



BFS STUDY WEEK

19-22 June 2017

**Fertility Preservation
e-PROGRAMME**

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Millennium Gloucester Hotel, Kensington, London

www.bfsstudyweek.org.uk

@BritFertSoc @UKEmbryologists

FOREWORD

On behalf of the BFS I would like to welcome you all to *Study Week 2017*, which will be the largest one yet. Those of you who have been before will notice many changes. To accommodate our rapid growth, we have moved venue to the very pleasant Millennium Gloucester Hotel. To ensure that you have the latest up to date information and to make the event more 'green' and efficient we have gone 'paperless'.

We are delighted to have two new additional *Study Days* this year (*Fertility Nursing* and *PGD/PGS*) and there have been changes to some of the existing *Study Days* too, to ensure that you are getting the very best experience. I would like to thank the Speakers for taking time out of their busy schedules to come and teach at the event; as well as the sponsors who generously support our educational program.

I would particularly like to thank the delegates for coming, because you really make the event the success that it is. We hope that you all enjoy it and leave London with knowledge that will aid your personal development and the care of your patients. Please ask the speakers questions, we are here for you.

If you aren't already a BFS member, please consider joining and also, consider enrolling for the highly regarded *BFS Training Modules* that are linked to many of the *Study Days*. All the relevant details are on our website www.fertility.org.uk. Feel free to share your opinions on social media @BritFertSoc and @UKEmbryologists and do please complete the feedback form which will be sent to you after the event online, we want to know what you think.

Now, get ready, it's time to be educated!

All the very best wishes,



Kevin McEleny
Chair of Education and Training
British Fertility Society

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FERTILITY PRESERVATION PROGRAMME

CROMWELL ROOM 3

08.00 Registration, welcome refreshments, exhibition

09.00 Chair's opening welcome *Allan Pacey*

09.15 Physical and psychosocial recovery after cancer treatment. *Claire Taylor*

09.45 Cancer in young people, effect and choice of chemotherapy and radiotherapy *Sheila Lane*

10.15 What factors influence the decision-making process for women contemplating fertility preservation? *Georgina Jones*

10.45 Refreshments, exhibition and networking

11.15 The effect of cancer treatment on the sperm and sperm banking? *Allan Pacey*

11.45 The effect of cancer treatment on the ovaries and ovarian tissue cryopreservation *Richard Anderson*

12.15 Ovarian transposition for fertility preservation. *Ertan Saridogan*

12.45 Lunch, exhibition and networking **Please note 45 minutes for lunch*

13.30 Ovarian stimulation for oocyte cryopreservation *Jan Grace*

14.00 Oocyte cryopreservation *Gillian Lockwood*

14.30 Uterine transplantation *Richard Smith*

15.00 Refreshments, exhibition and networking

15.30 Clinical experience of a fertility preservation service- analysis of outcomes *Stuart Lavery*

16.00 The late effects clinic *Nick Panay*

16.30 The UK Fertility Preservation Network *Melanie Davies*

17.00 Close of day and Networking

FERTILITY PRESERVATION ABSTRACTS AND BIOGRAPHIES

Physical and psychosocial recovery after cancer treatment.

Claire Taylor

Key Learning Points:

1. An increased awareness of the common physical and psychosocial problems experienced by patients living with and beyond cancer,
2. An appreciation of the range of interventions recommended to promote recovery after cancer, including the Recovery Package
3. A consideration of the challenges in providing patient-centred care after cancer treatment

A diagnosis of a life threatening illness such as cancer can be traumatic and highly emotive for the individual and their family. The mainstays of cancer treatment: surgery, radiotherapy and chemotherapy are not without their risks, either in the short or long-term, often rendering the journey turbulent and uncertain.

As at least half of adult cancer patients diagnosed in 2010-2011 in England and Wales are predicted to survive 10 or more years, we must consider that cancer will be, for many, a long-term condition. Although many cancer patients may recover relatively unscathed, a significant proportion will not. Macmillan Cancer Support estimates that at least one in four people have poor health or disability after cancer, equating to as many as 500 000 people. The impact of this burden on health and social care resources has not yet been fully estimated.

The Independent Cancer Taskforce's "Achieving World-Class Cancer Outcomes: A Strategy for England (2015-2020)" have recommended implementation of a "Recovery Package". This package of care is a series of key interventions, the implementation of which, currently, is to be negotiated and achieved at local level with currently no declared additional funding.

This paper considers the common physical and psychosocial problems experienced by patients living with and beyond cancer, what is needed to promote recovery, and the challenges in providing this care. It is relevant to all clinicians who care for any patients with a previous history of cancer.

Relevant reading materials

- Macmillan Cancer Support. The Recovery Package: Summary and video <http://www.macmillan.org.uk/Aboutus/Healthandsocialcareprofessionals/Macmillansprogrammesandservices/RecoveryPackage/RecoveryPackage.aspx>
- Macmillan Cancer Support (2013) Cured but at what cost? Long-term consequences of cancer and its treatment. London: Macmillan.

Claire Taylor currently works as the Macmillan Nurse Consultant in Colorectal Cancer with a special interest in survivorship at St Mark's Hospital, Harrow in North West London. Prior to this she was a Lecturer in Gastrointestinal Nursing at King's College London. Her current interests include managing the consequences of colorectal cancer treatment in particular bowel function after anterior resection, pelvic radiation disease and developing effective and sustainable survivorship interventions. She chairs the National Nurses Colorectal cancer Network and is a steering group member of the Consequences of Cancer Treatment Collaborative, the CREW study, RM Partners Survivorship Pathway group, and the Cancer Nursing Partnership.

Cancer in young people, effect and choice of chemotherapy and radiotherapy

Sheila Lane

Key Learning Points:

1. Cancer in children and young adults
2. Cancer Treatment current and Future
3. Cancer treatment and Fertility

The presentation will cover the spectrum of cancer seen in children and young adults. It will look at the types of treatment available past, present and future and will then give some insight into the effect of cancer treatment on fertility.

Dr Sheila Lane is a Paediatric Oncology Consultant at Oxford University Hospitals NHS Foundation Trust. She is also Clinical Director of the Reproductive Tissue Cryopreservation Service. This service has been set up to offer fertility advice and treatment to children and young adults at high risk of infertility who are unable to access standard fertility preservation treatment. Dr Lane trained at St George's Hospital in London and has a PhD in Molecular Biology from Cambridge University.

What factors influence the decision-making process for women contemplating fertility preservation?

Georgina Jones

Key Learning Points:

1. An increased understanding of the fertility preservation decision making process for women diagnosed with cancer.
2. Knowledge of the key factors that hinder the fertility preservation decision-making process for women with cancer.
3. An increased understanding of the impact of this process upon patient-reported outcomes e.g. quality of life, anxiety and depression.
4. An increased understanding of the factors that might help women with cancer better prepare for the fertility decision.

Unfortunately, cancer treatment often results in loss of fertility. Women diagnosed with cancer and facing cancer treatment may have to make decisions very quickly regarding fertility preservation with specialist fertility services whilst planning care for their treatment of cancer with oncology services. These decisions are extremely stressful and complex and the consequences will impact on a women's quality of life for the rest of their lifetime. Therefore, it is vital they feel supported in making the right decision for them whilst also having to deal with a cancer diagnosis and its treatment. However, the existing evidence suggests that women do not feel well supported in their choices with many patients finding the process challenging and missing out on fertility care at this crucial time.

This talk will discuss the results of a recently completed three year study in Sheffield which has explored the fertility preservation decision making process in women with cancer (The PreFer Study) and a systematic review in this area recently carried out by the study team. The presentation will report on the key factors that were found to hinder the decision making process and also explore key questions such as, why do some women with cancer of reproductive age choose not to preserve their fertility? Are there other issues purely than relationship status that impact upon the choice to freeze oocytes or embryos? What are women's level of understanding regarding oocyte and embryo freezing? What is the impact of these decisions upon quality of life, anxiety and other patient-reported outcomes? The talk will also cover the factors that might help women with cancer better prepare for the fertility decision and ensure they make the best decision for their future. Finally, the presentation will introduce the development of a new fertility preservation patient decision aid to support women with cancer - a recently funded three-year study by Yorkshire Cancer Research (The Cancer, Fertility and Me Study).

Bibliography

1. Howard-Anderson, J., Ganz, P. A., Bower, J. E., & Stanton, A. L. (2012). Quality of life, fertility concerns, and behavioral health outcomes in younger breast cancer survivors: a systematic review. *Journal of the National Cancer Institute*, 104(5), pp.386-405.
2. Gonçalves, V., Sehovic, I., & Quinn, G. (2014). Childbearing attitudes and decisions of young breast cancer survivors: a systematic review. *Human Reproduction Update* 20(2), pp.279-292.
3. Penrose, R., Beatty, L., Mattiske, J., & Koczwara, B. (2013). The Psychosocial Impact of Cancer-Related Infertility on Women. *Clinical journal of oncology nursing*, 17(2), pp.188-193.

Georgina Jones (GJ) is a chartered psychologist and professor of health psychology at Leeds Beckett University having previously gained her D.Phil from the University of Oxford. She has over 15 years' experience working on social science related projects using both qualitative and quantitative methods, including leading on the development and validation of new instruments; particularly within the field of women's health; the Endometriosis Health Profile-30 (Jones et al, 2001, 2004, 2004, 2006), an electronic pelvic floor questionnaire (Radley & Jones 2004; Radley et al, 2006; Jones et al, 2008, 2009), the Polycystic Ovary Syndrome Questionnaire (Jones et al, 2004) and the Mothers & Partners Postnatal Health Instruments (Jones et al, 2011). She is currently developing a new questionnaire to measure the burden of immunoglobulin treatment for patients with primary immunodeficiency. Her EHP-30 is now officially translated into over 30 languages and is used internationally and in clinical trials by major pharmaceuticals. She has recently completed a three-year study exploring the decision-making process in women with cancer contemplating fertility preservation. Based upon these findings, she is leading on a new study to develop and evaluate a patient decision aid to help female cancer patients make decisions around preserving their fertility funded by Yorkshire Cancer Research.

The effect of cancer treatment on the sperm and sperm banking?

Allan Pacey

Key Learning Points:

1. To understand the background to cancer in the male and how it affects fertility;
2. To be aware of the process of sperm banking and how males make the decision to bank;
3. To understand the long term fertility outcomes of cancer survivors and the importance of regular fertility monitoring.

Sperm banking is a cheap and effective way of preserving the fertility of post pubertal males who face a risk to their fertility of medical treatments such as chemotherapy and radiotherapy. However, the organisation of services to maximise uptake continues to be a challenge and men often find making the decision quite difficult. However, in the long-term the fertility prospects for most men are quite good after the end of treatment, with many regaining the capacity to produce sperm. Only about 10% of men who bank sperm, ever return to use their frozen samples. Therefore, a challenge for those running sperm banks is how to assist men to engage with fertility monitoring so that those who no longer need their banked sperm can dispose of it in a timely manner. This presentation will outline our recent research which has examined these issues and provide practical suggestions for those running sperm banks for this group of patients.

Allan Pacey is Professor of Andrology at the University of Sheffield School of Medicine. He is also the Head of Andrology for Sheffield Teaching Hospitals. He is currently the chairman of the Steering Group for the UK National External Quality Assurance Scheme for Andrology and the Editor in Chief of the BFS journal Human Fertility. He was until January 2015 the Chairman of the British Fertility Society and served as BFS Secretary between 2005-2010. In the 2016 New Year's Honors list, he was awarded an MBE for Services to Reproductive Medicine.

The effect of cancer treatment on the ovaries and ovarian tissue cryopreservation

Richard Anderson

Key Learning points:

1. Range of effects of different chemotherapies; importance of age; current evidence suggests approximately 25% of women having cryopreserved ovarian tissue replaced will have a successful pregnancy

The ovaries are important sites of toxicity of chemotherapy and radiotherapy, with the later also affecting the uterus. Growing follicles are a major target, with less clear evidence about effects on primordial follicles. The ovarian stroma and vasculature can also be damaged. This presentation will address the evidence regarding the impact of cancer treatments on female fertility, including basic science data, studies using ovarian toxicity as an end point, and the more limited data on fertility. The current status of ovarian cryopreservation to preserve fertility in girls and women will also be presented.

Richard Anderson Completed Subspecialty training in Reproductive Medicine as a lecturer at the University of Edinburgh. After a year in Sam Yen's lab in San Diego, he was appointed to the MRC Human Reproductive Sciences Unit. Subsequently appointed to current post in the University in 2005: established a group investigating the female reproductive lifespan, with both laboratory and clinical aspects focusing on the establishment of the follicle pool in fetal life, and the assessment and mitigation of iatrogenic damage in girls and women.

Ovarian transposition for fertility preservation.

Ertan Saridogan

Key Learning Points: TO BE ADDED

Ovarian stimulation for oocyte cryopreservation

Jan Grace

Key Learning points:

1. Stimulation regimes should aim to yield the best number of eggs/embryos with minimum risk to the patient
2. Patient suitability needs to be established and clear information regarding risk and benefits and pregnancy outcomes must be provided
3. in patients with oestrogen sensitive tumours than strategies should be used to lower oestrogen levels

NICE recommends that oocyte or embryo cryopreservation should be offered as to women of reproductive age (including adolescent girls) having medical treatment for cancer and other serious medical conditions that may make them infertile provided they are well enough to undergo ovarian stimulation and egg collection it will not worsen their condition and there is enough time is available before the start of their cancer treatment. There are options for conventional stimulation regimes started on day 1 of the cycle but if there is an urgent need to start treatment then random starts are possible. The aim should be to minimise the risk to the patient but to get the best possible yield of gametes. Most successful outcomes are reported in women 36 and under.

Jan Grace obtained a first degree in Biology and Chemistry graduating from the Royal London Hospital and then completed her Obstetric and Gynaecology training and sub-speciality training in reproductive medicine and surgery at Guy's and St Thomas'. Appointed as a consultant in 2006 at Guy's and St Thomas'. She has always had a keen interest in training and education. As undergraduate lead set up GSTT O and G summer school, as RCOG SE work place behaviour champion and developed GSTT bullying and harassment training programme and is RM SST programme director. Having competed a Diploma in NHS Leadership she is now head of service of gynaecology leading outpatient transformation project. Clinically her interests lie in PGD, reproductive surgery in particular management of fibroids, gamete donation having set up the GSTT donor programme and combined andrology service and fertility preservation. She is also lead of Maidstone and Tunbridge Wells fertility service.

Oocyte cryopreservation

Gillian Lockwood

Key Learning Points:

1. Oocyte cryo-preservation provides a low but psychologically and statistically significant chance
2. Involvement of the entire care-team (oncologists, IVF doctors, embryologists, counsellors, parents) is vital to ensure the treatment is offered appropriately and effectively
3. Establishing ovarian reserve (by AMH) is vital to set expectations

Since Chen announced the first 'frozen egg' baby in 1986, progress with egg freezing has been advanced by improved cryo-protectants, vitrification and ICSI. Although vitrified eggs from young, healthy donors perform near identically to 'fresh' eggs, the situation for even young cancer patients is not as good as their malignancy has often compromised their ovarian reserve and their oocyte quality. A significant proportion of 'oncology' egg freezers have breast cancer and initial anxiety about the impact of even transient hyper-estrogenemia on their prognosis has been largely alleviated by follow up studies and the use of Letrozole. The possibility of fertility preservation by oocyte freezing is too often raised too late or not at all and so it is vital that oncologists have ready access to information for their patients and a seamless referral pathway, including the availability of NHS funding, to their local IVF facility that has experience of oocyte freezing.

Doctor Gillian M Lockwood, BM BCh. MA (Oxon) D. Phil FRCOG has been Medical Director at IVI-Midland, Tamworth (www.midlandfertility.com) since 2000. Previously she was Senior Clinical Research Fellow at the Oxford Fertility Unit, where her research interests included Polycystic Ovary Syndrome, Premature Ovarian Failure and Recurrent Miscarriage. Her Doctoral Thesis was on the role of inhibin in ovulation and early pregnancy. Midland Fertility was the first clinic in the UK to achieve live-births using cryo-preserved eggs; a development that has given new hope of becoming 'genetic' mothers to young women who undergo potentially sterilising chemotherapy or radiotherapy for malignancy

Uterine transplantation

Richard Smith

Mr. J. Richard Smith is a Consultant Gynaecological Oncological Surgeon at the West London Gynaecological Cancer Centre, Hammersmith Hospital. He is also an Adjunct Associate Professor at the New York University School of Medicine. Mr. Smith graduated from the University of Glasgow and worked in various Scottish hospitals until 1988. He then moved to further his training at St Mary's Hospital in London and took up a Consultant post at the Chelsea & Westminster Hospital in 1993. He moved to Hammersmith/Queen Charlotte's Hospital a few years ago where his sub-specialisation of gynaecology is oncology and gestational trophoblastic disease. In addition he undertakes surgery for cervical cancers both by way of radical hysterectomy and radical abdominal trachelectomy. He is a registered colposcopist and has a long-running interest in the management of pelvic pain. His main surgical interest is fertility-sparing surgery and his research interest is the development of uterine transplant. He also has a long-running interest in doctor-patient communication. He has published *Women's Cancers; Pathways to Healing 2009*, *Women's Cancers; Pathways to Living 2015*, and *Women's Cancers; Pathways to fitness and fulfilment* is currently with his agent. In addition, he has approximately 130 peer reviewed publications as well as numerous reviews and articles.

He is the series editor of *Patient Pictures* (17 books) (210,000 copies) and Editor of an *Atlas of Gynaecological Oncology* (4 editions) and of eight other post-graduate medical textbooks.

Clinical experience of a fertility preservation service- analysis of outcomes

Stuart Lavery

Key Learning Points:

1. Outcomes of fertility preservation are important to understand to enable accurate advice to patients
2. Patient experience and ease of access are critical to configure services

Experience of establishing a fertility preservation service are presented.

Particular focus on ease and rapidity of patient access is highlighted.

Results on outcomes such as fertilization rates, patient response and pregnancy rates are presented.

Special clinical circumstances such as posthumous use and treatment in teenagers are discussed.

Mr Stuart Lavery is the senior consultant at the Hammersmith Hospital and has led the Fertility Preservation service since 2002. He is subspecialty trained in Reproductive Medicine and surgery. Mr Lavery is also founder Director of the Fertility Partnership. Mr Lavery has presented nationally and internationally in preservation, PGD and IVF.

The late effects clinic

Nick Panay

In the past, the focus of medical care has been on improvement of cancer survival rates. Very little attention has been given to the maintenance of quality of life in the short term and to the avoidance of the long-term sequelae of iatrogenic, often premature menopause. One of the main reasons for this has been the bias of economic expenditure and medical endeavor to the prolongation of life (e.g. cancer treatments) rather than towards optimizing quality of life in cancer survivors. Should this trend continue, we are in danger of creating a population of young women who have been given back the gift of life but left without the physical and/or psychological zest to live it to its full.

We need urgently to determine the scale of the problem, through the use of registries such as <https://poiregistry.net> to record data from all clinics that manage women with iatrogenic menopause. The data will demonstrate variations in the effective management of these women. Armed with this information, departments of health can then be petitioned to provide appropriate funding for the setting up of multidisciplinary units for the management of the psychological and physical needs of women with iatrogenic menopause.

Nick Panay BSc MRCOG MFSRH, Consultant Gynaecologist, Subspecialist in Reproductive Medicine & Surgery College Healthcare NHS Trust and Chelsea & Westminster Hospital NHS Foundation Trust, London, Honorary Senior Clinical Lecturer, Imperial College London. As director of the West London Menopause & PMS Centre at Queen Charlotte's & Chelsea and Chelsea & Westminster Hospitals, he heads a busy clinical and research team which publishes widely, presents at scientific meetings and trains health professionals at all levels. Through his work with a number of councils and women's groups he campaigns actively for women's health issues both nationally and internationally.

His affiliations include:

Past Chairman, Trustee and Member of MAC, The British Menopause Society,
Honorary Director of Conferences, RCOG,
Board Member and Secretary General Elect, International Menopause Society,
Past President, The Royal Society of Medicine (O & G Division),
Chairman, National Association for Premenstrual Syndrome,
Patron, The Daisy Network,
Editorial Board Member, Climacteric and
Past Council Member, British Society for Gynaecological Endoscopy

The UK Fertility Preservation Network

Melanie Davies

Key Learning Points:

1. The UK context for fertility preservation services
2. National and international approaches to FP, guidelines and information provision

The presentation will explain the development and role of FPUK as a national network to improve services for female and male fertility preservation, providing information and sharing good practice.

Melanie Davies is the Founder of Fertility Preservation UK, Chair of BFS special interest group. Consultant Obstetrician & Gynaecologist at UCLH for 20 years, accredited subspecialist in Reproductive Medicine, currently Person Responsible for licensed fertility services, and previously director of well regarded training programme in RM. Longstanding interest in oncofertility, supervises largest sperm storage facility in UK (>4000 oncology patients referred), and developed services for women, both acute referrals for egg & embryo freezing and also survivorship 'late effects' (>1500 patients seen for fertility, POI, or gynaecology)