**Why is Contraception important for women with heart disease?**

The risk of pregnancy for women with heart disease is greater than for the general population. It is important that any pregnancy is planned so that you can seek advice from a specialist who knows about your condition, and avoid the risk of complications. Finding an effective and safe form of contraception is therefore very important to avoid an unplanned pregnancy. The form of contraception most suitable for you will depend on your heart condition. Some women will have a high risk of encountering problems if they became pregnant, and therefore will need contraception that is very effective; whereas women at a lower risk may be willing to accept a contraceptive method with a higher failure rate.

There are many different forms of contraception available and none are 100% effective. This leaflet outlines some of the options available to you, and their advantages and disadvantages. It is essential that you also consult your heart/pregnancy specialist to ensure that you choose the most suitable option for you.

**Barrier Methods (Condoms, Diaphragm)**

These have few side effects, and are safe for use in all types of heart disease. However, there is a high failure rate, leading to unwanted pregnancy, and therefore should not be used in women with severe heart disease, where pregnancy carries significant risks. Condoms do however protect both partners from sexually transmitted infections and should be used in conjunction with another method.

**Combined Oral Contraceptive Pill**

This contains oestrogen and progesterone, and is over 99% effective if taken correctly. It regulates periods, and often reduces bleeding and period pains. The combined pill is safe for most types of
heart disease, including valvular heart disease and defects repaired in childhood. However, it is not suitable for use in women with certain complex heart conditions and mechanical heart valves. There may also be some problems if you are taking warfarin, and your INR will need to be monitored more regularly. It is important to seek advice from a specialist before starting this form of contraception. There are also some uncommon but serious side effects with the combined pill. It increases the risk of blood clotting in an artery or vein (thrombosis) by 3-4 times. The pill is therefore not suitable for people who have had a thrombosis in the past, are overweight, are immobile for a long period of time, or have a heart condition which is associated with an increased risk of clotting. The combined pill is also available as a patch.

**Progesterone Only Pill**
The progesterone-only pill (POP) contains no estrogen; only progesterone. It is much safer for women with heart disease than the combined pill, as it has almost no dangerous side effects and does not cause thrombosis. It is safe for almost all types of heart disease. It is 99% effective when used perfectly. However, it needs to be taken at the same time each day, and is not effective if taken over 3 hours late. Therefore, the failure rate is higher than with the combined pill. It may also make periods irregular, and can interact with warfarin.

Cerazette is a newer POP which is effective if taken up to 12 hours late. Therefore, it has a lower failure rate, which may make it more suitable for women with major heart disease.

**Contraceptive Injection**
This is an injection of progesterone given into a muscle, usually your bottom. It lasts for 12 weeks. It is very effective since you don’t need to think about contraception for as long as the injection lasts, and the failure rate is less than 1%. It may reduce heavy painful periods. Side effects include weight gain, headaches and acne. The injection cannot be removed from the body so any side effects may continue for as long as it works and for some time afterwards. This method is very safe for all types of heart disease, except for women who are required to take warfarin, due to bleeding at the injection site.

**Implant of Progesterone (Implanon)**
This is a small rod that is placed just under the skin in your upper arm, under local anaesthetic. It releases a hormone similar to the natural progesterone produced in your ovaries. It is one of the safest and most reliable forms of contraception (it is even more effective than sterilisation). Less than 1 woman in 1,000 will get pregnant on the implant. It is effective for 3 years, but can be taken out sooner and fertility will return to normal. There are fewer side effects with the implant than the injection. However it can alter your periods; they may become irregular or longer, and in 20% of women they stop completely. This is a very good option for women with heart disease. It is safe for all types of heart disease, including severe disease and women taking warfarin since risk of bleeding is much lower than with the injection. The drug bosentan sometimes used for heart disease can reduce the effectiveness of the implant and additional contraception or two implants, may be needed in these cases.

**Copper Coil (IUCD)**
These are very effective, with less than 1% of women falling pregnant over a period of 5 years. It is a small copper device, which is inserted into the womb and is effective for 5-10 years. It does not release any hormones, so side effects are minimal. It may however cause periods to be heavier, longer or more painful. Pregnancy in the fallopian tube (ectopic pregnancy) may occur rarely. This method is suitable for some women with heart disease, however there are some limitations. During insertion, there is a risk of bacteria entering the blood stream; therefore the device may not

Natalie Evans/Nigel Davies/Helen Wallace. March 2010
Review March 2013
be suitable for women with mechanical heart valves, or those who have had previous endocarditis. About 1 in 1000 women have a fainting reaction at the time the coil is inserted. This can be dangerous for women with certain complex heart disease and should not be used in those women with pulmonary hypertension. It should be inserted in hospital, with an anaesthetist present in case of this rare complication. The IUCD may also be unsuitable for women taking warfarin, as it can make periods heavier.

**Mirena Coil (IUS)**
This coil does not contain copper, but is a plastic device which slowly releases a hormone similar to progesterone. It is as effective as the copper coil (over 99 %), but the Mirena causes less bleeding and less infection than copper coils. They can therefore be used in women who have never had children (whose wombs are more at risk of infection). The Mirena is effective for 5 years. Irregular bleeding or spotting is common in the first 6 months, but this usually settles, and periods become light or absent. This is generally a safe contraceptive for most women with heart disease, even those taking warfarin. Like copper coils, the Mirena may cause a fainting reaction at the time of insertion.

**Sterilisation**
If you decide that you don’t want to become pregnant at any point, sterilisation is an option. Both men (vasectomy) and women can be sterilised. In women, the fallopian tubes are blocked using clips. This is generally safe for women with heart disease; however, it is not without risks. A keyhole approach (laparoscopy) under anaesthetic would usually be used, which involves putting gas at high pressure into the abdomen. This can sometimes affect the heart, and therefore a laparotomy (open procedure) under regional anaesthetic (not asleep) may be safer for some women with heart problems. Sterilisation is considered effective and permanent; however, if the clip has not closed the tube completely there is a risk of pregnancy. The chance of this occurring is 1 in 200.

**Emergency contraception**
One form of emergency contraception is to take a tablet within 72 hours of unprotected intercourse. It is more effective the earlier it is taken. It can prevent 99 % of pregnancies; however the overall failure rate is about 10 %, and it is therefore not appropriate for use as a regular form of contraception. Side effects include nausea and vomiting. There are two types of tablets available, one of which may interact with warfarin, so it is important you mention this if requiring emergency contraception.
An alternative is to insert a copper coil up to 5 days after intercourse. This will prevent 99.9 % of pregnancies. It is very safe for women with heart disease to use emergency contraception, and is highly recommended in women with a serious heart condition, in whom the risks of becoming pregnant far outweigh any risks associated with the contraceptive tablet or coil. However, remember that planned contraception is always better than emergency contraception.

**Useful Websites:**
http://www.nhs.uk/Livewell/Contraception/Pages/Contraception-hub.aspx
http://www.umm.edu/patiented/articles/what_oral_contraceptives_00091_2.htm