

# Utilization of Regional Fertility Preservation Program for Cancer Patients

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## Background

Cancer treatments in reproductive-age men and women impair fertility. Fertility preservation (FP) prior to cancer treatments is a standard of care in the US. However, oncofertility remains underutilized largely due to limited access.

## Objectives

We assess the utilization of a regional oncofertility program within a multi-disciplinary health care system.

## Design

An IRB-approved retrospective cohort study at a tertiary care facility.

## Methods

From inception of the oncofertility program in September 2014 to May 2018, sixty-nine reproductive-age patients received FP consultations prior to gonadotoxic treatments. Data were collected on demographics, malignancy type, in- or outpatient status, FP methods, and live birth outcomes. Statistical analysis on whether patients pursued FP was performed using logistical regression models in STATA.

## Results

Forty females and 29 males utilized the program. Average age of females was 28.8±5.9 years and males 28.6±6.4. About three-fourths of patients were seen on an outpatient basis. Female patients underwent medical ovarian suppression (n=17), Assistive Reproductive Technology (ART) with embryo or oocyte cryopreservation (n=12), ovarian transposition (n=1), or combined methods (n=4), and six patients declined proceeding with treatment. Fifteen male patients underwent successful semen cryopreservation, while 3 patients had unsuccessful attempts, and 11 declined treatment. Majority of cancer diagnoses were hematologic (n=34), followed by breast (n=14), testicular (n=11), reproductive tract (n=7), and gastrointestinal (n=3). Patients with reproductive tract malignancies had approximately 9.7 times greater odds of proceeding with ART than patients with hematologic malignancies (p<0.05). A prostate cancer survivor fathered a child via in vitro fertilization and intracytoplasmic sperm injection. A breast cancer survivor utilized a single embryo transfer via a gestational carrier resulting in a singleton birth.

## Conclusion

Utilization of our regional oncofertility program successfully provides FP services. Patients with reproductive tract malignancies were more likely to proceed with ART FP methods. The true measure of our program success was the two live births to cancer survivors.