Background
Infertility affects approximately 10-15% of couples in the UK (see reference 1), requiring them to proceed with assisted reproductive technology (ART). Despite the significant advances of these techniques, data published by the Human Fertilization and Embryology Authority (HFEA) for the United Kingdom indicate that around one-in-four attempted in vitro fertilization (IVF) cycles (25.6%) results in a baby and only 50% of women under the age of 35 years, who receive a blastocyst (five days old embryo) transfer do achieve a pregnancy (see reference 2). Repeated implantation failure (RIF) indicates when transferred embryos fail to implant following several attempts. RIF can occur by chance, or because of underlying problems in the eggs or sperm, or in the embryos or in the lining of the uterus (endometrium) due to what we call reduced endometrial receptivity (see reference 3). Recent studies on mechanisms of miscarriage and RIF indicate a possible common pathway suggesting that these two conditions may represent a different face of the same coin. A number of tests have been use to try and understand why embryos do not implant. None are guaranteed to work and in the fullness of time might be shown to be ineffective in larger scale studies such as randomised controlled trials. One issue we struggled with is, if and when to offer these tests to our patients? Some couples want us to decide whereas others would like the opportunity to choose for themselves.

One series of tests which are being presented at the most recent medical conferences is the “endometrial health pack” by Igenomix, Spain. It consists of an endometrial biopsy being taken and sent for analysis. Three different tests can be carried out on the same sample:

- The ERA test of implantation receptivity challenges the notion that the implantation window is the same for all patients and that for some, replacing an embryo either a day earlier or later may be associated with better results. This would only be appropriate for IVF patients and not for those with recurrent miscarriages naturally conceived.
- The EMMA test looks at the endometrial microbiome and determines the healthy bacteria levels that may play a role in the implantation of an embryo. Probiotic treatment may be suggested to balance the endometrial flora with the aim of improving the pregnancy prospects.
- The ALICE test looks for 8 potentially harmful bacteria to an implanting embryo for which antibiotic intervention may be advised.

What is required?
Once the decision has been made with your doctor to undertake this test, we will either arrange an endometrial biopsy on day 21 of a regular 28 day cycle or else prepare your womb lining with a combination of oestrogen oral tablets and vaginal progesterone pessaries. An endometrial biopsy is then taken by passing a catheter through the cervix. It works by suction to draw off some endometrial tissue. We then place it in a tube and arrange courier transport to Igenomix. They then undertake analysis and let us know the results in 3 to 4 weeks. A suggested management plan to correct any imbalance is also provided. Should you wish to repeat the test, adding in proposed treatments to see if the intervention has worked, then repeat testing does not incur an additional cost from Igenomix but the Hewitt Fertility Centre cost still applies.
What is the cost?

Liverpool Women’s cost (including any meds, biopsy & courier) £100*
EndomeTrio (all three tests) £895
ERA endometrial receptivity £695
EMMA (microbiome) + ALICE (endometritis) £495
ALICE (endometritis) £295

* The cost may vary depending on the individual medication required.

References


For further information and to arrange an appointment:

0151 702 4121 (option 3)
www.thehewittfertilitycentre.org.uk via “contact us”
Hewitt.Centre@lwh.nhs.uk

This leaflet can be made available in difference formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk