INJECTABLES

Introduction

Injectable contraceptives contain female hormones. These hormones are slowly released in a woman's body and provide protection against pregnancy. Two types of injectable contraceptives are available in Pakistan. These are:

- Progestin-only injectable contraceptives (PICs), which contain only progestin.
- Combined injectable contraceptives (CICs), which contain oestrogen as well as progesterone.

Policy

10. Injectables will not be given to:
    - A woman who is pregnant or suspected to be pregnant.
    - Postpartum women before 6 weeks after childbirth if breastfeeding for Depo-Provera/ Megestron and Norigest, and 6 months postpartum for Mesigyna.
- Injectables can be given to women immediately after abortion on their request.

Standards

The following standards must be maintained:

- Complete asepsis must be ensured while the injection is given.
- Use of disposable syringes should be made compulsory.
- All health care providers must be trained in the technique of administering injectables.

Progestin-Only Injectables

The injectable contraceptives DMPA (depot medroxyprogesterone acetate) and NET-EN (norethindrone enanthate) each contain synthetic progestin like the natural hormone progesterone that is in a woman's body.

DMPA

This progestin injectable contraceptive (PIC) contains depot medroxyprogesterone acetate and is prepared as a micro-crystalline suspension. A dose of 150 mg in 1 ml of the suspension is given by deep intramuscular injection at regular, 12-week intervals to protect the client from unwanted pregnancy. DMPA, the most widely used PIC, is also known as “the shot”, “the jab”, Depo, Depo-Provera, and Megestron.

NET-EN

This PIC contains norethindrone enanthate and is prepared in an oily solution. A dose of 200 mg in 1 ml of oily solution is given by deep intramuscular injection regularly at 8-week intervals to protect the client from unwanted pregnancy.

Mode of Action

The progestin in the injectables acts as a contraceptive by:

- Inhibiting ovulation most of the time.
- Thickening cervical mucus to form a plug, which inhibits the transport of sperm.
- Making the endometrium less suitable for implantation of the fertilized ovum.

Effectiveness

- When women have injections on time, less than 1 pregnancy occurs per 100 women.
- As commonly used, about 3 pregnancies occur per 100 women.

Pregnancy rates may be higher for women who are late for an injection or who miss an injection, or if providers run out of supplies.

Advantages

- Very effective.
- Privacy—No one else can tell that a woman is using it.
- One injection prevents pregnancy for 2–3 months.
- Is reversible.
- Does not interfere with sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No daily pill-taking.
- Allows some flexibility in return visit; client can return for next injection up to 4 weeks late for DMPA and 2 weeks late for NET-EN.
- Does not affect the quantity and quality of breast milk.

- Can be used by nursing mothers as soon as 6 weeks after childbirth.
- No oestrogen-related side effects.
- Helps prevent endometrial cancer.
- Helps prevent uterine fibroids.
- May help prevent ovarian cancer.
- ➓ Special advantages for some women:
  - May help prevent iron-deficiency anaemia.
  - Makes sickle cell crises less frequent and less painful.
- Reduces symptoms of endometriosis (pelvic pain, irregular bleeding).
- Protects against symptomatic pelvic inflammatory disease (PID).
- Women who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely use progestin-only injectables.

Limitations

- Menstrual changes like spotting and irregular bleeding are common in the first few months of use with both Norigest and Depo-Provera/Megestron.
- Amenorrhoea after prolonged use may occur.
- The return of fertility can be delayed after stopping the injection—an average of 10 months for DMPA and 6 months for NET-EN.
- Cannot be easily discontinued or removed from the body if complications develop or if pregnancy is desired.
- Does not protect against sexually transmitted infections (STls), including HIV/ AIDS.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Progestin-Only Injectables

Ask the client the questions given below. If the answer is “no” to all of the questions, then the client can use injectables. If the answer is “yes” to a question, follow the instructions. 1. Is the client breastfeeding a baby younger than 6 weeks old? Start using injectables 6 weeks after childbirth. If fully or almost fully breastfeeding, she is protected from pregnancy for 6 months after childbirth or until her menstrual period returns. The client must begin contraception at once to avoid pregnancy. Encourage her to continue breastfeeding. 2. Does the client have problems with her heart or blood vessels? Has she ever had such problems? If so, what problems? Do not provide injectables if the client reports heart attack, heart disease due to blocked arteries, stroke, blood clots (except superficial clots), severe chest pain with unusual shortness of breath, severe high blood pressure, diabetes for more than 20 years, or damage to vision, kidneys, or nervous system caused by diabetes. Help the client choose another effective method except combined hormonal contraceptives. 3. Does the client have high blood pressure? If the client reports high blood pressure, check BP immediately. If systolic BP is over 160 or diastolic BP over 100, do not provide the injection. Help the client choose another method except combined oral contraceptive (COCs)/CICs. 4. Does the client have or has she ever had breast cancer? Do not provide the injection. Help the client choose a method without hormones. 5. Does the client have severe cirrhosis of the liver, a liver infection, or tumour? (Are the client’s eyes or skin unusually yellow?) Perform physical examination or refer. If the client has serious active liver disease (jaundice, painful or enlarged liver, viral hepatitis, or liver tumour) do not provide the injection. Refer for care. Help the client choose a method without hormones. 6. Does the client think she is pregnant? Assess whether pregnant. Give condoms to use until reasonably sure that pregnancy is excluded. Then the injection can be given. 7. Does the client have vaginal bleeding that is unusual for her? If the client has unexplained vaginal bleeding that suggests an underlying medical condition, do not provide the injection. (PICs could make diagnosis and monitoring of any treatment difficult.) Assess and treat any underlying condition as appropriate, or refer. Help her to choose a suitable method while being evaluated and treated. After treatment, reevaluate for use of PICs. Be sure to explain the health benefits, risks, and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable.

Method of Use

⑩ Any time it is reasonably certain that the client is not pregnant. If she is not at risk of pregnancy (for example, has not had sex since her last menstrual period), she may start injections at any time she wants.

- During the first 7 days after menstrual bleeding begins, no backup method is needed for extra protection.
- If she is starting on or after day eight of her menstrual period, she should use condoms or avoid sex for the next 7 days. If possible, give her condoms or spermicides.
- If a woman is breastfeeding, she may start PICs as early as 6 weeks after childbirth.
- If she is switching from any other hormonal method, injectables can be given immediately.
- If switching from a non-hormonal contraceptive, and she is not menstruating at present, she should use a condom or avoid sex for the next 7 days. In the case of switching in the first 7 days of the menstrual period, no backup method is required.

Equipment and Supplies Needed for Injection

- One of the injectables
- Antiseptic and cotton wool
- 2- or 5-ml disposable syringe with disposable needle

Technique for Giving Injection

1 Wash hands with soap and water.

2 If injection site is dirty, clean it with a wet swab.

3 Shake vial gently for DMPA. No need to do it for NET-EN.

4 If vial is cold, warm to skin temperature by rubbing between palms before giving injection. Now fill syringe with full dose.

5 Insert sterile needle deep into the upper arm (deltoid muscle) or into buttocks (gluteal muscle, upper outer portion). Inject the contents of the syringe.

6 Do not massage the injection site, as it causes the medicine to be absorbed too quickly.

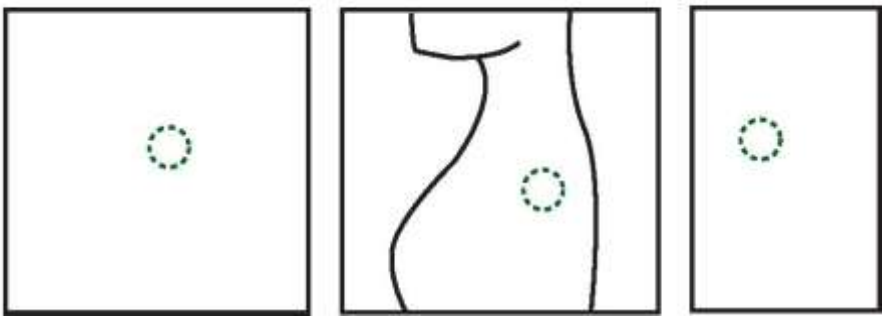
7 Maintain the record of injections.

Figure 9-1. Injection Sites for Progestin-Only Injectables

Table 9-1. Progestin-Only Injectables: Side Effects and Their Management

Side Effect	Management
Amenorrhoea (no monthly bleeding period)	• Is normal among injection users (especially DMPA) and not harmful. The client is not pregnant. Menstrual blood is not building up inside her. Instead, her body is not producing blood. • Explain that this can improve her health. It helps to prevent anaemia. • If not having monthly bleeding is bothering her, she may want to switch to monthly injectables, if available.
Spotting or bleeding between monthly periods	• Spotting or bleeding between periods is normal and very common during the first few months of injection use. It is not harmful. • If spotting or bleeding persists or follows a period of amenorrhoea, rule out gynaecological problems. • If a gynaecological problem is found, treat or refer. • If irregular bleeding is caused by STI or PID, continue injections. Treat the cause or refer. • For modest, short-term relief, take 800 mg (max) ibuprofen three times daily or 500 mg mefenamic acid three times daily after meals for 5 days, beginning when irregular bleeding starts. • If irregular bleeding continues, or starts after several months of normal or no monthly bleeding, or if it is suspected that something may be wrong for another reason, consider underlying conditions unrelated to method use.
Heavy or prolonged bleeding (more than 8 days long or twice as much as her usual menstrual period)	Reassure her. • For modest, short-term relief, a client can take: – Combined oral contraceptive (COCs), taking one pill daily for 21 days, beginning when heavy bleeding starts. – 50 mcg of ethinyl estradiol daily for 21 days, beginning when heavy bleeding starts. • If bleeding becomes a health threat or if the woman wants to switch methods, help her choose another method. • To prevent anaemia, suggest iron tablets and tell the woman it is important to eat foods that contain iron, such as meat, poultry, fish, green leafy vegetables, and legumes. • If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, consider underlying conditions unrelated to method use.

Figure 9-1. Injection Sites for Progestin-Only Injectables



Injectables

Side Effect	Management
Unexplained abnormal vaginal bleeding that suggests pregnancy or an underlying medical condition	• Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate. • If no cause of bleeding can be found, consider stopping PICs to make diagnosis easier. Provide another method of her choice. • If bleeding is caused by STIs or PID, she can continue using PICs during treatment.
Ordinary headaches	• Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1,000 mg), or another pain reliever. • Any headaches that get worse or occur more often should be evaluated.
Migraine headaches	• If a woman has migraine headaches without aura, she can continue to use the method if she desires. • If she has migraine with aura, do not give the injection. Help her choose a method without hormones.
Mood changes	• Ask about changes in her life that could affect her mood, including her relationship with her partner. Give support as appropriate. • Refer clients who have serious mood changes such as major depression.

Method-Specific Counselling

Pre-Procedure Counselling

After greeting the client and making her comfortable, ask questions to confirm that she needs a contraceptive for long-term use.

Give the following information:

- Tell the client that there are two types of injectables.
- Show the client the injection ampoule and disposable syringe.
- Explain how the injection acts as a contraceptive. Explain its method of use.
- Tell the client about advantages and limitations.
- Discuss doubts and fears that the client may have and help dispel these by providing adequate information.
- Answer any questions the client asks.

Post-Procedure Counselling

Give information to the client regarding the schedule for follow-up, possible side-effects, and their management.

Schedule for Next Injection

Give the following information to the clients:

- Acceptors of injection NET-EN should report for the next injection after exactly 8 weeks. However, it can be given within 2 weeks earlier or later.
- Acceptors of injection DMPA should report for the next injection after exactly 12 weeks. However, it can be given 4 weeks earlier or later.
- The client can come at any time in case of any problem.

Combined Injectable Contraceptives

Combined injectable contraceptives (CICs) are also called monthly injectables. They contain two hormones—a progestin and an oestrogen. In contrast, PICs contain progestin only. These differences result in more regular bleeding and fewer bleeding disturbances than with PICs.

Mesigyna: This CIC contains both norethindrone enanthate (NET-EN) 50 mg and estradiol valerate 5 mg in 1 ml of oily solution, and provides protection for 4 weeks.

Mode of Action

Works primarily by inhibiting ovulation.

Effectiveness

Effectiveness depends on the client's returning on time: Risk of pregnancy is greatest when a woman is late for an injection or misses an injection:

- When women have injections on time, less than 1 pregnancy occurs per 100 women using monthly injectables over the first year (5 per 10,000 women).
- As commonly used, about 3 pregnancies occur per 100 women using monthly injectables over the first year. This means that 97 of every 100 women using monthly injectables will not become pregnant.

Advantages

- Most of the advantages are the same as those for PICs.
- Return of fertility may be delayed, but the delay is less than with PICs. Women can become pregnant on an average of 5 months after their last injection.

Limitations

Long-term studies of monthly injectables are limited, but researchers expect that their health risks are similar to those of COCs.

Injectables

⑩ Some user reports the following:

- Changes in bleeding patterns including infrequent bleeding, amenorrhoea, or prolonged bleeding
- Breast tenderness
- Headache, dizziness
- Weight gain

- CICs require frequent clinic visits after 4 weeks.
- There is less flexibility in case of late injection (1 week only).
- Cannot be used by breastfeeding mothers before 6 months postpartum.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Injectable Contraceptives

Ask the client the questions given below about any known medical conditions. If she answers "no" to all of the questions, then she can start monthly injectables if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start monthly injectables. 1. Is she breastfeeding a baby younger than 6 months old? • If fully or nearly fully breastfeeding: She can start 6 months after giving birth or when breast milk is no longer the baby's main food—whichever comes first. • If partially breastfeeding: She can start monthly injectables as soon as 6 weeks after giving birth. 2. Has she had a baby in the last 3 weeks and is not breastfeeding? She can start monthly injectables as soon as 3 weeks after childbirth. 3. Does she smoke 15 or more cigarettes a day? If she is 35 years of age or older and smokes more than 15 cigarettes a day, do not provide monthly injectables. Urge her to stop smoking and help her choose another method. 4. Does she have severe cirrhosis of the liver, a liver infection, or liver tumour? (Are her eyes or skin unusually yellow? [signs of jaundice]) If she reports serious active liver disease (jaundice, active hepatitis, severe cirrhosis, liver tumour), do not provide monthly injectables. Help her choose a method without hormones. (If she has mild cirrhosis or gall bladder disease, she can use monthly injectables.) 5. Does she have high blood pressure? If you cannot check her blood pressure and she reports a history of high blood pressure, or if she is being treated for high blood pressure, do not provide monthly injectables. Refer her for a blood pressure check if possible or help her choose another method without oestrogen. Check her blood pressure if possible: • If blood pressure is below 140/90 mm Hg, provide monthly injectables. • If systolic blood pressure is 140 mm Hg or higher or diastolic blood pressure is 90 or higher, do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs if systolic blood pressure is 160 or higher or diastolic pressure is 100 or higher.

Client Assessment as per World Health Organization Medical Eligibility Criteria for Combined Injectable Contraceptives

(One blood pressure reading in the range of 140–159/90–99 mm Hg is not enough to diagnose high blood pressure. Provide a backup method to use until she can return for another blood pressure check, or help her choose another method now if she prefers. If blood pressure at next check is below 140/90, she can use monthly injectables.) 6. Has she had diabetes for more than 20 years or damage to her arteries, vision, kidneys, or nervous system caused by diabetes? Do not provide monthly injectables. Help her choose a method without oestrogen but not progestin-only injectables. 7. Has she ever had a stroke, blood clot in her legs or lungs, heart attack, or other serious heart problems? If she reports heart attack, heart disease due to blocked or narrowed arteries, or stroke, do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs. If she reports a current blood clot in the deep veins of the leg or in the lung (not superficial clots), help her choose a method without hormones. 8. Does she have or has she ever had breast cancer? Do not provide monthly injectables. Help her choose a method without hormones. 9. Does she sometimes see a bright area of lost vision in the eye before a very bad headache (migraine aura)? Does she get throbbing, severe head pain, often on one side of the head, that can last from a few hours to several days and can cause nausea or vomiting (migraine headaches)? If she has migraine aura at any age, do not provide monthly injectables. If she has migraine headaches without aura and is age 35 or older, do not provide monthly injectables. Help these women choose a method without oestrogen. If she is under 35 and has migraine headaches without aura, she can use monthly injectables. 10. Is she planning major surgery that will keep her from walking for 1 week or more? If so, she can start monthly injectables 2 weeks after the surgery. Until she can start monthly injectables, she should use a backup method. 11. Does she have several conditions that could increase her chances of heart disease (coronary artery disease) or stroke, such as older age, smoking, high blood pressure, or diabetes? Do not provide monthly injectables. Help her choose a method without oestrogen, but not PICs.

Methodof Use

The method of use for CICs is the same as for PICs, with the following exceptions:

- If a woman is fully or nearly fully breastfeeding, then she may start the method after 6 months postpartum or when breast milk is no longer the baby's main food—whichever comes first.

- If more than 6 months postpartum and she does not have monthly bleeding, she can start injectables at any time it is reasonably certain that she is not pregnant. She will need a backup method for the first 7 days after the injection.

- If she is partially breastfeeding, the first injection should be delayed until 6 weeks postpartum.
- Non-breastfeeding mothers can start CICs at any time on days 21–28 postpartum. No need for a backup method.
- If she is more than 4 weeks postpartum with no monthly bleeding, she can start CICs at any time if it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
- After miscarriage or abortion, a woman can start CICs immediately or within 7 days after first or second trimester abortion. No need for backup method. If more than 7 days postabortion, she can start injection any time after pregnancy is excluded, but will need a backup method for the first 7 days after the injection.
-
- After taking emergency contraceptive pills (ECPs), she can start a CIC on the same day. There is no need to wait for the next monthly bleeding. She will need a backup method for the first 7 days after the injection.

Managing Late Injection

- If the client is less than 7 days late for a repeat injection, she can receive her next injection. There is no need for tests, evaluation, or a backup method.
- ⑩ A client who is more than 7 days late can receive her next injection if:
  - She has not had sex since 7 days after she should have had her last injection, or
  - She has used a backup method or has taken ECPs after any unprotected sex since 7 days after she should have had her last injection.
  - She will need a backup method for the first 7 days after the injection.
- If the client is more than 7 days late and does not meet these criteria, additional steps can be taken to be reasonably certain she is not pregnant.
- Discuss why the client was late and ways to avoid this happening again. If coming back on time is often a problem, discuss using a backup method when she is late for her next injection, taking ECPs, or choosing another method.

Technique for Giving Injection

The technique for giving the injection is the same as that for NET-EN except it can be given deep into the anterior outer thigh as well.

Figure 9-2. Injection Sites for Combined Injectable Contraceptives

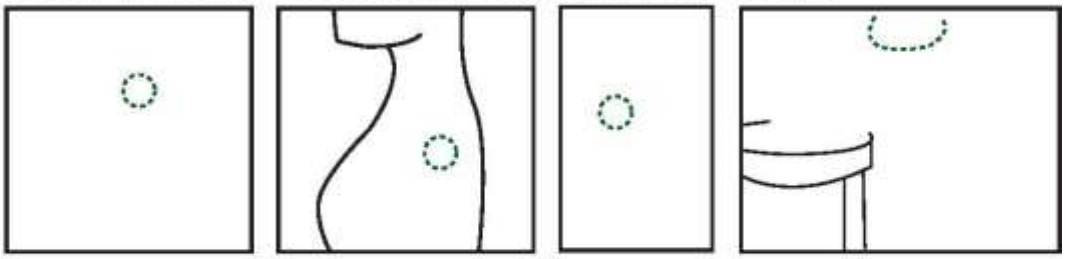


Table 9-2. Combined (Monthly) Injectables: Side Effects and Their Management

Side Effects	Management
Irregular bleeding	Same as PIC
Prolonged bleeding	Same as PIC
No monthly bleeding	Same as PIC
Headache	Same as PIC
Dizziness	Same as PIC
Weight gain	Same as PIC
Breast tenderness	• Advise the client to wear supportive bra (including during strenuous activity and sleep). • Give pain killer (aspirin, paracetamol, or ibuprofen).

Method-Specific Counselling

Pre-Procedure Counselling

After greeting the client and making her comfortable, ask questions to confirm that she needs a contraceptive for long-term use.

Give the following information:

- Show the client the injection ampoule and disposable syringe.
- Explain how the injection acts as a contraceptive.
- Explain its method of use.
- Tell the client about advantages and limitations.
- Discuss doubts and fears that the client may have and help dispel these by providing adequate information.
- Answer any questions the client asks.

Post-Procedure Counselling

Give information to the client regarding the schedule for follow-up, possible side-effects, and their management.

Schedule for Next Injection

She should report for the next injection after 4 weeks. However, she can receive her injection 7 days earlier or later.

Follow-Up

Ask the following questions at any return visit:

- Ask the client if she has any questions or anything to discuss.
- Ask the client about her experience with the method, whether she is satisfied, and whether she has any problems. Give her any information or help that she needs and invite her to return any time she has questions or concerns. If she has problems that cannot be resolved, help her choose another method.
- Ask about her bleeding patterns.
- Ask if she has had any health problems since her last visit:

    - If the client has developed heart disease due to blocked arteries, stroke, blood clots (except superficial clots), breast cancer, severe high blood pressure, migraine, or active liver disease, help her choose a method without hormones.

Recordkeeping

Maintain the following minimum information for proper follow-up of the client:

- Daily client register.
- Client record card: record information about age, weight, parity, menstrual history, and findings of physical examination.
- Injection diary especially prepared and supplied for the purpose. Note the client's name, address, date of first injection, and also due date for the next injection.
- Client card: give this card to the client after entering on it her name, address, registration number, particulars of the contraceptive given, and the follow-up date.

Update all records after each follow-up visit, including details of complaints or side effects and treatment given, as per policy.