



# Male fertility preservation during cancer treatment

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MARCELLE RUTH

CANCER CENTRE & SPECIALIST HOSPITAL

**The Marcelle Ruth Cancer Centre  
& Specialist Hospital is the first  
comprehensive healthcare centre of its  
kind in Nigeria and, indeed, West Africa.**

**> Our promise**

In everything we do, we believe that compassion and care make all the difference.

With vast experience and understanding, our specialist team uses the very latest technology and treatments to deliver the best outcomes possible.

From screening and diagnosis to treatment and ongoing support, we are committed to providing outstanding care to those in need.

# About this booklet

We understand it can be overwhelming for anyone to undergo cancer care, but we are here to provide you with help and support.

The focus of this leaflet is to help you and your family understand more about male fertility preservation during cancer treatment.

# Male fertility preservation during cancer treatment

## Introduction

Cancer remains a public health problem worldwide. At the time of diagnosis, a significant proportion of patients are concerned about the possible impact of anti-cancer treatments on their fertility and future chances of conception. Failure to address these concerns may negatively influence choices and adherence to the proposed treatments.

Considering the rising trend in delaying childbearing and the higher number of patients who have not completed their planned family at the time of diagnosis, providing information for fertility preservation is vital.

This leaflet provides a framework for fertility preservation in post-pubertal male cancer patients.

## Onco-fertility counselling

All cancer patients of reproductive age should receive complete fertility counselling as early as possible in the treatment planning process, irrespective of type and stage of disease. This should include:

- discussion of current or future family desire, health and prognosis
- the potential impact of the disease and/or proposed anti-cancer treatment on fertility and gonadal function, chances of future conception, pregnancy outcomes and offspring
- the need for effective contraception in the context of systemic anticancer treatment.

Onco-fertility counselling is individualized based on patient/couple and disease/treatment-related factors, with patient interest and age as well as type of treatment being the most important.

## Fertility preservation options

### Sperm cryopreservation

Sperm cryopreservation is a widely available and standard method to preserve an individual's reproductive potential. This strategy relies on the survival and fertilisation capacity of spermatozoa after semen freezing. Success using cryopreserved sperm from cancer patients shows an aggregate rate for parenthood of 49%. Long-term storage of cryopreserved sperm does not correlate with worse outcomes or thawed semen quality.

Sperm cryopreservation should be offered before treatment initiation because of potential genetic abnormalities in sperm after exposure to radiation or chemotherapy.

### Gonadal shielding

Gonadal shielding during total-body radiotherapy protects the germinal epithelium. Adolescent (and childhood) patients who did not have testicular shielding had a significantly smaller testicular volume in adulthood compared with those who received testicular shielding. Diminished testosterone/luteinizing hormone ratio was also reported without testicular shielding.

## Recommendations

Sperm cryopreservation before initiation of anticancer treatments is standard of care and should be discussed with any male cancer patient at risk of infertility.

If you have any other questions or information, please ring our client services managers on +234 809 042 5888 or + 234 906 200 0773.

# Notes

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