

Sperm washing

Last updated August 2011/ Due for review August 2012

Sperm washing is a process which has been developed for couples who wish to have a child, where the male is HIV-positive and the female is HIV-negative. The procedure reduces the risk of HIV transmission to the female partner and subsequently the unborn child.

There is a lot of interest in the use of HIV treatment as prevention, and research has shown that it can reduce the risk of transmission by 96% . However, there may still be a small risk of HIV transmission which some couples may find unacceptable.

Sperm washing rests on the premise that HIV-infected material is carried primarily in the seminal fluid rather than in the sperm itself. The technique involves purifying sperm from seminal fluid. The sperm is then used for insemination into the female partner when she is ovulating and most likely to become pregnant (called intra-uterine insemination or IUI), or for in vitro fertilisation (IVF).

This technique was pioneered in Milan. It is now used across Europe and in north America. About 20 centres now offer the service. A study has shown that, in over a thousand women who have had IVF with 'washed' sperm, so far none of the women has seroconverted and all of the children born have tested HIV-negative. A recent study found the risk of HIV transmission from sperm washing to be zero.

A sperm-washing service is available at the Chelsea & Westminster (C&W) Hospital in London, and is discussed here as an example. Currently, no other clinics in the UK offer a sperm-washing service.

A couple's first step on the C&W programme is to see a counsellor, to get further information and support, and to explore some of the issues involved. Partners are seen individually and together. Deciding to embark on this treatment may not be a easy decision. Although the risk of the female partner becoming infected is minimal, it still exists, and for one or both partners it may be felt that this risk is too much. There is also an opportunity to discuss issues concerning parenting itself, coping with a child when one parent is HIV-positive and facing the reality that treatment does not guarantee pregnancy. Counselling is available on an individual and couple basis throughout the time on the C&W programme.

During the first visit, couples will also need to have a full sexual health screen which includes an HIV test for both partners. Following these tests, an appointment is made with the C&W Assisted Conception Unit which will assess the fertility of each couple. Over the following few weeks, tests including various blood tests along with an ultrasound scan and an X-ray for the female partner, and a semen analysis for the male partner will be performed. These tests indicate whether insemination would be a realistic option. If either partner was to have sub-optimal fertility, IVF may be a consideration after all avenues have been explored. All preliminary investigations and appointments can take two to three months.

Acceptance criteria for the C&W programme

Couples need to provide a referral letter from their doctor (either GP or HIV doctor), and current information concerning viral load and CD4 count. The C&W Assisted Conception Unit is obliged to consider the welfare of any child that might be born as a result of their intervention. It is only able to offer the service to couples who are in a stable and committed relationship.

Couples are asked to sign a consent form which states that both partners understand the procedure and are prepared to accept the minimal risk involved.

The female partner is obliged to have regular HIV tests throughout the programme. It is imperative that couples do not have unprotected sexual intercourse for the preceding three to six months before entering the programme and for its duration. Both partners must also abstain from any other high-risk activities that could put them at risk of HIV or any other bloodborne infections.

Costs and enquiries

There is a cost attached to sperm washing, which as yet is not available on the NHS. Individual health authorities may be approached on the basis of risk reduction. Some health authorities are sympathetic and may agree to fund one or several cycles of IUI with sperm washing. Currently the cost of initial tests and consultations is in the region of £600. Each cycle of IUI with sperm washing is £750.

All enquiries regarding the C&W sperm washing programme should be directed to the Assisted Conception Unit (telephone 020 3315 8585).

Credit: thanks to Helen Rivas-Torro and Dr Jill W Gilmour for help with the first edition of this factsheet.