

Infertility

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Objectives :

By the end of this lecture the student will be able to :

- ❖ **Define infertility .**
- ❖ **List etiology , risk factors of infertility .**
- ❖ **Explain how to assess and evaluate infertile couple .**
- ❖ **Discuss the diagnosis and treatment of infertility .**
- ❖ **Discuss the complications and nursing management of infertility .**

Infertility :

- **Is defined as the inability to conceive following regular sexual intercourse unprotected by contraception .**
- **1 year (age<35) or 6 months (age>35) .**

Infertility :

➤ **Primary infertility :**

A couple that has never conceived

➤ **Secondary infertility :**

Is the inability to conceive after a previous pregnancy regardless of outcome .

Etiology and Risk Factors :

- 1. Anovulation (10-20%)**
- 2. Anatomic defects of the female genital tract (30%)**
- 3. Abnormal spermatogenesis (40%)**
- 4. Unexplained (10-20%)**

Count...

➤ **For women:**

- 1. Overweight or underweight (can disrupt hormone function)**
- 2. Hormonal imbalances leading to irregular ovulation**
- 3. Fibroids**
- 4. Tubal blockages**
- 5. Chronic illnesses such as diabetes, thyroid disease, asthma**

Count...

- 6. STIs**
- 7. Age older than 27**
- 8. Endometriosis**
- 9. History of PID**
- 10. Smoking and alcohol consumption**
- 11. Multiple miscarriages**
- 12. Psychological stress**

Count...

➤ For men:

- 1. Exposure to toxic substances (lead, mercury, x-rays)**
- 2. Cigarette or marijuana smoke and Heavy alcohol consumption**
- 3. Exposure of the genitals to high temperatures (hot tubs)**
- 4. STI**
- 5. Undescended testicles**

Evaluation of the infertile couple :

- **The couple is often beset by feelings of inadequacy and guilt, and many are subjected to pressures from both family and friends. The nurse working in this specialty setting must be aware of the conflict and problems couples present with and must be very sensitive to their needs.**

Count...

- **History and physical exam**
- **Semen analysis**
- **Thyroid and prolactin**
- **Determination of ovulation**
- **Basal body temperature record**
- **Serum progesterone**
- **Ovarian reserve testing**
- **Histerosalpingogram**

Assessment of male factors :

- The initial screening evaluation for the male partner should include a reproductive history and a semen analysis .

Count...

- **The man is asked to produce a specimen by ejaculating into a specimen container and delivering it to the laboratory for analysis within 1 to 2 hours.**
- **It is analyzed for volume, viscosity, number of sperm, sperm viability, motility, and sperm shape.**

Normal value for SA :

Volume	2.0 ml or more
Sperm concentration	20 million/ml or more
Motility	50% forward progression 25% rapid progression
Viscosity	Liquification in 30-60 min
Morphology	30% or more normal forms
pH	7.2-7.8
WBC	Fewer than 1 million/ml

Assessment of female factors :

- The initial assessment of the woman should include a thorough history of factors associated with ovulation and the pelvic organs.
- **Diagnostic tests to determine female infertility may include:**
 1. Assessment of ovarian function :
 - Menstrual history: regularity of cycles

Count...

- 2. Ovulation predictor kits used midcycle**
- 3. Basal body temperature**
- 4. Serum progesterone**
- 5. Urinary LH level**

Assessment of pelvic organs :

- (Pap) smear to rule out cervical cancer or inflammation
- Cervical culture to rule out **Chlamydia infection**
- Postcoital testing to evaluate sperm–cervical mucus interaction :
 - Cervical mucus from the woman is examined 2 to 8 hours after intercourse during the expected time of ovulation, and the number of live, motile sperm present is assessed.

Count...

- **Hysterosalpingogram (HSG) to assess tubal patency**
- **Ultrasound to assess pelvic structures**
- **Hysterosalpingography to visualize structural defects**
- **Laparoscopy to visualize pelvic structures and diagnose endometriosis .**

Treatment :

➤ The majority of infertility cases are treated with drugs or surgery.

1. Fertility Drugs :

■ Clomiphene citrate (**Clomid**) :

A nonsteroidal synthetic antiestrogen used to induce ovulation .

■ Human menopausal gonadotropin (HMG) (**Pergonal**):

Induces ovulation by direct stimulation of ovarian follicle

Count...

2. Artificial insemination

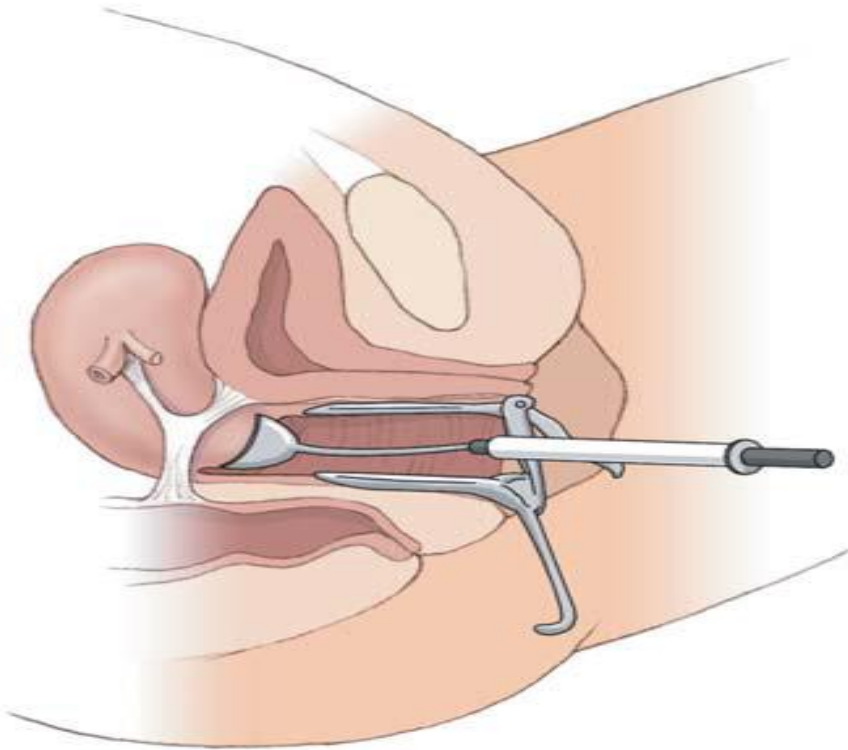
3. Assisted reproductive technologies :

a) In vitro fertilization (IVF)

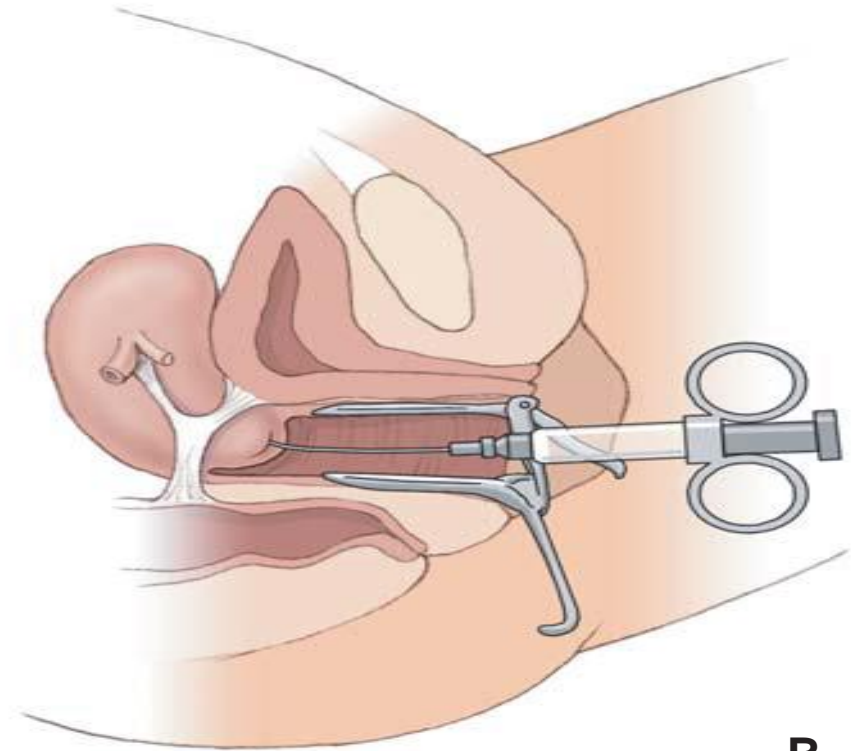
b) Egg donation or contract for a gestational carrier or surrogate

Complications of treatment :

- 1. Multiple pregnancy**
- 2. Ovarian hyperstimulation syndrome (OHSS)**
- 3. Bleeding or infection**
- 4. Low birth weight**
- 5. Birth defects**



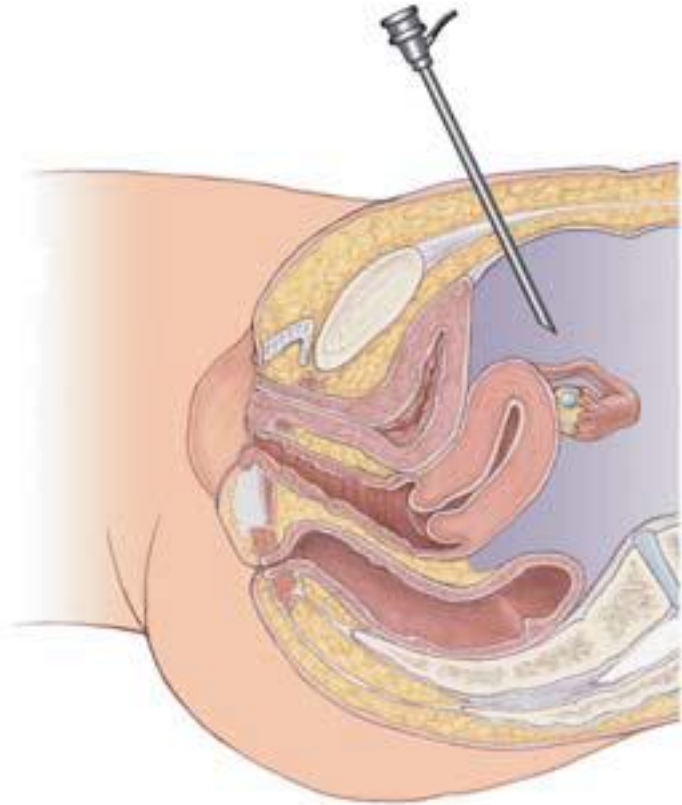
A



B

Artificial insemination. Sperm are deposited next to the cervix (**A**) or injected directly into the uterine cavity (**B**).

In vitro fertilization :



Nursing Management :

- **Throughout the entire process, the nurse's role is to provide information, anticipatory guidance, stress management, and counseling.**
- **Nurses can be instrumental in educating men and women about the factors that contribute to infertility.**
- **The nurse can also outline the risks and benefits of treatments so that the couple can make an informed decision.**

Nursing Diagnosis :

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Any questions

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