

# Healthy Heart



The Heart Care Clinic

Care Cardiovascular Consultants

Volume-1 | Issue-6 | May 5, 2010

Price : Rs. 5/-

Honorary Editor :  
Dr. Keyur Parikh

Cardiologists

Dr. Hemang Baxi  
(M) +91-98250 30111

Dr. Anish Chandarana  
(M) +91-98250 96922

Dr. Ajay Naik  
(M) +91-98250 82666

Dr. Satya Gupta  
(M) +91-99250 45780

Dr. Guntant Patel  
(M) +91-98240 61266

Dr. Keyur Parikh  
(M) +91-98250 26999

Dr. Milan Chag  
(M) +91-98240 22107

Dr. Urmil Shah  
(M) +91-98250 66939

Dr. Joyal Shah  
(M) +91-98253 19645

Dr. Mihir Tanna  
(M) +91-98242 14770

Dr. Ravi Singhvie  
(M) +91-98251 43975

Dr. Jayesh Bhanushali  
(M) +91-98790 48387

Cardiac Surgeons

Dr. Dhiren Shah  
(M)+91-98255 75933

Dr. Dhaval Naik  
(M)+91-90991 11133

Cardiac Anaesthetists

Dr. Niren Bhavsar  
(M)+91-98795 71917

Dr. Hiren Dholakia  
(M)+91-95863 75818

Message from Editor's Desk

As we are seeing the explosion of patients with Coronary Artery Disease management of patients with Acute Coronary Syndrome becomes very important using the latest guidelines. In this issue, we will be discussing some of the latest concepts for diagnosis and risk assessment of ACS.

In this issue, we are also introducing to you CIMS (Care Institute of Medical Sciences), our new hospital which will commence shortly. Our goal is health care delivery with Care and Compassion.

Dr. Keyur Parikh

An interview of Dr. Keyur Parikh by Dr. Dhaval Naik (Cardio Thoracic Surgeon, MS, DNB) who has joined The Heart Care Clinic after a Fellowship in Cardiovascular Surgery in Australia.

## "ACS Emerging Tools for Diagnosis and Risk Assessment"

Dr. Dhaval Naik: What are the challenges faced by a doctor in assessment of ACS?

Dr. Keyur Parikh: The diversity in clinical presentation of patients with suspected acute ischemic symptoms challenges the physician at each step of treatment in terms of: 1) diagnosis of ACS; 2) appropriate risk stratification; 3) therapeutic decision making; and 4) monitoring response to therapy

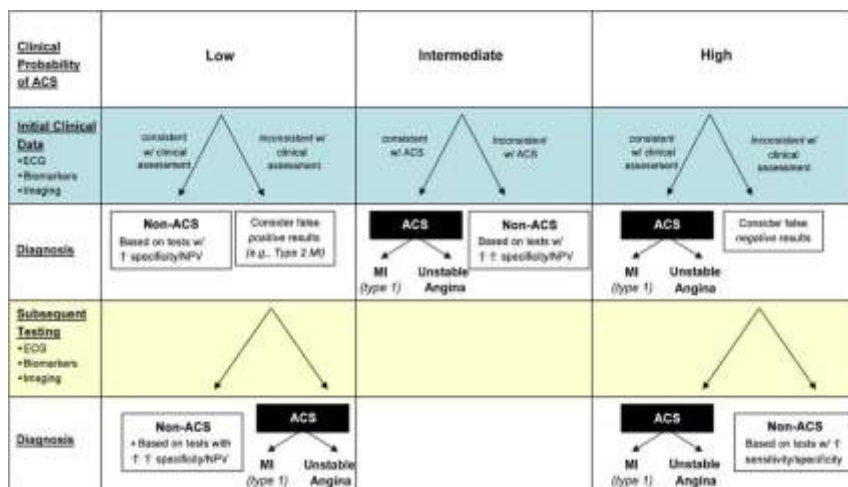
Dr. Dhaval Naik: What is the first line of diagnosis in these patients?

Dr. Keyur Parikh: The standard 12-lead electrocardiogram remains the single most important diagnostic tool in the evaluation of ACS and as such should be performed within 10 min of the first contact with medical personnel. The integrated role that the admission electrocardiogram plays in the diagnosis, triage,

and treatment of patients with ACS is shown in the table on this page. The presence of ST-segment elevation identifies the first branch point in the identification and diagnosis of ACS. ST-segment elevation is the most specific finding for MI and, is sufficient to make the diagnosis of MI. Echocardiography will help in confirming the diagnosis of STEMI with wall motion abnormalities

Dr. Dhaval Naik: What is the most important marker for prognostification of these patients?

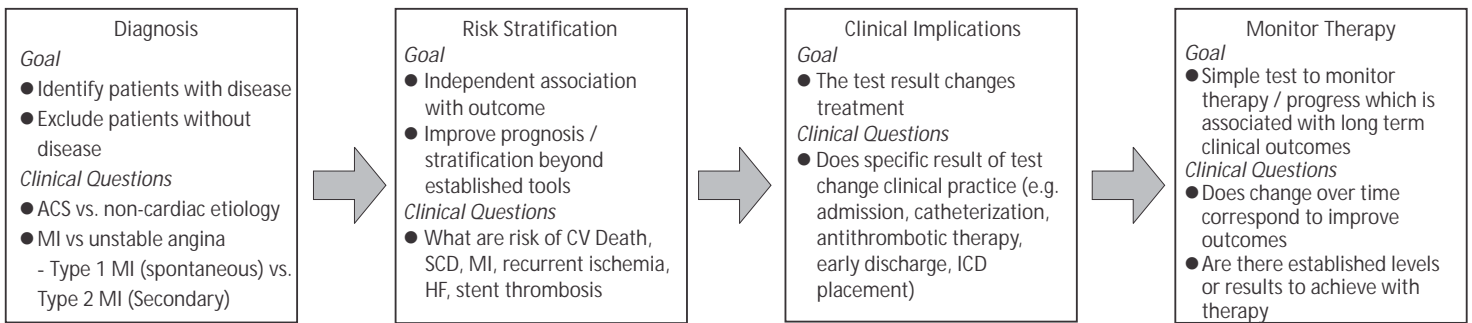
Dr. Keyur Parikh: Different aspects of the ECG



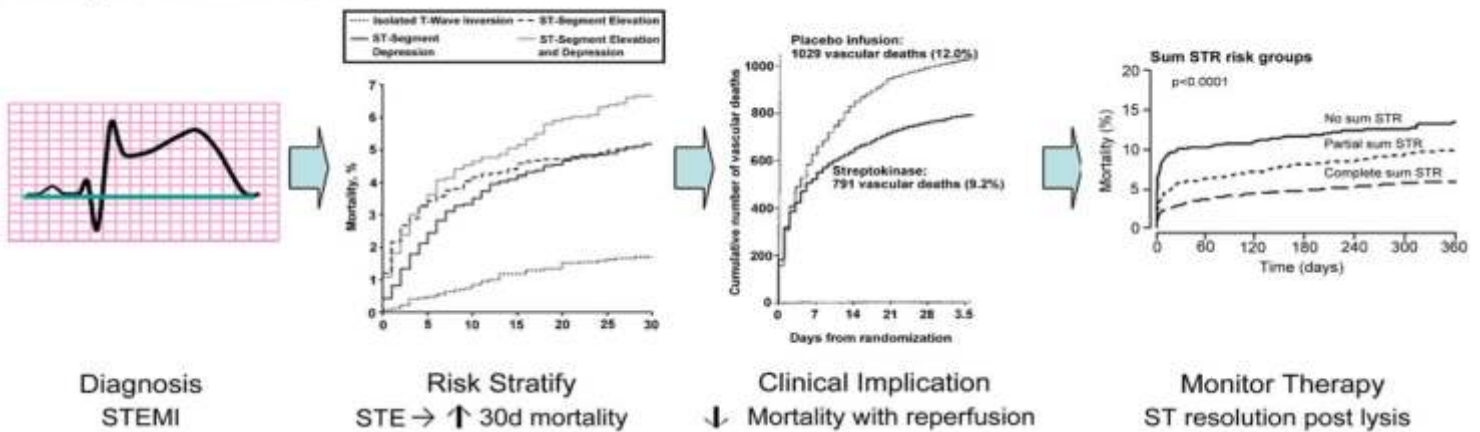
Ref. : JACC Vol. 55, No. 14, 2010, April 6, 2010



*Various Application of Clinical Techniques in Patients With Suspected ACS*



**Example: 12-lead ECG**



Ref. : JACC Vol. 55, No. 14, 2010, April 6, 2010:

provide prognostic information. Patients with NSTEMI-ACS and ST-segment deviation > 0.5 mV were at greater 1-year risk of death or MI than patients with T-wave inversion or no ECG changes. Even when including cardiac biomarkers such as troponin, N-terminal pro B-type natriuretic peptide (NP), and C-reactive protein (CRP), the degree of ST-segment depression in patients with NSTEMI-ACS was the strongest prognostic variable for death or MI.

Dr. Dhaval Naik: What are the Novel Electrocardiographic Parameters available?

Dr. Keyur Parikh: Several ECG techniques such as heart rate variability (HRV), heart rate recovery, heart rate turbulence (HRT), T-wave alternans, and signal-averaged electrocardiography, etc. have been proposed to evaluate different aspects of ECG signals.

But none of these novel ECG parameters have conclusively been shown to provide information that should alter therapy.

Dr. Dhaval Naik: What is the role of novel and old Biomarkers?

Dr. Keyur Parikh: The discovery and evaluation of cardiac biomarkers continues at a rapid pace. Two biomarkers cardiac troponin and NP (Natriuretic Peptide previously known as BNP) have been fully incorporated into clinical care for many years. Values that are above the 99th percentile of a normal population should be considered as an indication of myocardial necrosis.

**HIGH-SENSITIVITY TROPONIN ASSAYS:** Several new troponin assays superior to the current commercially available assays are being investigated. These high-sensitivity assays detect picogram/ml as opposed to ng/ml levels of circulating troponin and offer the possibility of not only greater sensitivity in identifying myocardial necrosis, but also earlier detection

**Prognosis:** Myocardial damage, as detected by elevated levels of cardiac troponin, clearly increases the risk of recurrent cardiovascular events with a graded relationship



## Established and Emerging Electrocardiographic Tools

Electrocardiographic Test		Diagnosis			Clinical Implications	Monitor Therapy
		ACS (Without Evidence of Myocardial Necrosis)	MI	Prognosis		
<b>12-lead electrocardiogram</b>						
ST-segment elevation	Injury current	+++	+++	+++	+++	+++
Dynamic ST-segment depression	Ischemia	++	++	+++	+++	+++
Dynamic T-wave changes	Ischemia	++	+	++	++	+
<b>Continuous electrocardiographic monitoring</b>						
ST-segment shift	Ischemia			+++	+	+
Ventricular ectopy	Arrhythmia			+++	+	+
Heart rate variability	Autonomic nervous system modulation of sinus node			++		
Deceleration capacity	Vagal modulation of sinus node			++		
Heart rate turbulence	Short-term fluctuation of sinus cycle after VPB; possibly reflects baroreflex sensitivity			++		
T-wave alternans	Repolarization abnormalities			++	+	
Signal-averaged electrocardiography	QRS variability and late potentials			+		
Morphologic variability	Beat-to-beat energy differences			+		

Ref. : JACC Vol. 55, No. 14, 2010, April 6, 2010:

between the absolute elevation and outcomes. Overall, an elevated troponin is associated with roughly a 4-fold increase in the risk of death or recurrent MI compared with patients with a normal troponin concentration. Ordering troponin levels is mandatory in all patients with ACS.

Dr. Dhaval Naik: How do we explain the controversy related to CRP (C-Reactive Proteins) levels?

Dr. Keyur Parikh: CRP, a nonspecific marker of inflammation, has been evaluated extensively in ACS. Although not specific enough to aid in the diagnosis of ACS or MI, elevated levels of CRP at the time of admission have been shown to be associated with poor outcomes in patients with ACS. The strength of that relationship varies on the degree of myocardial necrosis, the timing of measurement, and the patient population. CRP may be most useful when it is measured soon after the index event where the inflammation represents the underlying culprit as opposed to later when it may be confounded by necrosis. The strategy of targeting patients with elevated concentrations of CRP with specific therapy, as was done in the primary prevention JUPITER (Justification for the Use of Statins in Primary Prevention trial Evaluating Rosuvastatin), is an example of how novel risk markers should be prospectively evaluated.

Dr. Dhaval Naik: What is the role of NP(BNP), which otherwise have been used for HF in past?

Dr. Keyur Parikh: NPs are released from the ventricular myocardium in response to stress. There are commercially available assays for both B-type NP and N-terminal-proB-type NP, and although there are differences in terms of kinetic and analytic parameters, their clinical role can be addressed together.

As a marker of myocardial stress, NPs are elevated in many cardiovascular conditions, such as heart failure, pulmonary hypertension, pulmonary embolism, cardiac arrhythmias, and cardiac ischemia. As a diagnostic tool, NP is sensitive but lacks specificity to either include or exclude patients with ACS.

Among patients with ACS, elevated levels of NP are strongly associated with adverse clinical outcomes across the spectrum of ACS including NSTEMI-ACS and STEMI. NP levels typically peak in the hours after the initiation of an ACS episode and then gradually decrease over the subsequent days. Persistently elevated levels of an NP in the days and weeks following ACS may identify patients at high risk of cardiovascular morbidity.





Dr. Dhaval Naik: Is there a role of Imaging techniques for ACS?

**Established and Emerging Imaging Techniques**

Imaging Modality	Diagnosis		Prognosis	Clinical Implications	Monitor Therapy
	ACS (Without Evidence of Myocardial Necrosis)	MI			
Coronary angiography	++	+++	+++	+++	+
Echocardiography	++	++	+++	++	+
Myocardial perfusion imaging	++		++	+	
Ischemic memory	+				
Computed tomography					
Perfusion	++	+	++	+	
Angiography	++		+	+	
Cardiac magnetic resonance	+	+	++		

Ref. : JACC Vol. 55, No. 14, 2010, April 6, 2010

Dr. Keyur Parikh: In ACS, integrating various clinical features, ECG biomarkers, etc. becomes very important for appropriate risk stratification. TIMI scores are still widely used and I would recommend people to use them both for STEMI and NSTEMI.

Point	Feature	Risk Score	Relative Odds Ratio (95% CI)
0	Age < 65	0	0.1 (0.1-0.2)
1	Age 65-74	1	0.3 (0.2-0.5)
2	Age ≥ 75	2	0.4 (0.2-0.8)
3	Diabetes	3	0.7 (0.6-0.9)
4	STP < 100	4	1.2 (1.0-1.5)
5	STP > 100	5	2.2 (1.9-2.6)
6	CKMP 0-4V	6	3.0 (2.5-3.6)
7	Weight < 67 kg	7	4.8 (4.3-5.3)
8	Aspirin	8	5.8 (4.8-7.1)
9	Time to rx > 4 hrs	9	8.9 (6.2-12.2)
<b>Risk Score = Total</b>		<b>0-9</b>	

HISTORICAL POINTS	RISK OF CARDIAC EVENTS (%) BY 14 DAYS IN TIMI III*			
POINTS	RISK SCORE	DEATH OR MI	DEATH, MI OR URGENT REVASC.	
Age ≥ 65	1	0/1	3	5
≥ 3 CAD risk factors (pts, HTN, chd, DM, stroke, smoker)	1	2	3	8
Known CAD (stenosis ≥ 50%)	1	3	5	13
ASA use in past 7 days	1	4	7	20
<b>PRESENTATION</b>		5	12	26
Recent (≤ 24h) severe anginal cardiac markers	1	6/7	19	41
ST deviation ≥ 0.5 mm	1			
<b>RISK SCORE = Total Points (0-7)</b>				

**Case of the Month**

Dr. Ajay Naik

**Resolution of CHF after CRT in an IHD patient**

History: A 60-year-old gentleman had presented with overt CHF, NYHA Class 4. He had orthopnea, PND, pedal edema and oliguria. He had history of AMI 5 years ago and had undergone PTCA then. There was progressive worsening of HF symptoms despite aggressive and optimal medical therapy.

ECG showed Sinus rhythm, LBBB pattern, QRS duration was 160 ms. CXR showed cardiomegaly with bilateral pleural effusion. Echo revealed severely dilated LV, LVEF 20% and severe MR. There was evidence of IVS - LV free wall dyssynchrony. Coronary Angiogram was repeated, it showed patent stents and severe LV dysfunction.

Cardiac Resynchronization Therapy (implantation of a biventricular pacemaker) was performed. After 24 hours, the patient could be taken off IV medications. He had dramatic resolution of CHF symptoms within a week. Echo showed well synchronized IVS- LVFW segmental contractility. The patient was discharged 4 days after CRT implant in a hemodynamically stable condition. At 6 months follow up, the patient is in NYHA class 2 and has resumed his regular work schedule.

Chest X Ray pre and post CRT implantation.



Heartiest Congratulations to Dr. Ajay Naik for being awarded the Fellowship of Heart Rhythm Society (FHRS), USA. He is the second awardee from India to be honored in the history of Heart Rhythm Society (HRS). FHRS is bestowed upon the most esteemed members for significant achievements, service and prominence in the field of cardiac arrhythmia.

**Primary Pulmonary Hypertension (PPH) Clinic**

The Heart Care Clinic is conducting the randomized, double-blind FREEDOM-PAH trial to evaluate oral treprostinil in comparison to placebo in PAH patients.

Remodulin®, a prostacyclin analogue, (treprostinil sodium) has been approved by USFDA since 2002. From our past experience with Remodulin® as well as oral treprostinil, we observed that the symptomatic and clinical improvement obtained was satisfactory. The sponsor, have committed to provide oral treprostinil for life to the patients, if USFDA approves this therapy. Treprostinil, either orally or as Remodulin®, acts by direct vasodilatation of pulmonary and systemic arterial vascular beds and inhibition of platelet aggregation which may have a beneficial effect in treating Pulmonary Arterial Hypertension. We believe that many more patients with this progressive fatal disease would benefit from its use.



The Patients will be provided following services FREE of cost:  
 (a) Consultation (b) Echo  
 (c) V/Q Scan, if needed (d) CT Angio, if needed  
 All the patients will be appropriately sent back to you for further management.

For further details and queries, contact any of our team members listed on the front page or The Heart Care Clinic



## Quiz of the Month

- Which of the following thrombolytic agent can be administered by a bolus dose?
  - Alteplase
  - Urokinase
  - Tenecteplase
  - Retepase
- All of the following are newer antiplatelet agents EXCEPT:
  - Prasugrel
  - Dabigatran
  - Cangrelor
  - Ticagrelor
- Beneficial effect of Rosuvastatin in asymptomatic patients with high CRP value was demonstrated in which trial:
  - JUPITER
  - ARMYDA
  - COURAGE
  - FREEDOM
- Which of the following modality is most sensitive and specific for the detection of myocardial scar?
  - Cardiac CT
  - MRI
  - SPECT
  - Dobutamine Stress Echo
- E/A ratio > 2 with a deceleration time less than 150m seconds indicates
  - Normal diastolic function
  - Stage I diastolic dysfunction
  - Stage II diastolic dysfunction
  - Stage III diastolic dysfunction
- Patient with DCM is in NYHA class III symptoms on optimum medications. His QRS duration is 180 m seconds. Holter monitor demonstrates multiple VPCS, EP Study does not show inducible VT. Which of the following therapeutic modality has conclusively shown mortality benefits
  - Stem cell therapy
  - Cardiac Resynchronisation therapy
  - Cardiac Resynchronisation therapy with defibrillator
  - Dobutamine pulse therapy
- Following is the advantage of CT coronary angiography over invasive Coronary angiography
  - Radiation dosage is less
  - Can determine dynamic flow and quantify it
  - Can demonstrate retrograde filling through collaterals
  - Calcium scoring can be done

- Bisferiens pulse is seen in all the conditions except:
    - Severe AR
    - Severe AS
    - AS with AR
    - HOCM
  - All of the following types of ventricular septal defects can be closed percutaneously except:
    - Inlet VSD
    - Perimembranous VSDs
    - Apical Muscular VSD
    - Mid muscular VSD
  - What is the "most" established imaging technique for ACS?
    - Echocardiography
    - CT Angiography
    - Myocardial Perfusion
    - Coronary Angiography
- (Quiz compiled by Dr. Mihir Tanna)*

### Quiz and Answers of Previous Issue "Changing face of Cardiopulmonary Resuscitation - Cardiocerebral Resuscitation"

- (B) Ventricular Fibrillation
- (C) 30:2
- (B) Electrical, Circulatory, Metabolic
- (A) Electrical
- DBAC - (D) Call EMS/ activate EMS  
(B) Rescue (A) Chest compression breathing (C) AED
- (A) 108
- (A) Adrenaline or (C) Vasopressin
- (C) Early endotracheal intubation
- (B) 0-4 min
- (A) Cardio Cerebral Resuscitation

#### Winners of Previous Issue



Dr. Navin Dhamecha  
MD  
Porbandar



Dr. N. R. Rathod  
Prof. of Medicine  
M. P. Shah Medical  
College, Jamnagar



Dr. Nishith Joshi  
MD, DABN  
Ahmedabad



Dr. Kiran Shah  
MD (Medicine)  
Vadodara



Dr. Smruti Shah  
MD (Anaesthesia)  
Vadodara



Dr. V. R. Trambadia  
MBBS, FCGP  
Rajkot

**Healthy Heart Subscription**  
Fees Rs. 60/- (One Year) 12 Issues

## Feed Back Form

Please send your feedback and answers to the Quiz for this issue and drop it in the post box:

Name: \_\_\_\_\_  
Degree \_\_\_\_\_ Name of clinic/hospital: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Pin : \_\_\_\_\_  
Contact No. (O) \_\_\_\_\_ (Mobile) \_\_\_\_\_  
Email ID: \_\_\_\_\_

- Did you like this issue? Yes  No
- Did you like the Topic of the issue? Yes  No
- Do you think this issue updated your academic knowledge? Yes  No

- Put a cross ⊗ inside the correct answer
- Only one best answer for each question
- Three correct entries on first-cum-first basis will get prizes with their name, address and photo published in next issue
- Everybody who send replies to all the 10 questions will get a Certificate of CME of One Hour ( 1 Hour) from 3 C CON
- Please send your answers by post to our office address.

### Answer Sheet of the Quiz of Healthy Heart Volume 1 Issue-6 (May 5, 2010)

Question No.	A	B	C	D
Question-1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Question-10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**The Heart Care Clinic** : 201, Ballešwar Avenue, Opp Rajpath Club, S.G. Highway, Bodakdev, Ahmedabd-380015.  
Phones : +91-79-26873101, 26871564, 26873224, 26873325  
Fax : +91-79 26872195,  
Mobiles : +91-98250 66664, +91-98250 66668  
Email : info@heartcareclinic.org





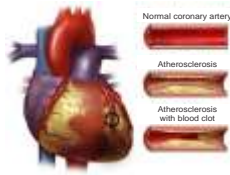
### Triglyceride - A new coronary risk factor

The Heart Care Clinic is starting a "hypertriglyceridemia clinic" exclusively for patients with Fasting triglyceride Levels  $\geq$  750 mg/dl with DM or without DM.

These patients will be provided the following services **FREE** of cost:

(a) Consultation (b) Follow up (c) Lab tests

All the patients will be appropriately sent back to you for further management. Newer modalities of treatment and supportive care will be offered to the patient and family.



For further details and queries, contact any of our team members listed on the front page or The Heart Care Clinic



Ph. : +91-79-26873101, 26871564 Mobile : +91-98250 66664, 98250 66668



**CIMS**

Care Institute of Medical Sciences

At CIMS.....We Care

World Class Hospital  
First Class Doctors

A Green Initiative



*Care Institute of Medical Sciences (CIMS) is an ultra-modern hospital coming up on the Science City Road, Ahmedabad, Gujarat.*

An Exciting Offer for all



Register in advance for CIMS-CON 2011 for Rs. 2,500/- before June 30, 2010 & get

Your website for 1 year delivered in 12 weeks at a nominal charge of Rs. 1,000/- only Also, get a DVD set of 3-C Con 2010 FREE

- Domain Registration for 1 year included.
- Your website will be available within 12 weeks.
- 4 Pages will be designed for you from the given three pre designed templates.
- 1 Year Hosting
- Demo: <http://mysite.heartcareclinic.org>.



Equipped with 150 beds (expandable to 300 beds), CIMS is a multi-discipline hospital which will redefine healthcare in the state of Gujarat and Western India.

CIMS is established with a difference. It is one of the very few hospitals which is promoted and developed by a group of doctors (The Heart Care Clinic Team). CIMS will function with doctor-led management combining doctor's concern and patient's needs to deliver high-quality medical services.....with care and compassion.

CIMS is equipped with the latest technology: modular OTs, neonatal ICUs, high-end Cath Labs, latest diagnostic machines, etc. to render high-quality treatment of medical services.

The hospital is designed to be a 'green' one vis-à-vis environmental concerns and natural surroundings (sunlit courtyards, green plantations, etc.)

The CIMS team is a group of highly skilled doctors, nurses, paramedical staff, volunteers and administrators solely dedicated to the treatment of patients with care and integrity.

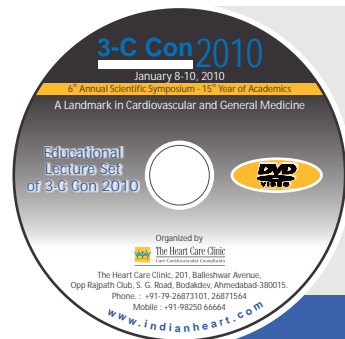
For, we at CIMS believe, it is the patient who creates, establishes and strengthens every medical institute.

Generally the charges for a similar site would cost you

	1st Year
Domain Charges	Rs. 1,000
Website Design Charges	Rs. 5,000
Web Hosting (p/year)	Rs. 4,000
Total Cost	Rs. 10,000

Just pay Rs. 1000/- and the remaining charges will be "BORNE" by us

\*\*Domain name will be your full name or as per availability. We will decide at our discretion the tld (.com, .net, .in, .info etc.) to be provided. Registration of domain is under CIMS. You can transfer your domain through your own hosting partner. Additional customization can be done by yourself later or through outside solution provider after January, 2011. Renewal & hosting after contract will be your responsibility. We can guide you for the both.



Register for CIMS-CON 2011 before June 30, 2010 for Rs. 2500/- and get 7 DVD set of 3-C Con 2010

**TOTALLY FREE**

For all details and registration please see page no. 7





3-C Con is now  
CIMS Con

# CIMS-CON 2011

in collaboration with

4th World Congress International Academy of Cardiovascular Sciences



February 1-3, 2011

The Maharaja Sayajirao University of Baroda, Vadodara, INDIA

February 4-6, 2011

Tagore Hall, Ahmedabad, INDIA

Organized by



**CIMS**

Care Institute of Medical Sciences



(IACS)

International Academy of  
Cardiovascular Sciences



(ISHR)

International Society for  
Heart Research



**The Heart Care Clinic**  
Care Cardiovascular Consultants

## EARLY BIRD REGISTRATION OFFERS

Register for

CIMS-CON 2011 before June 30, 2010 for  
Rs. 2,500/- and avail of exciting offers

**A** Get a  
3-C Con 2010  
Lecture DVD Set  
totally FREE\*

**B** You can have your own  
website designed & registered  
for 2 years by us for  
Rs. 1000/- extra only

7 DVD Set of 3-C Con 2010

will be delivered from 1st week of July, 2010

\*DVD set without CIMS-CON 2011 registration  
is available for Rs. 2000/-

## Registration Form

Please send separate cheques for the selected options in  
favour of "CIMS Hospital Pvt. Ltd" to our office.

- Rs. 2500/- for Early Bird Registration of CIMS-CON 2011  
 Rs. 1000/- for Web Site  
 Rs. 2000/- for 3-C Con 2010 DVD Set (FREE with Early Bird Registration)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Pin: \_\_\_\_\_

Contact No. (O) \_\_\_\_\_ (Mobile) \_\_\_\_\_

Email ID: \_\_\_\_\_

Rs. \_\_\_\_\_ (in words) \_\_\_\_\_

Cheque/DD No(s) : \_\_\_\_\_ Bank \_\_\_\_\_ Dated \_\_\_\_\_



201, Balleshwar Avenue, Opp Rajpath Club, S.G. Highway, Bodakdev,  
Ahmedabd-380015. Ph. : +91-79-26873101, 26871564, 26873224,  
Mobiles : +91-98250 66664, +91-98250 66668





Healthy Heart Registered under RNI No. GUJENG/2009/28043

Permitted to post at MBC, Navrangpura, Ahmedabad-380009 on the 12<sup>th</sup> of every month under Postal Registration No. GAMC-1725/2009-2011 issued by SSP Ahmedabad valid upto 31<sup>st</sup> December, 2011

**If undelivered Please Return to :**

The Heart Care Clinic, 201, Balleshwar Avenue,  
Opp Rajpath Club, S.G. Highway, Bodakdev,  
Ahmedabad-380054.

Phone : +91-79-26873101, 26871564

Mobile : +91-98250 66664, 98250 66668

**CIMS Hospital**  
Care Institute of Medical Sciences



**A multi-specialty, Patient centric,  
Doctor driven, Community hospital**

- Patient care with Integrity and Commitment for smoother recovery
- Excellent ambience
- Eminent faculty of specialists
- Preventive Health Care
- International patient services
- CIMS Philanthropy Trust

**CIMS**  
Care Institute of Medical Sciences  
At CIMS... We Care



CIMS Hospital Pvt. Ltd.  
Nr. Shukan Mall, Off Science City Road,  
Sola, Ahmedabad-380060.  
Mobile : +91-98250 66664,  
+91-98250 66668  
[www.cims.me](http://www.cims.me)

**State-of-the art Equipment and technology**

Fully equipped 8 OT's - 4 OT's are modular with class 100 laminar air flow

300k Lux LED lights with Sony high definition cameras

**State-of-the art 75 critical care beds**

Separate ICUs for Neonatal, Pediatric, Neurology, Non-Cardiac Critical Care unit and Cardiac and Non-Cardiac Surgical ICU

24x7x365 'stroke' unit with latest CT scan with CT angiography and perfusion scan facilities

State-of-the art endoscopy, laparoscopy and high risk pregnancy units

**State-of-the art Haemodialysis unit**

PACS system with facilities to see Cath lab cases, CT-scan, sonography, echocardiography of any patient in Doctor's lounge, CCU and OT

Four latest cardiac echocardiography machines with 3D-TEE

Two high-end sonography machines with 3D facility

Top-of-the-line FD10C Philips ceiling mounted flat panel cath lab with DSA & stent "boost" software

A 100-seat auditorium with live telecast facility from Cathlab and OT's

State-of-the art Electrophysiology Lab with advanced 3-dimensional mapping system

Printed, Published and Edited by Dr. Keyur Parikh on behalf of The Heart Care Clinic

Printed at Hari Om Printery, 15/1, Nagori Estate, Opp. E.S.I. Dispensary, Dudheshwar Road, Ahmedabad-380004.

Published from The Heart Care Clinic, 201, Balleshwar Avenue, Opp. Rajpath Club, S. G. Highway, Bodakdev, Ahmedabad-





