

# Fertility Preservation Coverage – Key Points

## **Purpose**

The purpose of legislation for fertility preservation coverage is to provide cancer patients access to standard medical treatments that will protect their capacity to have biological children.

## **Background**

In the United States, approximately 140,000 individuals between ages 0-45 are diagnosed with cancer each year.<sup>1</sup> As cancer survivorship improves, these patients face good odds; approximately 80% will survive.<sup>2</sup> The treatments that are required to treat the cancer can directly or indirectly cause medically-induced (iatrogenic) infertility. Chemotherapy, radiation, and surgery can damage gametes (eggs and sperm), reproductive organs, and/or endocrine functioning; they may also impact the ability to carry a pregnancy. Because this damage is caused by treatments and not the disease, it can affect patients with any type of cancer. Patients with other conditions requiring similar therapies (e.g., sickle cell anemia, lupus, and thalassemia, etc.) are also at risk.<sup>3</sup>

## **Costs**

Cost is often cited as the most significant barrier to fertility preservation.<sup>4</sup> Costs can range from several hundred dollars for sperm banking, to approximately \$15,000.00 for egg banking.<sup>5</sup> Without insurance coverage, these treatments are unaffordable for many patients. These costs are exacerbated by the short window of opportunity that cancer patients have before starting potentially-sterilizing cancer treatment. While the costs faced by an individual patient are high, the cost of implementing coverage across a population of insureds is very low. Independent analyses in states where coverage has been considered have shown costs would be anywhere from one cent per member per month (PMPM) (California)<sup>6</sup>; to \$0.06 (Connecticut)<sup>7</sup>; to \$.10-\$.24 PMPM (Maryland)<sup>8</sup>.

## **Potential Cost Offsets**

In some cases, increased costs of added coverage may be accompanied by decreases in costs for other health care services. This is known as a “cost offset.” Implementing coverage for fertility preservation coverage would implicate two potential cost offsets:

1. New research has shown that a sizeable percentage of patients will opt for less efficacious cancer treatment due to concerns about future infertility. One study of breast cancer patients reported that fertility concerns influenced both non-initiation and discontinuation of tamoxifen treatment. The study’s authors concluded that proper information and access to fertility preservation might positively impact adherence to treatment and survivorship.<sup>9</sup> The average cost of treating early stage breast cancer over the first 24 months after diagnosis has been estimated at \$71,909; the average cost of treating stage IV breast cancer over that same

---

<sup>1</sup> Center for Disease Control and Prevention. United States Cancer Statistics: Data Visualizations. <https://gis.cdc.gov/Cancer/USCS/DataViz.html>. Published 2017. Accessed June 8, 2018.

<sup>2</sup> Barr RD, Ferrari A, Ries L, et al. Cancer in Adolescents and Young Adults: A Narrative Review of the Current Status and a View of the Future. *JAMA Pediatr*. 2016 May 1;170(5):495-501. doi: 10.1001/jamapediatrics.2015.4689

<sup>3</sup> Katsifis GE TA. Ovarian failure in systemic lupus erythematosus patients treated with pulsed intravenous cyclophosphamide. *Lupus*. 2004;13:673-678; Rovaia T., Passweg J., Heim D., Meyer-Monard, S. HW. Spermatogenesis in long term survivors after allogeneic hematopoietic stem cell transplantation is associated with age, time interval since transplantation, and apparently absence of chronic GVHD. *Blood*. 2006;108(3):1100

<sup>4</sup> Quinn, G.P., Vadapampil, S.T., Bell-Ellison, B.A., Gwede, C.K., Albrecht TL. Patient–physician communication barriers regarding fertility preservation among newly diagnosed cancer patients. *Soc Sci Med*. 2008;66(3):784-789.

<sup>5</sup> FertilityIQ. The Costs of Egg Freezing. <https://www.fertilityiq.com/egg-freezing/the-costs-of-egg-freezing>. Published 2017. Accessed July 14, 2018

<sup>6</sup> California Health Benefits Review Program (CHBRP) Analysis of Assembly Bill 912: Health Care Coverage: Fertility Preservation, A Report to the 2013–2014 California Legislature, April 25, 2013.

<sup>7</sup> UCONN Center for Public Health and Health Policy. “Review and Evaluation of Certain Health Benefit Mandates in Connecticut 2013.”

<sup>8</sup> NovaRest Annual Mandate Report: Coverage for Fertility Preservation for Iatrogenic Infertility. Prepared for the Maryland Healthcare Commission, November 16, 2017. p. 27.

<sup>9</sup> Jeruss, JS. Impact of Fertility Concerns on Tamoxifen Initiation and Persistence. *J Natl Cancer Inst*. 2015 Aug 25;107(10).

## Fertility Preservation Coverage – Key Points

time period was \$182,655.57.<sup>10</sup> The costs of treating a patient for metastatic breast cancer are significant, covered expenses. If provision of fertility preservation treatment would minimize the risk of premenopausal breast cancer patients becoming metastatic because it allows for greater levels of tamoxifen adherence, it could provide a substantial cost offset to the expense of oocyte cryopreservation coverage.

2. Increased depression and anxiety along with a decreased quality of life has been well-documented in cancer patients who had unresolved infertility as a result of their cancer treatment.<sup>11,12</sup> While the costs of these sequelae have not, to our knowledge, been quantified, there are hard costs arising from both the treatment of depression and anxiety as well as secondary costs such as loss of productivity.

### **Standard of Care**

Patients facing iatrogenic infertility now have recognized, efficacious options for preserving their fertility prior to the initiation of their cancer treatments. Sperm, egg, and embryo banking are widely accepted as the current medical standard of care. These treatments are supported by all the relevant medical associations, including the American Society of Clinical Oncology (ASCO), the American Society for Reproductive Medicine (ASRM), and the American Medical Association (AMA).<sup>13</sup>

### **Rationales for Coverage**

- **Medical Necessity.** Fertility preservation for iatrogenic infertility is not “elective” or “experimental,” but rather a needed intervention to prevent potential sterility. Patients cannot defer or forego life-saving treatments to spare their fertility.
- **Address direct side effect of cancer treatment.** Remedies for other side effects of treatment, such as breast reconstruction, chemo-induced anemia, wigs, prostheses, etc., typically are covered by insurance.
- **Prevent additional harms and associated costs.**
  - Recent studies show that significant numbers of patients make sub-optimal treatment decisions (e.g., stopping tamoxifen or choosing less gonadotoxic treatment) to minimize reproductive impact. These decisions may adversely affect both medical outcomes and treatment costs.
  - Infertility causes distress, depression, anxiety; these have financial and medical consequences, and result in overall lower quality of life for survivors.
- **Access disparities.** The lack of insurance coverage disproportionately affects women and those of lower socioeconomic backgrounds.
- **Fundamental life activity.** Loss of fertility is not merely a medical complication; it permanently affects reproduction and parenthood – fundamental life functions worthy of the highest levels of protection.

### **Existing Fertility Preservation Coverage**

Currently, nine states – Connecticut, Rhode Island, Maryland, Delaware, Illinois, New York, New Hampshire, California, and New Jersey – have implemented coverage for medically-necessary fertility preservation.

---

<sup>10</sup> Blumen, H. Fitch, K., Polkus V. Comparison of Treatment Costs for Breast Cancer, by Tumor Stage and Type of Service. *Am Heal Drug Benefits*. 2016;9(1).

<sup>11</sup> Letorneau JM, Ebel EE, Katz PP, et al. Pretreatment fertility counseling and fertility preservation improve quality of life in reproductive age women with cancer. *Cancer*. 2012; 118(6): 1710-1717.

<sup>12</sup> Benedict, C., Shuk, E., Ford JS. Fertility Issues in Adolescent and Young Adult Cancer Survivors. *J Adolesc Young Adult Oncol*. 2016;5(1):48-57.

<sup>13</sup> Oktay, K., Harvey, B.E., Partridge, A. et al. Fertility Preservation in Patients With Cancer: ASCO Clinical Practice Guideline Update. *J Clin Oncology*. 2018. doi:10.1200/JCO.2018.78.1914; American Society of Reproductive Medicine. Fertility preservation and reproduction in patients facing gonadotoxic therapies: a committee opinion. *Fertil Steril*. 2013;100(5):1224-1231; Association AM. Oncofertility and Fertility Preservation Treatment. <http://www.ama-assn.org/ama/pub/news/news/2013/2013-06-17-new-ama-policies-annual-meeting.page>. Published 2013.