

# Fertility Preservation and Cancer

## **POLICY BRIEF**

#### **KEY TERMS**

**Cryopreservation** – technique by which embryos, eggs, and sperm are frozen to sub-zero temperatures for later use, often in intrauterine fertilization or in vitro fertilization. The specific duration that reproductive cells may be frozen and stored for future use is not known, but due to the protective agents used cryopreservation is considered to be indefinite. It is particularly important for young patients with cancer as many treatments carry a risk of infertility.

**Infertility** – a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse.

### Background

Individuals who receive a cancer diagnosis face a multitude of decisions about their treatment. While cancer is more commonly a disease that affects older adults, it can be diagnosed at any age. Individuals of child-bearing age face unique challenges related to their treatment because of the effects many anti-cancer treatments can have on the reproductive system.<sup>1,2</sup>

Chemotherapy can damage reproductive cells, resulting in infertility related to damaged sperm, ovaries, and eggs. Radiation therapy to the pelvis and abdomen can damage reproductive organs, and radiation for brain malignancies can have a negative impact on fertility if there is damage to the pituitary gland. Surgery for cancers of the reproductive system also carries risk, including scarring or other harm to organs that affect fertility. Patients receiving bone marrow or stem cell transplants often are exposed to high doses of radiation and chemotherapy, which can cause infertility.

For these reasons, ASCO guidelines<sup>3</sup> recommend discussing infertility and fertility preservation options with patients who are anticipating cancer treatment. Any patient expressing interest in fertility preservation should be referred to reproductive specialists who help them explore options, including cryopreservation of eggs, sperm, or embryos and other approaches that may be appropriate. Distress about infertility is a recognized psychosocial need for patients with cancer of child-bearing age, and ASCO guidelines encourage referral to relevant providers.

### **Concerns for ASCO Members & the Cancer Community**

ASCO is concerned about inadequate coverage of fertility preservation services by both public and private payers. Despite clear risks to fertility posed by cancer treatment—and the existence of clinical practice guidelines supporting fertility preservation—many payers deem fertility care as not medically

<sup>&</sup>lt;sup>1</sup> https://www.cancer.gov/about-cancer/treatment/side-effects/fertility-women

<sup>&</sup>lt;sup>2</sup> https://www.cancer.gov/about-cancer/treatment/side-effects/fertility-men

<sup>&</sup>lt;sup>3</sup> https://ascopubs.org/doi/10.1200/JCO.2013.49.2678



necessary and either limit or exclude coverage for this benefit. Because of coverage gaps and high cost, fertility care in the United States remains inaccessible for many patients with cancer.

A few states require private insurer coverage of these treatments, but large coverage gaps remain even in those cases.<sup>4</sup> These gaps arise because of inconsistent requirements or application of the law to insurers. Many small employers are exempted, and larger self-insured plans are instead regulated by federal law. The eligibility criteria for fertility treatment also vary by state law, and can result in seemingly arbitrary restrictions on duration of infertility before coverage becomes available. As written, many of these laws do not serve the needs of patients with cancer, failing to address access challenges for these important services.

Cost and coverage issues for fertility preservation are particularly acute in populations already facing access to care issues, including Medicaid beneficiaries. The patchwork of policies across all 50 states is complex, but the picture is largely one of noncoverage, with a handful of states covering infertility diagnostics (without treatment) and only one state (New York) covering diagnostics as well as 3 cycles of fertility treatment.<sup>5</sup> This results in access to fertility treatments being determined in large part by one's economic status.<sup>6</sup>

#### Where ASCO Stands on Fertility Preservation and Cancer Care

ASCO considers fertility preservation to be medically necessary care for individuals undergoing cancer treatment, regardless of their economic or insurance status. As part of education and informed consent before cancer therapy, health care providers should address the possibility of infertility with all patients treated during their reproductive years. Clinicians should be prepared to discuss fertility preservation options as early as possible in the treatment process to allow for the widest array of options for fertility preservation.

As such, ASCO supports coverage of embryo, egg, and sperm cryopreservation procedures for patients who have been diagnosed with cancer but have not started cancer treatment (including chemotherapy, or radiation therapy treatments), in accordance with ASCO <u>clinical practice guidelines</u>.

#### **For More Information**

Fertility Preservation for Patients With Cancer: American Society of Clinical Oncology Clinical Practice Guideline Update

<sup>&</sup>lt;sup>4</sup> https://www.kff.org/womens-health-policy/issue-brief/coverage-and-use-of-fertility-services-in-the-u-s/

⁵ Ibid.

<sup>&</sup>lt;sup>6</sup> https://pubmed.ncbi.nlm.nih.gov/29998430/