C5.7 - PROGESTIN HORMONE INJECTION-DEPO-MEDROXYPROGESTERONE ACETATE (DMPA)

Policy

Depo-medroxyprogesterone acetate (DMPA), which is marketed as Depo-Provera® may be administered by either deep intramuscular injection (150mg/1 ml) or subcutaneously (104mg/0.65 ml) based on the manufacturer's instructions. The only difference between these formulations is the route of administration and dose. The duration of action, mechanism of action, return to fertility, side effects and pain with administration are all similar or the same. The decision to use intramuscular or sub-cutaneous DMPA should be based on client preference, available supply, and cost.

Procedure

Mode of Action

When administered at the recommended dose to women every 12 weeks, DMPA inhibits the secretion of gonadotropin, which in turn prevents follicular maturation and ovulation and results in endometrial thinning. These actions produce its contraceptive effect.

Effectiveness

Theoretical use effectiveness is 99%, when administered every 12 weeks.
Typical use effectiveness is 96% and depends on punctuality of injections.

Indications for Use

- Clients who have developed estrogen-related complications while taking combined OCs or have medical conditions where estrogen is not recommended.
- Clients request.

To increase assurance that the client is not pregnant at the time of the first administration, it is recommended that Depo-Provera be administered only:

- is ≤7 days after the start of normal menses
- has not had sexual intercourse since the start of last normal menses
- has been correctly and consistently using a reliable method of contraception
- is ≤7 days after spontaneous or induced abortion
- is within 4 weeks postpartum
- is fully or nearly fully breastfeeding (exclusively breastfeeding or the vast majority [≥85%] of feeds are breastfeeds), amenorrheic, and <6 months postpartum

Contraindications

Absolute Contraindications

- Known or suspected pregnancy.
- Undiagnosed vaginal bleeding.
- Known or suspected malignancy of the breast.
- Known sensitivity to DMPA.

Strong Relative Contraindications

Theoretical or proven risks usually outweigh the advantages:

- Diabetes longer than 20 years or if accompanied by vascular disease, neuropathy or retinopathy.
- Hypertension (systolic ≥ 160 or diastolic ≥ 100)
- Plans pregnancy within 1 year.
- Inability to tolerate irregular, frequent bleeding which may occur with DMPA.
- Inability to tolerate amenorrhea, which is common with DMPA.
- History of breast cancer with no evidence of current disease for 5 years.
- Liver tumor or hepatocellular adenoma
- History of CVA.
- Ischemic heart disease (current or history of) Systemic lupus erythematosus with positive antiphospholipid antibodies or severe thrombocytopenia.
- Multiple risk factors for cardiovascular disease or atherosclerosis (i.e., older age, smoking, diabetes, hypertension, low HDL, high LDL or high triglyceride levels).
- Epilepsy treated with medications that can lower the effectiveness of systemic hormonal contraception, including but not limited to phenytoin, carbamazepine, barbiturates, primidon topiramate, and oxcarbazepine.

Relative Contraindications

The advantages of using the DMPA generally outweigh the theoretical or proven risk.
Refer to the Appendix for the CDC Medical Eligibility Criteria Summary Chart

The CDC has affirmed the safe use of hormone contraception in clients who are HIV-positive. Clients should be strongly advised to always use condoms. There are no contra-indications to any hormonal contraceptive in HIV positive women.

Advantages

- May be used for clients who cannot or prefer not to take estrogen.
- Convenient; not related to sexual intercourse.
- Provides relatively long-term protection.
- Because of decreased menstrual flow, may decrease menstrual cramps, PMS and ovulatory pain.
- When initiated at 6 weeks after delivery, there is no impact on lactation.

Disadvantages

- Bleeding irregularity, principally amenorrhea. Possible delay in resumption of menses after discontinuing method.

- Bone mineral density changes. Bone density measurements or testing is not indicated at any time due solely to DMPA use.
- Fluid retention.
- Weight changes (average 8.1 lb. in 2 years).
- Delayed return of fertility (median time is 10 months following the last injection, but can be up to 18 months in some patients).
- Decrease in glucose tolerance, which is typically not clinically significant unless patient has risk factors for diabetes.
- Must be repeated every three months for optimal effectiveness.

Side Effects

- Irregular bleeding patterns/amenorrhea (delayed return of menses after discontinuing method).
- Weight gain.
- Delayed fertility (discuss return of fertility after discontinuation with client).
- Mood swings.
- Decreased libido.
- Hair loss.
- Bloating.
- Breast tenderness.
- Possible loss of bone density.

Instructions to the Client

1. No back-up method is needed if administered at the proper time. If DMPA is started greater than 7 days after a menstrual period, then the client must abstain from intercourse for 7 days after the injection or use additional contraceptive protection for the next 7 days.
    a. Back-up is not needed if DMPA is administered less than one month postpartum or within the first 7 days after a spontaneous or induced abortion.
    b. If switching from an IUD and the patient has had intercourse since the start of most recent menses, advise the client to retain the IUD for 7 days after injection. This is due to the theoretical possibility that sperm may remain alive in the genital tract after intercourse and lead up to fertilization if ovulation occurs.
2. Does not provide protection against STIs.
3. Encourage adequate calcium intake.
4. Efficacy is diminished if more than three months elapses between shots.
5. May be given early when necessary.
6. If a client is >15 weeks from the date of the last injection, they can have the injection if it is reasonably certain that she is not pregnant (See US SPR for guidelines below for determining with reasonable certainty that a client is not pregnant).
7. Document counseling about maintaining bone density:
    - Increase Vitamin D in diet or take supplements.
    - Adequate weight bearing exercise.
    - Not smoking.

8. Implants, DepoProvera, POP, CHCs: Certain drugs to treat cystic fibrosis (e.g., lumacaftor) or HIV anti-retroviral medications might reduce effectiveness of hormonal contraceptives, including oral, injectable, transdermal and implantable contraceptives. Please check all drug interactions.

Return Injections

1. At each injection visit:
    a. Check BP
    b. Check weight
    c. If the patient reports heavy bleeding, check Hgb. or Hct.
    d. Update LMP or bleeding patterns.
    e. Review Side Effects:
        i. Changes in bleeding pattern.
        ii. May delay return to fertility.
        iii. Weight changes.
        iv. Possible bone mineral changes.
        v. Decreased libido.
        vi. Review next injection date and provide calendar outlining next due date according to schedule.
2. Per CDC recommendations, there are no restrictions when early administration is requested or needed.
3. If return visit is <15 weeks since the last DepoProvera (DMPA) injection, the repeat injection can be given without requiring additional contraceptive protection. If return visit is >15 weeks since the last DMPA injection, the injection can be given if it is reasonably certain the client is not pregnant. The client must abstain from intercourse or use a backup method for 7 days after the injection. The client may consider using EC if appropriate.
    a. Reasonably rule out pregnancy.
        i. Assure clients are informed of the increased risk of pregnancy with very late injection (>15 weeks).
        ii. Reinforce the importance of timely injections.
    b. If unable to reasonably rule out pregnancy at 15 week visit:
        i. Have client return when an accurate pregnancy test can be done.
        ii. Give a barrier to use until next Depo shot.
4. Counsel about return of menses after discontinuing method.

Same Day Start

- Same day start of DMPA is best, if pregnancy can reliably be ruled out (see above).
- Clinicians need to obtain a thorough history of unprotected intercourse since the last menstrual period to determine the need for pregnancy testing.
- Clients who have had unprotected intercourse in that time frame should have a sensitive urine pregnancy test to determine their status.

- If clients have had unprotected intercourse in the last five days, they should be provided EC.
- Review back-up recommendations as above
- Clients will need to repeat the pregnancy test two to three weeks after the injection if they have had any recent unprotected intercourse.

If Wanting to Change To Oral Contraceptives While on Dep-Provera

- Start oral contraceptives pills no later than the beginning of the 13th week after last DMPA injection. This will allow coverage for the first cycle.
- If starting oral contraceptive pills >14th week after last DMPA injection:
    - Rule out pregnancy.
    - Start pills with instructions to use a barrier or other back up method also for the first week.

Fertility Return

Return to fertility after discontinuation may be prolonged for some, while for most fertility returns quickly or within a few months. There may be menstrual irregularities for up to 18 months post cessation. Pregnancy can occur prior to return of menses.

Date Revised	**September 2023**
References	Providing Quality Family Planning Services Recommendations of CDC and the U.S. Office of Population Affairs (QFP) [2014] (https://www.hhs.gov/opa/guidelines/clinical-guidelines/quality-family-planning/index.html)
Additional Resources	Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use, 2020 (https://www.cdc.gov/reproductivehealth/contraception/pdf/summary-chart-us-medical-eligibility-criteria_508tagged.pdf)