

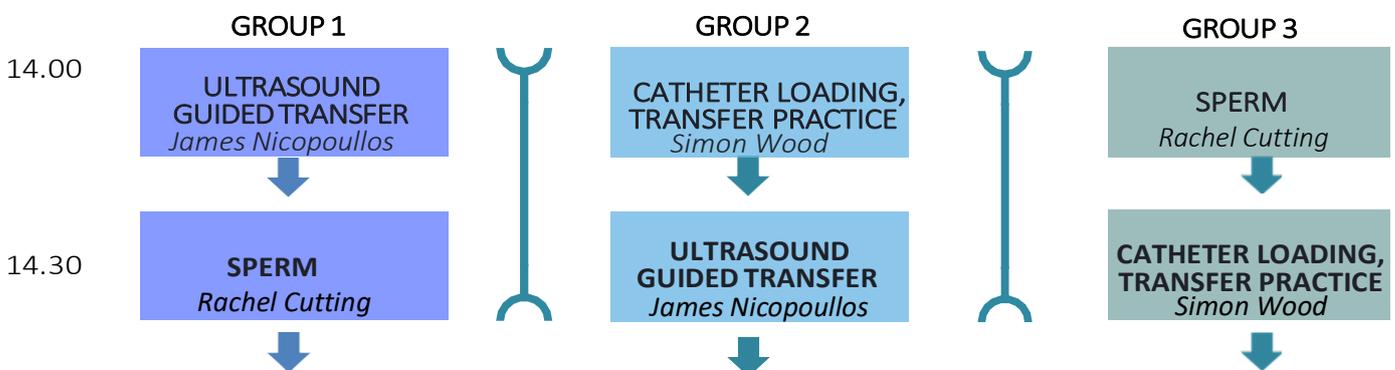
- 08.00 Registration, refreshment and exhibition
- 09.00 Welcome, Debbie Evans, *Director of Clinical Services, Herts & Essex Fertility Centre*
- 09.10 Structure of cervix, uterus and tubes, *Ali Al Chami, Fertility Consultant, The Centre for Reproductive & Genetic Health, London*
- 09.30 Controlled ovarian stimulation, *Nabil Haddad, Consultant Gynaecologist, Cheshire Reproductive Medicine*
- 10.00 Assessment and preparation of sperm, *Rachel Cutting, Principal Embryologist / Person Responsible, Jessop Fertility, Sheffield Teaching Hospitals NHS Foundation Trust*

10.30 Refreshment and exhibition

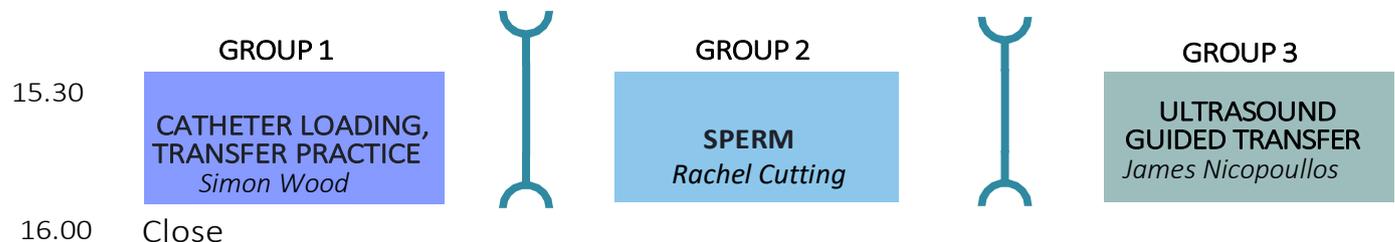
- 11.00 Immunology and preparation of the endometrium, *Harish Bhandari, Consultant Gynaecologist and Sub-specialist in Reproductive Medicine, Leeds Fertility, Leeds Teaching Hospitals NHS Trust, Leeds*
- 11.30 Optimising your embryo selection techniques, *Rachel Gregoire, Scientific Director/HFEA Person Responsible, Hewitt Fertility Centres, Liverpool Women's Hospital*
- 12.00 Is there a role for IUI in the future of fertility treatment?, *Valentine Akande, Lead Clinician and Person Responsible, Bristol Centre for Reproductive Medicine*

12.30 Lunch and exhibition

- 13.30 Embryo transfer/IUI techniques, *James Nicopoulos, Consultant Gynaecologist, Sub-specialist in Reproductive Medicine and Surgery, Lister Fertility Clinic*
- 14.00 3 x Workshops (30 minutes) **Please make a note of your allocated Group.**  
**Ultrasound Guided Transfer:** *James Nicopoulos, Consultant Gynaecologist, Sub-specialist in Reproductive Medicine and Surgery, Lister Fertility Clinic*  
**Catheter Loading, Transfer Practice:** *Simon Wood, Consultant Gynaecologist, Countess of Chester Hospital/ Cheshire Reproductive Medicine*  
**Sperm:** *Rachel Cutting, Principal Embryologist / Person Responsible, Jessop Fertility, Sheffield Teaching Hospitals NHS Foundation Trust*



15.00 Refreshment and exhibition



16.00 Close



## **Ali Al Chami, Fertility Consultant , MBBS, MRCOG, The Centre for Reproductive & Genetic Health, London**

Ali Al Chami is a fertility consultant at the Centre of Reproductive and Genetic Health. He graduated as a medical doctor in 2006 and received obstetrics and gynaecology specialty training at the American University of Beirut Medical Centre. He then completed three years of clinical and research fellowship in reproductive medicine and assisted conception at the Reproductive Medicine Unit, University College London Hospital. He is also a member of the Royal College of Obstetrics and Gynaecology. His research interests include fertility preservation, pre-implantation genetic diagnosis and reproductive surgery.

### **Structure of cervix, uterus and tubes**

1. To recognise the normal and pathological anatomical variations of the cervix, uterus and fallopian tubes and their impact on the embryo transfer procedure.
2. Understand the factors that affect the outcome of the procedure
3. To discuss the approaches to overcome difficulties in embryo transfer.

Embryo transfer procedure is the final and crucial step in any IVF cycle which can adversely impact the IVF treatment outcome. Most embryo transfer procedures are easy however in a small group of patients the procedure could be difficult and may cause cervical or endometrial trauma which can lead to unsuccessful implantation and poor outcome. This talk will review the anatomical and physiological aspects of the cervix, uterus and tubes and their relation to the embryo transfer techniques. It will also cover the impact of the related anatomical and pathological variations and the suggested evidence-based approaches to overcome any difficulty of the embryo transfer and IUI procedures.

## **Nabil Haddad, Consultant Gynaecologist, Cheshire Reproductive Medicine**

Consultant Gynaecologist specialist in Reproductive Medicine and Surgery. FRCOG, CEO, Cheshire Reproductive Medicine Ltd. Countess of Chester NHS foundation Trust. Engaged in clinical practice of reproductive medicine and ART since 1984.

### **Controlled ovarian stimulation**

Learning points

1. When to use.
2. Safety first.
3. What's new.

## **Rachel Cutting, Principal Embryologist / Person Responsible, Jessop Fertility, Sheffield Teaching Hospitals NHS Foundation Trust**

Rachel graduated from the University of Nottingham in 1995 and completed the ACE post graduate diploma in 1998. In 2001 she gained the position of Principal Embryologist at Jessop Fertility and holds the position of Person Responsible. Rachel's was chair of the ACE from 2011-2014 and is an assessor for the ACS and NSHCS. She is involved in writing the national curriculum for training embryologists and has written national guidelines for oocyte freezing and elective single embryos transfer. She was awarded an MBE in 2015 for services to infertility.



## Assessment and preparation of sperm

- To understand the importance of accurate sperm assessment and the use of standardised World Health Organisation methodology;
- To understand how reference values for semen quality have been defined and how they relate to spontaneous conception and ART outcome;
- To understand the range of sperm preparation method available and what they are designed to achieve (e.g. removal of non-sperm cells from semen);

Sperm assessment has a long history and has the aim of trying to identify 'good sperm' and make a prediction of how likely conception is to happen. The World Health Organisation has produced guidelines for sperm assessment since 1980 and the 5th Edition of this manual was published in 2010. Using these guidelines, there is a positive relationship between semen quality and the probability of conception. However, there is significant uncertainty where the probability of conception is 'indeterminate'. Data shows significant variation in the performance of sperm assessment between laboratories and proper internal and external quality assurance is essential to try and minimise such errors. Sperm preparation is essential prior to IUI or IVF ( $\pm$ ICSI) in order to remove sperm from seminal plasma and any non-sperm components of semen. There are three main sperm preparation methods in use in UK laboratories: (i) Density centrifugation; (ii) Swim-up; and (iii) wash and centrifugation. Although Density centrifugation is the most common, large randomised controls are lacking and a recent Cochrane review suggests there was insufficient evidence to suggest one method above another. Current research is being undertaken to assess and prepare sperm using: (i) microfluidic chambers; (ii) electrophoresis; (iii) high magnification optics (IMSI); and (iv) sperm binding to hyaluronic acid.

## Harish Bhandari, Consultant Gynaecologist and Sub-specialist in Reproductive Medicine, Leeds Fertility, Leeds Teaching Hospitals NHS Trust, Leeds

Mr Harish Bhandari is a full-time NHS Consultant Gynaecologist and Sub-specialist Reproductive Medicine in Leeds. He was awarded the Doctorate of Medicine (MD) by University of Warwick for his research work evaluating the effects of obesogenic environment on peri-implantation endometrium. He has special interests in recurrent miscarriage, recurrent implantation failure, reproductive immunology and endometrial research.

## Immunology and preparation of the endometrium

Learning points:

- To learn about the endometrial preparation for implantation and the markers predictive of pregnancy outcome
- To understand the role of endometrial decidualization in implantation
- To discuss the immunological determinants of implantation success

A successful implantation and pregnancy depends on complex, but well-designed interaction between good quality embryo and receptive endometrium. Ovarian steroids induce endometrial decidualisation irrespective of pregnancy which is paramount for endometrial receptivity, embryo selection and subsequent placenta formation. Failure to express adequate decidual phenotype results in reproductive complications. Prospective assessment of decidualisation is an important tool for predicting the likelihood of successful implantation and pregnancy.

Endometrial leucocytes are thought to play a key role in establishing fetoplacental unit and subsequent immunological maintenance of pregnancy.

In this presentation, various markers of endometrial preparation for embryo implantation are discussed, and the clinical implications of impaired decidualisation and altered immune cells are addressed.



## **Rachel Gregoire, Scientific Director/HFEA Person Responsible, Hewitt Fertility Centres, Liverpool Women's Hospital**

Rachel has worked in the field of embryology for 20 years, starting her clinical training at Ninewells Hospital, Dundee

where she completed a PhD in Developmental Medicine. In 2008 she moved to the Hewitt Fertility Centre Liverpool, one of the UK's largest assisted conception providers, as Senior and then Lead Clinical Embryologist, leading a team of 15 scientists. In 2014 she moved to Glasgow Royal Infirmary as Consultant Embryologist and HFEA Person Responsible where she led the scientific service in delivering cutting edge techniques and achieved a significant improvement in clinical and laboratory success rates. In 2017 Rachel returned to the Hewitt Fertility Centres in Liverpool and Knutsford as the Scientific Director and HFEA Person Responsible where she continues to strive for excellence in laboratory technique and in clinical and laboratory success rates.

Rachel is very much involved in clinical embryology as a profession, working closely with the Association of Clinical Embryologists and the Royal College of Pathologists in delivering the HSS training program for future Consultant Embryologists, and chairs the NEQAS Reproductive Science Steering Committee for Embryology.

### **Optimising your embryo selection techniques**

Learning objectives:

Overview of embryo selection techniques / Pre-implantation genetic screening / Time-lapse imaging technology / Morphokinetics / Embryo selection algorithms / Drawbacks and benefits of embryo selection technologies

Embryo selection for embryo transfer is the single, most influential factor affecting IVF outcome. The accurate selection of one or more viable embryos for transfer is therefore central to IVF success and improving live birth rates.

The risks of multiple pregnancy has lead to an increase in elective single embryo transfer (eSET) from 7% to 38% in 18-34 year old women over the last five years in the UK, whilst maintaining IVF success rates. The growth of eSET adds further pressure on the scientist to select 'the' single embryo with the highest potential of implanting and ultimately resulting in a healthy live birth.

As a result of this, embryo evaluation techniques employed within the IVF laboratory have rapidly evolved to include advanced technologies such as time-lapse imaging; morphokinetic assessments with embryo selection algorithms, and pre-implantation genetic screening, before there is sufficient robust evidence of their safety, efficacy and cost-effectiveness.

This presentation aims to provide an overview of current embryo selection techniques and to evaluate the benefits and drawbacks of the new technologies now routinely applied in UK clinics.

## **Valentine Akande, Bristol Centre for Reproductive Medicine**

Valentine qualified in 1989 and has worked as a doctor in the NHS since 1991. He is a Consultant in Gynaecology and Reproductive Medicine at Southmead Hospital Bristol, North Bristol NHS Trust, and also an Honorary Senior Lecturer at the University of Bristol.

He is the Medical Director and Person Responsible for the Bristol Centre for Reproductive Medicine. Valentine Akande was elected to the British Fertility Society's Executive committee from 2011-2017 and chaired the scientific meetings and conferences subcommittee. He has previously served on the Royal College of Obstetricians and Gynaecologist sub-specialist training and academic committees as well as the British Fertility Society Education and Training committee.

### **Is there a role for IUI in the future of fertility treatment?**

Learning points:



IUI is a viable option for people with unexplained infertility  
Higher pregnancy rates are achieved with ovarian stimulation  
Undertaking IUI can be challenging, key points to optimise outcome will be discussed

### **James Nicopoullos, Consultant Gynaecologist, Sub-specialist in Reproductive Medicine and Surgery, Lister Fertility Clinic**

James Nicopoullos is a consultant gynaecologist and sub-specialist in reproductive medicine and surgery now the "person responsible" at the Lister Fertility Clinic. He completed his O&G and sub speciality training in London, and completed an MD research thesis on the effect of Sperm aneuploidy and DNA fragmentation on ICSI outcome. He is also widely published in other areas of assisted reproduction such as management of viral positive couples, ovarian hyper stimulation and management of poor responders. when time allows he spends free time chasing after his 10 and 12 year old sons, tennis balls and obsessively following Arsenal.

### **Embryos transfer / IUI techniques**

Learning points:  
Preparation for transfer.  
Transfer technique.  
Post transfer advice.

### **Simon Wood, Countess of Chester Hospital/ Cheshire Reproductive Medicine**

Simon Wood started in Reproductive medicine as a research fellow in Liverpool. He was the first trainee to undergo Sub Specialty training in the region and completed his training in 2001. Following this he was appointed as a consultant at the Countess of Chester Hospital and oversaw the running of the transport IVF service. In 2017 he was part of the team that established a full IVF service as a joint venture with a private IVf service and the NHS trust and in 2019 was involved in the creation of a new fertility provider Cheshire Reproductive Medicine.  
He is the Medical director and Person responsible but is was still the leading practitioner in embryo transfers and IUI both in terms of numbers and pregnancy rates.

### **Catheter loading, transfer practice**

Learning points:  
Understanding catheters  
Choosing catheters  
Practical tips