

CF Guidelines - Contraception

When choosing a method of contraception, consider one of the following:

- The effect on CF related conditions such as liver disease, diabetes, gall stones and osteoporosis.
- The effect of oral or intravenous antibiotics.
- Adherence to current C.F. treatments.
- Consider future pregnancy.
- Will pregnancy be detrimental to health?
- Is a totally implantable vascular access device in situ?

When thinking about possible methods of contraception for women with CF all the usual considerations need to be made in conjunction with the woman's CF. Consider use of progestogen-only method if TIVAD in situ. Suggest Cerazette if a pill is preferred method of choice.

Condoms:

The use of male and female condoms can prevent pregnancy and / or reduce the risk of sexually transmitted infections. They provide a barrier to the ejaculate, pre-ejaculate secretions and cervico-vaginal secretions. Male condoms are up to 98% effective and female condoms up to 95% effective at preventing pregnancy when used consistently and correctly. It is known that 1:10 young people under the age of 25 have Chlamydia trachomatis. Testing is offered to under 25's and can be performed at GUM clinics, family planning clinics and Brook clinics. There are home testing kits available too. There has been an increase in cases of syphilis and gonorrhoea.

Advantages of condoms:

- Up to 98 % effective.
- Provides some protection against STI's.
- Provides additional contraception to combined pill users during antibiotic therapy.

Disadvantages of condoms:

- Requires high motivation.
- Non-oil based lubricants are recommended for use with many latex and non-latex condoms.
- Can fail resulting in need for emergency contraception.

Combined oral contraceptive pill:

Combined oral contraceptives contain ethinylestradiol in combination with progestogen. COCP's work primarily by inhibiting ovulation. Ovulation is inhibited by action on the hypothalamo-pituitary-ovarian axis to reduce luteinising hormone and follicle-stimulating hormone. COCP's are taken for 21 days, followed by 7 pill-free days. The first 7 pills in the packet inhibit ovulation. The remaining 14 pills maintain anovulation. During the 7 pill-free days, the endometrium sheds and most women have a withdrawal bleed. Contraceptive protection is maintained during the pill-free interval as long as pills before and after are taken consistently and correctly. Historically it was thought that women with CF should be prescribed high doses of ethinylestradiol, (ie 50 micrograms.) However, the COCP is well absorbed in CF and 30 micrograms is sufficient.

Advantages of COCP:

- 97-99% effective at preventing pregnancy if taken consistently and correctly.
- Easy to take and has a 12 hour window within which to take.
- Low doses of oestrogen can be taken with ursodeoxycholic acid.

Disadvantages of COCP:

- Increased risk of thrombosis may be increased further with TIVAD.
- Another pill to be taken daily.
- Requires extra precautions, such as condoms; when taking oral or intra venous non-liver inducing antibiotics - short term antibiotic use for < 3 weeks alters gut flora and reduces the enterohepatic circulation of ethinylestradiol. Gut flora recover after 3 weeks of antibiotic use. After 3 weeks antibiotic use no extra precautions are necessary, unless the antibiotic is changed, in which case manage as for a short course. Women using antibiotics for short courses, <3 weeks; should be advised to use additional protection for the duration of the course and for 7 days after course is completed. If there are less than 7 days of pills remaining in the pack, the pill-free interval should be omitted.
- Vomiting within 2 hours of taking COCP requires another pill to be taken as soon as possible.
- Severe diarrhoea may lead to a reduction in COCP absorption.
- Increased risk of gall-stones - oestrogen increases the amount of cholesterol in bile which can lead to gall-stones.
- If taking oral steroids and COCP, the oestrogen increases the level of steroid in the blood.

Older generation Progestogen-only pill:

Contains progestogen only and is taken every day without a break. Works by increasing the thickness of cervical mucous, and preventing sperm entering the uterus. Sometimes ovulation is prevented, but this is not the main mode of action.

Advantages:

- 96 – 99% effective in women over 35, if taken correctly. Needs to be taken at same time each day, with only a 3 hour window.
- Absorption unaffected by the usual antibiotics used in CF.

Disadvantages:

- Requires daily pill taking.
- Only 3 hour window within which pill can be taken.
- Not as effective in younger women who will be very fertile.
- Variable bleeding pattern caused by progestational effect on endometrium.

Older generation progestogen-only pills are not recommended for women with CF.

Cerazette - new generation of progestogen-only pill:

Cerazette has been available in U.K. since 2004. It works by inhibition of ovulation and is as effective as COCP at preventing pregnancy. It is taken every day without a break.

Advantages:

- 97-99% effective, even in younger women.

- 12 hour window within which pill can be taken - since 2004.
- Absorption unaffected by the usual antibiotics used in CF therefore, no need for additional contraception.

Disadvantages:

- Requires daily pill taking.
- Variable bleeding pattern due to effect on endometrium - can range from no bleeding, light regular bleeding, heavy irregular bleeding and spotting.

Depo-Provera - medroxyprogesterone acetate:

Depo-Provera 150mg is administered by deep intramuscular injection [into the gluteal muscle, every 12 weeks. Completely inhibits ovarian function.

Advantages:

- 99% effective.
- Long acting (effective for 12 weeks and 5 days).
- The usual antibiotics do not interfere with it's absorption.
- No daily pill to take.

Disadvantages:

- Reduces bone mass density.
- Not recommended for healthy adolescents because of effect on bone mass density.
- Fertility can take up to 2 years to return following discontinuation of injections.
- Variable bleeding pattern - may be no bleeding, light or heavy bleeding or irregular spotting.

Depo-Provera is not recommended in C.F. because of the effect it has on bones.

Implanon - implants:

An etonogestral-releasing [progestogen] implant, consisting of a flexible rod, is inserted sub-dermally into the lower surface of the upper arm. It provides contraception for 3 years, by inhibiting ovulation.

Advantages:

- 99% effective.
- Easy maintenance.
- Lasts for 5-8 years.
- No drug interactions.
- Can be used as emergency contraception.

Disadvantages:

- Requires skilled healthcare professional to insert.
- Threads need to be checked by woman monthly.
- Menstrual bleeding can increase in amount and duration.

Intra-uterine System - Mirena coil:

The Mirena coil is a progestogen-only method of contraception. It consists of a T-shaped plastic frame, with a reservoir on the vertical stem containing levonorgestrel 52 milligrams, inserted into the uterus, via the vagina. A rate-limiting membrane allows levonorgestrel to be released into the uterine cavity at a constant dose of 20 micrograms per day.

Advantages:

- 99.5% effective.
- Effective for 5 years.
- Unaffected by the usual antibiotics.
- Fertility returns immediately on removal.

Disadvantages:

- Requires skilled healthcare professional to insert.
- Threads need to be checked monthly by woman.
- Possible change in bleeding pattern due to being progestogen-only method.

Intra-uterine Device - Copper Coil:

- Thought to delay ovulation.
- Can be inserted 5 days after unprotected sex and up to day 19 of menstrual cycle.
- Can be left in place for contraception afterwards.

Diaphragm and Cap:

These consist of domes made of thin, soft rubber to form a physical barrier between sperm and egg.

Advantages:

- 92-96% effective.
- No side-effects.
- No drug interactions.

Disadvantages:

- Requires fitting and education on use.
- Need to use spermicidal and keep in place for 6 hours after sex.
- Increased risk of pregnancy in under 25's.
- Effectiveness may be reduced if weight alters by 3kg.

Emergency Contraception - Levonelle 2 - The morning-after pill:

- Progestogen-only pill.
- Unaffected by the usual antibiotics.
- To be taken within 72 hours of unprotected sex, effectiveness is between 95% and 58%, depending how soon taken.

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