Case 4 Sexual Health

Introduction

This booklet contains information regarding the knowledge and skills required to meet the Phase 1 Case 4 Learning Outcomes for Sexual Health. The structure of the session is outlined and current guidelines and resources to support your learning included.

Aims

- To improve students' communication skills with young adults.
- To improve students' ability to take a basic sexual history from a patient and how to talk about sex.
- To improve learners' knowledge base of common contraceptive choices and how they are used.
- To consolidate the pharmacology and physiology of hormonal contraceptives taught in lectures.
- To raise students' awareness of the transmission of sexually transmitted diseases.
- To enable students to appreciate the psycho-social effects this type of consultation has on the patient.
- Appreciate why sexual health is important in the UK e.g., high levels of unplanned teenage pregnancies and the increased incidence of STI's.

Intended Learning Outcomes

Basic Science

1. Students will be able to demonstrate application of their knowledge of the female reproductive hormone cycles to a clinical setting of a patient requesting oral contraception.
2. They will be able to demonstrate their understanding of the action of contraceptive methods, and the principles of discussing side effects of the commonly used methods.
3. To show their understanding of normal behaviour in adolescents, at an individual and societal level.

Clinical Science

1. They will practice taking a focused sexual history from a simulated patient; and learn how to talk to patients about sensitive issues.
2. They will learn how to elicit patients' ideas, concerns, and expectations about their contraception, and how to come to a shared agreement on the best treatment for each individual patient.
3. Improve their understanding and have had some experience of consulting and professional communication with young adults.
4. They will demonstrate an understanding of common sexually transmitted diseases, and how they may be investigated and treated.
5. They will be able to demonstrate principles of health education and health promotion, in advising patients about prevention of unplanned pregnancies, sexually transmitted diseases, and how to access sexual health services.
6. They will show a basic understanding of the signs that might suggest a patient is vulnerable, or maybe suffering from abuse, and of the actions that are available to safeguard their welfare.

Ground Rules

This session is facilitated by tutors from sexual health and general practice.
Some of the subject matter covered can be an intensely personal area to explore, but necessary for you to gain a better understanding of patients and how to help them.
Ground rules help all students to feel safe participating in the session. Students should not

feel as though they are going to be accused of being ‘sexist’ or ‘politically incorrect.’
but need to be careful that what they say does not cause offence.

- If the following rules are used, it is less likely that anyone will be hurt or upset:
- Criticise concepts but not individuals (do not make it personal).
- Terminology has changed over the years and some words may be currently unacceptable. Be careful which words are used and check with the group if terminology is acceptable.
- Since students know each other, agree to maintain confidentiality by:
- Not mentioning names of people, they may be talking about
- Not using anecdotes where people can be identified.
- Keeping those personal views expressed by students during the session confidential within this group.

Support

We are aware that for some students this session may be distressing. Support is available. You are free to leave the session at any time.
You can talk to your tutors on the day. Or afterwards by contacting:
The Year 1 team - UGMedicYr1@cardiff.ac.uk
Dr Kate Hilson – Phase 1 Community Clinical Lead (GP) Hilsonke@cardiff.ac.uk
Case Lead for Case 4 – Dr Vicki Logan – LoganV@cardiff.ac.uk
My Medic (Medic Support) - mymedicldu@cardiff.ac.uk, (+44) (0)2920 870 686 or (+44) (0)2920 870 781

Session structure (3 hours)

1. Introduction and housekeeping – Sexual Health tutor (5 mins)
2. Presentation led by a member of the Sexual Health team introducing contraception, STI’s, and safer sex, consent, safeguarding, and sexual history taking (40 mins)
3. Q and A from students (Sexual Health and General Practice tutors 10 mins)
4. Break (10 mins)
5. Role Play (90 mins)
6. Demo of scenario 1 – sexual health tutor and actor
7. The remaining 3 role play scenarios with feedback from actor, peers, tutors, and group discussion.
8. Wrap Up Q and A

Communication

You will have the opportunity to practice sexual history taking and receiving feedback in a safe and supported environment.

Discussing Sensitive Issues

- Language – patients may refer to sexual practices using language which is unfamiliar to you. If you re not sure what the patient means, ask them to clarify.
- Judgement – you may hold an opinion on a particular sexual practice, but it is important that you understand the need to be professional and approachable. Being able to put your own feelings aside and remain non- judgmental is an important skill to learn.
- Gender – while gender medicine is covered later in the course, it may be helpful to ask patients what their pronoun is (he, she, they).
- Different patients will require different approaches.

Taking a Sexual History

There is no strict right or wrong way to take a sexual history, but it can seem quite daunting. Having a clear structure and signposting your patient as to the areas you will need to cover will help you become more confident in taking a sexual history and meeting the patient's needs.

Key principles

- Keep the consultation patient centered, gain consent, and clarify their reason for attending.
- Pay attention to non-verbal cues that the patient may not be comfortable. You may need to explain why you are asking the questions or even offer a later appointment or alternative healthcare provider.
- Do not assume anything, gain consent and carefully ask all the relevant questions.

General structure

- Open the consultation
- Explain you will maintain confidentiality but may need to be broken if something arises that is concerning for the patient's safety or safety of others
- Explain that you need to ask some questions about sexual health
- Gain consent to proceed

Presenting complaint

- Vaginal symptoms – consider discharge/post-coital bleeding/intermenstrual bleeding/post-menopausal bleeding/dyspareunia (pain during sex)/ abdominal and pelvic pain, vulval skin changes/itching/lesions. Obtain a menstrual history (length/regularity), previous pregnancies and any previous gynaecological procedures
- Penile symptoms – urethral discharge/dysuria/testicular pain or swelling/penile skin changes/abdominal and pelvic pain
- Rectal symptoms – discharge/pain/lump/skin changes
- Oral symptoms – should ask if having oral sex as pharyngeal swabs may be needed
- Ideas, concerns, expectations and summarise the presenting complaint

Systems enquiry

STIs can cause systemic symptoms – fever, malaise, weight loss, rash, swelling of joints

Sexual contact

- Signpost that this is important to ask all patients to accurately assess risk of STI
- Ask about the nature (type of sex given and received)

- Relationship - regular sexual partner or casual encounter
- Was contraception was used, what type
- Any other sexual partners in the last 3 months
- STI testing history – when was their last sexual health screen and have any of their partners been diagnosed with an STI
- Screen for violence and abuse
- Do they feel safe with their current partner, have they experienced any violence in this relationship
- Any non-consensual sex
- Any genital procedures for non-medical purposes
- Assess blood borne virus risk factors
- Any partners from countries with high HIV/hepatitis prevalence
- Sex between cisgender men or transgender women
- Current or recreational IV drug use
- Any sex work

Past Medical History

Drug History

Including relevant medications PrEP and PEP, antiretrovirals, antibiotics

Social History

Smoking, alcohol
Check if they have any other sexual problems they might have been embarrassed to disclose – premature ejaculation, erectile dysfunction, dyspareunia, low libido

Resources

Have a look at the links below for comprehensive guidance on sexual history taking:

- BASHH Sexual History Taking Guidelines 2019
    - https://www.bashhguidelines.org/media/1241/sh-guidelines-2019-ijsa.pdf
- Geeky Medics – Sexual History
    - https://geekymedics.com/sexual-history-taking/
- Geeky Medics Sexual History OSCE checklist
    - https://geekymedics.com/wp-content/uploads/2015/12/Sexual-history-taking-OSCE-mark-scheme.pdf

Consent

You need to be aware of the legalities of consent and how doctors assess whether a patient is able to consent to having sex, using contraception or treatment for an infection.

Key points

- Requirements for consent
- No-one can consent to sexual intercourse under the age of 13. This should be referred to Social Services and the police.
- While the legal age to be able to consent is 16, young people between the 13 and 16 years of age may be able to consent but are considered vulnerable. Safeguarding concerns should be explored.
- Consent can be withdrawn at any point.

Gillick competence

A young person under the age of 16 can be deemed to have Gillick competence if found to have capacity to consent to treatment, without needing consent of their parents/guardian.

Fraser guidelines

Guidelines relating specifically to provision of sexual health advice and treatment in under 16 year olds

Vulnerable groups

Risk factors for exploitation include: >4-year age difference; going missing overnight; partner stops you doing what you would normally do; having sex in unusual places; no- one to confide in at home; looked after children (in care).

Resources

Have a look at the two links below:

- Short video on important concepts around consent
    - https://vimeo.com/128105683
- How to assess Gillick competence and understand the Fraser guidelines
    - https://learning.nspcc.org.uk/child-protection-system/gillick-competence-fraser-guidelines

Sexually Transmitted Infections (STIs)

Chlamydia Trachomatis

Risk Factors:

- Risky sexual practices
- Impaired mucous membranes,
- History of STI
- Exposure during birth

Complications:

- Ocular – ophthalmia neonatorum (conjunctivitis) can lead to blindness
- Genitourinary – PID, Infertility, proctitis, cervicitis, urethritis, ectopic pregnancy, epididymo-orchitis
- Chlamydial pneumonia, bronchitis, perihepatitis (Fitz-Hugh-Curtis syndrome), increased risk of acquiring transmitting HIV

Signs & Symptoms:

- May be asymptomatic (70% female, >50% male)
- Biologically Female – bartholinitis, cervicitis, endometritis, salpingitis, urethritis (dysuria, pyuria). PID. Perihepatitis. Post coital or intramenstural bleeding
- Biologically Male – urethritis (dysuria, watery/mucoid discharge), rectal infections usually asymptomatic but can cause anorectal discomfort & discharge

Diagnosis:

- Nucleus Acid Amplification Test (NAAT) – identifies specific microbe
    - Swab or Urine, if urine then 15-20ml of first void **not** mid stream
- Clinical history and examination

Treatment:

- Antibiotics (REFER TO LOCAL GUIDELINES OR BASHH GUIDELINES)
    - Uncomplicated 1st Line
        - Doxycycline 100mg PO BD 7/7 (CI in pregnancy)
        - Azithromycin 1g PO STAT (consider if compliance will be an issue, first line in pregnancy)
- Must notify all sexual partners as they will also need testing +/- treatment
- Discuss safe sexual practices and how to avoid infections.

Syphilis (treponema Pallidum)

Risk Factors:

- Unprotected sex
- Multiple sexual partners
- Biological Male
- Biologically Male engaging in same sex contact (MSM)
- IVDU
- Existing STI, especially HIV

Complications:

- **Cardiovascular** – syphilitic aortic aneurysm, dilated aorta, aortic regurgitation, coronary artery narrowing
- **Congenital syphilis** – haemolytic anaemia, deafness, keratitis, periostitis, hepatosplenomegaly, psuedoparalysis
- **Neurosyphilis** – dementia, meningitis, brain/spinal cord infarction/ischaemia, seizures, tabes dorsalis (muscle weakness, locomotor ataxia, reduced proprioception), paralytic dementia, facial and limb hypotonia, intention tremors, forgetfulness, personality changes
- **Ocular syphilis** – uveitis, vitritis, retinitis, optic neuropathy, blindness, reduced acuity, Argyll Robertson pupil

- **Otosyphilis** – hearing loss, tinnitus

Signs & Symptoms:

Presentation will vary according to stage of disease.

- **Primary**
  - Chancre (painless ulcers at inoculation site), single or multiple, usually firm round and painless. Heals irregardless of treatment, treatment. Treatment does however prevent progression to secondary stage.
- **Secondary**
  - May be asymptomatic.
  - Diffuse rough reddish-brown maculopapuar rash on extremities.
  - Raised grey-whiteish lesions on mucous membranes.
  - Condylomata lata (wart like lesions on genitals, occurs in 1/3 of secondary syphilis patients)
  - Myalgia, fatigue, lymphadenopathy, fever, "moth-eaten" alopecia.
  - Can resolve without treatment, treatment prevents progression
- **Latent**
  - Positive serology but asymptomatic
  - Tertiary (Late)
  - Gummas – non-cancerous granulomatous growths on internal organs, bones, skin, more common in those with HIV.
  - Evidence of organ involvement – Charcot joints, aoritis.

Diagnosis

- Blood test for serology (syphilis IgM if very early infection)
  - Test for HIV and other infections
  - Repeat a few weeks later if initially negative
- Some labs can test for Treponema on swabs using NAAT
- If neurological signs then lumbar puncture and CSF examination
- History and physical examination

Treatment

- Antibiotics (REFER TO LOCAL GUIDELINES OR BASHH GUIDELINES)
  - Parental (IM/IV) penicillin G
  - Doxycycline/tetracycline/ceftriaxone if penicillin allergy
- Must notify all sexual partners as they will also need testing +/- treatment
- Discuss safe sexual practices and how to avoid infections.

Herpes Simplex Virus

Common perception is HSV-1 = oral, HSV 2 = genital. However, both types can cause oral and genital infections due to oral sex or autoinoculation. HSV is transmitted by close physical contact when an infected person is shedding the virus, this can happen sporadically and not only when symptomatic.

Risk Factors:

- Contact with infected individuals.
- Immunosuppression
- High risk sexual behaviour
- Vertical transmission during pregnancy/childbirth
- Mucosal surfaces/skin breaks

Complications:

- Neonatal HSV infection
- Meningitis, encephalitis
- Acute retinal necrosis, uveitis, keratitis
- Oesophagitis
- Secondary infection of lesions (Candida, strep etc).

- Urinary retention

Signs & Symptoms:

- **Herpes labialis (oral)** - Painful ulcers around mouth, high fever, sore throat, pharyngel oedema, myalgia, cervical lymphadenopathy. Recurrent infection – pain, burning, tingling, vesicle formation.
- **Genital herpes** – ulceration and vesicles on vulva, cervix, vagina, penis shaft/glans, perineum, buttocks. Genital pain, dysuria, fever, neuralgia, constipation, rectal pain, tenesmus, proctitis.
- Can be asymptomatic.

Diagnosis

- Check your lab – culture vs NAAT (more sensitive)
    - Swab base of lesion, pop blister if needed
- Direct Fluorescent Antibody (DFA) test
- Serological HSV-1/HSV-2 specific IgG assay – not routinely done, discuss with GUM if needed

Treatment

- Saline bathing may ease symptoms
- Consider topical anaesthetics (Lidocaine 5% ointment)
- Oral analgesia
- Antivirals
    - Topical is less effective than oral
    - Indicated within 5 days of start of episode, or while new lesions are still forming, or if systemic symptoms persist.
    - Aciclovir 200 mg PO 5 times daily, 5/7 OR Aciclovir 400mg TDS 5/7
    - OR Valaciclovir or famciclovir.
    - No evidence for courses longer than 5 days.
- Must notify all sexual partners as they will also need testing +/- treatment
- Discuss safe sexual practices and how to avoid infections.

Neisseria Gonorrhoeae

Gram-negative diplococcus. Primarily enters body from unprotected sex, can also invade bloodstream (disseminated gonococcemia), can also have perinatal transmission.

Risk Factors:

- Unprotected sex
- 'Risky' sexual behaviours – multiple partners, MSM
- Low educational, socioeconomic levels
- Substance abuse
- Previous history of infection

Complications:

- Epididymitis, prostatitis, penile lymphadenitis, urethral strictures, pelvic inflammatory disease
- Gonococcal ophthalmia neonatorum – corneal scarring/perforation, a blindness

Signs & Symptoms:

- May be asymptomatic (50-80% biologically female, rare in male population)
- **Urethritis** – dysuria, urgency, purulent foul-smelling urethral discharge
- **Cervicitis** – lower abdominal discomfort, dyspareunia, vaginal puritus, foul-smelling vaginal discharge
- **Proctitis** – anal puritis, tenesmus, rectal fullness, constipation, purulent anorectal discharge, bleading
- **Pharyngitis** – sore throat, swollen lymph nodes
- **Disseminated gonococcemia** – fever, chills, malaise, polyarthraglia, tenosynovitis, postural/vesiculopustular lesions

- Gonococcal ophthalmia neonatorum – purulent conjunctival discharge, swollen eyelids, conjunctival hyperemia, chemosis

Diagnosis

- Blood test for serology (syphilis IgM if very early infection)
    - Some labs can test for Treponema on swabs using NAAT
    - Repeat a few weeks later if initially negative
- If neurological signs then lumbar puncture and CSF examination
- History and physical examination
- Test for HIV and other infections

Treatment

- Antibiotics (REFER TO LOCAL GUIDELINES OR BASHH GUIDELINES)
    - Parental (IM/IV) penicillin G
    - Doxycycline/tetracycline/ceftriaxone if penicillin allergy
- Must notify all sexual partners as they will also need testing +/- treatment
- Discuss safe sexual practices and how to avoid infections

Human Immunodeficiency Virus (HIV)

HIV is a member of the Lentivirus genus. Infection is characterised by immune cell targeting, immunodeficiency, immunocompromise, and progression to Acquired Immune Deficiency Syndrome (AIDS).

Infection target CD4+ cells (T-lymphocytes, monocytes, marcophages) and causes replication and spreading leading to reduced CD4+ cells and therefore immunodeficency.

HIV can be transmitted via sexual contact, parentral routes (non-iatrogenic e.g. IV drug use, or iatrogenic e.g. from contaminated blood infusion), or via a vertical route (i.e. in utero).

Risk Factors:

- West Africa Residence
- Men who have sex with Men (MSM) and 'risky' sexual behaviours
- IV Drug Users
- Haemophiliacs + Blood Component recipients
- Maternal Infection in utero.

Complications:

- Opportunistic infections, secondary malignancies, AIDS, neuropsychiatric disease

Signs & Symptoms:

- Acute Retroviral Syndrome
    - Self-resolving, flu-like syndrome (myaglia, fever, weight loss, fatigue, coryza).
- Chronic Infection
    - Variable
        - Asymptomatic (Minor infection)
        - Oral/vaginal candidiasis, HZV, Mycobacterial tuberculosis
- AIDS
    - Persistent Fever (>1/52), fatigue, weight loss, diarrhoea, generalised lymphadenopathy, serious opportunistic infections
    - Secondary neoplasms
    - Neuropsychiatric Disease
        - Delirium, major depression, mania, schizophrenia, post traumatic stress disorder, substance abuse, addiction
        - Dementia ('AIDS Dementia Complex'): cytomegalovirus encephalitis, progressive multifocal leukoencephalopathy, cerebral toxoplasmosis, cryptococcal meningitis, CNS lymphoma

Diagnosis:

- Viral RNA

- Leukopenia
    - Low CD4+ count (CD4+:CD8 ratio <1)
- Serology
    - IgG, IgM, p24 antibody testing
        - 15-45 days is the earliest possible positive marker
- Clinical history and examination

Treatment:

- Highly Active Antiretroviral Therapy (HAART)
    - Early initiation leads to reduced mortality and morbidity, and reduced transmission risk.
    - There are 6 distinct drug classes
        - Protease inhibitor is the preferred inital agent
    - Monitor HIV RNA at 2,4, and 8 weeks post HAART initiation, continue testing every 2 weeks until levels below detection limits. Test for drug resistance at 24 weeks if increased RNA levels.
    - Complications include Immune Reconsitution Inflammatory Syndrome
- Pre-exposure Prophylaxis
    - Indications: high-risk sexual behaviour/drug use, reliable individual (needs to adhere to strict regime).
    - Daily tenofovir can effectively decrease transmission
    - Needs blood tests prior to starting and discussion with GUM specialist.

Screening:

- One time screening for 13-75 year olds.
- If in higher risk group consider increasing frequency of screening (annually).

Hepatitis B & D Virus

Hepatitis B is a DNA virus of the Hepadnaviridae family which targets hepatocytes in the periportal area (zone 1), its incubation period is 6 weeks to 6 months.
Hepatitis D Virus is an incomplete RNA virus with an incubation period of 6-24 weeks. It is not a part of the Hepadnaviridae family.
Risk Factors:

- IV Drug Use
- Healthcare Workers
- High-Risk sexual behaviours
- Anal Intercourse
- Previous HIV/Hepatitis infection
- Highest prevalence in sub-Saharan Africa primarily due to perinatal transmission

Complications:

- Hepatocellular Carcinoma
- Fulmiant Hepatitis
- Liver cirrhosis
- Hepatic Encephalopathy
- Hepatorenal Syndrome
- Bleeding diathesis

Signs & Symptoms:

- Acute Hepatitis
    - Non-specific symptoms (fever, malaise, nausea)
    - Can begin as Anicteric (no jaundice) but also can progress to icteric hepatitis.
    - Hepatomegaly, right upper quadrant pain, jaundice (30%), dark coloured urine, pale stools
- Chronic Hepatitis

    - Majority asymptomatic or non-specific until end stage disease.
    - Exacerbations may lead to Acute Hepatitis
    - Jaundice, splenomegaly, ascites, encephalopathy
    - Extrahepatic - athritis, glomerulonephritis, rash, fever

Diagnosis:

- Blood Tests
    - Viral DNA Detection (PCR etc)
    - Derranged Liver Function Tests (LFTs)
        - Raised ALT + AST (ALT>AST)
        - Raised alpha-fetoprotein
        - Raised bilirubin
        - Decreased albumin
    - Derranged coagulation screen
    - Serology
        - Hep B surface antigen (HBsAg)
        - Hep B surface antibodies (Anti-HBs)
        - IgM antibodies against hepatitis B core antigen (IgM anti-HBc)
        - IgG antibodies against hepatitis B core antigen (IgG anti-HBc)
- Liver Biopsy
    - **Acute**: Mononuclear infiltrate, Pericentral inflammation, necrosis, eosinophilic hepatocytes
    - **Chronic**: Fibrosis, nodule formation, mononuclear portal infiltrate, some hepatocytes

Treatment:

- Antiviral monotherapy
    - Severe acute hepatitis, pre-exisiting liver disease, concomitant hepatitis C/D, immunocompromised, elderly
- Acute Hepatitis
    - Post-exposure prophylaxis (HBV Vaccine + immunoglobulin)
    - Supportive (fluid therapy + nutrition)
    - Pegylated Interferon Alpha (Hepatitis D)
- Chronic Hepatitis
    - Combination therapy
    - Consider Liver transplant for chronic Hepatitis D
- Acute Liver Failure
    - Fluid resuscitation, nutritional support, antiviral therapies
    - Consider Liver transplant for ALF in Hepatitis D

HPV

PID

Contraception

Contraception information suitable for the public: https://www.contraceptionchoices.org

UK Medical Eligibility Criteria (UKMEC)

Used to decide whether a contraceptive option can be used in certain medical conditions.
UKMEC 1: a condition for which thee is no restriction for the use of contraceptive method
UKMEC 2: advantages outweigh disadvantages
UKMEC 3: disadvantages outweigh advantages, seek specialist advice
UKMEC 4: unacceptable health risk

Please look over the contra-indications for each contraceptive method, summarised in the table: https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016-summary-sheets/fsrh-ukmec-summary-september-2019.pdf

Barrier & Other Methods

- No Contraception: Pregnancy – 85 women in 100 per year
- Diaphragm: Pregnancy – 12 women in 100 per year
- Condoms: Pregnancy – 15 women in 100 per year
- Fertility Awareness: Pregnancy – 25 women in 100 per year
- Withdrawal: Pregnancy – 22 women in 100 per year

Combined Hormonal

- Contain synthetic oestrogens and progestogens
- Pregnancy: 9 women in 100 per year
- Action: inhibits ovulation. Secondary actions: thickens cervical mucus, thins endometrial lining.
- Side-effects: breakthrough bleeding, headache, reduced libido, acne, vaginal dryness, weight gain, mood swings, breast tenderness, nausea, weight gain, bloating, vaginal discharge, VTE risk, ischaemic stroke risk, breast and cervical cancer risk. Key: progestrogenic, oestrogenic.
- Benefits: improves acne, reduces menorrhagia and dysmenorrhoea, reduces risk of ovarian, endometrial and bowel cancer, reduces menopausal symptoms, can all be used back-to-back and omit the break if periods are not wanted.
- Types:
    - Combined Oral Contraceptive Pill
        - Duration: 21 days of tablets, 7 days break
    - Contraceptive Patch
        - Duration: 1 patch per week for 3 weeks, 1 week break
    - Vaginal Ring
        - Duration: 3 weeks, 1 week break

Progesterone Only

Progesterone Only Pill

- Pregnancy: 9 women in 100 per year
- Duration: take continuously.
- Action: thickens cervical mucus, thins lining of womb. Deogestrel: inhibits ovulation.
- Side-effects: ovrian cysts, ectopic pregnancy, breast tenderness, weight change, depression, acne, reduced libido

Implant

- Placed subdermally in medial arm
- Pregnancy <1 in 100/y
- Duration: 3 years (may not be effective in 3rd year if overweight)
- Action:
- Side-effects: irregular bleeding, amenorrhoea typically >12m
- Injection (Depot)
- Pregnancy 3 in 100/y
- Duration: intramuscular injection every 12 weeks
- Action: inhibits ovulation. Secondary actions: thickens cervical mucus, thins endometrial lining.
- Side-effects: delay in return of ovulation (up to 12 months), amenorrhoea, osteoporosis, weight gain

Intra-Uterine Devices

- Sit in the uterus and exert a local effect

- Pregnancy: <1 women in 100 per year
- Contra-indications: pregnancy, infection, distorted uterine cavity
- Complications: expulsion, PID, ectopic pregnancy

Copper Coil

- Duration: 5-10 years
- Action: reduce sperm motility and survival
- Side-effects: dysmenorrhoea, menorrhagia

Mirena Coil

- Duration: 3-8 years
- Action: thins endometrial lining. Secondary actions: thickens cervical mucus.
- Side-effects: amenorrhoea

Basic anatomy