Clinical Policy: Infertility

Reference Number: IL.CP.MP.507 Coding Implications
Last Review Date: 03/2022 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

Per the Illinois Department of Health and Family Services, diagnostic or therapeutic procedures related to primary infertility or sterility are not a covered benefit.

However, per Illinois Public Act 100-11022, medically necessary expenses for standard fertility preservation services when a medically necessary treatment may directly or indirectly cause iatrogenic infertility are a covered benefit.

Male and female fertility may be transiently or permanently affected by medical treatments such as gonadotoxic therapy, cytotoxic chemotherapy, or radiation therapy, as well as by other iatrogenic causes. Rates of permanent infertility and compromised fertility after medical treatment vary and depend on many factors, including the drug, size and location of the radiation field if applicable, dose, dose-intensity, method of administration (oral versus intravenous), disease, age, treatment type and dosages, and pretreatment fertility.

Policy/Criteria

1. The following procedures are **medically necessary** prior to commencing treatment that is likely to cause infertility (excluding voluntary sterilization):
    - **a. Women and adolescent girls:**
        - i. Embryo cryopreservation;
        - ii. Cryopreservation of mature oocytes;
        - iii. Ovarian transposition (oophoropexy);
        - iv. Radiation (gonadal) shielding;
        - v. Conservative gynecologic surgery including but not limited to the following:
            1. Radical trachelectomy in early stage cervical cancer (i.e., stage IA2 to IB cervical cancer with diameter <2 cm and invasion <10 mm);
            2. Ovarian cystectomy for early-stage ovarian cancer
    - **b. Men and adolescent boys:**
        - i. Cryopreservation of sperm
        - ii. Radiation (gonadal) shielding
2. The following procedures prior to commencing treatment are likely to affect fertility and are considered **investigational**:
    - a. **Women and adolescent girls:**
        - i. Cryopreservation of immature oocytes;
        - ii. Ovarian tissue cryopreservation and transplantation procedures;
        - iii. Ovarian suppression with gonadotropin releasing hormone (GnRHa) or antagonists
    - **b. Men and adolescent boys:**
        - i. Testicular suppression with GnRHa or antagonists;

ii. Testicular tissue or spermatogonial cryopreservation;
iii. Reimplantation or grafting of human testicular tissue

Background

The most frequent cause of impaired fertility in male cancer survivors is chemotherapy or radiation-induced damage to sperm. The fertility of female survivors may be impaired by any treatment that damages immature eggs, affects the body's hormonal balance, or injures the reproductive organs. Fertility preservation is an essential part of the management of adolescents and young adults who are at risk for infertility due to cancer treatments, or bilateral ovary or testicular removal for treatment of disease.

Embryo cryopreservation is an established fertility preservation method, and it has routinely been used for storing surplus embryos after in vitro fertilization. Cryopreservation of unfertilized oocytes is an option, particularly for patients who do not have a male partner, do not wish to use donor sperm, or have religious or ethical objections to embryo freezing. Success rates for this procedure have improved significantly, with some reproductive specialty centers reporting success rates comparable to those obtained using unfrozen eggs, especially in younger women. Like embryo cryopreservation, this technique also requires ovarian stimulation and ultrasound-guided oocyte retrieval.

The effectiveness of ovarian suppression with GnRHa or antagonists is inconclusive. There is conflicting evidence to recommend GnRHa as a method of fertility preservation. Studies to date have not provided definitive data demonstrating that GnRHa preserves fertility, and it remains the subject of ongoing research.

American Society of Clinical Oncology (ASCO)

ASCO recommends discussing fertility preservation with all patients of reproductive age (and with parents or guardians of children and adolescents) if infertility is a potential risk of therapy, as early as possible, before treatment starts.

For males who express an interest in fertility preservation, sperm cryopreservation is the only established fertility preservation method. ASCO notes that hormonal therapy in men has not shown to be successful in preserving fertility. Per ASCO, other methods, including testicular tissue cryopreservation for the purpose of future reimplantation or grafting of human testicular tissue are experimental.

For females who express an interest in fertility preservation, both embryo and oocyte cryopreservation are established fertility preservation methods. Other options for women include ovarian transposition (oophoroexy) when pelvic radiation therapy for cancer treatment is performed or conservative gynecological surgery and radiation options. ASCO notes that ovarian tissue cryopreservation for the purpose of future transplantation is experimental. They note also, there is insufficient evidence regarding the effectiveness of ovarian suppression (gonadotropin-releasing hormone analogs) to preserve fertility.

The ASCO guidelines continue to note that there is conflicting evidence to recommend GnRHa and other means of ovarian suppression for fertility preservation. However, the Panel recognizes

that, when proven fertility preservation methods are not feasible, and in the setting of young women with breast cancer, GnRHa may be offered to patients in the hope of reducing the likelihood of chemotherapy-induced ovarian insufficiency. GnRHa should not be used in place of proven fertility preservation methods. The panel notes that the field of ovarian tissue cryopreservation is advancing quickly and may evolve to become standard therapy in the future, although at the time of publication, it remains experimental.

For children, ASCO recommends using established methods of fertility preservation (semen cryopreservation and oocyte cryopreservation) for postpubertal minor children, with patient assent, if appropriate, and parent or guardian consent.1 For prepubertal children, the only fertility preservation options are ovarian and testicular cryopreservation, which are investigational.

National Comprehensive Cancer Network (NCCN)
NCCN guidelines on Adolescent and Young Adult Oncology note that mature oocyte cryopreservation is no longer considered investigational, however, embryo cryopreservation is preferred if there is an identified sperm donor.

Ovarian tissue cryopreservation is a promising, but less well-studied strategy for female fertility preservation when there is insufficient time for oocyte or embryo cryopreservation and/or the patient is prepubertal. While tissue cryopreservation is still considered investigational at some institutions, it may be discussed as an option for fertility preservation.

Some data suggest that menstrual suppression with GnRHa may protect ovarian function. However, evidence that menstrual suppression with GnRHa protect ovarian function is insufficient, so this procedure is not currently recommended as an option for fertility preservation.

American College of Obstetricians and Gynecologists (ACOG)
For young women who have completed sexual development, GnRHa, such as leuprolide acetate, have been used to induce ovarian quiescence to preserve ovarian function and fertility after cytotoxic treatment. Leuprolide acetate is not recommended for prepubertal girls. There still is no conclusive evidence that demonstrates efficacy of GnRHa, and studies are primarily observational regarding their effectiveness in fertility preservation. The use of GnRHa should be considered and discussed with premenopausal patients who will be treated with chemotherapeutic agents. Because GnRHa have mixed results in fertility preservation with trends toward more favorable outcomes, GnRHa therapy may be recommended as an adjuvant to chemotherapy. A meta-analysis of females 14–45 years of age demonstrated that co-treatment with GnRH agonists during chemotherapy was associated with increased odds of maintaining ovarian function and achieving pregnancy after treatment.

Coding Implications
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are

included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT®* Codes	Description

HCPCS ®* Codes	Description

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code(s) requiring an additional character

ICD-10-CM Code	Description

Reviews, Revisions, and Approvals	Date	Approval Date
Original approval date		03/28/14
Annual Review		03/2022

References

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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.