

OBSTETRICS & GYNAECOLOGY ELECTIVES

Elective Module: Infertility / IVF

Name of Block	Block 2
Name of Elective	Infertility / ART Procedures
Location of hospital Lab or research facility	OPD & IVF Centre, DMCH
Name of internal preceptor(s)	Dr. Suman Puri
Name of external preceptor (if applicable)	-
Learning objectives of elective	1. To obtain experience by observing Infertility / IVF. 2. To observe counseling of couple prior to procedure. 3. To be able to enumerate indications of procedure, steps of work up & procedure in OPD & IVF Centre.
Number of students that can be accommodated in this elective	5
Prerequisites for elective	Good clinical practice Necessary immunizations Universal precaution certification
Learning resources for students	Speroff's Clinical Gynecologic Endocrinology & Infertility
List of activities of student participation	1. Work daily with a supervisor in observing, assisting infertility/IVF. 2. To document at least two procedures observed/assisted.
Portfolio entries required	1. Documentation of worked up cases
Log book entry required	Completion of posting signed by preceptor with a "meets expectation '(M)' grade"
Assessment	Formative: 1) Attendance 2) Day-to-day participation in departmental activity 3) performance of assigned tasks
Other comments	-

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INTRODUCTION

Infertility has opened the door to huge increase in the demand of IVF. ART is increasingly being used to treat infertile couples with both male and female infertility factors. Reproduction medicine has come a long way since then, and there have been dramatic advances in the field, such that biological parenthood is a reality for many couples for whom adoption was the only available option in the past. Assisted reproductive technology and is used in the management of patients with difficulty undergoing conception.

The most important cause of female infertility is age, primarily through age related decline in ovarian reserve. Other common causes of female infertility are ovulatory disorders, tubal factors, endometriosis, cervical factors and unexplained infertility. Common causes of male infertility are sperm production issues, genetic factors and ejaculation dysfunctions, lifestyle factors smoking, alcohol and drug use.

The workup for couples experiencing infertility includes and assessment of ovulatory function, ovarian reserve, uterine cavity, tubal patency, and a semen analysis.

Patient who may benefit from ART include those with obstructed or damaged fallopian tubes, endometriosis, hostile cervical mucus, high titers of anti-sperm antibodies, male factors (low sperm counts, low motility, low normal morphology), and unexplained infertility.

The process revolves around the etiology, evaluation, and the role of interprofessional team in management strategies for IVF. ART Methods include: a) Artificial insemination, b) IVF, c) ICSI. Intrauterine insemination (IUI) is a simple first line option in patients with mild endometriosis, oligospermia, coital difficulty & with one patent tube. The IVF-ET consists of several steps, including controlled ovarian hyperstimulation (COH), oocyte retrieval fertilization of sperm and eggs through spontaneous interaction, embryo culture for 2-5 days, and intrauterine embryo transfer.