# HYSTEROSALPINGO CONTRAST SONOGRAPHY [HyCOSY] – STANDARD OPERATING PROCEDURE

## **1 PURPOSE**

HyCosy is the term used for an ultrasound based tubal patency test using ExEm® Foam-kit. Women who are experiencing difficulty in achieving conception need to have their tubal patency checked before definitive diagnosis can be given and appropriate treatment instigated.

All patients should be given the written Hycosy patient information leaflet and advised that they should be accompanied for the procedure.

### 2 EQUIPMENT/CONSUMABLES

- □ Sterile dressing pack
- □ Sponge holding forceps
- Normal saline sachet
- □ Sterile gloves
- □ Cusco's speculum
- □ HyCoSy catheter (choose from 5.5 and 7 mm available)
- □ 2ml syringe
- □ ExEm® Foam-kit
- □ Light source
- □ Ultrasound scanner

## Contrast Medium – Dosage and Administration

ExEm gel consists of: hydroxyethylcellulose and glycerol.

With the ExEm® Foam-kit, foam can be created for Hysterosalpingo Sonography.

The ExEm® Foam-kit contains a syringe with ExEm® gel, a syringe with purified water, and a coupling device.

By mixing ExEm® gel and purified water, gel foam is created. After infusing the foam through the uterine cavity into the fallopian tubes, ultrasound images can be obtained of the bubbles formed by mixing the solutions.

## **3 TIMING**

Procedure is ideally performed during D7-12 of the menstrual cycle to avoid possible injury to an undiagnosed pregnancy. It may be done outside this period in special circumstances, after discussion with the clinician. In this case the patient will be advised not to have unprotected sexual intercourse from last period, and should do a urine pregnancy test on the day prior to scan.

#### **4 PERSONNEL**

Clinical and nursing staff.

#### **5 HEALTH AND SAFETY**

All procedures are performed within the licensed clinics of the Wales Fertility Institute and undertaken by appropriately trained personnel.

#### **6 CONTRA-INDICTATIONS**

- □ Active bleeding
- □ Possibility of pregnancy
- □ Pelvic Inflammatory Disease

## **7 SIDE EFFECTS**

□ Possible pelvic pain due to distension of the uterine cavity and tubes caused by filling with the contrast agent, particularly pronounced in the presence of occluded tubes.

□ Possible vasovagal reaction (outbreaks of sweating, dizziness, nausea and vomiting) during the procedure.

 $\Box$  Risk of ascending infection.

## **8 PROCEDURE**

• Referring clinician to ensure that the patient has had vulval swab for Chlamydia prior to the procedure (HyCoSy & Saline infusion sonography).

- Ensure the patient has no known allergies.
- May want to administer prescribed Hyoscine butylbromide (buscopan) 20mg 15 minutes prior to the procedure. Patient can also be instructed to take some pain killers (Ibuprofen 400mg or Paracetamol 1gm if suitable) 1 hour before arriving for the procedure to reduce uterine spasm and reduce discomfort.
- Inform the patient of the proposed activity.
- To obtain the patient's consent and co-operation.
- Ensure privacy and comfort is maintained at all times.
- To ensure the patient is as relaxed as possible and the procedure is not interrupted.
- Prepare the trolley, and light source.
- Assist the patient into an appropriate position for ultrasound scan. To assess pelvic organs and exclude abnormalities.
- Wash hands and don sterile gloves
- Pass the Cuscoes speculum and identify the cervix, clean the cervix with saline solution. To remove excess mucous, reduce the incidence of ascending infection and improve visibility.
- Pass the HyCoSy catheter through the cervical canal. Do not force the catheter. If the patient experiences pain or bleeding stop and seek medical advice. To avoid injury to the patient. Once the catheter is in situ, inflate its balloon with 0.7 to 1.0 ml of normal saline. To ensure the catheter remains in situ.
- Withdraw the speculum
- The nurse/doctor checks the position of the catheter.
- Using aseptic technique, mix the exem foam and purified water using coupling device, by connecting the two syringes. It is recommended to mix for 10 minutes. This 10 mls of mixed liquid is then insufflated into the uterine cavity slowly, while a vaginal scan is performed to see the passage of liquid through the fallopian tubes out into pelvis.

#### 9 RESULTS AND REPORTING MECHANISM

If the tubal patency test is reported as entirely normal and if all other conditions are satisfactory the patients name may be added to the most appropriate treatment waiting list for intra uterine insemination utilising either husband/partner or donor gametes.

If the results of the HyCosy are not conclusive a discussion should be held with the patient in relation to consideration of in vitro fertilisation [IVF] treatment or for a referral for consideration of a laparoscopy and dye test depending on the individual patient circumstances.

The discussions regarding the patient's further care will be made by the clinical team.