Important points:

1. AMNIOCENTESIS

Sampling of fluid around baby

Carried out later than CVS, around 15 weeks onwards.

Fluid contains babies cells and we can test this and look under the microscope.

- Prenatal diagnosis – management of rhesus disease, estimate maturity, analyse chromasones, genetics, biochem etc
- It is an invasive test
- It is not used for screening, its diagnostic

Most commonly used for:

- Advanced maternal age (>35yo)
- Previous child with NTD, chromosomal abnormalities, Birth defect
- +ve AN screening tests eg USS, AFP
- FH of diseases

Procedure:

- Given rhesus
- USS guidance
- Thin needle put into belly through muscle and into sac
- 10-20ml of fluid taken

Results:

- On amniotic fluid – AFP, achiticholinesterase level, bilirubin, Ing maturity, enzyme
- On fetal cells
  - Rapid test (24-72h) 0 downs, Edwards, pateaus, turners, kleinftlers etc
  - Chronasona analysis (2w) – full karyotyping

Complications:

- Uterine cramping
- 1/50 – bleeding/amniotic fluid leak
- Rhesus sensitisation
- 0.5-1% increased risk fo pregnancy loss
- Cells culture may not work
- Anxiety

Other diagnosis options

- CVS – done in 1\textsuperscript{st} trimester
- Good before 12w
- Lesser risk of pregnancy loss
more than this. The reason we do it is to diagnose certain abnormalities in the fetus, its relatively safe, though there are some risks its important you’re aware of.

How does that all sound to you, do you feel you have a better understanding now? Do you have any more questions? You must consider what you would do if the result was positive? Would you abort?
8. THROMBOPHILLIA IN PREGNANCY

Explanation

- Thrombophilia is a condition where the blood has an increased tendency to form clots. Blood clots can cause a Deep Vein Thrombosis or Pulmonary Embolism (which is a clot in the leg/lungs).
- There are different types of thrombophilia - some are inherited and some are acquired, meaning they usually develop in adult life.
- Often thrombophilia is mild, and many people with thrombophilia do not have problems from their condition.
- Blood tests can diagnose the problem.
- Thrombophilia does not always require treatment but some people need to take aspirin or warfarin.
- If you have thrombophilia, be aware of the symptoms of a blood clot and get treatment immediately if you have symptoms.

Antenatal Care: Look at platelets at book-in and @28 week blood tests. Mothers with thrombophilia are at an increased risk of fetal IUGR due to placental insufficiency therefore increased CTG, USS and umbilical artery Doppler may be indicated. See below for thromboprohylaxis for those at high risk

- Pregnancy is PRO-thrombotic and the incidence of VTE increases 6 times in pregnancy
- DVT usually occurs in 3rd trimester/in the few weeks after you have given birth. Occurs in 1% of pregnancies
- Symptoms (DVT): UNILATERAL CALF PAIN, REDNESS, SWELLING

Investigations for high-risk women:

- Imaging, Doppler – look at the blood flow to baby, can also be used to look at the blood flow in your legs
- D-dimers – blood test
- If suspicious of pulmonary embolus do an ECG, O2 sats, ABGs, CXR and ventilation/perfusion ratio

Risk Factors: Those at risks of thrombophilia are

1. Previous history of clots
2. >35 years old
3. multiple pregnancy
4. smoker
5. varicose veins
6. pre-eclampsia
7. dehydration

Those at high risks will be given THROMBOPROPHYLAXIS:

- Unfractionated I.V. heparin then LMWH (subcutaneous)
- Continues prophylactic LMWH at least 6 weeks after delivery
- NVD is recommended as C-section is pro-thrombotic (immobile after surgery)
- Wear stockings to prevent risk of DVT

***Warfarin is TERATOGENIC but is safe to use in the puerperium***

Complications: The clot can travel → PE, heart attack, stroke…any where
8. APH

- Bleeding from the genital tract after 24 weeks gestation
- >10mls significant
- Occurs in 6% of all pregnancies

Causes: Out of the causes that worry us, there are 2 main ones:

<table>
<thead>
<tr>
<th>Placenta praevia:</th>
<th>Placental abruption:</th>
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</thead>
<tbody>
<tr>
<td>- When your placenta has implanted too low in your uterus, and can cover the opening to your vagina.</td>
<td>- Premature separation of placenta from uterine wall</td>
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<tr>
<td>- Painless bleeding and ‘sentinel bleeds’ with a high presenting foetal part</td>
<td>Clinical features:</td>
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<tr>
<td>- 0.5% of all pregnancies affected at term</td>
<td>- Painful bleeding, sudden onset pain</td>
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<tr>
<td>- MOTHER WILL NEED ANTI-D IF RHEUSUS NEGATIVE</td>
<td>- ‘Wooden abdomen’</td>
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<tr>
<td>Risks:</td>
<td>- 50% will be in labour</td>
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<tr>
<td>- Higher parity</td>
<td>2 types:</td>
</tr>
<tr>
<td>- Previous CS/uterine surgery</td>
<td>- Frank – blood lost through cervix</td>
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<tr>
<td>- Increasing maternal age</td>
<td>- Concealed – blood accumulates behind the placenta in the uterine cavity</td>
</tr>
<tr>
<td>Complications:</td>
<td>Risks:</td>
</tr>
<tr>
<td>- Higher parity</td>
<td>- Previous abruption</td>
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<tr>
<td>- Malpresentation at birth</td>
<td>- Smoking</td>
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<tr>
<td>Management:</td>
<td>- PET/PIH</td>
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<tr>
<td>- Scan at 20 weeks – if bleeding and low placenta – advise no sex till scan at 34 weeks to see if placenta has moved</td>
<td>- Trauma</td>
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<tr>
<td>- Speculum + triple swabs</td>
<td>- Thrombophilias</td>
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<tr>
<td>- Group and save</td>
<td>- Foetal abnormalities</td>
</tr>
<tr>
<td>- Check rhesus status</td>
<td>Complications:</td>
</tr>
<tr>
<td>- Counsel on possible delivery via CS – can do NVD if placenta is &gt;2cm from the os</td>
<td>- Maternal shock and death and foetal compromise</td>
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Other causes of bleeding:
- Placenta accreta/increta/percretia
- Marginal placental bleeding
- Vasa praevia
- ‘Show’
- Post-coital – ask about timing/onset of bleeding
- Trauma
- Genital tract infection (if with pus/local pain)
- Malignancy
- Ectropion

Management of vaginal bleeding or unexplained abdo pain:
- Admit all women with unexplained bleeding or pain
- CTG
- Speculum plus triple swabs
- G+S
- Check rhesus
- If pain and bleeding cease, consider delivery by term
- If recurrent bleeds, offer induction of labour at 38-40 weeks
- Follow-up – scan 2 weeks later to check for any IUGR if there has been an abruption