# ADESH Maternal fetal Unit



#### ADESH INSTITUTE OF MEDICAL SCIENCES & RESEARCH

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Perinatology, also known as maternal-fetal medicine, is concerned with the specialized care of the mother and foetus in complicated, high-risk pregnancies. The Perinatology Division at Adesh is an integral component of the Department of Obstetrics and Gynaecology and is committed to provide comprehensive, state of the art diagnosis and treatment for conditions affecting the expectant mother and fetus. We are only center in north Punjab to provide all services under one roof.

We are skilled in the management and counselling of pregnancies complicated by fetal abnormalities, including growth disorders, inherited diseases, and structural malformations

In liaison with allied specialties in Paediatric Surgery and Neonatology, the Perinatology Division also offers therapies for conditions like fetal anaemia, congenital heart diseases, diaphragmatic hernias, bowel and renal abnormalities, certain complications affecting twin pregnancies and the like.

### Maternal-fetal medicine Specialist

Maternal-fetal medicine specialist is the specialist within the field of obstetrics. They deal with pre-conception counselling, especially in anticipated high risk cases both maternal and fetal point of view, offer prenatal tests (invasive and non-invasive) and provide treatments. They act both as a consult during lower-risk pregnancies, and as the primary obstetrician in, especially, high-risk pregnancies. The perinatologist may work closely with paediatricians or neonatologists after the birth.

### Who may require Maternal-fetal medicine?

- Pregnant women, who have (e.g. heart or kidney disease, hypertension, diabetes, and thrombophilia)
- Pregnant women who are at risk for pregnancy-related complications (e.g. preterm labor, pre-eclampsia, and twin or triplet pregnancies),
- Pregnant women with foetuses at risk. Foetuses may be at risk due to chromosomal or congenital abnormalities, maternal disease, infections, genetic diseases and growth restriction.
- Pregnant women who have recurrent pregnancy loss may be referred to a maternal-fetal specialist for assistance.

#### Diagnostic and Consultation Services focused on high-risk obstetrics are available:

Full range of ultrasound services:

- Antepartum scans in the first, second and third trimesters-NT scan, Anomaly scan & foetal Doppler
- · Down syndrome screening
- Fetal ECHO
- · 3D/4D ultrasound

Ultrasound-guided procedures

- Amniocentesis
- · Chorionic villus sampling
- · Multifetal pregnancy reduction
- · Umbilical cord blood sampling
- Intra uterine transfusion

## Genetic screening, ultrasound prenatal care and diagnosis

Screening for chromosomal or genetic abnormalities during pregnancy as a part of prenatal care is done by ultrasound examination as well as a series of blood investigations. Screening for Down syndrome should be offered for all pregnant women irrespective of the maternal age.

#### Diagnostic amniocentesis



Amniocentesis detects chromosome abnormalities and genetic disorders. Down syndrome or Trisomy 21 is the most common chromosome abnormality. Genetic disorders include disorders such as cystic fibrosis. Amniocentesis is indicated when screening for genetic disorders is positive, either of the parents / previous child with any genetic or chromosomal disorder, ultrasound features suggestive of fetal anomalies.

Amniocentesis is usually performed between 16 and 20 weeks but can be done till 24 weeks. Very rarely it is done even in the third trimester in certain rare cases.

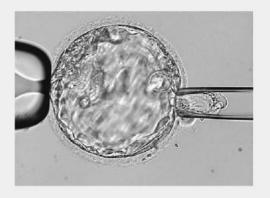
#### Therapeutic amniocentesis

Therapeutic amniocentesis is an attempt to remove enough amniotic fluid (Amnioreduction) in pregnancies complicated by symptomatic hydramnios to leave a normal volume of amniotic fluid (AF index less than 25 cm). Therapeutic amniocentesis can be done throughout pregnancy irrespective of the gestational age as and when indicated

#### Chorionic villous sampling

Chorionic villous sampling is done to determine chromosomal or genetic disorders in the fetus. It entails sampling of the chorionic villus (placental tissue) and testing it for chromosomal abnormalities, usually with karyotype or specific gene studies. CVS usually takes place at 10–14 weeks gestation, earlier than amniocentesis or percutaneous umbilical cord blood sampling. It is the preferred technique before 15 weeks. Hence, this is the procedure of choice when you need the diagnosis of the affected child at the earliest.

### Prevention of genetic disorder-IVF



### Preimplantation Genetic Diagnosis (PGD)

For patients with genetic diseases, selection of embryos most likely to implant and develop into a healthy child becomes extremely important. Preimplantation genetic diagnosis (PGD) involves screening few cells from embryos for genetic diseases and chromosomal disorders. This testing is performed with in-vitro fertilization (IVF) and occurs prior to embryo transfer, before a pregnancy is established. PGD offers at-risk couples the opportunity to select embryos for transfer based on their genetic and chromosomal status. The goal of PGD is to identify normal embryos to be selected for transfer that are more likely to make healthy, disease-free babies.

PGD can identify the presence of chromosomal translocations (rearrangements of parts of chromosomes) and single-gene disorders (genetic diseases that are the result of a single mutated gene). There are over 4,000 single-gene disorders. The most common diseases tested for are Thalassemia, Cystic Fibrosis, Tay Sachs, Fragile X, Myotonic Dystrophy. For example, with this technique patient having thalassmia (or having prior child with thalassemia) can have child without thalassmia.



### Preimplantation Genetic Screening (PGS)?

In patients with recurrent pregnancy loss or prior IVF failure or advanced maternal age, PGS improve their chances for a successful pregnancy. Embryos are screened for aneuploidy (missing or additional numbers of chromosomes), which is a leading cause of miscarriage and implantation failure (failure of the embryo to implant into the uterus). The goal of PGS is to identify chromosomally normal embryos to be transferred in the attempt to achieve a successful pregnancy.

For PGS/PGD one requires IVF center having all facilities and having skilled team. Adesh IVF is having state of the art IVF center with technique like laser which is most important in separating cells from embryo, with sucess rate of more than 70%. We are having team of trained doctor and embryologist.

### NICU-Neonatal Intensive Care Unit

Birth of baby is wonderful yet very complex process. Being born prematurely, having a difficult delivering or birth defects can make these changes more challenging



Adesh Hospital NICU combines advanced technology and trained health care professionals to provide specialised care for the tiniest. Its level-3 NICU patients run by team of experienced paediatricians with neonatal experts which includes state of the art equipments including Ventilators, CPAP, Surfactant therapy and LED Phototherapy with advanced multipara monitors to sense fluctuations in neonate. Our NICU also provides postoperative care of surgical repair of complex congenital and acquired conditions with bed side echo and portable USG services available 24x7.

#### **Paediatric Surgery**

Paediatric surgery is a specialty of surgery involving the surgery of foetuses, infants, children, adolescents, and young adults. Adesh unit of paediatric surgery is established in 2012 and is having team of skilled doctor and all infrastructure required for it. We routinely perform following paediatric surgeries -

- · Imperforate Anus
- · Congenital diaphragmatic hernia
- Hirschsprung disease
- Inguinal/Femoral/Umbilical Hernia
- Intestinal Obstruction (Volvulus/Intussusception etc.)
- Hydrocephalus/Meningocele/Encephalocele/ Meningomyelocele
- · Esophageal Atresia
- Undescended Testis
- · Hypospadias/Epispadias
- Emphysema (chest), etc

#### OUR SPECIALISTS



#### Meternal-Fetal Specialist Dr Mini Bedi

MBBS, DGO, DNB, FMAS
Fellowship in maternal fetal medicine
Ex. Consultant Fernadis Hospital, Hyderabad

Only doctor in region with this qualification

□ 81988-84222



### Dr Prashant Pati

MBBS, DGO, DNB, FNB Ex. Consultant Lilavati Hospital, Mumbai

1st in India in FNB- Fellowship of National Board of Examination in Reproductive Medicine/Infertility Only recognized infertility specialization by Govt. of India. First doctor in malwa with this qualification

98909-60933



## Paediatrics Surgeon Dr Rajan Dagla MBBS, M.S. M.Ch.(SMS Jaipur) FMAS

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Only doctor in region with this qualification 75270-11550



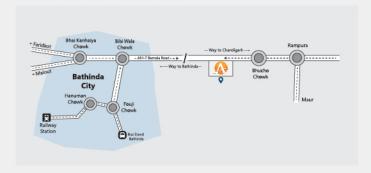
**Neonatlogist** 

Dr Harijot Bhathal

MBBS, MD

98882-42024

#### **ROUTE MAP**





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