OB-GYN

1. **Miss Howe is a 22 years old woman with two children and would like to be sterilized. Obtain informed consent for tubal sterilization.**

More history:2 children
Partner, father of second child
No work, partner is also unemployed
She doesn't like the pill

Management
- Explore relationship: stable?
- Talk about other contraception:
Male sterilization: easier
IUD (Mirena): carry risk of infection esp. this case; more chance of having more than one partner and unstable relationship
Implantation: last about 3 years (Implanon)
- Explain pros and cons of sterilization
If fail, increase risk of ectopic pregnancy
reverse rate is very poor: 25-70% and still increase ectopic pregnancy after reverse
reverse procedure is not cover by medicare
long waiting list
dose not protect from STD.
- Explain about laparoscopy and surgery of tubal ligation
- Give another contraception before she leaves as she has to be on contraception while she is in the waiting list

(Hello Mrs. Howe, I'm Dr……., I understand that you come to see me today because you want to do permanent sterilization. I would like to ask you a few questions and the condition related to you, is that alright?

You are 22? Do you have children? How many? Are you sure that you don't want to have any more children in the future?
Do you have a partner? Does he know about your decision? Does he agree?
Why do you want to be sterilized?

Do you know about other contraception methods such as oral contraceptive pills, coils, condoms, diaphragm and cups? There is also an implantation for contraception that is very effective and can be used for about 3 years each time. Have you heard about that? Are you interested in considering that?

What do you know about female sterilization?
Female sterilization is a procedure by which the fallopian tubes that are the tubes between the womb and ovaries are cut, sealed or blocked (draw diaphragm). This stops eggs moving down to meet sperms.

The operation can be done in several ways, the most common method is by laparoscopy or a key hold surgery. This is usually done under general anesthesia, where you will be put to sleep. A doctor will make 2 tiny cuts, one just below your navel and the other just above the bikini line in the lower part of your tummy, they will then insert a laparoscope, it is a thin telescope-like instrument with lens to look at your reproductive organs.

Another common way is by mini-surgery, usually you will be put to sleep as well. A doctor will make a small cut in your tummy, just below the bikini line to reach the tubes.

You need to stay in the hospital, usually a couple of days, depending on types of anesthesia and operation. After operation, if you have general anesthesia, you might feel unwell for few days and may have some bleeding and pain, which is slight.

You must consider sterilization as permanent method of contraception. However, there is an operation to reverse it but it is complicated and may not work, Medicare doesn't cover for that either.

The failure rate of female sterilization is 0.1-0.3%. Pregnancy rate after reversal is around 50% with high risk of ectopic pregnancy, which is very dangerous.

The advantage is that it does not interfere with sex, your womb and ovaries will remain in place. Ovaries will still release an egg every month and your sex drive and enjoyment will not be affected. Actually, they may improve as fear of pregnancy is no more an issue. Occasionally, some women might find their period becomes heavier, but it is usually because of their age and stopping contraceptive pills. You can start sex as soon as you feel comfortable.

You must continue contraception until time of operation as now you are put on a waiting list. If you use IUCD, it should be left until the next period. You should contact your doctor if you think that you are pregnant or if you miss a period and especially if it is accompanied with tummy pain.)
Pamphlet to consider. Make appointment any time when you have made up your mind.

2. **A 37 years old woman is considering pregnancy in next few months. She is anxious about her risk of Down syndrome and has come to you regarding prenatal counseling. Your task is to counsel her.**

Management

- History of other risks such as DM, HT
- FH of chromosomal abnormality: Down's syndrome, cleft lips, cleft palate
- Tell about the risk of Down's syndrome is each age group, compared to normal population

- Prenatal screening process for down syndrome
- Risk of fetal loss during the procedure
- If test is positive, refer to genetic counseling
- Ask if the tests are positive, what is she going to do? The investigation is not covered by medicare
- Other screening for preconception: Rubella, VZ, chicken pox
- Folic acid 3 months before and after conception

Fact about **Down's syndrome screening**
Risk of Down's syndrome:
Normal population 1:600-700

30	1:350-400	35	1:250	37	1:200
40	1:100	43	1:50		

risk of 2nd child is 1:100
Screening test

1. Ultrasound for nuchal fold at 11-14 wk (12, first trimester)
2. Maternal serum test for β -hCG (⇑), AFP and estriol (⇓) at 15 wk (second trimester): These 2 tests can detect 85-90%, false positive 1%, if both are positive, then this is high risk pregnancy, have to
3. Amniocentesis at > 16 wk, can detect 100%, fetal loss 0.5-1 % (1:200)

(Hello Mrs……., I'm Dr…… How are you today? As far as I know, you want to get information about risk of Down's syndrome, is that correct? Before we get to that point, I would like to ask you some questions, related to your planned pregnancy, is that O.K?

You are 37 years old, is this your 1st pregnancy?
Do you have any other medical problems such as high blood pressure, diabetes?
Is there any genetic problems in your family such as Down's syndrome, cleft lips or cleft palate?
What do you about Down's syndrome?

Down's syndrome is a genetic disorder that associated with advanced age mothers. The normal number of chromosomes is 46 (23 matched pairs). Chromosomes are the blueprint for the body's development. They are found in every cell in our body and determine our physical and mental characteristics. People with Down syndrome have an extra chromosome that results in reduced intelligence and characteristic physical features. In general population, the risk of having a Down's syndrome baby is 1:600-700 and increased to 1 in 100 in 40 year-old mothers. In your case, at 37, the risk is about 1 in 200. You can get pregnant even though it is a high risk pregnancy as there are screening tests to detect Down's syndrome during early pregnancy. Do you have any idea about that?

Firstly, we can do ultrasound to detect any abnormality in fetus in the 1st trimester and then take blood sample from you to analyze in the 2nd trimester.

There are several chemistries in you blood that can be tested, if they are higher or lower than normal, it can be suspected for Down's syndrome and some abnormalities in baby. These two screening tests can detect about 85-90%, if both tests are negative, it is less likely to have a Down baby. On the other hand, if both tests show abnormal results, you will be then put in a high risk group and need to have another test done, which is a diagnostic test with 100% accuracy to detect Down's syndrome. It is an invasive procedure, which called "Amniocentesis", have you heard about that?

Obstetrician will put a needle through your abdomen and womb to get cells of the baby from the fluid around him or her and then analyze. By this procedure, you can know the conclusive result whether the baby has Down's syndrome or not.

However, this procedure might damage the fetus but the percentage is quite low, about 0.5-1%, which is 1 in 200 of fetal loss. In you case, this chance is as same as the chance of having a Down's syndrome baby.

If your first 2 tests are normal, it is a very good news, if not, you still have a choice to have the confirmation test or not, it is all up to you. Even if the result show abnormal gene, it is also your choice to continue your pregnancy or terminate. You have to think about these things carefully, as the test is not covered by medicare.

Have you seen children with Down's syndrome?
They share similar characteristics as well as inherit from their own parents. They are likely to have other medical problems such as heart disease, hormonal disorder and might have difficulty in feeding. However they can actually live in normal environment with some super-visions and they are quite loveable, fun and enjoy music.)

3. **A 20 years old woman who has stopped her OCP three months ago, comes with a history of irregular light period and abdominal discomfort for the last few weeks. She has come in with her partner to ED. Yours task is to assess and discuss management.**

Pain comes and go at LLQ for 2-3 weeks, 2 days ago pain started to be more severe, got pain killer from GP but pain is getting worse. Slight Vg bleeding, not Vg discharge. She stopped pills as she wants to get pregnant.

History: Hx of PID, LMP that was regular,
Have you done a pregnancy test?
Do you have any symptoms of pregnancy?

PE: LLQ pain, speculum: brownish fluid, PV: os closed, tender at cervix
Ix UPT, UA, U/S

Ddx 1. Ectopic pregnancy

- Missed abortion (PE excluded)
- UTI
- Twist ovarian cyst
- PID
- Stop OCP
- Appendicitis (if right)
- Molar pregnancy

Mx 1. Medical treatment by methotrexate and follow up
2. Surgery
Post explore lap., can't drive for 6 weeks.

(Hello, my name is ……., I'm a doctor for you today, what should I address you? As far as I know you have had vaginal bleeding with tummy pain. May I ask you some questions regarding to your problem? Do you want me to give you pain killer before we start?

Can you describe the bleeding for me? Is it bright red? (MC) Or dark red or brown? (EP) Is there any clot?
How many tampons or pads you use?
Can you tell exactly where the pain is?
What it feels like? Have you had the same pain before?
Did the pain started before bleeding? (EP) or you saw bleeding then felt pain? (MC)
What make pain better? Worse?
Do you have other symptoms? N/V? Diarrhea? Anorexia? Vg discharge?
How were your periods? Regular of irregular? When was you last period that was regular?
Why do you stop pills?
Have you done a pregnancy test? Do you think you are pregnant?
Have you ever had ectopic pregnancy before? Any miscarriage?
Any medical problems? Any medications?
I would like to examine you, are you comfortable with that?
Physical examination: general appearance, vital signs, cvs, respiratory system. Abdominal examination. PR examination, PV
Ask for the tests such as ; FBE, Urinalysis, ESR, U&E, B-HCG, transvaginal ultrasound, etc..

Miss……., now, we have had a good look at you tests that we ran. And according to the results of the test, the examination and what you complained of, there is a high possibility that you have what we call "Ectopic pregnancy" that is a pregnancy outside your womb, this can be in the tubes between your womb and ovaries as in most cases or inside the tummy, which is very rare. As the pregnancy is not in the usual place, it cannot continue to term. I understand that

it is very disappointing for you but this condition can be more serious as it may bleed suddenly and can be life-threatening. To avoid this, we have to admit you in the hospital and refer you to obstetrician, she or he will make a definite diagnosis by laparoscopy or key hold surgery. This is the procure by which we insert a tube with lens within a small incision in your tummy, after we put you to sleep, so we could look at your womb and tubes.

The treatment of this condition, it can be done either by laparocopy to inject a medication (Methotrexate if sac is <3cm) or remove the pregnancy.

Another way is by operation to remove the production of pregnancy. Both ways of treatment, the doctor will try to preserve the tube, but if it is damaged by this condition, then the only way to deal with it is to remove the tube.

Is everything clear? Do you want me to repeat anything for you?
Are there any questions that you would like to ask me?
You will remain for few days in the hospital (2-3 days).

Regarding the further risk: *ectopic pregnancy. Subfetility.*
Opportunity: PAP smear. STD screening.

4. A 19 year-old woman, 28/40 week pregnant, primigravida, found BP 170/110 mmHg and urine protein 2+ at ANC clinic. She also has frontal headache

Task: Relevant history
Important findings and investigation
Management

Diagnostic criteria
Mild 140/90
Severe 160/110 (6 hours apart, 2 episodes)

Associated symptoms
- Headache
- Visual disturbance
- Nausea/vomiting
- Epigastric discomfort
- RUQ pain → liver
- Swelling

Signs
- Hyperreflexia
- Very excitable clonus
- Edema
- Liver enlargement

Investigations
- FBE: platelet

- Blood grouping
- LFT: increase AST, ALT
- Urine protein 24 hours
- Uric acid
- Coagulation
- Urea, creatinine
- CTG
- U/S

HELLP Syndrome: Hemolysis
Elevate Liver enzyme
Low Platelet

Management

Explain to pt what is pre-eclampsia:

Pre-eclampsia is a serious disorder of pregnancy characterised by high maternal blood pressure, protein in the urine and severe fluid retention. mechanisms behind the condition are mysterious, but genetic factors and the placenta seem to play significant roles

If left untreated, pre-eclampsia can lead to convulsions, kidney failure, liver failure, clotting problems or death. baby has growth restriction, placenta separates from the uterine wall.-medical emergency.—from better health.

Admit to assessment unit for 2 hours, call the obstetrics and physician to review the patient.

- Bed rest and repeat BP
- Do blood test
- Repeat urine or start urine 24 hours
- CTG for fetus, U/S

- If BP is still high, manage HT → Call physician to treat HT and find associated disease
- If BP is settle down around 140/90 mmHg, normal LFT, urine, platelet, and baby is o.k., still admit until collect 24 hr-urine protein
- Try not to give hydralazine in a hurry
- D/C and follow up 2-3 times/week (home visit)
- If continue HT → hydralazine → $MgSO_4$ when impending eclampsia and then plan to delivery.
- Continue $MgSO_4$ (magnesium sulphate) until 24 hours post-partum. If everything tends to be normal and urine output is good → stop
- If not, continue $MgSO_4$ until everything tends to be normal.

5. A young lady, experienced traumatic Full term/D, 2 weeks post-partum, she feels restless and down.

Task: Management

Ddx: Postpartum depression

History:

- What happened during the delivery? Maybe she had bad impression about her labour, they didn't do C/S.....Baby got bruise and mark on face.
- How is your sleeping?
- How is your appetite?
- How is your energy level?
- Do you breast feed?
- Relationship with husband,
- Financial problem
- Do you feel like harming yourself or others, especially baby?
- Ask about the hallucination- to rule out psychosis.

I really sympathize with you→ make her feel comfortable to talk
Social support for taking care of baby → rest and enough time to sleep
Find out if anyone support for finance.

Support and patience from family and friends is perhaps the most crucial factor in a woman's recovery. Talking about her feelings, particularly with other women in support groups or to a professional counsellor, can be helpful. In more severe cases, anti-depressants and other medications might be used to bring about a change in mood. It's important to remember that PND is a temporary condition that will improve with time.-from better health.

Offer psychiatric refer but need to get consent from the patient for that, if she still has insight.
- Do you like to see a specialist or you have anyone you would like me to refer you to?

If baby is in danger, can admit the baby to health scheme and contact human service.

6. A 28 years old lady at GA 40 weeks. AntiNatalClinic is normal but she wants to know about labour is overdue.

Task: Discuss management

Counseling about prolonged pregnancy and post-term

Question:
- Any complaint?
- History of stillborn, etc.
- Current pregnancy: U/S scan for EED, BP, BSL.
- Fetal movement,

Findings:
- Recheck date
- CTG
- PV
- fundal height

This case, CTG is done today and the result is fine, date is 40 weeks. PV shows bishop 2-3, fetal movement is 10 in 12 hours.

Explain that it's O.K. that the baby is overdue.

- Only 4% deliver on due date
- 60-80% deliver 1 week ±
- 2-3% goes beyond 2 week (10-14 days after due date)

However, if the pregnancy goes beyond 42 weeks, there is increase incidence of intrauterine death so we have to do CTG weekly.

If she is extremely anxious and ↓fetal movement:

- CTG twice a week
- U/S check amnio-fluid index (AFI)

Treatment options include:

1. expectant and reassurance
2. induction

Let the pregnant woman chooses.
Expectant management is less invasive and more natural, twice weekly until 43 weeks when reviewed by OB.

Tell the date to induce and explain about how to induce:(cheaper and safer but intrusive)

- Start from Prostaglandin – to dilate cervix.
- ARM (When your cervix starts to open, we'll break the membrane)
- Oxytocin 10 unit + NSS 1000 cc start 40 drop/ hour, adjust with contraction every 5 min, until get 3-4 contraction/10 min. (We'll give you hormone to make you start contraction, you can request epidural block if it's too painful.)- to stimulate uterine contraction.
- If fail induction → C/S or F/E

Complication of posterm

- Meconium aspiration
- Intervention labour- too large for vaginal delivery
- Hypoxia- placenta starts to deteriorate after 38 weeks.

7. Primigravida, comes to you requesting CESAREAN/SECTION. Discuss pros and cons.

Pros: ↓incidence of urinary incontinence
Some researches show that incidence of complication of baby increase after vaginal delivery, less complications after cesarean section. But not safe for the mother.

Cons:

- Risk of anesthesia
- 6 weeks to heal
- ↑Risk of DVT due to immobilization
- Risk of fail lactation
- ↑Risk of next C/S
- ↑Incidence of placenta previa, aruptio placenta
- ↑Postpartum risk
- Not good to have many children: after 4-5 children, most cases end up with hysterectomy
- ↑Rupture in uterine segment

8. A pregnant lady 34/40, wants to have C/S due to husband is going overseas. Advice.

Take history first: are you happy with your pregnancy, foetal movement, headache, visual disturbance, swollen hand? or legs? Infection? Vaginal bleeding? U/S done? Antenatal care regular? BP and BSL?
No C/S when absent medical condition, advice seek 2nd opinion, might be OB or Paediatrician.

I'm not happy to do it but you can seek second opinion for that

9. A 58 year-old woman presents with acute PV bleeding
Task: Ddx
Management

To start this case, please ensure patient's haemodynamically stable.
The important thing to ask is she's undergone menopause or not.
Ddx: Malignancy (Cervix or uterus)
Atrophic vaginitis
Polyps
Drugs: Warfarin
Coagulation defect
HRT
Trauma: postcoital bleeding

History:
- Pap smear: 10 years ago (stop pap smear when 65, having 2 normal pap smear in the last 5 years)
- Menopause?(Must have the absence of menstruation for consecutive 12 months
- Hysterectomy?
- Medication- warfarin?
- Trauma, sexual intercourse
- Family history of bleeding problems?
- Medical condition –bleeding problems?

Physical examination:
- GA
- Lymph nodes
- Abdomen: mass?
- External genitalia
- Speculum examination:
  - Get biopsy if abnormal
  - Pap smear if normal
- PV
- PR if think about cancer

Investigation:
- Transvaginal ultrasound: ≥ 4 mm
  - Small endometrial biopsy (Pipple?)
  - No need for D&C [*A dilatation and curettage (D&C) is an operation performed on women to scrape away the womb lining. The cervix (neck) of the uterus (womb) is dilated using an instrument called a dilator. The endometrium (lining of the womb) is then lightly scraped off using a curette. This spoon-shaped instrument can be used to remove diseased tissue, treat abnormal bleeding or to obtain a specimen for diagnostic purposes.*]
  - Hysteroscopy and D&C if many….(?)
    - If can't tolerate, use GA
- Important investigations:
  - Pap smear
  - U/S transvagina
  - Endometrial sample (if ≥ 4 mm) → if result is negative, 95% exclude cancer

If grade 1, refer her to Gynae-oncologist for further management, might be hysterectomy and/or radiation.

10. Vaginal Herpes Simplex type 2 in a pregnant woman.

Task: Manage the case (May 2005, Melbourne)

Addressing concerns

How long is the pregnancy?
If active lesion → C/S and when PROM < 6 hours
If primary lesion → increase risk of fetal transmission.
If repeated, less severe.
Can give acyclovir, safe for fetus.

Hepatitis B: Passive immunization at birth
Get protected during pregnancy
- Hepatitis immunoglobulin with Hepatitis B vaccine at birth and then at 1 and 6 months

- Can have N/D or C/S

Hepatitis C: If PCR is +ve, chance of vertical transmission is 5%
If nipple is crack → no breast feeding
If nipple is O.K. → O.K.

HIV: 50% if N/D and mother is not treated
25-30% if mother is not treated
5% if mother is treated:
- Zidovudine from 20th week then infant is also should be given.

0.5% if mother is treated and C/S

Genital Herpes (O&G p.141)

- Risk of transplacental transmission is 1:1000, more likely to happen in primary than recurrent infection.
- Risk is greater during childbirth, particularly if mother has developed a recurrence of the condition or is shedding the virus from her cervix.
  - A woman with a history of genital herpes need have no anxiety that her baby will be infected and may expect to be delivered vaginally, unless a recurrence of the infection or a new infection occurs during the pregnancy.
  - If a first infection or a recurrence of genital herpes occurs during the pregnancy, but has healed by the time labour starts, the woman may give birth vaginally.
  - If herpetic lesions are present when the membrane rupture or labour starts, a C/S should be performed to avoid the risk that the baby will acquire a herpetic infection during the passage through the birth canal.
- Take endocervical swab for viral culture every 2 weeks from the 34th week should be abandoned, as positive HSV-infective swabs do not predict the risk of the infant being exposed to herpes infection during birth.
- There may be a connection between genital herpes and cancer of the cervix, but that cancer is treatable if Dx early- 'a smear a year' is the rule.

11. postpartum fever – tender breast 4 days after delivery
Task: History, diagnosis and management (May 2005, Melbourne)

A 30 years old female, mother of a 4 weeks old baby boy, comes to see you complaining of feeling tired, fatigue and fever.

Task: Take relevant history
Ask about the examination finding from the examiner
Discuss the diagnosis with the patient (Midia's tutorial)

Hx: when did it happen? Any fever? Any other problems? How did you feed the baby?calf pain, sensation of burning when passing urine? Any cough?

PE: Temp. 38.4
Breasts: tender, nipple-OK no redness.
Calf pain? Chest examination?

Order investigations: FBC, U&E, URINE dipstick, chest x-ray, Doppler U/S, blood culture, swab of milk, swab of the wound,

Ddx: Mastitis: *[Mastitis means inflammation of the breast. Milk duct blockages cause milk to pool in the breast. This forms an ideal environment for bacteria growth and can lead to an infection]*

Breast abscess: treatment is I&D and admit

- Start feeding from affected side first (soft tissue injury so baby can suck from affected side) so baby sucks more
- Don't stop breast feeding now because it's important to empty the breast
- Keep breast fed for 2-3 week then if the patient wants to stop, she can
- Treatment by ABO (Flucloxacillin) for 10 days, paracetamol, cold cabbage leaf, no need to admit
- *The application of heat before a feed, gentle massage of the affected area during feeding, and cold packs after a feed for comfort.*
- *A change in feeding position.*
- *Frequent drainage of the breast through feeding and expressing.*
- *Wear loose, comfortable clothing. Bras if worn, should be properly fitted.*
- *Mothers and should thoroughly wash their hands before touching the breasts after a nappy change.*

12. A lady who is 20 weeks pregnant, noticed yesterday that her 6 years old son has developed chickenpox rash. She is enquiring regarding her exposure to chickenpox. (May 2004, Brisbane)
Task: Take relevant history and answer patient's questions.

If > 20 weeks, less chance to get infected.
It is dangerous in pregnancy, complication could be even encephalitis is the baby.
If contact early in the 1st trimester, can cause fetal anomaly.

This case, check her serology for IgG and IgM
If IgG is positive: no worry
If IgG and IgM is negative: repeat in 2 weeks
Consider giving 12.5 units/kg of VZV immunoglobulin IM within 96 hour (or 7 days?) after exposure.

O&G p.143

- Primary infection can result in serious complication for both mother and baby as maternal immune system is less efficient.
- Complications:
  - Pneumonia 10% in mother can lead to death
  - First trimester: fetal anomaly such as microcephaly, lung hyperplasia, cataract, IUGR, psychomotor retardation
  - If maternal infection becomes apparent 7 days before or after delivery, the baby is at risk of developing disseminated varicella infection as maternal Ab production will not yet be adequate.
  - If doubt about the Dx or previous history of infection → take blood for IgG and IgM
  - High risk: give VZV immunoglobulin IM
  - Severe maternal infection: Acyclovir 5-10 mg/kg every 8 hours.
  - Infected infant maybe given both VZIG and acyclovir

OHCS p.216

- If mother is affected 1 week before or 4 weeks after, the baby might get severe infection → isolate from other babies and give VZIG and acyclovir

12. 26/40 week pregnant is present for her regular check-up. Two weeks ago FH was 26 and now is 40 cm. No complaints, she is Rh+, GTT normal, U/S at 18 weeks was normal. The U/S is done today. There is a large amount of amniotic fluid and something wrong with the baby (?). I admitted because she lived 30 km from the hospital. The patient asked about the delivery. (April 2004, Melbourne)

Primigravida comes to your clinic for shared care. Her obstetrician is 30 km away. At 26/40, the FH was 28 cm, 4 weeks later FH is 40 cm. She feels tired and discomfort.

Task: Relevant history

Ask the examiner for findings and investigations

Discuss the diagnosis and management with the patient

(U/S shows no abnormality of baby, no fever, no PIH, GCT normal, discuss the risk of preterm labour, refer the baby to OB…etc)

History:

- Did you remember your last period exactly? (check date)
- Do you have any fever, flu or painful passing urine lately? (infection)
- Have you had any U/S scan before?(check fetal anormaly)
- Have you had screening test for fetal anomaly before?(check fetal anomaly)

- What is your blood group(hydrop)?
- Do you have DM or have you had your blood sugar checked? (gestational diabetes)
- Is there anyone in your family has diabetes?(diabetes)
- How is your baby movement?
- If had baby before, what was his/her birth weight? (diabetes)

Physical examination:
- GA: if obesed, FH is not reliable, ask for BMI
- V/S
- FH: feel any water? Fluid thrill

Investigation:
- GTT?
- U/S
- Urine exam: sugar?
- Rh
- CTG (by obstetrician)

If DM → monitor blood sugar
Increase exercise and diet control for about 1 week if PP sugar > 6, introduce insulin and U/S every 4 weeks

Cause of size>date:
- Large constitution
- Polyhydramnios
- Wrong date
- Multiple pregnancy
- Macrosomia from DM
- Hydrops from Rh- mother

If polyhydramnios in this case
Risk:
- Preterm labour
- PROM
- Cord prolapse on delivery
- Unstable lie: malpresentation
- Abruptio placenta
- PPH

Might use NSIDS but consider the risk of premature closure of PDA(patent ductus arteriosus)
Amniocentesis is the last source, if mother is very distress but increase risk of infection and most cases end up with preterm labour

Inform her obstetrician and refer to tertiary centre immediately for CTG and management.

O&G p.149
Minor degree: May sedate at night(sedative will relieve the symptoms.)
Worse by 30-35 wk: Amniocentesis < 500 ml each time but lead to infection and preterm labour.
>35 weeks: Amniocentesis and labour
Release fluid sowly to prevent cord prolapse. PPH is likely and prophylaxis oxytocin should be given.

13. A 28 years old lady delivered a healthy baby by C/S 2 years ago. Now she wants to be pregnant again but she doesn't want to deliver the baby by C/S. She wants a normal vaginal delivery.
Task: History
Tell her whether she can deliver by C/S or V/D
Explain her details (August 2004, Melbourne)

Questions to ask:
- How long was your labour?- give you the hint of the whole ideas of labour(passage, passenger, etc..)
- Why did you have C/S?
    - If breech, fetal distress, poor progression, not due to CPD → it is possible to have VBAC(vaginal birth after caesarean section): success rate is 70%
    - If due to CPD(cephalic pelvic disproportion): success rate is 50-60%
    - What is the cesarean section? Classic or low segment?
- How much dilated before went for C/S?
    - If 6 cm → can go VBAC
- How weight the baby was at birth?
- Did you have any medical problems such as DM during the last pregnancy?
- Is there any DM in your family?
- Why don't you want a C/S?

VBAC: Risk of rupture uterine
1. 0.4-0.5% in low segment
2. 2-5% in classic incision

Complications of cesarean section: rupture of the uterine, placenta previa etc.

VBAC can be done 1-2 years after scar healed and induction is not possible.

Depend on indication for C/S in previous pregnancy if it was obstructed labour, it's better to repeat C/S

14. **26 years old lady came to see you because she wants to be pregnant. She has a past history of termination of pregnancy at 14 weeks and wants to know about prognosis. (She is Rh-)**(2003, Melb)

28 years old lady, induced abortion 2 years ago. She wants to know about possible complication on future pregnancy
Task: Relevant history
Management (prenatal counseling, consequence of previous pregnancy, blood group)

Questions to ask:
- What were the reasons of having abortion?
- Was it induced abortion or spontaneous abortion?
- What procedure did you go through?
- How many weeks of pregnancy at that time?
- What is your blood group?
- If Rh negative, did they give you any anti-D antibody?
- Were there any complications such as infection, bleeding after that abortion?
- Did you take any medication afterward?
- Any change to your period after the operation?
- Did you have any gynecology problem?
- Relationship with your partner? Healthy?
- Pap smear?
- Contraceptive method?
- Where did you have an abortion?

- There is no reduction of the woman's fertility or any increase in the risk of spontaneous abortion, preterm labour or fetal loss in a subsequent pregnancy.
- An induced abortion preformed before 12 weeks in a well-equipped and staffed clinic is followed by complications.

15. **A woman in her 37th week of pregnancy comes to discuss the result of a vaginal swab, which is GBS positive. (group B streptococcal infection)**
Task: Explain, advice and management(September 2004, Adelaide)

28/40 week, with GBS positive and vaginal candidiasis with no signs and symptoms. (Chandrika)

20-30% of normal population have GBS positive without signs and symptoms
6-30% of pregnant women have GBS positive in upper vaginal

There is small percentage of transmission from mother to baby (1-2%) but if infected, it's very severe: can die from septicemia and need multiple ABO so it's better to have treatment.

Mother should have loading dose and another dose of ABO to cover, if not, baby must have full screening.

Penicillin 1.2 gm loading dose then 600 mg IV 4 hourly during the labour or
Erythromycin 500 mg oral qid
No need to treat asymptomatic vaginal candidiasis.

If baby is infected, give Penicillin 100 mg/kg until every test is negative.

Routine screening: Low vaginal swab at 26-27 wk
It is debatable about IV ABO, suggested that it's effective in premature labour, PROM >18 hr, previously had infected baby, maternal fever >38ºduring labour are obstetric risk factors. Treatment of known carriers or those at high risk with *penicillin during active labour* reduces both neonatal and maternal morbidity.

16. A 25 year-old lady primigravida 30/40 week in rural hospital presents with leaking PV.

Task: Further history
Ask the examiner for findings
Explain the management to the patient

[This was PROM case, confirmed by Fern test. I transferred to tertiary hospital and did the usual counseling as onset labour, fetal monitoring, preterm baby and social support]

(May 2004, Adelaide)

In 2nd trimester consider risk of
- Preterm: Lung and LN development
- Chorioamionitis(intra-uterine infection)
- Fetal distress

If delivery: Good outcome 5%
Bad outcome 95%

If 28-36 week: Viable—same risk as
- Conservative until 34-35 week
- Don't stay at home: Admit for chorioamnionitis monitoring
  - Speculum, U.S
  - Vaginal swab
  - No PV
- Give Erythromycin in PROM until get the result of vaginal swab
- CRP and ESR every 2-3 days
- Fetal heart rate monitor, temperature, pulse

If want to go home → come to hospital every day to check abdomen and temperature

If going to delivery → need neonatal unit for premature chance so need to transfer to tertiary hospital. If < 34 week, give steroid 24 hour

Mum has to know the expected outcome

- At 37 week:
  - Sucking reflex
  - Temperature control
- Survival at 28 week is 75%

35-36+ week (near term)
Give 24 hour then induction, normally PROM at this time
75% delivery in 24 hours
90% delivery in 1 week

17. Contraception for post-partum woman.

Breast feeding

- 3-4 times a day and at least 1/night
- Chance for pregnancy 2-5%
- After 6 months 15%
- Can give progesterone only as oestrogen suppresses milk production
- SE of progesterone only
  - Depression
  - If fail → high risk of ectopic pregnancy

6 week post-partum, advice IUCD, implant, minipill (need fixed time and if miss → 7 days rule

Depo Provera

- Progesterone, inject every 2 months (3 mo from RWH)
- After 1 year → no period

Implant (Implanol)

Six silastic capsules containing levonnorgestrel are introduced subdermally into the anterior aspect of the forearm through a cannula, after making a incision through the skin.

- Last for 3 years
- Day procedure, cost~30-40$
- Need to be sure that the couple doesn't want more children within 3 years.

- Can be done before discharge, in the same admission

IUCD
- Wait for 6 weeks, until uterus is back to normal size
- Before that, increase risk of perforated uterus

When will I ovulate?
Ovulation returns in 3-9 months
Most women have period in 6 months
When stop breast feeding → can go back to normal OCP (oestrogen)
If she doesn't want to breast feed, she can start OCP straight away.

18. A 28 years woman had normal pregnancy 2 years ago with DVT and PE 3 days after labour. She plans for another pregnancy and comes to see you for counseling.
(Adelaide, April 2005)

Questions to ask:
- Any PH of DVT, apart from pregnancy?
- PH and FH of DVT and coagulation factor
- OCP
- BMI, smoking
- Previous pregnancy history: C/S?
- Any varicose vein?
- Has thrombophillia been screening?
- Pre-existing maglignancy

Refer to physician for assessment
Refer to high risk clinic for assessment before and after pregnancy.
They might do the following:

If PH of DVT with risk factor → no need to prophylaxis.
If FH of DVT, coagulation defect → prophylaxis during PostPartum period.
If PH of DVT in the previous pregnancy → prophylaxis during pregnancy, not PostPartum.

Give Claxane (low-molecular weight heparin) until 36 week (can't reverse) → then heparin → PP use claxane or warfarin (can breast feed)

Refer to OB
Drink more water and increase mobilization and exercise during pregnancy.
Stop smoking,
Healthy diet, she take folic acid and iron tablets.
Tie stocking

Reduce weight

19. Primigravida, 18/40, U/S finds twin pregnancy, two placenta with thick wall of sacs in between the fetuses, normal placenta.

Task: Tell the patient the result of the U/S

Talk to her as regard the management, what she needs to know

You can ask brief history and findings

(Sydney, March 2004)

She didn't take any folic acid during early pregnancy, blood O+, can feel fetal movement. No history of severe N/V, no headache and blurred vision, urine exam in normal.

This is diamniotic-dichorionic twin → low risk pregnancy. It's less likely to have twin-transfusion syndrome.
Tell her that she's carrying two babies and they seem to be alright.

If old age → discuss about Down's syndrome screening.

Risk:
- Hyperemesis gravida
- High diet desire → Fe, Folic acid, Ca
- ↑Risk of pregnancy
- ↑Preterm delivery
- ↑PPH
- ↑PROM
- ↑Hospitalization
- ↑PIH

If she Rh-, give anti-D, unless she's been immunized, at 28, 34 week and PP within 24 hour

Need more support and social worker.
More visits and more U/S

Vaginal delivery is possible if:
- 1st baby is head presentation → if not, C/S at 38 week
- Not monoamniotic-monochorionic twin → C/S at 32 week, survival is great.

20. A 27 years old lady had a baby with spina bifida, comes for advice as she plans to get pregnant.

1. Counseling

Increase chance 5% than normal population
Folic acid 1 months before conceive and first 3 months of pregnancy, reduce 70% chance of NTD(neutral tube defect).
* Normal 500µ g
* In her case 4-5 mg (10 times higher)

NTD test: Diagnostic tests
1. Maternal serum screening at 14-15 week, esp. AFP
2. U/S at 18-19 week
    a. At 12 week can Dx anencephaly
    b. At 18-19 week can Dx NTD

No invasive procedure, however, spina occulta cannot be diagnosed easily

If she still has NTD baby → can offer termination
Advice her about genetic counseling and folic acid
General pre-conception counseling and blood test as usual

21. A 29 years old nulliparous wowan, has pain on menstruation and with sexual relationship with her husband.
1. **Relevant history**
2. **Relevant finding**
3. **Management**

(Sydney, March 2004)

Pain all through menstruation and on deep penetration. Menarch and menstruation are regular, no spotting and no discharge. No smoking, no alcohol, been healthy before.
O/E: Retroversion uterus, no d/c, nodules felt posteriorly (Douglas pouch) and tender at posterior fornix.

Questions to ask:
- Pain, is that cyclic pain?
- Peri-menstrual bleeding
- Cycle history and menstrual history
- Multiple partners? (Ddx with PID, in young lady)

Findings:
- GA, abdomen
- Speculum (not specific)
- PV: might pain on deep bimanual palpation

What is endometriosis?
Normal uterus tissues goes somewhere else.

Why does it cause pain?
Due to bleeding inside and post-scaring

20-30% related to retrovert uterus but normal also can cause if have scar that cause retrovert

U/S is not useful but might see cyst in ovary
Diagnosis based on history and Laparoscopic diagnosis

Can prescribe NSAIDs and OCP but "Gold standard" treatment is laparoscopic endometriectomy

Will it affect my fertility?
Yes, egg cannot be transferred or problem with implantation. If try to get pregnant for 12 months → need investigation for infertility

This case, need to refer Gynecologist for more investigation.

22. 18 years old girl with primary amenorrhea. All secondary sexual signs have been presented for 3 years. FH of puberty delay, mother had menarche at the age of 17.
(Melbourne, April 2004)

Questions to ask:
- Normal birth, growth and development?
- When did she have breast and pubic hair?
    - Breast → pubic hair → growth spurt → menarche
- Height and weight to r/o Turner's syndrome; stress ovary
- FH: mother's menarche (constitutional delay)
- Is she doing well at school?
- Does she do excessive exercise? Anorexic?
- Medical problems? Such as thyroid problems?
- Drug history: medication, smoking and alcohol.

Finding:
- GA (any stigmata of Turner's syndrome), breast, pubic hair
- Thyroid
- Abdominal mall? If lump with cyclic pain → might be imperforated hymen (bulging of rigid hymen +/- small opening)
- Is she sexually active?
    - If yes, full examination
    - If no, external genitalia is enough
- If blind ending vagina: Mullerian agenesis (noCx, noUt, have Vg)
- Turner's syndrome:
    - Streak ovary
    - Short stature
    - Deformity
    - Confirm Dx by U/S and karyotype

Ddx:

- Constitutional delay
- Turner's syndrome
- Mullerian agenesis
- Anorexia – stress, over exercise
- Imperforated hymen
- Primary ovarian failure
- Polycystic ovarian disease
- Thyroid problem
- Pituitary gland tumour

If everything is normal (including U/S +/- karyotype) → wait another 1 or 2 years.

Can try estrogen-pregesterone → withdrawal bleeding for primary ovarian failure

Investigation:
- FBE
- FSH, LH to r/o ovarian failure
- estrogen
- TSH
- prolactin
- Liver function test
- U/S
- CT,
- Karyotype

If constitutional delay, can treat with hormone challenge if >16 years old.
If delay growth → might give GH + oestrogen
Refer but discuss the options for Ix and treatment

23. A 28 years old man with 12 month-infertility, his wife's investigation for infertility is normal. His semen: volume 6 ml, motility is 95%, with severe oligospermia and morphology is 30%.

1. **History taking**
2. **Finding you want**
3. **Management**

Questions to ask:
- Is this first time marriage? How is your wife, is this first time as we;;?
- Have you had any children before? How about your wife?
- Any infection or problem with water work? Painful passing urine?
- Past history of orchitis?
- Any radiation, medication, surgery?

- trauma
- How is your relationship? Sexual activity? Impotence?
- How is your job? Work place (warm decreases sperm). Any stress?
- Drug, smoking, alcohol

Finding:
- GA, height and weight
- Abdomen: any mass?
- Testicular mass? Are they present and equal?

Repeat sperm count (always)
Advice about excessive temperature
Options for IVF
- 1 cycle success rate is about 25%
- 3 cycles success rate is about 40%
- Cost around 1-2,000 $ per attempt

Intracytoplasmic sperm injection has a bit better success rate for morphology abnormality.

Refer to infertility clinic
Investigation that can do
- Repeat sperm count
- Antibody?
- U/S testis
- Testosterone
- Testicular biopsy by specialist

24. A 20 years old lady has pelvic pain and discharge. Vaginal swab for Chlamydia is positive. Her boyfriend is overseas.

1. Counseling and Management

Questions to ask:
- Is this first time of symptoms?
- Contraception? IUCD
- Safe sex?
- How many partners?
- How is your boyfriend, does he have any symptoms?
- Paps smear

Even treated, Chlamydia can affect fertility, cause PID and chronic pain, increase the chance of ectopic pregnancy → Do U/S to exclude TOB if suspected

Man: Unaware of signs/symptoms, might get it before

Offer STD screening, safe sex and explore about sexual experience with

others → should contact them to check and treat.

Treatment:
- Doxycyclin 100 mg bid for 10-14 days
- Ertythromycin 1 gm IV stat with partner (if pregnant)

Don't use IUCD- increase the chance
Offer the follow up 2 weeks. Do PCR- swab.

25. A pregnant lady GA 37/40, comes with breech presentation. She is primigravida and wants to know her options.

Explain what breech presentation is. U/S to find the cause of breech.

Cause of breech
- Abnormal baby: macrosomia, anencephaly
- Abnormal uterus or placenta and passage: Fibroid, placenta previa, retracted pelvic
- Polyhydramnio

These are the options, tell benefits and risk
Breech if mobile, can turn by itself

External cephalic version (ECV)
- 37-38 week, under U/S guide
- Complication is tear cord, prolapse cord and placenta, acute fetal distress → might need urgent C/S (rare)

Breech trial has very poor outcome, not worth to do and only can be done in multipara. This case C/S is indicated.

U/S, offer ECV even it's fixed, REFER to OB
Tell her that vaginal trial has poor outcome but can try. She can decide what she wants.

26. A 28 year-old, primigravida, 28/40 week, has GTT suggested DM
- **a. Relevant history**
- b. **Counseling regarding to management**

Her mother is diabetic started from pregnancy until now.

Explain what gestational DM is: Hormone interfering with normal metabolism → metabolic control effects the baby

Ask about her diet → suggest diet control → refer to DM educator, dietitian and leaflet**

- Diet control for 2 weeks → if not good control → insulin → refer to endocrinologist
- Monitor blood sugar and record in log book, see Dr more frequent
- Do another U/S at third trimester to assess growth (34 and 38 week, if sugar control, only at 36 or 34 week once)
- 6 weeks after Dx → GTT
- See weekly after 30/40

Delivery
- If good controlled DM, <4.5kg and about 38/40 week → V/D
- If not well controlled → Trial induction at 38 week

Baby
- Might be big (usually)
- Fluid retention
- Risk of lung disease
- Need to got to nursery for sugar monitoring and formula feeding
- Many of them have hypo- Ca, Mg, glucose

Other management points:
- GCT at 28/40 for screening, if abnormal → GTT
- If already DM type 1 and get pregnant → same as other but refer to high-risk clinic and change metformin to insulin
- Long term DM → have to exclude nephropathy, retinopathy, HbA1C
- Refer to ophthalmologist, nephrologists before getting pregnant
- Inform about high risk of abnormal baby
- If BS is very bad, might cause miscarriage

27. A post-menopausal age lady comes with vaginal discharge → yellow and brownish

1. **Management**

Questions:
1. LMP
2. postcoital or constantly
3. clot and detail about the discharge
4. other symptoms: loss appitite, weight loss, abdominal pain etc, WASTED.
5. sexually active? Early?
6. past history, cancer, or other gynaecological problems?
7. FH of cancer
8. drug history: smoking ,alcohol, HRT
9. allergy
10. screening: PAP smear

PE:
- LN -ve
- Abdominal mass: no

- Cervix:
    - Small irregular nodule ~ 2cm, slightly red with d/c on top
- Uterus:
    - Normal size, consistent with post-menopause
    - No parametrial mass, no vaginal lesion
- PR: negative

Investigation:
- Pap smear (?): SCC, no invasion

Refer to gynae-oncologist
Biopsy,
Staging test: CT, BONE SCAN, U/S
Daughter is at risk → F/U and suggest pap smear

If suspected CA endometrium
- Pap smear
- U/S: thickening of lining ≥ 4mm → hysteroscope with Bx
- CT, CXT, etc.

Treatment is hysterectomy + chemoTx + radioTx

CA ovary tumor marker: CA-125 and AFP
If young girl: AFP, CEA (?)

28. A 35 year-old lady G2P1, previous N/D now 12/40 week, comes to ED with brownish d/c

1. **Take a history**
2. **Ix and management**

LMP 3 months ago and had Urine pregnancy test 1 month ago (+ve). Last night she had brownish d/c and it's 1st time, not a lot. No hard work or trauma. Regular mense.

Questions:
- Bleeding?
- Any injury
- Urine and hot flush, abdominal pain
- Pap smear
- Associated s/s: abdominal pain?
- What is you blood group?

PE:
- GA (look well)
- V/S (normal)
- H&L (normal)

- Abdomen (normal)
- Check her panty liner → brown streak
- Speculum: closed Cx with brownish d/c per os

Ix:
FBE
Serial serum β -hCG (repeat in 48 hour)
Blood group and Rh
U/S: 10 wk size with CRL size, no fetal heart beat (missed abortion)

Are you sure Dr? Can I wait another few weeks to see fetal heart beat?
If 7+ week, 100% for U/S to pick up heart beat. I'll refer you to see specialist and he or she will discuss with you about options for treatment.
- D&C
- Wait about 2-3 weeks, can aborted by itself but there is a risk of coagulation defect (~4 wk)
- Most Gynaecologists prefer D&C than waiting

If bleed and Hb<8-9 → send patient by ambulance to ED

Risk of next miscarriage is ~15%
DNA test – x chromosome fragile

Advice for next pregnancy:
- Folic acid
- Rubella screening
- U/S early
- ANC early
- Not carry guilt

Threaten miscarriage
If it's difficult to conceive (eg.IVF many times) → try progesterone
- Rest
- Folic acid (good for developing tissue)
- Repeat U/S
- Might do coagulation study

Complete miscarriage
- F/U β -hCG 1 week, if going down → repeat another week
- Ovulation returns straight away so start contraception from now
- Advice folic acid

Trimester miscarriage
- Infection → TORCH

- Cervix incompetence (most common*)
    - Treated by cervical stitch ~14 wk because chance of miscarriage in the 1st 12 wk is normally high
- Abnormal uterus eg. Septal
- Fetal anomaly

29. A pregnant woman, 28/40 comes to see you for advice. She lives very far from the hospital and had a bad experience with the 1st delivery (prolonged labour for 24 hours).

1. **Address her concern and Mx**

Questions:
- What happened in her first pregnancy?
- Any complication such as DM, HT?
- Prolonged labour → was it regular contraction?
- What is your plan for delivery?
- Do you have any relatives living nearby the hospital?
- What is your U/S results? Any other results – from the ANC.

If she wants to relocate → not a bad idea but explore her financial and social concerns

- If high-risk: she has to stay close to the hospital
- If low-risk: come as soon as she has contraction or call an ambulance

Tell her to go to hospital if any sign of the following.
- Rupture membrane
- Mucus-bloody show
- PV bleeding
- Labour pain 5 mins apart,
- Don't feel comfortable at home,

Or you can ring the hospital talk to the midwife and she will ask you some questions, she will help you to decide when to go to hospital.

Also advice about fetal movement
Discuss induction of labour at term
Explain that often the 2nd labour is quicker than the first one
Explore her concern, she might want to have a C/S

30. A 37/40 pregnant lady comes to see you and wants induction. ANC was normal

Explain to her that
- She got no Obstetric complications and pregnancy can be delayed till term
- If induction at 37 week → more chance to fail and precede to C/S which

has more complications than N/D
- Effects to baby:
    - Poor sucking
    - Poor temperature control
    - Poor breathing

31. A 26 year-old pregnant lady, primigravida, 26/40 comes to see you at ED in rural hospital with a labour pain

1. **Take a history and PE**
2. **Management**

No water break, no infection, no trauma
Cx is 3 cm, contraction is true labour

Questions to ask:
- Contraction Q: true labour pain or false labour pain
- Infection → Diarrhoea, UTI, fever, BV (subclinical infection)
- Any previous cervical surgery eg. Cone biopsy→ more likely to have cervix incompetence
- Blood group
- Pap smear

Management:
- Explain to the patient that labour is going on and need to refer to tertiary hospital urgently
- Swab when doing speculum
- ABO cover → Erythromycin
- Suppression of labour by giving tocolytic agent
    - Nifedipine 10 mg orally every 15 min until maximum 40 mg
    - Continue 20 mg qid
- Steroid 2 doses
    - Dexamethasone 4 mg IV every 6 hours
    - Betamethasone 11.4 mg IM every 24 hours
    - Best result between 24-34 week
- Refer to tertiary hospital

Fetal fibronectin is protein that line between amnion and chorion.
- If –ve: Negative predictive value 90-95% will not have labour in 7 days
- If +ve: Positive predictive value 70%

I'm afraid to tell you a bad news that the labour is going on and I need to refer you urgently. I'll give you tablet to suppress the labour while transferring you to the tertiary hospital. (I'll call the tertiary hospital what they want me to give to you.)

Will my baby die?
At 26 wk, I'm afraid to tell you that it's not the best outcome (50:50).
26 week → 50/50 resuscitation for 20 min, stop if Apgar score is still low
28-30 → > 50%
32 week → nearly 75-90%
34 week → 90-95%

Why do I have to go to tertiary hospital?
Well, as I told you the outcome is not very good and your baby needs to be admitted in the nursery care unit until term. We don't have that facility and it's better for your baby to have a better care from them.

Effects to baby
- Need NICU, at least till term
- May have anomaly
- May need intubation and IV line

Offer social work → arrange accommodation for her

32. A pregnant lady 28/40 had a car accident, her husband is admitted due to severe injury. Mx

Questions to ask:
- Was it high impact or low impact injury?
- Were you a driver or passager?
- Did you wear seat belt?
- Did you loss consciousness?
- OB Hx:
    - Any PV bleeding?
    - Contraction
    - Fetal movement
    - ANC: normal?
- Associated injury

PE:
- Abdomen: Any tenderness
- Bruising (deep or superficial)
- CTG (26-28+ wk)
- Fetal movement
- Speculum, no PV

Ix:
- U/S
- FBE
- Blood group, Coomb's test, Rh, antibody (normally present after 5 weeks)

- If Rh- → give anti-D
- If Rh- got anti-D before and still –ve → give anti-D

Management:
- Admit for 24 hour to monitor and see any complication

33. A subfertile woman, had IVF done 13 days ago and confirm pregnancy test +ve. Advice

IVF → 30% chance of *multiple pregnancy*
40% successful rate over 3 cycles
Always do quantity β -hCG
U/S at 6 week (transvaginal)

Complication of IVF
- Ovarian hyperstimulation syndrome
  - Pain
  - Electrolyte imbalance
  - Ascites in severe case

Management:
- Confirm pregnancy, congradulation -
- Early detect *multiple pregnancy*, close monitor,
- Ectopic pregnancy- transvaginal U/S
- Routine ANC care → screening such as FBE, grouping, HepB, hep C ,HIV, syphilis, Chlamydia, rubella.
- Down's syndrome screening if >35
- More chance of miscarriage ~30%, ectopic pregnancy, frequent monitor, U/S etc.
- Management of complication of IVF.
- Folic acid, well balanced food,
- Smoking issue, alcohol.

34. A pregnant lady, 8/40 week, with chronic anaemia. Electrophoresis shows HbA2. Mx*

A pregnant day comes for 1st ANC, found Hb 80

History:
- Anaemic S/S
- FH of anaemia

In pregnant lady Hb ~ 11 is normal, if Hb < 7 give blood transfusion.

MCV if < 80
- Thal

- Iron deficiency anaemia

- Do iron study and if ↓iron treat with iron tablet and repeat
- If iron is normal → Hb electrophoresis

Management
- explanation: **oxygen** is carried in red blood cell by a form of protein called **haemoglobin**, thalassemia is a disorder affected haemoglobin resulting in anemia. This disorder is passed on from parents to children via **gene**. There are **two kinds** of thalassemia, thalassemia minor, containing one copy of beta thalassemia. All affected individuals are healthy **carrier**. Thalassemia major: the individuals have two copies of alpha thalassemia gene. All have **severe** anemia.
- Check partner, if he's Thal minor → chance of having Thal-major baby is 1 in 4
- Check FBE and iron study, Electrophoresis, DNA to see whether β or α , rule out the IDA. Need iron tablet if iron low.
- Refer to genetic counseling
    - Might have CVS at 9-13 wk or
    - Amniocentesis at 14+ wk
- No need to increase folic acid
- Normal pregnancy workshop.
-

35. A 38/40 wk pregnant lady has fit while she was waiting to see a doctor at ANC clinic.

1. **Talk to mother**
2. **Management**

No PH, FH of epilepsy, ANC-normal, BP 160/90

1st make sure that the patient is fine

Ddx: Eclampsia
Epilepsy
1st episode of epilepsy

History:
- Did she have episode of loss consciousness, fits, syncope before?
- Hx of ANC, BP during pregnancy?
- Predromal symptoms:
    - Did she complaint epigastric pain, blurred vision, N/V, funny vision before?

PE:
- GA: consciousness, a bit oedematous, look pregnant beyond 38 wk
- V/S: BP 160/90, PR 90,

- No signs of injury?
- Abdomen: FH > date, no tenderness
- CVS & resp –normal
- Reflex: hyper-reflexia + ankle clonus

Ix:
- FBE(platelet), liver function test, renal function, U&E, clotting profile.
- Doppler U/S for fetal heart beat
- Urine dipstick (protein 4+)

Management:
**1st thing to do is show that it's urgent, need to be admitted ASAP.
- Is my patient hemodynamic stable?
- ABC
- Secure IV line + blood sample
- $MgSO_4$
- Send to labour ward
- Organize baby to delivery
- If preeclampsia → 60-70% ends up with C/S

36. A 24 year-old female at term with 8 hr labour with LBP(low back pain).

1. **History and PE/***
2. **Management**

History:
- Fetal movement
- Expect date of delivery

PE:
- V/S, GA
- PV (Cx 4 cm, 80% eff, mild anterior position of Cx, intact membrance, OP, station ?)

LOA(left occipital anterior) is the most common than ROA(right occipital anterior)
If station is not engaged → CPD or abnormal lie

Management:
- Improve contraction by oxytocin → most babies correct presentation by themselves
- Break the membrane
- Pain relief
    - Epidural
    - Pethidine
    - Nitrate

- Prefer epidural as this labour might need instrumental or C/S

37. A primigravida, pregnant lady visits ANC clinic at 36/40, with decreased fetal movement for 2 days.

1. **Management**

The pregnancy has been O.K. No medical problem, no trauma, no Vg d/c. Smoke 25/day, no drug, no alcohol. Drink couple of beers a day. She didn't plan for pregnancy but she's happy.

FH 32 cm, longitude cephalic presentation, unable to detect fetal heart beat.

Questions:
- General pregnancy health
- Index pregnancy
- Medical problems: DM, HT,
- Medication, drugs, alcohol, smoke
- FH

Do the fetal heart sound- refer to hospital for U/S and Doppler.
If baby is confirmed to be dead. Then:

Never let the patient decide anything at that time → shock reaction. Let the patient go home and think about options before starting treatment. The best time to do it is tomorrow or the day after tomorrow.

The best thing to do is you should discuss with your husband and come back to see me tomorrow or next few days.

Offer social support, pastorial care, blood test

Possible causes:
- Smoking
- Drug
- Underlying TORCH
- Uncontrolled DM
- Thrombophillia

Once she delivered → can go home when feeling well and F/U
Grief counseling
No C/S
Terminate by RU-486 (illegal in Aus), Prostaglandin E2

Can wait till 4 week before DIC, but normally after 1-2 wk → check coagulation profile.

If terminate due to chromosomal anomaly → inform the patient that the baby might come out alive

38. **G2P1 35 year-old lady, (1st N/D) 34/40 wk, comes for check up. She's a smoker, the first baby was born 2.2 kg. Pregnancy is fine so far.**

PE: BP 130/90
FH 30 cm, FHR 140
U/S:

- **BPD(biparietal diameter) ~ 30/40(?)**
- **CRL ~ 29/40**
- **Abdominal circum. ~ 29/40**
- **Conclusion: asymmetrical IUGR**
- **Biophysical profile is normal ~ 10-20 percentile**

Task: History and management

Questions:
- Smoking and alcohol
- Planned pregnancy
- Any complications?
- Any infection
- Any bleeding, discharge, abdominal pain?

PE:
- Constitutional of father and mother
- FH
- Speculum: any bleeding?

Ix:
- FBE, (if PET, DM, WORKSHOP)
- Microbiology(TORCH, infections)
- Cytology (chromosome)
- U/S:
- Doppler U/S to measure the blood flow in fetal arteries
- BFP

Management:
If < 10th percentile, esp. 3rd-5th → at risk and need to be delivered
At 10th percentile → wait until 37 wk and beyond if possible (maturity and susceptible for induction
At 50th per
centile → reassure & F/U in 2 weeks

- Closed monitoring
- Be aware of fetal movement
- CTG weekly

- Repeat U/S, growth scan and BPF every 2 weeks or weekly
- Advice stop smoking and cut down alcohol
- Try to keep until 37/40 but if baby gets smaller, need to be delivered

If chromosomal abnormal → symmetrical IUGR so if early symmetrical IUGR, amniocentesis to r/o genetic abnormality
Normally start from asymmetrical first and then symmetrical IUGR

Rest doesn't help
In IUGR baby, cortisol is high due to stress so lung maturity is quite good

Gestational DM

Gestational DM starts from 20 or 25 Wk (which one?)

History taking:
- FH of DM
- Previous pregnancy: N/D or C/S, any complication such as bleeding?
- Previous baby: How big was the baby?
- S/S of DM: polyuria, polydipsia, blurred vision
- BP (DM associated with PIH)
- Was the blood sugar checked?
- Was it the plan pregnancy?

Physical examination:
- GA
- Abdomen: lie and size of the baby
- Might do fundoscopic examination → refer to ophthalmologist

Investigation:
- If GCT was done before → do GTT
- If GTT was done before → repeat GTT
- U/S to see how big, position
- FHR and CTG

Management:
1. Refer to the hospital for assessment and monitor* (might need admission)
2. Team management*
3. Tell her that she has gestational diabetes and explain about DM, after delivery BS will return to normal, about 40-60% may develop DM in the future.
4. Explain about complication
    a. Complication to mother and pregnancy
        - 40-60% develop DM in the future
        - 2nd baby might be big
        - Long labour
        - Polyhydramnios

- Pre-eclampsia
- Bleeding (PPH)
- PROM
- ↑risk of obstetric intervention
- Bleeding from placenta

b. Complication to the baby
- Hypoglycaemia after birth
- Shoulder dystocia
- Prematurity
- Cord prolapse
- Big baby

That's why we need to monitor your diabetes to prevent and detect complication earlier.

5. Life style change: diet control for few weeks then if the blood sugar can't be controlled, go for insulin (no tablet).
   Why I can't take tablet?
   It's not enough time to absorb tablets and you might have N/V that decreases the efficiency of the medication.
6. Regular follow up
   a. Sugar level 3-4 times/day
   b. Urine protein
   c. CTG every week after 32 week
   d. U/S every 4 weeks
   e. Check kidney function

   Tell her that she might to deliver before term, when the lung is mature enough.

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Rape

A 27 years old lady, was raped by Johnny 2 days ago. Management.

Rapport and introduction: Make her to open

- I understand that it's very distressing for you and I'm very sorry for you.
- Are you comfortable to talk about this today?
- Do you want a glass of water?
- I'm very appreciated that you talk about this with me.
- It's safe here and everything we talk about it's confidential.

History taking:

- Can you tell me more about that?
- Have you been seen by any doctor so far?
- Have you talked or shared this information with somebody?
- Do you know Johnny? Is this the first time you're raped? Are you safe

at home? (chance to be raped again)
- When was your last period? Is your period regular?
- Are you using any contraception?
- Was it sexual intercourse? Was it penetration?
- Do you feel guilty? Do you feel like harming yourself?
- How is your mood, eating, sleeping, energy level?
- Do you want to report the police?
- What is your major concern at this stage?

Admission criteria:
- Suicidal idea
- Not eating
- Bleeding
- Not safe at home

Examination:
If she wants to report to police → refer her to see gynaecologist to get sample and rape department (?) for record. Don't touch her!

If she doesn't want to → keep her clothes for 2-3 months, take swab for STD, STD screening: HIV, Hep B&C, Chlamydia, STD
Anytime you change your mind to report, I'll still have your clothes as evidence.

Points**

Never push her to report
STD screening & take swab & HIV counseling
Keep clothes for 3 months
Post-coital contraception: most important** → 94% protection
- Postinor 2 tablets now and 2 tablets in the next 12 hours
- Come back if miss period

CASA: organization for rape

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Home Delivery

A 26 year-old lady, 12/40 week, comes to you for advice about home delivery.

History:
- Why do you prefer home delivery?
- What do you know about it so far? Would you like me to tell you more

about this?
- Is this your first pregnancy?
- If it's 2nd pregnancy:
    - Any complications
    - Was it N/D or C/S?
    - How long was the labour?
    - Any bleeding after the labour? Problems during PP
- If it's 1st pregnancy:
    - Advice that it's better to have a hospital delivery because anything can go wrong during delivery.

Common situations are:
- I hate hospital
- I had a bad experience with my first labour

Counselling:
During pregnancy → exclude chronic condition such as DM, HT.
There are several complications that might happen during pregnancy and delivery such as
- Too big or too small baby
- PROM
- Malpresentation → can't be delivered by N/D
- Medical conditions → DM, HT

Home delivery is fine if the pregnancy is normal and delivery can be done by vaginal birth. However, there are few complications that might develop during pregnancy and labour.

Home delivery

You are going to be there with 1 midwife at home but tell the hospital about your expected date of delivery
Advantages:
1. Nobody there except midwife and your family members. You'll be surrounded by the one you love.
2. More comfort and less distress.
3. ↓need of pain killer → if need, epidural can't be given

Disadvantages:
1. Only 1 midwife with you, if anything goes wrong, she might not pay 100% attention to both of you and your baby.
2. 30% of N/D at home ends up in hospital, that's why we need to let the hospital know your expected date of delivery, in case you need to be admitted in the hospital.
3. Complications with baby such as mucus aspiration and fetal distress, which need to be seen by paediatrician. These are serious complications that might cause a chance of baby dealth.
4. Serious complication: cord prolapse, which need to be delivered by

C/S as soon as detected.

Talk about hospital delivery
There is a birth unit that you can come and have a look. Your baby will also be delivered by the midwife and there are paediatrician and obstetrician around. If anything goes wrong they are just 1 room away. If everything is alright, midwife will do the delivery for you.

You can start attending antenatal class and you can talk and know midwives. You can also choose the midwife whom you like for your delivery.

Take times to think about that again before make decision. Here is pamphlet about home and hospital delivery.

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Polyhydramnios

You're a GP at countryside clinic, a lady comes for shared care. At 28/40 week, FH is 32 cm. Management.

DDX:
1. Wrong date (50-60%)
2. Polyhydramnios
3. Multiple pregnancy
4. DM
5. Fetal abnormality
6. Constitutional big baby

History taking:
- Is this a first pregnancy? If not, what is the 1st baby birth weight?
- What are your husband and your blood group?
- Any history of abortion? Any bleeding during pregnancy?
- Did you have an U/S done? When was it? Was it single baby? Any anomaly? (r/o 1, 3, 5)
- Was the pregnancy normal so far?
- Mother symptoms: Do you feel any discomfort? How is your sleep? Any N/V, tired:
    - If acute polyhydramnios
        - GA DM: oedema, tiredness, polydipsia, polyuria
        - Twin transfusion syndrome
- Hx of DM, FH of DM, previous big baby? FH of multiple pregnancy?

Physical examination:

- GA: obesed?
- H&L
- Abdomen: palpation → lie presentation; Can I feel the baby? Any tenderness?
- Oedema
- Signs of diabetes
- May look at vagina but not relevant → mass, fibroid can confirm by U/S

Investigations:
- U/S
- GCT or GTT
- Blood group and Rh
- CTG

Management
1. Life style modification
    a. Eat small amount, more often
    b. ↓Exercise
2. Talk about complication of the cause

Polyhydramnios

- Reassurance
- Refer to obstetrician to exclude serious complication
    - If very discomfort (5%) → can take the fluid out
- Associated complication:
    - Malpresentation and might need OB intervention
    - Cord prolapse
- Still a chance of N/D

GA DM

- All newly diagnosed GA DM → admit 24 hour for assessment (urine protein 24 hour)
- Team management

Multiple pregnancies

- F/U more often
- Complications:

- ↑Risk of PROM
- ↑Risk of PPH
- Twin transfusion syndrome
- ↑Risk of preterm
- ↑Chance of cerebral palsy of the 2nd baby in delivery (5times)
- ↑Risk of OB intervention → C/S

Fetal anomaly

- Refer to OB → baby may not survive

Constitutional big baby

- Monitor baby but have to do U/S to correct date
- Normally delivery at 38 week
- Complications:
  - ↑Chance of shoulder dystocia
  - Obstructed labour → C/S
  - May delivery preterm

Depo Provera

A 27 year-old lady, comes to see you as a GP and wants to discuss about Depo Provera. Task is management.

Why do you want to have Depo Provera?
Have you had it before?
Have you been told about complication and side effects of Depo Provera?
After I explain about Depo Provera, I'd like to tell you more about other methods of contraception?

What is Depo Provera?
It's a injectable form of contraception, containing progesterone.

How does Depo Provera work?
Through normal menstrual cycle, there are 2 hormones called oestrogen and progesterone. There is fluctuation of these 2 hormones, one is up, one is down throughout the cycle. By injecting Depo Prevera, which contains progesterone, the fluctuation is less, therefore the egg would be either not released or released but infertile. Even sperm reaches the egg, it's not going to be fertile as the absence of thickening of the endometrium.

Common SE:
- Breast tenderness
- N/V
- 80% weight gain

Complications:
- 1/3 ↑bleeding: spotting, heavy
- 1/3 no bleeding
- Irreversible for infertility for 3 months
- Infertility, after the 3rd injection → chance for infertility for 6-12 months. Are you going to plan to get pregnant in the next 1 year?

Chance of pregnancy: 1 in 100 (?)
If get pregnant, ↑ ectopic pregnancy (still better than IUCD) because progesterone slows transport of egg + sperm on implant in uterus.

Chance to get pregnant
- After 1st injection → fertility comes back in 3 months
- After 3rd injection → 6-12 months

If I have DVT, can I use Depo Provera?
Yes, it contains progesterone and not increase risk of DVT.