



Department of  
**Cardiac Sciences**

---



## Introduction

The Department of Cardiac Sciences at Sanar International Hospitals, a super speciality tertiary care hospital, was conceived to provide state-of-the-art comprehensive cardiac care to patients. The Department follows a 'Heart Team' approach to care for patients with cardiovascular diseases. To plan the management of patients and deliver the best of care, the Heart Team comprising of Cardiologists, Cardiac Surgeons, Intensivists, Physicians, Cardiac Anaesthesiologists, and Intensive Care Experts work in synergy to provide the best possible treatment plan. The Department's team of experts are internationally recognised for their pioneering work in the field of Interventional Cardiac procedures – from Electrophysiology and Coronary Angioplasty to Interventions for correction of congenital anomalies, Total Arterial Grafting, Minimally Invasive Cardiac Surgery, Coronary Bypass Surgery, Complex Congenital Cardiac Surgery, Surgery for Aneurysm including Endovascular and Hybrid procedures.

## Our Department

The Department of Cardiac Sciences offers a range of world-class treatments and services all under one roof: from Diagnostic Non-invasive Cardiology, CT Imaging, MRI Scans to top-class Interventional Cardiology, Interventional Radiology and Neuro Interventional services, including the full range of Cardiac and Vascular Surgeries. Our dedicated team has performed more than 1000 Interventional procedures, ranging from complex Angioplasty Rotablation and Device Implantation to Endovascular and Congenital Heart procedures. With a combined team experience of over 55,000 Coronary Angiograms, more than 30,000 Percutaneous Transluminal Coronary Angioplasties (PTCA), and 2000 different device implant surgeries, the Department of Cardiac Sciences is well equipped to handle the most complex and critical cardiac cases.



Over the years, patrons from India as well as the Middle East (Iraq, Yemen, Oman), African Subcontinent, Eastern Europe (Ukraine, Russia) and other SAARC nations (Afghanistan, Bangladesh, Maldives, Sri Lanka etc.) have shown great faith in the expertise of our illustrious Heart Team.

## Cardiac Care

The Department of Cardiac Sciences has dedicated specialist units, which are further streamlined into various sub-disciplines of 'Cardiac Care'.

These include:

- Clinical and Critical Cardiology
- Non-invasive Cardiology
- Interventional Cardiology
- Electrophysiology and Arrhythmia Services
- Cardiothoracic and Vascular Surgery

## Clinical and Critical Cardiology

We offer the latest innovations in Cardiac Care and Clinical Therapies. Our advanced tests and procedures help us in making accurate diagnosis and develop a personalised treatment plan. Critically ill cardiac patients with co-morbidities are managed in our state-of-the-art Department with robust support from multidisciplinary medical experts.





We provide personalised treatment plan for very common heart problems such as: Angina, Coronary Artery Disease, Valvular Heart Disease, Rhythm Disorder, Heart Failure, as well as very rare forms of heart diseases. To provide the best possible care, our Cardiologists use a broad range of treatment options, working very closely with the team of Cardiovascular Surgeons.

## Clinical Cardiology

The dedicated Cardiac OPD facility offers the highest standard of professional medical care and services for all types of heart diseases. Here, the patient will be in the expert hands of experienced Interventional Cardiologists and Cardiovascular Thoracic Surgeons, while highly qualified nurses and technicians will provide personalised care with the most advanced equipment and technology available.

## Critical Care Cardiology

Critical Care Cardiology is a well-equipped 24-bed Intensive Coronary Care Unit, staffed with trained medical experts who provide round-the-clock multidisciplinary, comprehensive care to patients suffering from critical heart diseases. To give the patient complete comfort, the Unit is equipped with world-class, technologically advanced monitoring equipment and certified staff to administer emergency services 24x7.

## Non-Invasive Cardiology

The Department of Cardiac Sciences at Sanar International Hospitals has a dedicated Heart Station, which is well equipped with instruments and machines of latest technology to offer a wide range of Diagnostic Cardiac procedures:



- 2D / 3D Echo, Colour Doppler
- 2D / 3D TEE (Transesophageal Echocardiography)
- Strain Rate Imaging
- Contrast 2D Echo / TEE
- TMT, Exercise and Dobutamine Stress Echocardiogram
- Desynchrony Assessment Echo
- Holter Examination, Ambulatory BP Monitoring
- Vascular Doppler
- 128 Slice / CT Coronary Angiography

## Interventional Cardiology

The Invasive Cardiology Unit has performed complex Coronary Angioplasties including Rotablation, FFR guided PCI for Intermediate Lesions, Endovascular procedures like Aortoiliac Angioplasty, Aortic Aneurysm, Dissection Management, Carotid Stenting and Birth Defects. These procedures are assisted by imaging guidance such as IVUS and OCT used in complex Angioplasties and 3D TEE, CT Imaging during structural heart procedures. Our state-of-the-art Biplane Cath Labs provide comprehensive cardiac care, supported by dedicated staff who are available round-the-clock. The Unit has achieved record time protocols in primary Angioplasties (Acute Heart Attack Angioplasty).



## Electrophysiology and Arrhythmia Services

Internationally trained experts with vast experience in life saving procedures perform EP Study and Radiofrequency Ablation using 3-dimensional mapping for complex Tachycardia. Devices in heart failure pacing like AICD and Combo Implantations are some of the complex procedures undertaken by the Electrophysiology team at the Department of Cardiac Sciences. Medical experts treat endovascular and congenital birth defects non-surgically using 3D TEE facility.

## Cardiothoracic and Vascular Surgery Facilities and Services

Our surgical team has a vast experience of performing all types of Cardiac procedures like – Coronary Bypass Surgery, Midcab, Surgery for Valve Disease, Surgery for Aneurysm and Arrhythmia, management of Heart Failure with various surgical procedures including LVAD and Transplant.

## Coronary Artery Bypass Surgery

We are constantly leveraging the latest in research and medical advancements to directly benefit the patient. Most Coronary Bypass patients require grafting of the three main native coronary arteries. Current evidence supports a policy of increased use of arterial grafts during CABG, including, bilateral internal mammary arteries.

It has been proved beyond doubt that the arterial graft not only stays patent for a long time, but also reduces the incidence of re-operations after CABG.

# Minimally Invasive Cardiac Surgery (MICS)

With advancements in the field of Minimally Access Surgery, it is now possible to use this technique in select Cardiac Operations. Cardiac Surgeries can be performed through small thoracotomy incisions either on the right or left chest. This avoids both Midline Sternotomy and the morbidity associated with it.

The advantages of MICS include:

- Small thoracotomy incision
- Less pain
- Less risk of infection
- Reduced ICE and shorter hospital stay
- Improved post-operative pulmonary function
- Early recovery
- Improved cosmetic results
- Improved quality of life

## The Aorta Centre

There are various ways to treat Aortic diseases. With the team of Cardiologists, Cardiac Surgeons and Interventional Radiologists, we customise our management of patients with complex Aneurysm. Various investigations like 2D Echocardiography, CT Angiography and Cardiac Catheterization are available at the Department. We have one of the best results of hybrid treatment for Aneurysm, which minimises the incision and reduces operative time with quick recovery.

## Valvular Diseases

There are various ways in which a Valvular Lesion can be treated. Our surgical team has some of the best Valve Surgeons, experts in Valve Repair Surgery with very positive results. This can be combined with Minimal Access Surgery to get much better results. The other option includes Valve Replacement. If the patient has associated Atrial Fibrillation, a Maze procedure can be performed along with Valve Surgery to give maximum benefit.

With a strong, dedicated team of Cardiologists, Intensivists, Cardiac Anaesthetists, Surgeons, Technicians and Nurses, and a combined experience of performing life saving complex surgeries, we strive to provide world-class cardiac care to our patients.