Effective Date 8/1/2023
Next Review Date 8/1/2024
Coverage Policy Number 1012

Fertility Injectables

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Related Coverage Resources

Infertility Services – (0089)
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INSTRUCTIONS FOR USE
The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This policy supports medical necessity review for the following injectable fertility medications:

- **Follitropins**
  - Bravelle® (urofollitropin)
  - Follistim® AQ (follitropin beta)
  - Gonal-f® (follitropin alfa)
- **Gonadotropin Releasing Hormone Agonist**
  - Leuprolide acetate, Lupron, Lupron Depot® 3.75 mg
- **Human Chorionic Gonadotropins (hCG)**
  - Chorionic Gonadotropin, Novarel®, Pregnyl®
  - Ovidrel® (choriogonadotropin alfa injection)
- **Menotropin Therapy**
  - Menopur® (menotropins for injection)

Injectable fertility medications are specifically excluded under most benefit plans. Please refer to the applicable benefit plan document to determine benefit availability and the terms and conditions of coverage.

The use of leuprolide acetate, Lupron Depot® for other indications are addressed in separate coverage policies (Oncology Medications, Pharmacy Prior Authorization). Please refer to the related coverage policy links above.

The use of injectable fertility medications for the treatment of gender dysphoria is addressed in a separate coverage policy. Please refer to the related coverage policy link above (Treatment of Gender Dysphoria).

Receipt of sample product does not satisfy any criteria requirements for coverage.

Medical Necessity Criteria

Coverage criteria are listed for products **in below table:**

Non-Covered Product	Criteria
Follitropins	
Bravelle (urofollitropin)	**Bravelle is considered medically necessary when there is ALL of the following:** 1. Use in combination with human chorionic gonadotropin (hCG) therapy 2. **EITHER** of the following: a. Ovulation stimulation in females for **EITHER** of the following: i. As part of an Assisted Reproductive Technology (ART) program ii. Oligoovulatory or anovulatory infertile female in whom the cause of infertility is functional and not due to primary ovarian failure b. Spermatogenesis stimulation in a male for primary or secondary hypogonadotropic hypogonadism not due to primary testicular failure 3. Documentation of failure with Gonal-f
Follistim AQ (follitropin beta)	**Follistim AQ is considered medically necessary when there is ALL of the following:** 1. Use in combination with human chorionic gonadotropin (hCG) therapy 2. **EITHER** of the following: a. Ovulation stimulation in females for **EITHER** of the following: i. As part of an Assisted Reproductive Technology (ART) program ii. Oligoovulatory or anovulatory infertile female in whom the cause of infertility is functional and not due to primary ovarian failure b. Spermatogenesis stimulation in a male for primary or secondary hypogonadotropic hypogonadism not due to primary testicular failure 3. Documentation of failure with Gonal-f
Gonal-f (follitropin alfa)	**Gonal-f is considered medically necessary when there is BOTH of the following:** 1. Use in combination with human chorionic gonadotropin (hCG) therapy 2. **EITHER** of the following: a. Ovulation stimulation in females for **ANY** of the following: i. As part of an Assisted Reproductive Technology (ART) program

Non-Covered Product	Criteria
	ii. Oligoovulatory or anovulatory infertile female in whom the cause of infertility is functional and not due to primary ovarian failure iii. Cause of infertility other than ovulatory dysfunction OR the medication is being used for planned oocyte preservation b. Spermatogenesis stimulation in a male for primary or secondary hypogonadotropic hypogonadism not due to primary testicular failure
Gonadotropin Releasing Hormone Agonist	
Leuprolide acetate, Lupron, Lupron Depot 3.75 mg	**Leuprolide acetate, Lupron or Lupron Depot 3.75 mg is considered medically necessary when there is documentation use is for treatment of infertility and EITHER of the following:** 1. Use in combination with follitropin, urofollitropin or menotropins in a female with premature luteinizing hormone (LH) surge to suppress LH production 2. To prevent severe ovarian hyperstimulation syndrome (OHSS) associated with in vitro fertilization
Human Chorionic Gonadotropins (hCG)	
Chorionic Gonadotropin, Novarel, Pregnyl (chorionic gonadotropin)	**Chorionic Gonadotropin, Novarel or Pregnyl is considered medically necessary when there is EITHER of the following:** 1. Use in combination with ovulation stimulation therapy in females for **ANY** of the following: a. As part of an Assisted Reproductive Technology (ART) program b. Anovulatory infertile female in whom the cause of anovulation is secondary and not due to primary ovarian failure c. Treatment of corpus luteum dysfunction 2. In males for the following: a. Alone or in combination with follitropins or menotropins for spermatogenesis stimulation as a result of documented primary of secondary hypogonadotropic hypogonadism
Ovidrel (choriogonadotropin alfa injection)	**Ovidrel is considered medically necessary when there is BOTH of the following:** 1. Use in combination with ovulation stimulation therapy in females 2. **EITHER** of the following: a. As part of an Assisted Reproductive Technology (ART) program b. Anovulatory infertile female in whom the cause of anovulation is secondary and not due to primary ovarian failure
Menotropin Therapy	
Menopur (menotropins for injection)	**Menopur is considered medically necessary when there is BOTH of the following:** 1. Use in combination with human chorionic gonadotropin (hCG) therapy 2. **EITHER** of the following: a. Ovulation stimulation in females for **EITHER** of the following: i. As part of an Assisted Reproductive Technology (ART) program ii. Oligoovulatory or anovulatory infertile female in whom the cause of infertility is functional and not due to primary ovarian failure b. Spermatogenesis stimulation in a male for primary or secondary hypogonadotropic hypogonadism not due to primary testicular failure

When coverage is available and medically necessary, the dosage, frequency, duration of therapy, and site of care should be reasonable, clinically appropriate, and supported by evidence-based literature and adjusted based upon severity, alternative available treatments, and previous response to therapy.

Reauthorization Criteria

Continuation of injectable fertility medications are considered medically necessary when the above medical necessity criteria are met.

Authorization Duration

Initial and reauthorization approval duration is up to 12 months.

Conditions Not Covered

Any other use is considered experimental, investigational, or unproven.

Coding Information

1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

HCPCS Codes	Description
J0725	Injection, chorionic gonadotropin, per 1,000 USP units
J1950**	Injection, leuprolide acetate (for depot suspension), per 3.75 mg
J3355	Injection, urofollitropin, 75 IU
J3490†	Unclassified drugs
J9217**	Leuprolide acetate (for depot suspension), 7.5 mg
S0122	Injection, -menotropins, 75 IU
S0126	Injection, follitropin alfa, 75 IU
S0128	Injection, follitropin beta, 75 IU

****When covered by medical benefit, pre-certification is not required**

†May be considered for coverage when used to report Ovidrel

Background

OVERVIEW

Pharmacology

Follitropins

Follitropins are useful in anovulatory and oligoovulatory patients, patients with unexplained infertility, and patients undergoing ART programs (i.e., in vitro fertilization [IVF] or intracytoplasmic sperm injection). These agents are typically used together with gonadotropin-releasing hormone (GnRH) agonists to suppress the pituitary gland and prevent premature ovulation. Follitropins are labeled for use in combination with human chorionic gonadotropin (hCG) to induce ovulation in anovulatory females without primary ovarian failure, stimulate follicular development in ovulatory females undergoing IFV, and stimulate spermatogenesis in males with hypogonadotropic hypogonadism.

Urofollitropin (uFSH) is purified follicle-stimulating hormone (FSH) obtained from the urine of postmenopausal women and biologically standardized for FSH activity. Recombinant follitropin (rFSH) alfa and recombinant follitropin beta are produced by modified Chinese Hamster Ovary (CHO) cells and are biologically standardized

for FSH activity. These preparations contain no luteinizing hormone (LH) activity. To induce ovulation after follicular maturation, hCG must be administered to provide the necessary LH activity. FSH is also the primary hormone responsible for spermatogenesis, and follitropins in combination with hCG can help male patients achieve normal spermatogenesis.

Gonadotropin Releasing Hormone (GnRH) Agonist (Leuprolide)

Leuprolide is a synthetic analog of endogenous gonadotropin-releasing hormone (GnRH), or gonadorelin. GnRH regulates follicle-stimulating hormone (FSH) and luteinizing hormone (LH) synthesis and secretion by the anterior pituitary gland. In response to GnRH, FSH and LH synthesis initially increase, causing a transient increase in circulating levels of sex hormones. With continued administration for more than one to three weeks, the pituitary gland down-regulates and desensitizes GnRH receptors, reducing FSH and LH secretion. Although the physiologic effects are complicated, the end result of continuous GnRH use is chemical castration, or markedly reduced estrogen levels in females and testosterone levels in males. In men, testosterone increases transiently during the first week after the initial dose, then falls to castrate levels after two to four weeks of continued therapy. Similarly, in women, estradiol increases transiently and then falls to postmenopausal levels by three weeks after initiating continuous therapy. Consequently, physiologic functions and tissues that are dependent on gonadal steroids for their maintenance become quiescent. Normal pituitary and gonadal function typically returns within three months of discontinuing GnRH agonist therapy. Leuprolide is not active when administered orally. The average terminal elimination half-life of leuprolide is approximately three hours. Approximately 46% of leuprolide is protein bound. The drug is eliminated via a combination of hepatic metabolism and urinary excretion.

Human Chorionic Gonadotropin Therapy

- **Chorionic Gonadotropin, Novarel, Pregnyl (chorionic gonadotropin)**

Human Chorionic Gonadotropin (hCG) is a gonad-stimulating polypeptide hormone secreted by the placenta that is obtained from the urine of pregnant women. The action of hCG is virtually identical to that of pituitary LH (luteinizing hormone) although hCG appears to have a small degree of FSH (follicle-stimulating hormone) activity as well. It stimulates production of gonadal steroid hormones by stimulating the interstitial cells (Leydig cells) of the testes to produce androgens and the corpus luteum of the ovary to produce progesterone. Androgen stimulation in the male leads to the development of secondary sex characteristics and may stimulate testicular descent when no anatomical impediment to descent is present. This descent is usually reversible when hCG is discontinued. During the normal menstrual cycle, LH participates with FSH in the development and maturation of the normal ovarian follicle, and the mid-cycle LH surge triggers ovulation; hCG can substitute for LH in this function.

- **Ovidrel (choriogonadotropin alfa injection)**

Choriogonadotropin alfa is a recombinant DNA-derived form of human chorionic gonadotropin (hCG), which is a gonad-stimulating polypeptide hormone secreted by the placenta. The action of hCG is virtually identical to that of pituitary LH (luteinizing hormone), although hCG appears to have a small degree of FSH (follicle-stimulating hormone) activity as well. It stimulates production of gonadal steroid hormones by stimulating the interstitial cells (Leydig cells) of the testes to produce androgens and the corpus luteum of the ovary to produce progesterone. Androgen stimulation in the male leads to the development of secondary sex characteristics and may stimulate testicular descent when no anatomical impediment to descent is present. This descent is usually reversible when hCG is discontinued. During the normal menstrual cycle, LH participates with FSH in the development and maturation of the normal ovarian follicle, and the mid-cycle LH surge triggers ovulation; hCG can substitute for LH in this function.

Menotropins

Menotropins are useful in anovulatory and oligoovulatory patients, patients with unexplained infertility, and patients undergoing assisted reproductive technology programs (i.e., in vitro fertilization [IVF] or intracytoplasmic sperm injection). These agents are typically used together with gonadotropin-releasing hormone (GnRH) agonists to suppress the pituitary gland and prevent premature ovulation. Menotropins are used in combination with human chorionic gonadotropin (hCG) to induce ovulation in anovulatory females without primary ovarian failure, stimulate follicular development in ovulatory females undergoing IFV, and stimulate spermatogenesis in males with hypogonadotropic hypogonadism.

Menotropins are a purified gonadotropin preparation obtained from the urine of postmenopausal women. Menotropins are biologically standardized for hormonal activity, providing one international unit (IU) of follicle-stimulating hormone (FSH) activity for each one IU of luteinizing hormone (LH) activity. Menotropins provide the pharmacologic activity of both FSH and LH. In women without primary ovarian failure, the FSH effects are dominant, stimulating growth and maturation of ovarian follicles. Additional LH must be given, as hCG, to induce ovulation after follicular maturation. In men with pituitary hypofunction, menotropins exert primarily LH effects and induce spermatogenesis.

Professional Societies/Organizations

American Association of Clinical Endocrinologists (AACE)
A diagnosis of hypogonadotropic hypogonadism is characterized by a low level of testosterone and low levels of follicle stimulating hormone (FSH) and luteinizing hormone (LH). For the induction of spermatogenesis, AACE recommends that individuals with hypogonadotropic hypogonadism receive treatment with human chorionic gonadotropin (hCG) with or without human menopausal gonadotropin (or FSH) or gonadotropin-releasing hormone (GnRH). Individuals with hypogonadotropic hypogonadism of prepubertal onset generally require therapy hCG in combination with human menopausal gonadotropin (or FSH). hCG therapy alone may be used in men with partial gonadotropin deficiency or in those who were previously stimulated peripubertally or maintain production of sperm with hCG. (Petak, 2002)

American Society for Reproductive Medicine (ASRM)
The ASRM recommends before gonadotropins are prescribed in an anovulatory woman a comprehensive evaluation of the individual be conducted, including analysis of semen. In women who have hypogonadic amenorrhea or polycystic ovary syndrome, ovulation may be induced using gonadotropins, but not as first line therapy. Gonadotropin naïve individuals should be started with a low dose and the dose should be individualized for future cycles based on previous response. Prudent treatment with gonadotropins and patient monitoring are recommended to decrease the chance of multiple pregnancy but cautions the risk cannot be completely eliminated. The organization recognizes the greater quality and better outcomes associated with the currently available gonadotropin formulations and states that there are no proven differences in regard to safety, efficacy or purity between any of the available marketed gonadotropin products. (ASRM, 2008)

European Association of Urology (EAU)
The EAU Guidelines on Male Hypogonadism state that in cases of secondary hypogonadism and only where fertility is a concern, hCG treatment is appropriate, particularly in individuals with low gonadotropin levels. (Dohle, 2016) Per the Guidelines on Male Infertility, for cases of acquired hypogonadal hypogonadism, which can be a result of various drugs (e.g., hormones), spermatogenesis can be stimulated by the use of concurrent hCG with FSH or human menopausal gonadotropins (HMGs). In individuals whose hypogonadal hypogonadism is hypothalamic in origin, pulse dosing of a gonadotropin releasing hormone (GnRH) is considered an alternative to hCG. Individuals who were hypogonadic prior to puberty may take as long as two years of GnRH treatment to produce sperm. (Jungwirth, 2016)

FDA Approved Indication

Drug Name	FDA Approved Indication
Follitropins	
Bravelle (urofollitropin)	**Induction of Ovulation in Women who have Previously Received Pituitary Suppression** Prior to initiation of treatment with Bravelle: • Perform a complete gynecologic and endocrinologic evaluation • Exclude a diagnosis of primary ovarian failure • Exclude the possibility of pregnancy • Demonstrate tubal patency • Evaluate the fertility status of the male partner

Drug Name	FDA Approved Indication
	Development of Multiple Follicles as Part of an Assisted Reproductive Technology (ART) Cycle in Ovulatory Women Who Have Previously Received Pituitary Suppression Prior to initiation of treatment with Bravelle: • Perform a complete gynecologic and endocrinologic evaluation, and diagnose the cause of infertility • Exclude the possibility of pregnancy • Evaluate the fertility status of the male partner • Exclude women with primary ovarian failure
Follistim AQ (follitropin beta)	Follistim AQ (follitropin beta injection) Cartridge is indicated: **<u>In Women for</u>:** **Induction of Ovulation and Pregnancy in Anovulatory Infertile Women in Whom the Cause of Infertility is Functional and Not Due to Primary Ovarian Failure** Prior to initiation of treatment with Follistim AQ Cartridge: • Women should have a complete gynecologic and endocrinologic evaluation. • Primary ovarian failure should be excluded. • The possibility of pregnancy should be excluded. • Tubal patency should be demonstrated. • The fertility status of the male partner should be evaluated. **Pregnancy in Normal Ovulatory Women Undergoing Controlled Ovarian Stimulation as Part of an In Vitro Fertilization (IVF) or Intracytoplasmic Sperm Injection (ICSI) Cycle** Prior to initiation of treatment with Follistim AQ Cartridge: • Women should have a complete gynecologic and endocrinologic evaluation and diagnosis of cause of infertility. • The possibility of pregnancy should be excluded. • The fertility status of the male partner should be evaluated. **<u>In Men for</u>:** **Induction of Spermatogenesis in Men with Primary and Secondary Hypogonadotropic Hypogonadism (HH) in Whom the Cause of Infertility is Not Due to Primary Testicular Failure** Prior to initiation of treatment with Follistim AQ Cartridge: • Men should have a complete medical and endocrinologic evaluation. • Hypogonadotropic hypogonadism should be confirmed, and primary testicular failure should be excluded. • Serum testosterone levels should be normalized with human chorionic gonadotropin (hCG) treatment. • The fertility status of the female partner should be evaluated.
Gonal-f (follitropin alfa)	**Women** Gonal-f (follitropin alfa for injection) is indicated for the induction of ovulation and pregnancy in the anovulatory infertile patient in whom the cause of infertility is functional and not due to primary ovarian failure. Gonal-f is also indicated for the development of multiple follicles in the ovulatory patient participating in an Assisted Reproductive Technology (ART) program. Selection of Patients 1. Before treatment with Gonal-f is instituted, a thorough gynecologic and endocrinologic evaluation must be performed. This should include an assessment of pelvic anatomy. Patients with tubal obstruction should receive Gonal-f only if enrolled in an in vitro fertilization program.

Drug Name	FDA Approved Indication
	2. Primary ovarian failure should be excluded by the determination of gonadotropin levels. 3. Appropriate evaluation should be performed to exclude pregnancy. 4. Patients in later reproductive life have a greater predisposition to endometrial carcinoma as well as a higher incidence of anovulatory disorders. A thorough diagnostic evaluation should always be performed in patients who demonstrate abnormal uterine bleeding or other signs of endometrial abnormalities before starting Gonal-f therapy. 5. Evaluation of the partner's fertility potential should be included in the initial evaluation. **Men** Gonal-f (follitropin alfa for injection) is indicated for the induction of spermatogenesis in men with primary and secondary hypogonadotropic hypogonadism in whom the cause of infertility is not due to primary testicular failure. Selection of Patients 1. Before treatment with Gonal-f is instituted for azoospermia, a thorough medical and endocrinologic evaluation must be performed. 2. Hypogonadotropic hypogonadism should be confirmed, and primary testicular failure should be excluded by the determination of gonadotropin levels. 3. Prior to Gonal-f therapy for azoospermia in patients with hypogonadotropic hypogonadism, serum testosterone levels should be normalized.
Gonal-f RFF. (follitropin alfa)	Gonal-f RFF (follitropin alfa for injection) is indicated for the induction of ovulation and pregnancy in the oligo-anovulatory infertile patient in whom the cause of infertility is functional and not due to primary ovarian failure. Gonal-f RFF is also indicated for the development of multiple follicles in the ovulatory patient participating in an Assisted Reproductive Technology (ART) program. **Selection of Patients** 1. Before treatment with Gonal-f RFF is instituted, a thorough gynecologic and endocrinologic evaluation must be performed. This should include an assessment of pelvic anatomy. Patients with tubal obstruction should receive Gonal-f RFF only if enrolled in an *in vitro* fertilization program. 2. Primary ovarian failure should be excluded by the determination of gonadotropin levels. 3. Appropriate evaluation should be performed to exclude pregnancy. 4. Patients in later reproductive life have a greater predisposition to endometrial carcinoma as well as a higher incidence of anovulatory disorders. A thorough diagnostic evaluation should always be performed in patients who demonstrate abnormal uterine bleeding or other signs of endometrial abnormalities before starting Gonal-f RFF therapy. 5. Evaluation of the partner's fertility potential should be included in the initial evaluation.
Gonal-f RFF Redi-ject (follitropin alfa)	**Induction of Ovulation and Pregnancy in Oligo-Anovulatory Women in whom the Cause of Infertility is Functional and Not Due to Primary Ovarian Failure** Prior to initiation of treatment with Gonal-f RFF Redi-ject: • Perform a complete gynecologic and endocrinologic evaluation • Exclude primary ovarian failure • Exclude the possibility of pregnancy • Demonstrate tubal patency • Evaluate the fertility status of the male partner

Drug Name	FDA Approved Indication
	Development of Multiple Follicles in Ovulatory Women as Part of an Assisted Reproductive Technology (ART) Cycle Prior to initiation of treatment with Gonal-f RFF Redi-ject: • Perform a complete gynecologic and endocrinologic evaluation, and diagnose the cause of infertility • Exclude the possibility of pregnancy • Evaluate the fertility status of the male partner
Human Chorionic Gonadotropins (hCG)	
Chorionic Gonadotropin, Novarel, Pregnyl (chorionic gonadotropin)	HCG HAS NOT BEEN DEMONSTRATED TO BE EFFECTIVE ADJUNCTIVE THERAPY IN THE TREATMENT OF OBESITY. THERE IS NO SUBSTANTIAL EVIDENCE THAT IT INCREASES WEIGHT LOSS BEYOND THAT RESULTING FROM CALORIC RESTRICTION, THAT IT CAUSES A MORE ATTRACTIVE OR ''NORMAL'' DISTRIBUTION OF FAT, OR THAT IT DECREASES THE HUNGER AND DISCOMFORT ASSOCIATED WITH CALORIE-RESTRICTED DIETS. 1. Prepubertal cryptorchidism not due to anatomical obstruction. In general, HCG is thought to induce testicular descent in situations when descent would have occurred at puberty. HCG thus may help predict whether or not orchiopexy will be needed in the future. Although, in some cases, descent following HCG administration is permanent, in most cases, the response is temporary. Therapy is usually instituted between the ages 4 and 9. 2. Selected cases of hypogonadotropic hypogonadism (hypogonadism secondary to a pituitary deficiency) in males. 3. Induction of ovulation and pregnancy in the anovulatory, infertile woman in whom the cause of anovulation is secondary and not due to primary ovarian failure, and who has been appropriately pretreated with human menotropins.
Ovidrel (choriogonadotropin alfa injection)	Ovidrel PreFilled Syringe (choriogonadotropin alfa injection) is indicated for the induction of final follicular maturation and early luteinization in infertile women who have undergone pituitary desensitization and who have been appropriately pretreated with follicle stimulating hormones as part of an Assisted Reproductive Technology (ART) program such as in vitro fertilization and embryo transfer. Ovidrel PreFilled Syringe is also indicated for the induction of ovulation (OI) and pregnancy in anovulatory infertile patients in whom the cause of infertility is functional and not due to primary ovarian failure. **Selection of Patients** 1. Before treatment with gonadotropins is instituted, a thorough gynecologic and endocrinologic evaluation must be performed. This should include an assessment of pelvic anatomy. Patients with tubal obstruction should receive Ovidrel PreFilled Syringe only if enrolled in an in vitro fertilization program. 2. Primary ovarian failure should be excluded by the determination of gonadotropin levels. 3. Appropriate evaluation should be performed to exclude pregnancy. 4. Patients in later reproductive life have a greater predisposition to endometrial carcinoma as well as a higher incidence of anovulatory disorders. A thorough diagnostic evaluation should always be performed in patients who demonstrate abnormal uterine bleeding or other signs of endometrial abnormalities before starting FSH and Ovidrel PreFilled Syringe therapy. 5. Evaluation of the partner's fertility potential should be included in the initial evaluation.
Menotropins	
Menopur (menotropins for injection)	Development of Multiple Follicles and Pregnancy in Ovulatory Women as Part of an Assisted Reproductive Technology (ART) Cycle Prior to initiation of treatment with Menopur:

Drug Name	FDA Approved Indication
	• Perform a complete gynecologic and endocrinologic evaluation, and diagnose the cause of infertility • Exclude the possibility of pregnancy • Evaluate the fertility status of the male partner • Exclude a diagnosis of primary ovarian failure

FDA Recommended Dosing

Drug Name	FDA Recommended Dosing
Follitropins	
Bravelle (urofollitropin)	**General Dosing Information** • Administer Bravelle subcutaneously in the abdomen or intramuscularly as described in Instructions for Use. • A healthcare provider should administer Bravelle intramuscularly. **Recommended Dosing for Induction of Ovulation** The dosing scheme is stepwise and is individualized for each woman. • For women who have received GnRH agonist or antagonist pituitary suppression, a starting dose of 150 International Units per day of Bravelle is administered subcutaneously or intramuscularly for 5 days in the first cycle of treatment. • In subsequent cycles of treatment, the starting dose (and dosage adjustments) of Bravelle should be determined based on the history of the ovarian response to Bravelle. • The following should be considered when planning the woman's individualized dose of Bravelle: o Appropriate Bravelle dose adjustment(s), based on clinical monitoring (including serum estradiol levels and vaginal ultrasound results), should be used to prevent multiple follicular growth and cycle cancellation. o Do not make adjustments in dose more frequently than once every 2 days and do not exceed more than 75 to 150 International Units per adjustment. o Use the lowest dose of Bravelle that will achieve desired results. o The maximum, individualized, daily dose of Bravelle is 450 International Units per day. o In general, do not exceed 12 days of treatment. • When pre-ovulatory conditions are reached, administer human chorionic gonadotropin (hCG) to induce final oocyte maturation and ovulation. • Withhold hCG in cases where the ovarian monitoring on the last day of Bravelle treatment suggests an increased risk of ovarian hyperstimulation syndrome (OHSS). • Encourage the woman and her partner to have intercourse daily, beginning on the day prior to the administration of hCG and until ovulation becomes apparent. Discourage intercourse when the risk for OHSS is increased. **Recommended Dosing for Assisted Reproduction Technology (ART)** The recommended dosing scheme for patients undergoing IVF follows a stepwise approach and is individualized for each woman. The recommended initial dose of Bravelle for women who have received a GnRH agonist for pituitary suppression is 225 International Units. Bravelle may be administered together with Menopur (menotropins for injection, USP), and the total initial dose when the products are combined should not exceed 225 International Units (150 International Units of Bravelle and 75 International Units of Menopur or 75 International Units of Bravelle and 150 International Units of Menopur). • Beginning on cycle day 2 or 3, a starting dose of 225 International Units of Bravelle is administered subcutaneously daily until sufficient follicular

<table>
<tr><th>Drug Name</th><th>FDA Recommended Dosing</th></tr>
<tr><td></td><td>development, as determined by ultrasound in combination with measurement of serum estradiol levels, is attained. In most cases, therapy should not exceed 12 days.
• Adjust the dose after 5 days based on the woman's ovarian response, as determined by ultrasound evaluation of follicular growth and serum estradiol levels.
• Do not make additional dosage adjustments more frequently than every 2 days or by more than 75 - 150 International Units at each adjustment.
• Continue treatment until adequate follicular development is evident, and then administer hCG.
• Withhold the administration of hCG in cases where the ovarian monitoring suggests an increased risk of OHSS on the last day of Bravelle therapy.
• Do not administer daily doses of Bravelle or Bravelle in combination with Menopur that exceed 450 International Units.</td></tr>
<tr><td>Follistim AQ
(follitropin beta)</td><td>General Dosing Information
• Follistim AQ Cartridge with the pen injector device delivers on average an 18% higher amount of follitropin beta when compared to reconstituted Follistim delivered with a conventional syringe and needle. When administering Follistim AQ Cartridge, a lower starting dose and lower dose adjustments (as compared to reconstituted Follistim) should be considered. For that purpose, the following Dose Conversion Table is provided:

Table 1: Follistim AQ Cartridge Administered Subcutaneously with the Follistim Pen Dose Conversion Table*
<table>
<tr><th>Lyophilized recombinant FSH dosing with ampules or vials, using conventional syringe</th><th>Follistim AQ Cartridge dosing with the Follistim Pen</th></tr>
<tr><td>75 IU</td><td>50 IU</td></tr>
<tr><td>150 IU</td><td>125 IU</td></tr>
<tr><td>225 IU</td><td>175 IU</td></tr>
<tr><td>300 IU</td><td>250 IU</td></tr>
<tr><td>375 IU</td><td>300 IU</td></tr>
<tr><td>450 IU</td><td>375 IU</td></tr>
</table>
* Each value represents an 18% difference rounded to the nearest 25 IU increment.

Recommended Dosing in Anovulatory Women Undergoing Ovulation Induction
The dosing scheme is stepwise and is individualized for each woman.
• A starting daily dose of 50 international units of Follistim AQ Cartridge is administered subcutaneously daily for at least the first 7 days.
• Subsequent dosage adjustments are made at weekly intervals based upon ovarian response. If an increase in dose is indicated by the ovarian response, the increase should be made by 25 or 50 international units of Follistim AQ Cartridge at weekly intervals until follicular growth and/or serum estradiol levels indicate an adequate ovarian response.
The following should be considered when planning the woman's individualized dose:
o Appropriate Follistim AQ Cartridge dose adjustment(s) should be used to prevent multiple follicular growth and cycle cancellation.
o The maximum, individualized, daily dose of Follistim AQ Cartridge is 250 international units.
• Treatment should continue until ultrasonic visualizations and/or serum estradiol determinations approximate the pre-ovulatory conditions seen in normal individuals.</td></tr>
</table>

Drug Name	FDA Recommended Dosing
	• When pre-ovulatory conditions are reached, 5,000 to 10,000 international units of hCG are used to induce final oocyte maturation and ovulation. The administration of hCG must be withheld in cases where the ovarian monitoring suggests an increased risk of OHSS on the last day of Follistim AQ Cartridge therapy. • The woman and her partner should be encouraged to have intercourse daily, beginning on the day prior to the administration of hCG and until ovulation becomes apparent. • During treatment with Follistim AQ Cartridge and during a two-week post-treatment period, the woman should be assessed at least every other day for signs of excessive ovarian stimulation. It is recommended that Follistim AQ Cartridge administration be stopped if the ovarian monitoring suggests an increased risk of OHSS or abdominal pain occurs. Most OHSS occurs after treatment has been discontinued and reaches its maximum at about seven to ten days post-ovulation. **Recommended Dosing in Normal Ovulatory Women Undergoing Controlled Ovarian Stimulation as Part of an In Vitro Fertilization (IVF) or Intracytoplasmic Sperm Injection (ICSI) Cycle** The dosing scheme follows a stepwise approach and is individualized for each woman. • A starting dose of 200 international units (actual cartridge doses) of Follistim AQ Cartridge is administered subcutaneously daily for at least the first 7 days of treatment. • Subsequent to the first 7 days of treatment, the dose can be adjusted down or up based upon the woman's ovarian response as determined by ultrasound evaluation of follicular growth and serum estradiol levels. Dosage reduction in high responders can be considered from the 6th day of treatment onward according to individual response. The following should be considered when planning the woman's individualized dose: o For most normal responding women, the daily starting dose can be continued until pre-ovulatory conditions are achieved (seven to twelve days). o For low or poor responding women, the daily dose should be increased according to the ovarian response. The maximum, individualized, daily dose of Follistim AQ Cartridge is 500 international units. o For high responding women [those at particular risk of abnormal ovarian enlargement and/or ovarian hyperstimulation syndrome (OHSS)], decrease or temporarily stop the daily dose, or discontinue the cycle according to individual response. • When a sufficient number of follicles of adequate size are present, dosing of Follistim AQ Cartridge is stopped, and final maturation of the oocytes is induced by administering hCG at a dose of 5,000 to 10,000 international units. The administration of hCG should be withheld in cases where the ovarian monitoring suggests an increased risk of OHSS on the last day of Follistim AQ Cartridge therapy. • Oocyte (egg) retrieval should be performed 34 to 36 hours following the administration of hCG. **Recommended Dosing for Induction of Spermatogenesis in Men** • Pretreatment with hCG is required prior to concomitant therapy with Follistim AQ Cartridge and hCG. An initial dosage of 1,500 international units of hCG should be administered at twice weekly intervals to normalize serum testosterone levels. If

Drug Name	FDA Recommended Dosing
	serum testosterone levels have not normalized after 8 weeks of hCG treatment, the hCG dose can be increased to 3,000 international units twice weekly. • After normal serum testosterone levels have been reached, Follistim AQ Cartridge should be administered by subcutaneous injection concomitantly with hCG treatment. Follistim is given at a dosage of 450 international units per week, as either 225 international units twice weekly or 150 international units three times per week, in combination with the same hCG dose used to normalize testosterone levels. Based on delivery of a higher dose of follitropin beta with the Follistim AQ Cartridge and pen injector, a lower dose of Follistim AQ Cartridge may be considered. The concomitant therapy should be continued for at least 3 to 4 months before any improvement in spermatogenesis can be expected. If a man has not responded after this period, the combination therapy may be continued. Treatment response has been noted at up to 12 months.
Gonal-f (follitropin alfa)	<u>Infertile Patients with oligo-anovulation</u> The dose of Gonal-f (follitropin alfa for injection) to stimulate development of the follicle must be individualized for each patient. The lowest dose consistent with the expectation of good results should be used. Over the course of treatment, doses of Gonal-f may range up to 300 IU per day depending on the individual patient response. Gonal-f should be administered until adequate follicular development is indicated by serum estradiol and vaginal ultrasonography. A response is generally evident after 5 to 7 days. Subsequent monitoring intervals should be based on individual patient response. It is recommended that the initial dose of the first cycle be 75 IU of Gonal-f per day, ADMINISTERED SUBCUTANEOUSLY. An incremental adjustment in dose of up to 37.5 IU may be considered after 14 days. Further dose increases of the same magnitude could be made, if necessary, every seven days. Treatment duration should not exceed 35 days unless an E2 rise indicates imminent follicular development. To complete follicular development and effect ovulation in the absence of an endogenous LH surge, chorionic gonadotropin, hCG, (5,000 USP units) should be given 1 day after the last dose of Gonal-f. Chorionic gonadotropin should be withheld if the serum estradiol is greater than 2,000 pg/mL. If the ovaries are abnormally enlarged or abdominal pain occurs, Gonal-f treatment should be discontinued, hCG should not be administered, and the patient should be advised not to have intercourse; this may reduce the chance of development of the Ovarian Hyperstimulation Syndrome and, should spontaneous ovulation occur, reduce the chance of multiple gestation. A follow-up visit should be conducted in the luteal phase. The initial dose administered in the subsequent cycles should be individualized for each patient based on her response in the preceding cycle. Doses larger than 300 IU of FSH per day are not routinely recommended. As in the initial cycle, 5,000 USP units of hCG must be given 1 day after the last dose of Gonal-f to complete follicular development and induce ovulation. The precautions described above should be followed to minimize the chance of development of the Ovarian Hyperstimulation Syndrome. The couple should be encouraged to have intercourse daily, beginning on the day prior to the administration of hCG until ovulation becomes apparent from the indices employed for the determination of progestational activity. Care should be taken to ensure insemination. In light of the indices and parameters mentioned, it should become obvious that, unless a physician is willing to devote considerable time to

Drug Name	FDA Recommended Dosing
	these patients and be familiar with and conduct the necessary laboratory studies, he/she should not use Gonal-f. Assisted Reproductive Technologies As in the treatment of patients with oligo-anovulatory infertility, the dose of Gonal-f to stimulate development of the follicle must be individualized for each patient. For Assisted Reproductive Technologies, therapy with Gonal-f should be initiated in the early follicular phase (cycle day 2 or 3) at a dose of 150 IU per day, until sufficient follicular development is attained. In most cases, therapy should not exceed ten days. In patients undergoing ART, whose endogenous gonadotropin levels are suppressed, Gonal-f should be initiated at a dose of 225 IU per day. Treatment should be continued until adequate follicular development is indicated as determined by ultrasound in combination with measurement of serum estradiol levels. Adjustments to dose may be considered after five days based on the patient's response; subsequently dosage should be adjusted no more frequently than every 3-5 days and by no more than 75-150 IU additionally at each adjustment. Doses greater than 450 IU per day are not recommended. Once adequate follicular development is evident, hCG (5,000 to 10,000 USP units) should be administered to induce final follicular maturation in preparation for oocyte retrieval. The administration of hCG must be withheld in cases where the ovaries are abnormally enlarged on the last day of therapy. This should reduce the chance of developing OHSS. Male Patients with Hypogonadotropic Hypogonadism The dose of Gonal-f (follitropin alfa for injection) to induce spermatogenesis must be individualized for each patient. Gonal-f must be given in conjunction with hCG. Prior to concomitant therapy with Gonal-f and hCG, pretreatment with hCG alone (1,000 to 2,250 USP units two to three times per week) is required. Treatment should continue for a period sufficient to achieve serum testosterone levels within the normal range. Such pretreatment may require 3 to 6 months and the dose of hCG may need to be increased to achieve normal serum testosterone levels. After normal serum testosterone levels are reached, the recommended dose of Gonal-f is 150 IU administered subcutaneously three times a week and the recommended dose of hCG is 1,000 USP units (or the dose required to maintain serum testosterone levels within the normal range) three times a week. The lowest dose of Gonal-f which induces spermatogenesis should be utilized. If azoospermia persists, the dose of Gonal-f may be increased to a maximum dose of 300 IU three times per week. Gonal-f may need to be administered for up to 18 months to achieve adequate spermatogenesis.
Gonal-f RFF, (follitropin alfa)	Infertile Patients with oligo-anovulation The dose of Gonal-f RFF (follitropin alfa for injection) to stimulate development of the follicle must be individualized for each patient. The lowest dose consistent with the expectation of good results should be used. Over the course of treatment, doses of Gonal-f RFF may range up to 300 IU per day depending on the individual patient response. Gonal-f RFF should be administered until adequate follicular development is indicated by serum estradiol and vaginal ultrasonography. A response is generally evident after 5 to 7 days. Subsequent monitoring intervals should be based on individual patient response. It is recommended that the initial dose of the first cycle be 75 IU of Gonal-f RFF per day, ADMINISTERED SUBCUTANEOUSLY. An incremental adjustment in dose of up to 37.5 IU may be considered after 14 days. Further dose increases of the same magnitude could be made, if necessary, every seven days. Treatment duration should not exceed 35 days unless an E2 rise indicates imminent follicular development. To complete follicular development and effect ovulation in the absence

Drug Name	FDA Recommended Dosing
	of an endogenous LH surge, chorionic gonadotropin, hCG, should be given after the last dose of Gonal-f RFF. Chorionic gonadotropin should be withheld if the serum estradiol is greater than 2,000 pg/mL. If the ovaries are abnormally enlarged or abdominal pain occurs, Gonal-f RFF treatment should be discontinued, hCG should not be administered, and the patient should be advised not to have intercourse; this may reduce the chance of development of the Ovarian Hyperstimulation Syndrome and, should spontaneous ovulation occur, reduce the chance of multiple gestation. A follow-up visit should be conducted in the luteal phase. The initial dose administered in the subsequent cycles should be individualized for each patient based on her response in the preceding cycle. Doses larger than 300 IU of FSH per day are not routinely recommended. As in the initial cycle, hCG must be given after the last dose of Gonal-f RFF to complete follicular development and induce ovulation. The precautions described above should be followed to minimize the chance of development of the Ovarian Hyperstimulation Syndrome. The couple should be encouraged to have intercourse daily, beginning on the day prior to the administration of hCG until ovulation becomes apparent from the indices employed for the determination of progestational activity. Care should be taken to ensure insemination. In light of the indices and parameters mentioned, it should become obvious that, unless a physician is willing to devote considerable time to these patients and be familiar with and conduct the necessary laboratory studies, he/she should not use Gonal-f RFF. <u>Assisted Reproductive Technologies</u> As in the treatment of patients with oligo-anovulatory infertility, the dose of Gonal-f RFF to stimulate development of the follicle must be individualized for each patient. For Assisted Reproductive Technologies, therapy with Gonal-f RFF should be initiated in the early follicular phase (cycle day 2 or 3) at a dose of 150 IU per day, until sufficient follicular development is attained. In most cases, therapy should not exceed ten days. In patients undergoing ART under 35 years old, whose endogenous gonadotropin levels are suppressed, Gonal-f RFF should be initiated at a dose of 150 IU per day. In patients 35 years old and older whose endogenous gonadotropin levels are suppressed, Gonal-f RFF should be initiated at a dose of 225 IU per day. Treatment should be continued until adequate follicular development is indicated as determined by ultrasound in combination with measurement of serum estradiol levels. Adjustments to dose may be considered after five days based on the patient's response; subsequently dosage should be adjusted no more frequently than every 3-5 days and by no more than 75-150 IU additionally at each adjustment. Doses greater than 450 IU per day are not recommended. Once adequate follicular development is evident, hCG should be administered to induce final follicular maturation in preparation for oocyte retrieval. The administration of hCG must be withheld in cases where the ovaries are abnormally enlarged on the last day of therapy. This should reduce the chance of developing OHSS.
Gonal-f RFF Redi-ject (follitropin alfa)	**General Dosing Information** • Gonal-f RFF Redi-ject is a pre-filled disposable auto-injection device intended for multiple dose use. • Gonal-f RFF Redi-ject can be set in 12.5 International Units increments. • Administer Gonal-f RFF Redi-ject subcutaneously in the abdomen as described in Instructions for Use • Do not attempt to mix any other medications inside of the device with Gonal-f RFF Redi-ject. **Recommended Dosing for Ovulation Induction**

Drug Name	FDA Recommended Dosing
	The dosing scheme is stepwise and is individualized for each woman. Starting doses less than 37.5 International Units have not been studied in clinical trials and are not recommended. • A starting daily dose of 75 International Units of Gonal-f RFF Redi-ject is administered subcutaneously daily for 14 days in the first cycle of use. In subsequent cycles of treatment, the starting dose (and dosage adjustments) of Gonal-f RFF Redi-ject should be determined based on the history of the ovarian response to Gonal-f RFF Redi-ject. • The following should be considered when planning the woman's individualized dose: o Appropriate Gonal-f RFF Redi-ject dose adjustment(s) should be used to prevent multiple follicular growth and cycle cancellation. o The maximum, individualized, daily dose of Gonal-f RFF Redi-ject is 300 International Units per day. o In general, do not exceed 35 days of treatment. • If indicated by the ovarian response after the initial 14 days, make an incremental adjustment in dose, up to 37.5 International Units. • If indicated by the ovarian response, make additional incremental adjustments in dose, up to 37.5 International Units, every 7 days. • Treatment should continue until follicular growth and/or serum estradiol levels indicate an adequate ovarian response. • When pre-ovulatory conditions are reached, administer human chorionic gonadotropin (hCG) to induce final oocyte maturation and ovulation. Withhold hCG in cases where the ovarian monitoring suggests an increased risk of ovarian hyperstimulation syndrome (OHSS) on the last day of Gonal-f RFF Redi-ject therapy. • Encourage the woman and her partner to have intercourse daily, beginning on the day prior to the administration of hCG and until ovulation becomes apparent. Discourage intercourse when the risk for OHSS is increased. **Recommended Dosing for Assisted Reproductive Technology** The dosing scheme follows a stepwise approach and is individualized for each woman. • Beginning on cycle day 2 or 3, a starting dose of 150 International Units of Gonal-f RFF Redi-ject is administered subcutaneously daily until sufficient follicular development, as determined by ultrasound in combination with measurement of serum estradiol levels, is attained. In most cases, therapy should not exceed 10 days. In women under 35 years of age whose endogenous gonadotropin levels are suppressed, initiate Gonal-f RFF Redi-ject administration at a dose of 150 International Units per day. In women 35 years of age and older whose endogenous gonadotropin levels are suppressed, initiate Gonal-f RFF Redi-ject administration at a dose of 225 International Units per day. • Adjust the dose after 5 days based on the woman's ovarian response, as determined by ultrasound evaluation of follicular growth and serum estradiol levels. • Do not make additional dosage adjustments more frequently than every 3-5 days or by more than 75-150 International Units at each adjustment. • Continue treatment until adequate follicular development is evident, and then administer hCG. The administration of hCG should be withheld in cases where the ovarian monitoring suggests an increased risk of OHSS on the last day of Gonal-f RFF Redi-ject therapy.

Drug Name	FDA Recommended Dosing
	• Doses greater than 450 International Units per day are not recommended.
Human Chorionic Gonadotropins (hCG)	
Chorionic Gonadotropin, Novarel, Pregnyl (chorionic gonadotropin)	For intramuscular use only. The dosage regimen employed in any particular case will depend upon the indication for the use, the age and weight of the patient, and the physician's preference. The following regimens have been advocated by various authorities: *Prepubertal cryptorchidism not due to anatomical obstruction. Therapy is usually instituted in children between the ages of 4 and 9.* 1. 4000 USP units 3 times weekly for 3 weeks. 2. 5000 USP units every second day for 4 injections. 3. 15 injections for 500 to 1000 USP units over a period of 6 weeks. 4. 500 USP units 3 times weekly for 4 to 6 weeks. If this course of treatment is not successful, another series is begun 1 month later, giving 1000 USP units per injection. *Selected cases of hypogonadotropic hypogonadism in males.* 1. 500 to 1000 USP units 3 times a week for 3 weeks, followed by the same dose twice a week for 3 weeks. 2. 4000 USP units 3 times weekly for 6 to 9 months, following which the dosage may be reduced to 2000 USP units 3 times weekly for an additional 3 months. *Induction of ovulation and pregnancy in the anovulatory, infertile woman in whom the cause of anovulation is secondary and not due to primary ovarian failure and who has been appropriately pretreated with human menotropins.* (See prescribing information for menotropins for dosage and administration for that drug product.) • 5000 to 10,000 USP units 1 day following the last dose of menotropins. (A dosage of 10,000 USP units is recommended in the labeling for menotropins.)
Ovidrel (choriogonadotropin alfa injection)	*For Subcutaneous Use Only* **Infertile Women Undergoing Assisted Reproductive Technologies (ART)** Ovidrel PreFilled Syringe 250 µg should be administered one day following the last dose of the follicle stimulating agent. Ovidrel PreFilled Syringe should not be administered until adequate follicular development is indicated by serum estradiol and vaginal ultrasonography. Administration should be withheld in situations where there is an excessive ovarian response, as evidenced by clinically significant ovarian enlargement or excessive estradiol production. **Infertile Women Undergoing Ovulation Induction (OI)** Ovidrel PreFilled Syringe should not be administered until adequate follicular development is indicated by serum estradiol and vaginal ultrasonography. Ovidrel PreFilled Syringe 250 µg should be administered one day following the last dose of the follicle stimulating agent. Ovidrel PreFilled Syringe administration should be withheld in situations where there is an excessive ovarian response, as evidenced by multiple follicular development, clinically significant ovarian enlargement, or excessive estradiol production.
Menotropins	
Menopur (menotropins for injection)	**General Dosing Information** • Administer Menopur subcutaneously in the abdomen as described in Instructions for Use.

Drug Name	FDA Recommended Dosing
	• Menopur may be administered together with Bravelle (urofollitropin for injection, purified). **Recommended Dosing for Assisted Reproductive Technology** The recommended dosing scheme for patients undergoing IVF follows a stepwise approach and is individualized for each woman. The recommended initial dose of Menopur for women who have received a GnRH agonist for pituitary suppression is 225 International Units. Menopur may be administered together with Bravelle (urofollitropin for injection, purified) and the total initial dose when the products are combined should not exceed 225 International Units (150 International Units of Menopur and 75 International Units of Bravelle or 75 International Units of Menopur and 150 International Units of Bravelle). • Beginning on cycle day 2 or 3, a starting dose of 225 International Units of Menopur is administered subcutaneously daily. Adjust the dose after 5 days based on the woman's ovarian response, as determined by ultrasound evaluation of follicular growth and serum estradiol levels. • Do not make additional dosage adjustments more frequently than every 2 days or by more than 150 International Units at each adjustment. • Continue treatment until adequate follicular development is evident, and then administer hCG. Withhold the administration of hCG in cases where the ovarian monitoring suggests an increased risk of OHSS on the last day of Menopur therapy. • Do not administer daily doses of Menopur or Menopur in combination with Bravelle that exceed 450 International Units. • Therapy should not exceed 20 days.

Drug Availability

Drug Name	Drug Availability
Follitropins	
Bravelle (urofollitropin)	Available as a lyophilized powder for injection containing 82.5 International Units (IU) of FSH, to deliver 75 IU FSH after reconstituting
Follistim AQ (follitropin beta)	Available in cartridges containing 175 IU per 0.210 mL, 350 IU per 0.420 mL, 650 IU per 0.780 mL, and 975 IU per 1.170 mL.
Gonal-f (follitropin alfa)	Supplied in a sterile, lyophilized form in multiple dose vials filled with 600 IU or 1200 IU in order to deliver 450 IU and 1050 IU FSH, respectively, after reconstitution with diluent.
Gonal-f RFF, Gonal-f RFF Redi-ject (follitropin alfa)	**RFF** = revised female formulation **Gonal-f RFF**: Supplied in a sterile, lyophilized form in single-dose vials containing 82 IU with diluent (Sterile Water for Injection, USP) in a pre-filled syringe. Following reconstitution with the diluent as described, upon administration each vial will deliver a dose of 75 IU. **Gonal-f RFF Redi-ject**: Available as 300 International Units (IU) per 0.5 mL, 450 IU per 0.75 mL, and 900 IU per 1.5 mL in prefilled, multiple dose disposable delivery systems.
Gonadotropin Releasing Hormone Agonist	
Leuprolide acetate, Lupron Depot®	Leuprolide acetate injection is available from various manufacturers in a multi-dose vial of 14 mg/2.8 mL (concentration of 1 mg/0.2 mL). Lupron Depot 3.75 mg for 1-month administration.

Drug Name	Drug Availability
Human Chorionic Gonadotropins (hCG)	
Chorionic Gonadotropin	Available as 10,000 USP Units in a 10 mL multiple dose vial.
Novarel (chorionic gonadotropin)	Available as individually packaged vials containing 5,000 or 10,000 USP Units per vial.
Pregnyl (chorionic gonadotropin)	Available as a 10 mL lyophilized multiple dose vial containing: 10,000 USP units chorionic gonadotropin per vial.
Ovidrel (choriogonadotropin alfa injection)	Available as a pre-filled syringe containing 250 µg choriogonadotropin alfa in 0.5 mL.
Menotropins	
Menopur (menotropins for injection)	Available as a lyophilized powder for injection containing 75 International Units FSH and 75 International units of LH activity, supplied as lyophilized powder or pellet in sterile vials with diluent vials and Q-Cap® vial adapters.

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