CONTRACEPTION AND SEXUAL HEALTH

BELMATT
HEALTHCARE TRAINING

PRECOURSE WORKBOOK

CONTRACEPTION AND SEXUAL HEALTH

SESSION: CONTRACEPTION AND SEXUAL HEALTH

This session aims to explore management of patients seeking contraceptive advice and identify sexual health presentations.

OBJECTIVES

This session aims to develop your skills in :

- Developing an understanding of different contraceptive options available
- Identifying treatment strategies suitable for individual patients
- Exploring current evidence and treatment guidelines.
- Understanding the importance of using varying strategies according to a care plan agreed for patients/clients to improve concordance.
- Recognising the importance of referring to a family planning nurse or sexual health facility as appropriate.

RECOMMENDED READINGS

https://www.osmosis.org/learn/Clinical_Reasoning:_Contraception

https://geekymedics.com/methods-of-contraception/

https://armandoh.org/disease/sexual-transmitted-infection/

https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception

https://www.fsrh.org/standards-and-guidance/documents/combined-hormonal-contraception/

https://fsrh.org/standards-and-guidance/doucuments/ukmec-2016/fsrh-ukmec-full-book-2019.pdf

https://www.fpa.org.uk/professionals/resources/leaflet-and-booklet-downloads

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CONTRACEPTION: MODE OF ACTION

Contraceptive	Mode of action
Combined oral contraceptive pill	Inhibits ovulation
Progestogen-only pill (excluding desogestrel)	Thickens cervical mucus
Desogestrel-only pill	Primary: Inhibits ovulation Also: thickens cervical mucus
Injectable contraceptive (medroxyprogesterone acetate)	Primary: Inhibits ovulation Also: thickens cervical mucus
Implantable contraceptive (etonogestrel)	Primary: Inhibits ovulation Also: thickens cervical mucus
Intrauterine contraceptive device	Decreases sperm motility and survival
Intrauterine system (levonorgestrel)	Primary: Prevents endometrial proliferation Also: Thickens cervical mucus

EMERGENCY CONTRACEPTION

What is EC?

- Prevents pregnancy after UPSI (un-protected sexual intercourse).
- Prevents pregnancy after contraceptive failure.
- Post-coital contraception.
- Most unplanned pregnancies in 18-29 year olds
- Average age of menarche is 12years old □
- Teenage pregnancy:
- Girls of teenage mums are more likely to become teenage mums themselves.
- Young people who can talk openly about sex with their parents tend to delay having sex and are more likely to use contraception.

WHEN TO USE EC AND HOW DOES IT WORK:

Use when:

- UPSI.
- Failure of barrier method.
- Missed pills.
- IUD expulsion or removal mid cycle.
- Late Depo Provera if UPSI has occured
- Drug interactions/side effects/illnesses affecting a current method of contraception

- Judicial Review ruled that pregnancy begins at implantation and not at fertilisation. So, emergency contraception exert effects before implantation, hence clinical opinion is EC not be considered an abortifacient (causing an abortion).

MISSED CONTRACEPTIVE PILLS AND EC:

COMBINED ORAL CONTRACEPTIVES:

- EC is needed if:
  - 3 or more tablets of 30-35mcg are missed and UPSI has occurred in that time
  - Or 2 or more tablets of less than 30mcg are missed and UPSI has occurred in that time
  - If any pills are missed in the first 7 days of a new packet and UPSI has occurred since the start of the pill free interval
- If one or more pills is missed in the last week of packet, omit PFI and EC is not then needed

PROGESTOGEN ONLY PILLS:

- EC is needed if 1 or more POP is late or missed and intercourse has occurred within 2 days prior or anytime since the missed pill (as it can affected the cervical mucus).

- It is important to take 7 consecutive COC pills before first UPSI (2 if POP) in order for contraceptive pill to work.

METHODS OF EMERGENCY CONTRACEPTION:

LEVONORGESTEROL (LNG) – PROGESTOGEN HORMONE:

- Levonelle® 1500 (POM).
- Levonelle® One Step (P).
- 1 tablet containing 1.5mg of levonorgestrel (LNG).
- Licensed for use within 72hours of UPSI.
- Dose to be doubled to 3mg (2 tablets) as a single dose if patient weight over 70 KG or BMI greater than 26

HOW DOES IT WORK?

- Delays/stops ovulation.
- Affects the motility of the fallopian tube, preventing sperm from meeting the egg.
- Prevents the implantation of fertilised ovum (as it affects the lining of the uterus).

EFFICACY OF LNG:

- Up to 72hours after UPSI
- Efficacy decreases with time.
- Recommend initiating therapy as soon as possible within 72hours of UPSI.

SIDE EFFECTS

- Headache, nausea & altered bleeding times.
- Vomiting (rare) – if within 2-3hours then repeat dose.

The UK Medical Eligibility Criteria for Contraceptive Use (UKMEC) advised that there are no medical contraindications to LNG, including breastfeeding.

DRUGS INTERACTION

- Liver enzyme inducing medicines (e.g. anticonvulsants, rifampicin, griseofulvin and St. John's Wort).
- There's an increase in metabolism of the LNG and so decreased blood levels.
- Therefore, Cu-IUD is recommended.

WHERE TO GET LNG?

- Pharmacy (P, PGD or POM if on Rx).
- GP.
- Family planning.
- Genito-urinary medicine (GUM) clinics.
- NHS walk-in centres.

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METHODS OF EMERGENCY CONTRACEPTION:

WHEN TO SUPPLY LNG?

- Is the client presenting in person (supply to 3rd parties not recommended unless exceptional circumstances e.g. disability, housebound etc).
- LNG only effective if taken within 72hours, so need to make sure if client is at risk of pregnancy in the last 72hours.
- Check if there's a possibility that the client may already be pregnant by asking questions such as, when was your last period? UPSI at any time since last period? Period late? □ if pregnancy is suspected then client must be referred to the GP or family planning clinic ASAP or do a test.
- Check whether LNG or other EHC has been used since the last period – can be given more than one supply of LNG within same menstrual cycle and be advised of possible cycle disruption (contraception counselling should be undertaken) but will be less effective if Ella One used in last 5 days . □
- Check whether the client is over the age of 16years requirement of OTC license is that the client must be over the age of 16 (but LNG is available for all ages on Rx and PGDs may allow supply to clients aged under 16). Therefore, LNG is for 16year olds and over unless you have an Rx and PGD.

Ella One belongs here instead of further down and should in my opinion be set out in the same headings as the LNG slide you have 2 boxes up

Methods of Emergency Contraception – Ella One

Mechanism of Action

Ulipristal Acetate 30mg

- Progesterone receptor modulator, inhibits ovulation Indication
- 1 tablet ASAP, max 120 hours post-UPSI, efficacy decreases with time
- Side Effects – headaches, abdominal discomfort, breast tenderness, mood changes, nausea
- May reduce efficacy of UPA if any progesterone containing products including CHC, POP, Depo, IUS and LNG are taken 7 days before and 5 days after the UPA
- Do not use if levonorgestrel pill has been taken in the last 7 days
- CAUTION with asthma if severe and on oral steroid
- SIO Do not use multiple times in one cycle – THIS IS NO LONGER TRUE SO NEEDS TO COME OUT
- Delay breastfeeding for one week after use or express and discard the milk

COPPER-BEARING INTRAUTERINE DEVICE (CU-IUD):

- Retained at least until pregnancy is excluded (e.g. onset of period).
- License duration is 5 to 10years depending on the device inserted
- Within the first 5 days (120hours) following UPSI in a cycle or within 5 days from the earliest estimated date of ovulation.
- It is toxic to ovum and sperm.
- It's affect takes place immediately.
- Primarily inhibits fertilisation.
- Post fertilisation effects - Anti-implantation effect.
- From a study the time taken for ovulation to implantation was approximately 9 days (between 6 to 18 days).
- Therefore, Cu-IUD is licensed to be used within 120hours (5days) of UPSI OR within 5 days from earliest estimated date of ovulation.
- Failure rate is considerably lower than 1%.
- For ongoing contraception, the most effective Cu-IUDs contains a least 380mm2 of copper and have banded copper on the arms eg T-safe 380 QL

SIDE EFFECTS:

- Pain common with insertion so pain relief options prior to insertion is advised.
- Analgesics commonly used are NSAIDs, topical lidocaine and cervical local anaesthetic block.
- If keeping the device as long term contraception after then important to counsel women on possibility of heavier, longer and more painful periods

CONTRA-INDICATIONS

– previous ectopic pregnancy (foetus developing outside of the womb) – THIS IS NOT TRUE AND NEEDS TO COME OFF
– Post partum between 48 hours and 28 days
– Current symptomatic chlamydia infection

DRUG INTERACTIONS

– unaffected by concomitant drug use.

EMERGENCY CONTRACEPTION POST- PARTUM

Emergency contraception (EC) is not required before day 21 postpartum. The earliest date of ovulation in a non-breastfeeding woman is thought to be day 28 postpartum. Therefore, contraception is required from day 21 onwards, as sperm can survive for up to 7 days. A woman who is exclusively breastfeeding will take longer to ovulate, however, contraception should still be advised if pregnancy is not desired.
After day 21 postpartum, progesterone only EC (Levonelle and Ella One) can be used in both breastfeeding and non-breastfeeding woman (note above comment regarding breastfeeding after UPA)
The Cu-IUD should not be inserted before day 28 postpartum, due to the increased risk of uterine perforation if inserted before this time.

MIGRAINES WITH AURA

AND Combined contraceptive methods

Migraines with aura can increase when using combined contraceptive methods. Women who have migraine with aura at any age should stop the pill immediately - this is because the oestrogen component of the COCP can increase the risk of the women having an ischaemic stroke.

Migraine without aura has slightly less risk in younger women, so combined contraceptive methods can be used up until the age of 35 years

A progesterone-only contraceptive pill is therefore the only oral alternative contraceptive medication that can be prescribed to women who suffer with migraine with aura. Alternative progesterone methods such as Depo, implant and IUS are also safe to use

If patients develop NEW onset of migraine whilst taking progesterone methods then they should be reviewed by the GP or Family planning clinic as the risks may start to outweigh the benefits

NEXPLANON

Nexplanon is a progesterone-only implant and provides long-acting reversible contraception.
Subdermal – preferably inserted into the non dominant arm
The main mode of action is to inhibit ovulation. It can also thicken cervical mucus to prevent sperm penetration and alter the endometrium to reduce chances of implantation.

Nexplanon is licensed for up to 3 years of use. Patients are advised to abstain from sexual intercourse or use condoms for the first 7 days after fitting

The majority of women will experience infrequent unscheduled vaginal bleeding, especially during the first 3-6 months. Fewer than one-quarter of women will have regular menstrual bleeds.

Enzyme Inducing Drugs and contraception

All woman who are taking an enzyme-inducing drug (EID) (carbamazepine is an example of an EID) should be advised to use a reliable contraceptive that is unaffected by EIDs.

Examples of contraceptives that are unaffected by EIDs are:

- Copper intrauterine device
- Progesterone injection (Depo-Provera)
- Mirena/Kyleena intrauterine system
-

In patients on EIDs who wish to take the COCP (providing there are no contraindications) it is important to inform them that the effectiveness is decreased and there is an increased risk of pregnancy.

It is recommended that the dose of oestrogen is increased to at least 50mcg with no pill-free interval or reduced to 4 days from 7 days (to reduce the chance of ovulation). In addition, barrier methods would also be advised. This applies when the patient is on an EID and for 4 weeks after stopping.

In patients on EIDs who wish to take the POP or progesterone implant, then additional barrier contraception would be required while using EIDs and for 4 weeks after stopping.

Note - rifampicin and rifabutin are potent EIDs and require longer periods of using barrier contraception after stopping (8 weeks).

If emergency contraception is required, the copper intra-uterine device is again, the best option. If levonorgestrel (Levonelle) is used, then double the standard dose is recommended. Ulipristal acetate (ellaOne) is not recommended.

WHEN IS A PILL MISSED - CHC

A pill is considered to be missed once it is 24 hours after it should have been taken. Hence, once 72 hours have passed since the last pill taken, 2 pills have been missed.

The standard rule for 2 missed pills is to take 2 pills on the same day, and then continue the pack taking one pill each day as previously until she reaches the end of the pack. Under no circumstances is it advised to take more than 2 pills in one day regardless of the number of pills missed. If there are less than 7 pills left in the packet then the PFW should be omitted

If less than 7 pills have been missed, and it is not the first week of a new packet then this can be regarded as a normal PFW. The woman should immediately restart a brand new packet of pills and discard any remaining ones in her previous packet

Only if more than 7 consecutive pills are missed, or any number of pills are missed in the first week of new packet, and UPSI has occurred, are women advised to take LNG emergency contraception and restart the pill as a new user

QUESTION 1

A 20-year-old female presents with a 5 day history of vaginal discharge. Sexually active but not using contraception. Has had same partner for past year. Pelvic examination shows normal external genitalia. There is a moderate amount of malodorous, thin, gray discharge coating the vaginal walls. The vulva and cervix appear normal. There is no cervical motion tenderness on bimanual examination. The pH of the vaginal fluid is 5.0. Swabs show that patient has a bacterial infection. Symptoms consistent with bacterial vaginosis. A urine pregnancy test is negative. Which of the following is the most appropriate pharmacologic treatment?

A Metronidazole
B Ceftriaxone
C Miconazole
D Azithromycin
E Doxycycline

QUESTION 2

A 23-year-old woman comes to the clinic because of a change in vaginal discharge. Over the past week she has noticed a foul-smelling discharge, particularly after intercourse. She denies any pain, itching or irregular bleeding. She has an intrauterine contraceptive device that was inserted 2 years ago. Vital signs are normal. Physical examination shows a foul-smelling, thin, whitish-gray vaginal discharge. There is no adnexal or cervical motion tenderness on bimanual examination.

A. Gonococcal urethritis
B. Trichomonas vaginitis
C, Bacterial vaginosis
D. Candidiasis
E. Physiologic leukorrhea

QUESTION 3

A 35-year-old woman comes to the office because of a 5-day history of increasing vaginal discharge accompanied by vaginal pruritus and burning. She reports discomfort during sexual intercourse. Genitourinary examination shows vulvar erythema with a thick white discharge. Swabs show vulvovaginitis. Which of the following is the most appropriate next step in management?

A . Metronidazole
B. Amoxicillin
C. Doxycycline
D. Testing of sexual partners
E. Fluconazole

QUESTION 4

A 25-year-old woman comes to the office for an examination. She is a student and exercises regularly. She is sexually active with a partner and uses oral contraceptive pills. Medical history is noncontributory. Family history includes a grandmother with coronary artery disease. Her temperature is 36.8°C (98°F), pulse is 87/min, respirations are 18/min, and blood pressure is 152/91 mm Hg. Physical examination shows no abnormalities. Over the next 3 months, her blood pressure is repeatedly elevated at clinic visits. Which of the following is the most appropriate first step in management.

A. Alprazolam
B. Cessation of oral contraceptive pills
C. Hydrochlorothiazide
D. Lisinopril
E. Watchful waiting

QUESTION 5

A 21 yr. old female presents to the surgery complaining of pain during intercourse. She gives a history of unprotected sex with multiple partners. No recent pregnancy. Physical exam nad, except for moderate cervical motion tenderness while performing pelvic exam. What condition could she possibly have?

A. Candidiasis
B. Chlamydia
C. Gonorrhea
D. Bacterial Vaginosis
E. IBS

How would you treat the above case?

QUESTION 6

15yr old female presents with a history of irregular menstrual periods that range from 2 weeks to 3months apart. She reports heavy menstrual flow which lasts up to seven days. She is not sexually active. Her temperature is 37.1°C (98.7°F), pulse is 85/min, respirations are 16/min, and blood pressure is 121/83 mm Hg. BMI is 29kg/m2. She has coarse hairs on her chin, arms, and abdomen. Weight gain around abdomen and she is not pregnant. Which of the following is the most appropriate treatment for the patient's condition?

A. Hysterectomy
B. Clomiphene
C. Metformin
D. Oral contraceptive pill
E. Surgery

What condition does she possibly have?

QUESTION 7

19-year-old woman comes to the primary care clinic to inquire about contraception. She states that she has a history of Factor V Leiden mutation, but denies any other past medical history or family history. Which form of birth control is most likely contraindicated in this patient due to her history?

A. Injection (Depo-Provera)
B. Intrauterine device (Mirena, Skyla)
C. Birth control patch
D. Morning after pill (Plan B Step One)
E. Spermicide

QUIZ

What has-been the top 2 contraceptive methods in the U.SK since 1982?

_____

After a vasectomy, how many ejaculations completely clear sperm from the semen?

_____

How does oestrogen in hormonal methods, such as the pill, prevent pregnancy (hint: one way)?

_____

What contraceptive method(s) reduce(s) the risk of being infected with an STI?

_____

Know the timeframe of effectiveness (this means how often a woman has to take action for continued protection – hint: Depo-Provera is an injection taken every 12 weeks) for the following: Depo-Provera, Mirena, NuvaRing, oral contraceptive, Ortho Evra Patch.

_____

Women who fall into one or both of these two categories would be advised against taking a hormonal method containing estrogen because that could increase the woman's risk of experiencing serious medical problems. What are these two categories (hint: answer will be an age range and a behavior that's not sexual)

_____

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CONTRACEPTION MCQs

A 45 year old lady comes to the family planning clinic for contraception advice. She has two young children and does not want anymore children. An incidental finding of multiple small submucosal fibroids was found recently on an ultrasound scan. She is asymptomatic and her medical history is otherwise insignificant. What is SINGLE most appropriate contraceptive for this lady?

A. Etonogestrel
B. Combined oral contraceptive pill (COCP)
C. Progestogen-only pill (POP)
D. Intrauterine system (IUS)
E. Intrauterine Contraceptive Device (IUCD)

A 22 year old woman was prescribed doxycycline for 10 days to treat Lyme disease. She has been using combined oral contraceptive pills regularly for the past 6 months. What is the SINGLE most appropriate advice?

A. Combined oral contraceptive pills can be used with no additional contraceptive method necessary
B. Continue taking combined oral contraceptive pills plus an additional barrier method for 2 days
C. Continue taking combined oral contraceptive pills plus an additional barrier method for 10 days
D. Stop combined oral contraceptive pill for a week and use barrier methods
E. Prescribe doxycycline for 15 days

CONTRACEPTION MCQs

A 36 year old female goes to her local GP clinic with the complaint of heavy menstrual bleeding. She also complains of pain in her lower abdominal area during her menstrual periods. She describes the pain as being intermittent in nature with a cramping quality. The pain sometimes radiates to her lower back. She takes standard over-the-counter paracetamol for the pain but she says that they provide only minimal relief. She has a standard 28 day menstrual cycle and describes her menstrual period as being regular in duration and onset, but extremely heavy in nature. She has had three children, and she claims that their births were all by elective caesarean section and that they were uncomplicated in nature. A urine pregnancy test comes up negative. Her past medical history is significant for her being diagnosed with a deep vein thrombosis five years ago. The patient was put on oral warfarin for three months after her diagnosis of a deep vein thrombosis. Now, she has no other medical problems and takes no chronic medications. A transvaginal ultrasound was done for the patient. The ultrasound revealed multiple small sized fibroids measuring about 2 cm x 2 cm in diameter. The fibroids do not distort the uterine cavity. What is the SINGLE best contraceptive method to offer this patient?

A. Combined oral contraceptive pill
B. Intrauterine contraceptive device (T-Safe ®)
C. Progesterone only contraceptive pill
D. Levonorgestrel-releasing intrauterine system (Mirena ®)
E. Progestogen-only subdermal implant (Nexplanon ®)

A 42 year old overweight smoker complains of heavy periods. An ultrasound scan reveals a normal uterus. She would like a long term treatment with minimal side effects that would offer treatment for the menorrhagia and provide contraception although she is still unsure if she would like children in the future. What is the SINGLE most appropriate management?

A. Combined oral contraceptive pills
B. Endometrial ablation
C. Levonorgestrel intra-uterine system
D. Progestogen implant
E. Copper intrauterine contraceptive device

CONTRACEPTION MCQs

A 33 year old woman with a background history of sickle cell disease complains of heavy menstrual blood loss over the past year. She is not sexually active and has no plans for children in the near future. What is the SINGLE most appropriate management?

A. Combined oral contraceptive pill (COCP)
B. Intrauterine system (IUS)
C. Depot medroxyprogesterone acetate (DMPA)
D. Copper intrauterine device
E. Progestogen only pill (POP)

An 18 year old girl who has mild learning difficulties attends the GP surgery seeking advice on contraception. She is sexually active and currently using condoms however she would like to try a different contraceptive method that is more secure. She has no relevant past medical history. What is the SINGLE most appropriate contraception for her?

A. Nexplanon®
B. Depo-Provera
C. Intra-Uterine System (Mirena®)
D. Combined oral contraceptive pills (COCP)
E. Progestin-Only pill (POP)

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