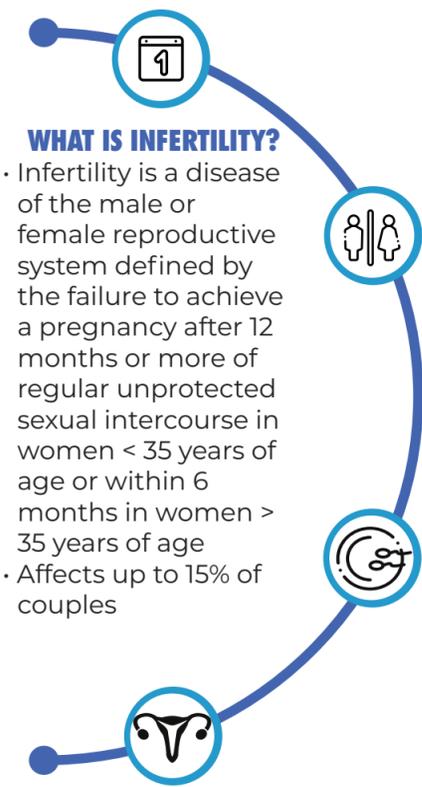




# Standard Treatment Workflow (STW) for FEMALE INFERTILITY

## ICD-10-N97



**WHEN TO SUSPECT INFERTILITY?**

- Any couple who by definition has infertility
- Those with high risk of infertility
  - Women > 35 years: Expedited evaluation
  - Women >40 years: Immediate evaluation
  - Oligomenorrhea or amenorrhea
  - Known or suspected uterine, tubal, or peritoneal disease
  - History of tubal/ovarian surgery
  - History of chemotherapy/radiotherapy
  - Any female with endometriosis
  - Known or suspected male infertility

**HISTORY OF THE COUPLE**

**HISTORY**

- Duration of Infertility/Contraceptive use
- Fertility in previous/current relationships
- Previous fertility investigations/treatment

**MEDICAL HISTORY**

**MENSTRUAL HISTORY**

- Menarche
- Cycle length & duration of flow
- Dysmenorrhea
- Amenorrhea episodes
- HMB/IMB

**OBSTETRIC HISTORY**

- Number of previous pregnancies (MTP/miscarriage/ectopic preg)
- Time to initiate previous pregnancies

**PAST HISTORY**

- Chronic illness like chronic hypertension, diabetes mellitus, arthritis, tuberculosis

**DRUG HISTORY**

- Agents causing increased Prolactin / Chemotherapy/ Radiotherapy/anabolic steroids/ anti-androgens

**SURGICAL HISTORY**

- Previous abdominal/pelvic/gynecological surgeries

**OCCUPATIONAL HISTORY**

- Work patterns including separation from partner
- Exposure to chemicals or high temperature

**SEXUAL HISTORY**

- Coital frequency, timing, knowledge of fertile period
- Dyspareunia
- Postcoital bleeding

**PERSONAL HISTORY**

- History of smoking, alcohol intake, substance abuse
- Vigorous exercise/eating disorder

**PHYSICAL EXAMINATION OF FEMALE**

**General**

- Height
- Weight
- BMI
- Waist circumference
- Blood pressure
- Fat & Hair distribution
- Acne
- Acanthosis nigricans
- Thyroid examination
- Breast examination

**Abdominal**

- Abdominal mass & tenderness
- Type and site of scars

**Pelvis**

- Assess state of hymen, clitoris and labia
- Look for vaginal infection, septum, endometriotic deposits
- Check for cervical polyps
- Accessibility of cervix for insemination
- Uterine size, position, mobility and tenderness
- Adnexal fornices tenderness
- Cervical smear

**PHYSICAL EXAMINATION OF MALE**

**Refer to STW for the management of male infertility (ICD-10-N46.9), STW Volume 1, 2019**

**EVALUATION OF FEMALE**

**ESSENTIAL INVESTIGATIONS**

**Baseline ultrasound (Transvaginal ultrasound) to assess**

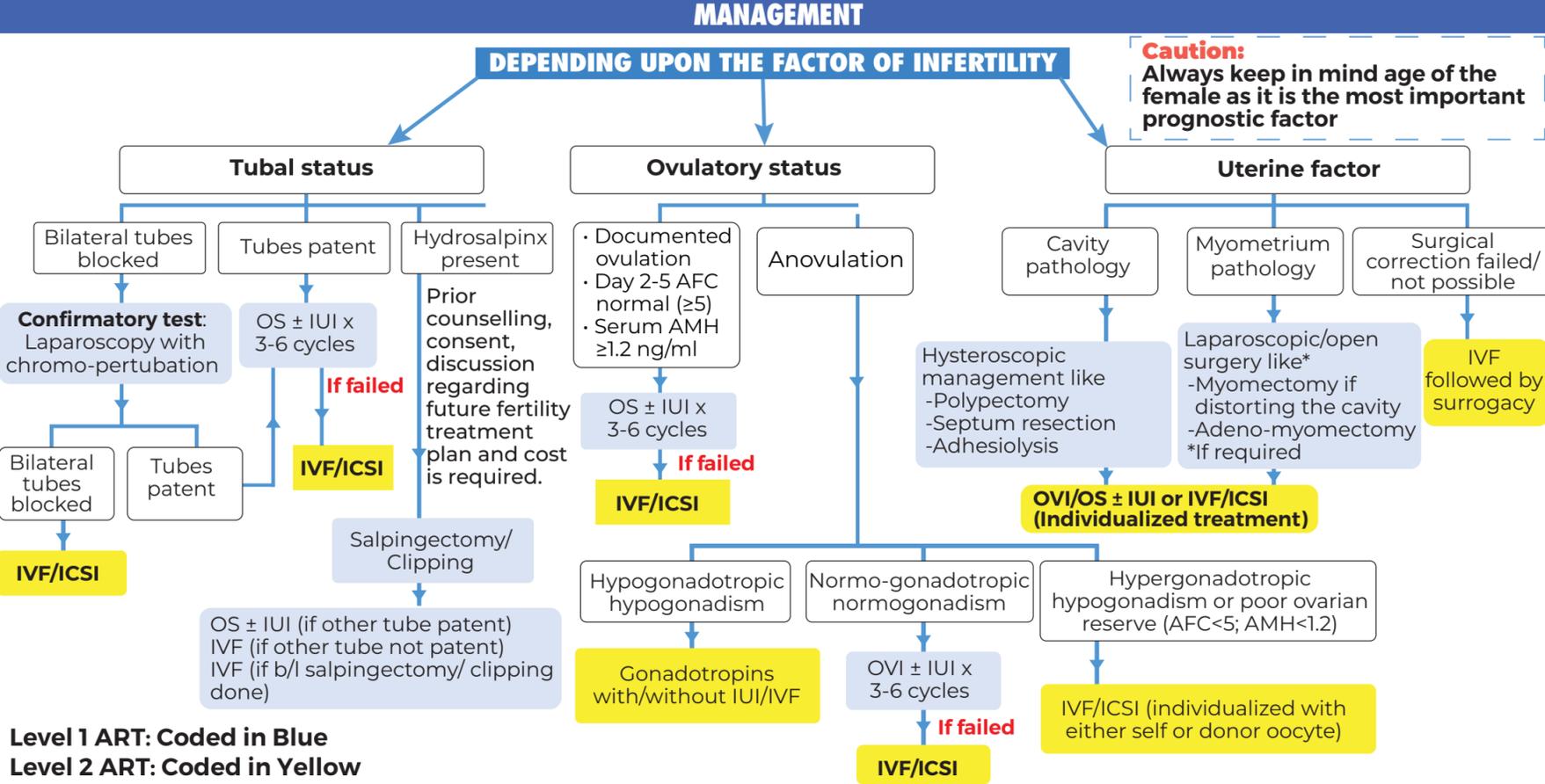
- Uterus:** Look for endometrial thickness, pattern, any space occupying lesions like fibroid, adenomyosis, polyp or mullerian anomalies
- Adnexa:** Look for any hydrosalpinx or para-ovarian cyst
- Ovary:** Note the antral follicle count (Day 2-5 of menstrual cycle), volume, position, characterization of cyst if present
- POD:** Note presence of free fluid

**Test for tubal patency**

- Hysterosalpingography (HSG)

**OPTIONAL INVESTIGATIONS**

- Endometrial aspiration for AFB/PCR: to rule out tuberculosis
- Serum AMH
- Viral markers: HIV, HBsAg, HCV
- VDRL
- Rubella IgM/IgG
- Day 2/3 FSH, LH,
- Serum TSH, Prolactin



**ABBREVIATIONS**

<b>AFB:</b> Acid fast bacilli	<b>HCV:</b> Hepatitis C Virus	<b>LH:</b> Luteinizing hormone
<b>AFC:</b> Antral follicle count	<b>HIV:</b> Human immunodeficiency virus	<b>OS:</b> Ovarian stimulation
<b>AMH:</b> Anti-mullerian hormone	<b>HMB:</b> Heavy menstrual bleeding	<b>OVI:</b> Ovulation induction
<b>ART:</b> Assisted reproductive technology	<b>ICSI:</b> Intracytoplasmic sperm injection	<b>PCR:</b> Polymerase chain reaction
<b>BMI:</b> Body mass index	<b>IMB:</b> Inter menstrual bleeding	<b>POD:</b> Pouch of Douglas
<b>FSH:</b> Follicular stimulating hormone	<b>IUI:</b> Intrauterine insemination	<b>TSH:</b> Thyroid stimulating hormone
<b>HBsAg:</b> Hepatitis B antigen	<b>IVF:</b> In vitro fertilization	<b>VDRL:</b> Venereal disease research laboratory test

**REFERENCES**

- World Health Organization (WHO). International Classification of Diseases, 11th Revision (ICD-11) Geneva: WHO 2018
- NICE 2017. Fertility problems: assessment and treatment. 2017; 51
- Penzias A et al. Fertility evaluation of infertile women: a committee opinion. Fertility and Sterility. 2021

**FOLLOW EVIDENCE BASED INDIVIDUALIZED TREATMENT**

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal ([stw.icmr.org.in](http://stw.icmr.org.in)) for more information.  
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