeclampsia, advanced cervical dilation.
    - **Fetal conditions:** lethal anomaly (anencephaly, renal agenesis), fetal demise or jeopardy (repetitive late decelerations).

Don’t forget to check SAQ’s file

اللهم إني استودعتك ما حفظت وما قرأت وما فهمت، فردّه لي عند حاجتي إليه إنك على كل شيء قدير
الله ينوّر عليكم ويسهل أمركم 💙