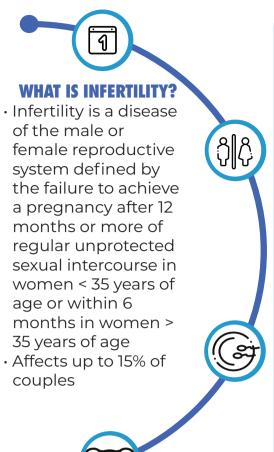


Department of Health Research Ministry of Health and Family Welfare, Government of India



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

IVF/ICSI

 $OS \pm IUI$ (if other tube patent)

IVF (if other tube not patent)

IVF (if b/l salpingectomy/ clipping

- · 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

plan and cost

is required.

Salpingectomy/ Clipping

· 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

*If required

OVI/OS ± IUI or IVF/ICSI

(Individualized treatment)

Hypergonadotropic

hypogonadism or poor ovarian

reserve (AFC<5; AMH<1.2)

IVF/ICSI (individualized with

either self or donor oocyte)

- · VDRL
- · Rubella IaM/IaG

· Serum TSH, Prolactin

· Day 2/3 FSH, LH,

MANAGEMENT Caution: DEPENDING UPON THE FACTOR OF INFERTILITY Always keep in mind age of the female as it is the most important prognostic factor **Tubal status Ovulatory status Uterine factor** Documented Bilateral tubes Hydrosalpinx Surgical Myometrium Cavity Tubes patent blocked ovulation Anovulation present correction failed/ pathology pathology not possible Day 2-5 AFC Prior normal (≥5) Confirmatory test: OS ± IUI x counselling, Serum AMH Laparoscopic/open consent, Laparoscopy with 3-6 cycles ≥1.2 ng/ml Hysteroscopic **IVF** surgery like* discussion chromo-pertubation management like followed by If failed -Myomectomy if regarding -Polypectomy distorting the cavity surrogacy OS ± IUI x future fertility -Septum resection -Adeno-myomectomy 3-6 cycles treatment -Adhesiolysis

Level 1 ART: Coded in Blue **Level 2 ART: Coded in Yellow**

Tubes

patent

Bilateral

tubes

blocked

IVF/ICSI

AFB: Acid fast bacilli **AFC:** Antral follicle count **AMH:** Anti-mullerian hormone **ART:** Assisted reproductive technology **BMI:** Body mass index

FSH: Follicular stimulating hormone **HBsAg:** Hepatitis B antigen

ABBREVIATIONS

Normo-gonadotropic

normogonadism

OVI ± IUI x

3-6 cycles

IVF/ICSI

If failed

HCV: Hepatitis C Virus HIV: Human immunodeficiency virus **HMB:** Heavy menstrual bleeding ICSI: Intracytoplasmic sperm injection

IMB: Inter menstrual bleeding IUI: Intrauterine insemination IVF: In vitro fertilization

If failed

Hypogonadotropic

hypogonadism

Gonadotropins

with/without IUI/IVF

IVF/ICSI

LH: Luteinizing hormone **OS:** Ovarian stimulation **OVI:** Ovulation induction PCR: Polymerase chain reaction POD: Pouch of Douglas TSH: Thyroid stimulating hormone

VDRL: Venereal disease research laboratory test

- 1. World Health Organization (WHO). International Classification of Diseases, 11th Revision (ICD-11) Geneva: WHO 2018 2. NICE 2017. Fertility problems: assessment and treatment. 2017; 51 3. 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) for more information.

REFERENCES

🖲 Indian Council of Medical Research and Department of Health Research, Ministry of Health & Family Welfare, Government of India