Managing the fertility of male cancer patients

RCN guidance for nurses
Acknowledgements

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Introduction

Advances in assisted reproduction techniques that involve the cryopreservation of gametes (spermatozoa, oocytes and ovarian tissue) offer greater opportunities to treat infertility in people with cancer. This means that nurses working with cancer patients have to manage many more issues at the time of a new diagnosis and referral.

The aim of this guidance is to provide information for those oncology and haematology nurses who may be asked questions by patients about the preservation of gametes prior to starting cancer treatment. Managing the fertility of male cancer patients focuses specifically on the options available to men who may wish to freeze their sperm. This document does not include clinical guidance on dealing with patients under 16 years of age.

Providing information

Every patient has the right to comprehensive information about the fertility services available in their area. The services may be provided by the NHS or private practice, and will vary across the country. The Human Fertilisation and Embryology Authority (HFEA) provides information for the public about every licensed assisted reproduction unit in the UK.

This guidance provides a framework for nurses to deliver a quality service within the current recommendations and HFEA evidence base. The service should be available to all patients whose fertility is potentially compromised by cancer treatment. The nurse providing their care should provide comprehensive information about their fertility options. This should be verbal, written and documented in the person’s records.

Counselling

The freezing of gametes in the NHS has both ethical and cost implications, which should be clarified and discussed with the person before they accept fertility treatment. Counselling is an essential prerequisite for the process because the HFEA guidelines require HIV, hepatitis B and C screening for all gamete samples. Also, it is important to warn patients that their samples may be suboptimal and not suitable for freezing, or treatment when thawed.
Consent issues

It should be noted that at the time of publication of this document a number of issues with regard to consent may be changing, so please refer to the HFEA website for up to date information. Informed written consent for freezing spermatozoa is a legal requirement under the HFEA Act 1990. The consent process normally takes place in the fertility unit. Consent form HFEA Gamete Storage (GS) must be used for sperm storage. There may be other HFEA consents to sign depending on the planned treatment. Please ensure patients are advised to seek further consent advice from their clinic. Nurses must follow local NHS trust consent and proxy consent policies for patients who are under 16 years of age.

With regard to children, currently, attempts are being made to store pre-pubertal testicular strips but this is still experimental and at first sign of puberty electro-ejaculation can be tried. Generally, the advice with children is to seek expert advice on gamete cryopreservation for pre-pubertal males from a paediatric cancer team or andrologist with expertise in paediatrics.

HFEA guidelines also require HIV 1&2, Hepatitis B surface antigen and Hepatitis B core antibody and Hepatitis C screening for all gamete samples. Also, it is important to warn patients that their samples may be suboptimal and freezing their sperm may not be a suitable option.

Nurses must follow HFEA guidelines and establish the patient’s wishes during the counselling process that takes place prior to storage.

HFEA consent forms

Human Fertilisation and Embryology Authority (2015) GS Form HFEA: Your consent to the storage of your eggs or sperm (www.hfea.gov.uk/2504.html)


Sperm can be stored for as long as the patient consents up to 10 years then for further storage periods (with a medical practitioner’s statement) for a further 10 years in increments up to 55 years, if the patient is found to be prematurely infertile. For every further 10 years extended storage consent it must be accompanied by a medical practitioner’s statement to prove the patient is still prematurely infertile.
Resent research discussed by SCAAC in 2012 shows that the vitrification method of fast freezing are the preferred method leading to an increased survival rate of gametes and embryos. As a result, many clinics are now adopting this method of freezing. This is of interest to those patients who need to be made aware of these new practices. There may be some deterioration of the sample, therefore it is advisable to store as many straws as possible to maximise the chance of successful thaw at a later date.

**Developing a comprehensive information service**

Nurses should identify local NHS trust policy/guidelines for cryo-preservation of gametes. Developing links with the local fertility services will provide a source of advice on local provision, support, education and continuing care.

For UK-wide information about fertility units contact the HFEA.

Human Fertilisation and Embryology Authority  
Finsbury Tower  
103-105 Bunhill Row  
London EC1Y 8HF

Tel: 020 7291 8200  
Fax: 020 7291 8201

Email enquiriesteam@hfea.gov.uk

www.hfea.gov.uk

Information for patients on local services should include:

- locality
- unit/service co-ordinator
- hours of working
- contact names/numbers
- cost implications
- legal requirements.
Develop a clear system of referral that includes:

- individual identification, including demographics/social details
- individuals understanding of diagnosis and prognosis
- type of treatment and start date
- current state of patient’s health, including bloods screens for HIV, hepatitis B and C.

**Recommendations for the referring unit**

Cancer patients have a better opportunity of preserving their gametes if they are referred promptly after their diagnosis. The following recommendations, combined with a multi-professional approach drawing on specialist expertise, can facilitate this process:

- early recognition and prompt referral at initial diagnosis
- dedicated area for counselling and communication with patients
- appropriate training and education for all the multi-professional team involved in providing gonadotoxic treatment
- availability of an independent therapeutic counsellor
- establish a working relationship between the clinical area and the fertility service provider
- ensure fertility is a key issue in the care pathway for cancer patients
- implement audit to ensure guidelines are adhered to
- collaboration in the development of written patient information including local and national guidelines.

**Conclusion**

Fertility is a critically important issue for many women and men, however, it is not always considered when faced with a cancer diagnosis. It is important for all nurses, especially those working in oncology and haematology, as well as nurses working in
wider areas of practice to be aware of the risks to fertility of treatments for cancer, and the options available to patients before treatment commences. Help is available locally via fertility services or from the Human Fertilisation and Embryology Authority at www.hfea.gov.uk

References and further reading


Department of Health (2001) *Reference guide to consent for examination or treatment*, London DH. Available at: www.gov.uk


Glossary of terms

**Artificial insemination with husband sperm (AIH)**  
Prepared sperm are placed at the entrance of the cervix at the time of ovulation.

**Artificial insemination with donor sperm (AID)**  
Similar to AIH but using donated sperm.

**Gamete intra fallopian transfer (GIFT)**  
Similar to IVF but harvested eggs are placed in the tube with prepared sperm where fertilisation should occur.

**Intra-uterine insemination (IUI)**  
Drug stimulation is used to promote follicular growth of one to two follicles. Prepared sperm are then transferred into the uterus following the induction of ovulation.

**In vitro fertilisation (IVF)**  
Hormone therapy is used to produce several follicles and eggs. The eggs are collected and fertilised in the laboratory. Once fertilisation has occurred up to two embryos (under 40s) and three embryos (over 40) are returned into the uterus.

**Intracytoplasmic sperm injection (ICSI)**  
This involves injecting a single sperm into the harvested egg. This is a treatment for male infertility that is frequently used by cancer patients.

**Ovulation Induction (OI)**  
This is a drug treatment to establish ovulation in women who do not ovulate regularly. Women must be carefully monitored during a treatment cycle to avoid the risk of multiple pregnancy.

**Surgical sperm retrieval (SSR)**  
Sperm are retrieved from testicular tissue and then used to fertilise an egg with ICSI.
## Appendix 1: Referral form

### CONSULTANT DETAILS: Print name/department/hospital/contact number

<table>
<thead>
<tr>
<th>Reason for storage</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy*</td>
<td>Patient mobile  yes/no</td>
</tr>
<tr>
<td>Radiotherapy*</td>
<td>Wife/partner  yes/no</td>
</tr>
<tr>
<td>Surgery</td>
<td>Informed of fees  yes/no</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>Children  yes/no</td>
</tr>
</tbody>
</table>

*Details

### Diagnosis

| Date of initial diagnosis |

### PLEASE NOTE

Screening tests detailed below must be performed by the referring department prior to OFU appointment as failure to do so may compromise the storage procedure

- Date bloods taken
- Results
  - (hard copies must be forwarded)
  - HIV  positive/negative
  - HEP C  positive/negative
  - HEP B surface antigen  positive/negative
  - HEP B core antiboby  positive/negative

If the patient is under 16-years-of-age is it your opinion that he is Gillick competent and has reached Tanner Stage 2 of puberty?  yes/no

### Administration of fertility compromising surgery and/or gonadotoxic therapy

In my opinion there is a risk that the fertility of this man has or is likely to become impaired and I recommend that he has sperm cryopreserved.

| Referring clinician signed | Print name | Date |

### Appointment date

Produced by Lynne Iley Oxford Fertility unit