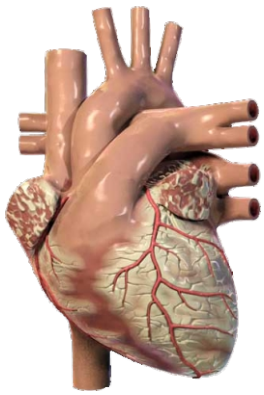
Healthy Heart

Volume-1 | Issue-12 | November 5, 2010

CIMS
Care Institute of Medical Sciences



Price : Rs. 5/-

You are invited

to the

Grand Gala Opening

of

Care Institute of Medical Sciences

Sunday, November 21, 2010

Time : 9.00 am to 1.00 pm

Venue : CIMS Hospital, Nr. Shukan Mall,

Off Science City Road, Sola, Ahmedabad-380060.

CIMS Family

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At CIMS... we care

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Philips technology of Xper Swing- fastest spin in the world. Angiography within 5 seconds

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Atrium

Modular Operation Theaters

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Care Institute of Medical Sciences

Dialysis Centre

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- Neuroscience & Stroke program
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- Orthopedics
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- Psychiatry & Mental Health
- Pulmonology
- Radiation Oncology
- Radiology
- Rheumatology
- Sleep Medicine
- Spine Surgery
- Transplant Surgery (Renal, Liver and others)
- Trauma Care
- Urology
- Vascular Surgery

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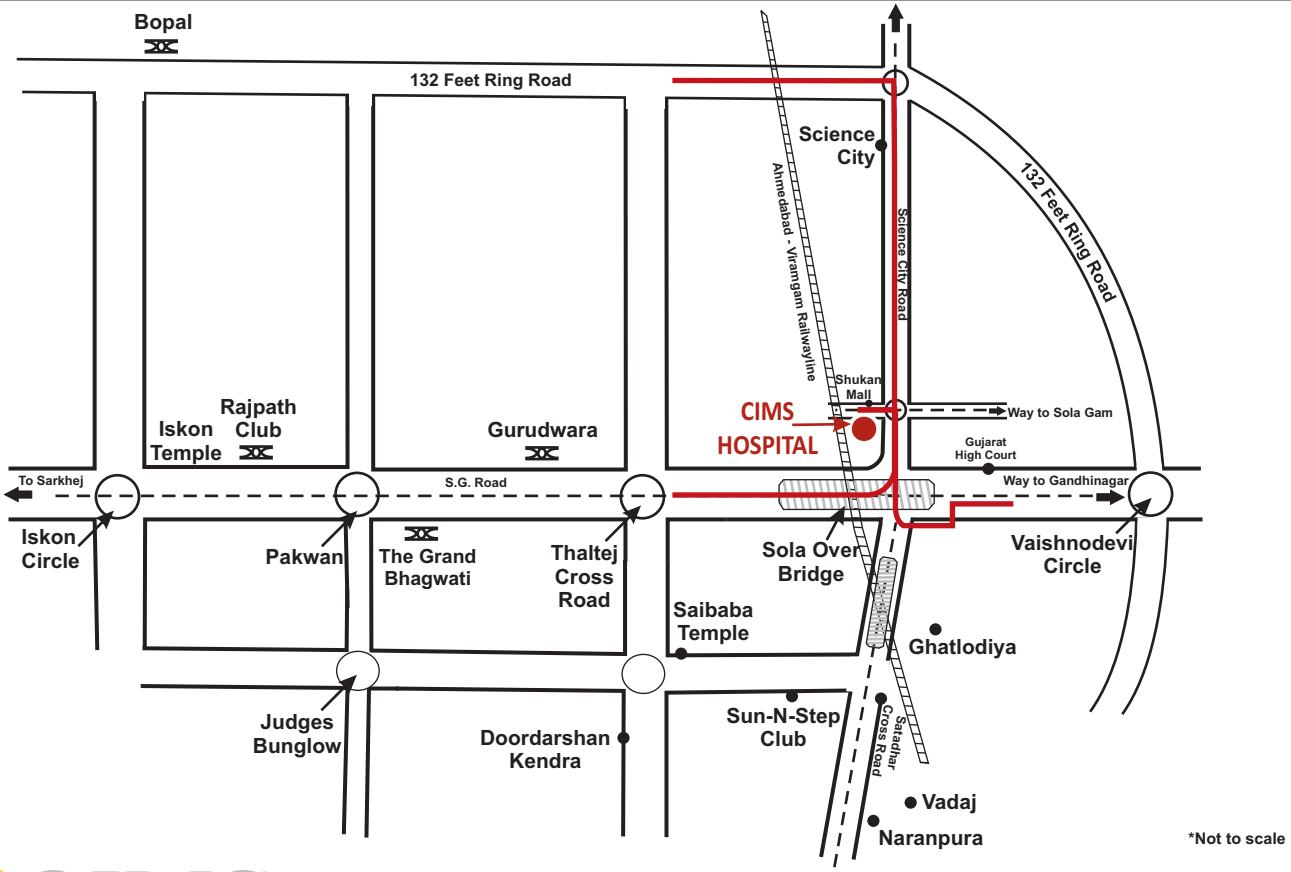
Direction to CIMS



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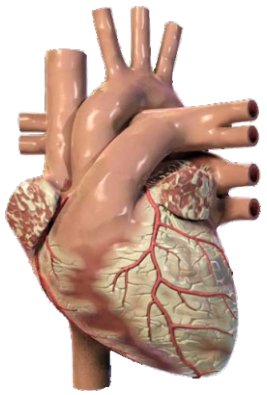


Price : Rs. 5/-

From the desk of editor:

Happy Diwali ! On behalf of CIMS, I wish you all a very happy & prosperous New Year.

Coronary artery disease is not cured by any of the currently available therapies, but the natural history and prognosis may be favorably modified. Patients presenting with symptoms of chronic stable angina represent a sizable percentage of general population, especially amongst the elderly.

Among 45-54 years old, stable angina is reported between 2-5% in men and 0.5-1% in women, while amongst 65-74 years old, the corresponding incidence is reported 11-20% for men and 10-14% for women respectively. In > 50% of these patients, angina limits significantly everyday activities leading to premature retirement.

Dr. Hemang Baxi

Patients with Chronic Stable Angina : Scope of Percutaneous Coronary Intervention (PCI)

Is Chronic Stable Angina a benign disease ?

Chronic Stable Angina is a slowly progressive disease and the patients show a relative mortality of approximately 2% per year, significantly lower than the mortality of patients with unstable acute coronary syndromes and only slightly higher than that of patients with several risk factors who are under treatment for primary prevention. Mortality among patients with stable angina is related to the extent and the severity of coronary artery disease (CAD), left ventricular function, exercise capacity, nature of the symptoms and ECG findings, both at rest and during stress.

Overall outcome of patients with stable angina, given good medical and lifestyle treatment, is relatively benign. However one has to take into consideration the overall clinical picture, presence of risk factor and the results of various non-invasive and invasive investigations before deciding to treat the patient medically or by PCI / Coronary Artery Bypass Graft (CABG).

Revascularization or Medical therapy

The question is whether they should have revascularization or start medical therapy and have revascularization only if medical therapy fails. It is important to refer patients to coronary angiography with left ventriculography when revascularization, if feasible, might improve survival. Such a strategy can be effective, however, only if the patient's prognosis on medical therapy is sufficiently poor that it can be improved with revascularization. Randomized trials of CABG have shown that only patients with a substantial risk for death had a better mortality rate when treated with CABG than when treated with medical therapy. Low-risk patients had an annual mortality rate of 1% with either CABG or medical therapy.

Percutaneous Coronary Intervention in current era

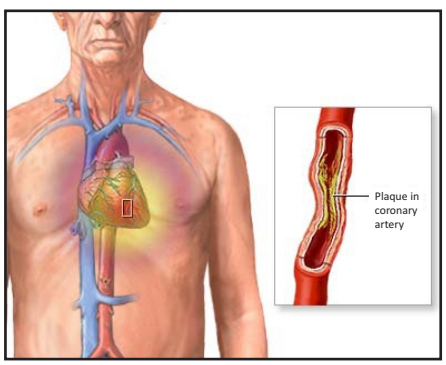
The indications for PCI have expanded during the past two decades, and no absolute contraindications remain. The horizon has expanded tremendously including multivessel disease, chronic total blocks, acute coronary syndromes, older and high risk subjects and the final barrier left main lesion.

This exponential growth of PCI has been largely at the expense of medical treatment rather then surgical revascularization. Besides clinical and angiographic factors, operator volume has been recognized as a major determinant of outcome in several recent studies.

There is no upper patient age limit to the applicability of PCI; however, the threshold is shifted in favor of PCI compared with CABG in the elderly, owing to the higher perioperative morbidity and mortality in this patient population.

The COURAGE trial contrivers

The result of the COURAGE trial were published in the New England Journal of Medicine, producing one of the biggest controversies in cardiology concerning the value of PCI in the treatment of patients with stable angina. In this trial, a comparison was made between PCI plus optimal medical therapy verses optimal medical therapy while testing a hypothesis that optimal medical therapy is not inferior to PCI. The primary end point of the study was death or non-fatal MI. Secondary end points of study were death, MI or stroke, new hospitalization for acute coronary syndromes, quality of life including angina and cost effectiveness. The result of the study did not show any advantage of PCI ever optimal medical therapy in this highly selective population.



Drawbacks of the Trial

A. This trial was performed in USA and Canada and 2287 patients were enrolled in it, mainly (83%) in USA Veterans hospital or Canada Hospitals usually not performing PCI or with very low PCI volumes.

B. This group of 2287 patients enrolled was only a small percentage (6%) of the total 35539 patients screened for the study indicating that this is not the real world practice kind of patients.

C. The main reason for exclusion from the study were class IV angina, failed medical therapy, low left ventricular ejection fraction, recent revascularization procedure, left main disease or not suitable anatomy, co-existing illness, complication of acute MI, restenosis post PCI, etc. This means that almost all the patients with high risk features who would gain benefit from revascularization were excluded and the remaining included patients had a low annual risk death, less than 1%. In this highly selected and relatively low risk population, it is very difficult to show the advantage of PCI over medical therapy.

D. Stents were used in only 86% of the case and most of them (97%) were bare metal stents, which is not the current practice. As is well known, bare metal stents demonstrate greater binary restenosis and consequently relapse of symptoms than the new more effective eluting stents.

E. In the PCI group, 94% received at least one stent. Of these patients, 59% received one stent and 41% more than one stent. The distribution of one vessel, two vessel and three vessel disease in the PCI group was 31%, 39% and 30% respectively. Around 47% of the patients with multi vessel disease (371 out of 787) had incomplete revascularization, which in general is correlated with less favorable outcome post PCI.

F. Finally, few patients received periprocedural infusion of platelet glycoprotein (GP) IIB/IIIB receptor inhibitors. There is no mention whether adequate Clopidogrel pre loading was administered to this patients.

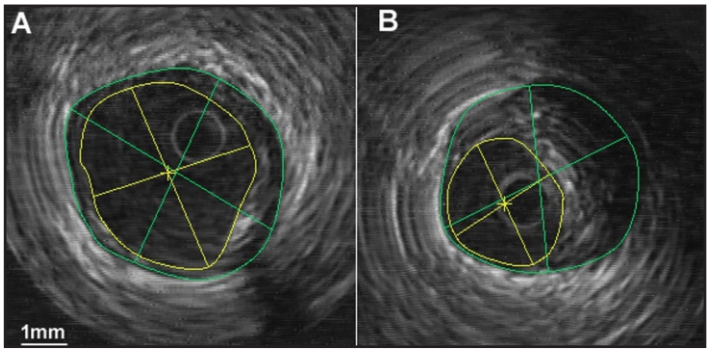
G. The relief of angina is considerably greater in the PCI group which is understandable. **It is also important to note that in 21% of the patients from the medical therapy group crossed over to PCI**

H. According to the result of the study, total mortality rate during 5 years follow up was found to be 7.6% for the PCI group and 8.3% for OMT group. Since the total mortality was used as the primary end point of the study and half (53%) of the total 180 deaths reported were non cardiac, it seems that the selection of all cause mortality was not accurate because PCI would only be expected to reduce cardiac deaths. Despite that, PCI treatment was correlated with a non significant reduction of total death rate.

I. There was a statistically significant difference in the rates of freedom from angina throughout most of the follow up period, in favor of the PCI group. At 5 years, 74% of patients in the PCI group and 72% of those in the medical therapy group were free of angina (P=0.35).

J. Patients in the PCI group used significantly less antianginal medication, such as nitrates or calcium blockers, during long term follow up.

From the above mentioned data it is quite obvious that the COURAGE trial, in accordance with all the previously well conducted studies, demonstrates that compared to optimal medical therapy, PCI performed in patients with stable CAD offers no difference in mortality or MI rate, but a greater benefit in quality of life with less medication use and lower repeat revascularization rates.



Conclusion

- Current valid evidence-based medicine guidance in stable CAD propose PCI for better control of angina and improvement of functional status especially when DES is used.
- It is appropriate to treat low risk patients with medical therapy and simultaneously evaluate them by non-invasive testing to identify high risk subsets who may be referred for coronary angiography.
- Those who fall into high risk category can directly go for invasive investigations.
- Those who fail medical therapy relief of symptoms would also benefit by invasive investigations.
- Post COURAGE trial, nothing has changed. All high risk patients or patients with symptoms despite optimal medical therapy and suitable coronary anatomy should undergo PCI.

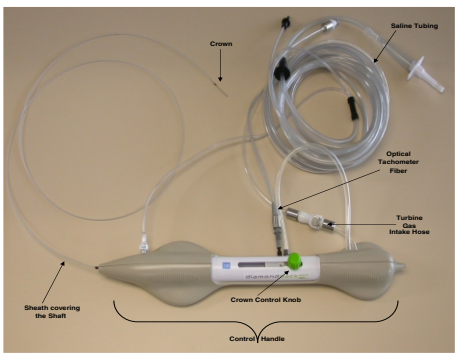
The Heart Care Clinic team has been a pioneer in Rotablator atherectomy since 1988 with over hundreds done in last 22 years

"First time ever in the world" Treating denovo calcified coronary lesions is possible - ORBIT

Use of PTCA is limited in patients with complex morphologies like heavily calcified lesions, diffusely diseased coronary segments, eccentric lesions, and total occlusions.

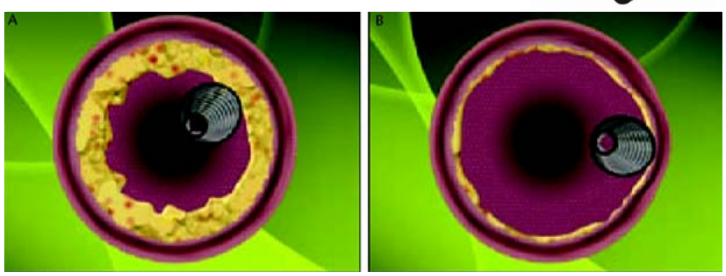
Diamondback 360°™ Orbital Atherectomy System(OAS) is a percutaneous orbital system used in patients with occlusive atherosclerotic disease in calcified coronary lesions. It allows-

- Differential cutting
- Permits orthogonal displacement of friction
- Prevents thermal injury
- Particulate absorbed by RES



ORBIT I is a FIRST IN MAN, non-randomized, multi-center trial in 50 patients with de novo calcified coronary lesions, initiated at HEART CARE CLINIC, Ahmedabad. The OAS utilizes a 30 microns diamond-coated eccentric crown (sizes 1.25 - 2.0 mm) rotating at 80,000 RPM to 120,000 RPM over a special 0.012" VIPER TM wire using an Orbital Atherectomy Consol.

- OAS debulked plaque volume and reduced stenosis.
- No acute In-hospital events viz, deaths and emergency CABG surgery were noted.
- Angiographic complications such as abrupt closure, spasm requiring device intervention and slow flow/no reflow were seen in 0 cases.
- A 2 year follow up will be conducted at CIMS, Ahmedabad, of the enrolled 34 subjects.
- Multiple publication done internationally on this technology.



Orbit Citations (2008-2010):

1. Parikh K, Pandya N, Baxi H, Chag M, Gupta S, Chandarana A, Naik A, Shah U. Gujarat Medical Journal 2010 Jul;5(7):114-116.
2. Parikh K, Seth A, Baxi H, Chandarana A, Gupta S, Shah U, Chag M, Nair S, Chandra P.. Presented at: i2 Summit, American College of Cardiology 2009 March 10; Baltimore, U.S.A.
3. Parikh K, Chag M, Shah U, Chandarana A, Baxi H, Gupta S, Seth A, Chandra P.. Presented at: Transcatheter Cardiovascular Therapeutics (TCT) 2008 October 12-17; Washington DC, U.S.A.

Quiz of the Month

1. *In Wolf Parkinson White syndrome, ECG does not slow:*
   a) ↑ PR
   b) Slurring of QRS
   c) Normal QT interval
   d) Upstroking of QRS complex
2. *The most important criteria for the diagnosis of inducing myocardial ischaemia on exercise test is:*
   a) Significant plateau type depression of S-T segment
   b) Ventricular premature beats
   c) T-wave abnormalities
   d) Occurrence of pain during exercise
3. *Swan Ganz catheter measures:*
   a) Right atrial flow
   b) Pulmonary capillary resistance
   c) Left ventricular pressure
   d) CVP
4. *Continuous murmur is not found in:*
   a) PDA
   b) Systemic A-V fistula
   c) Rupture of sinus of Valsalva
   d) Double outlet right ventricle
5. *"Dancing carotids" (a sign in aortic regurgitation)* is known as:
   a) Hill's sign
   b) Traube's sign
   c) Quincke's sign
   d) Corrigan's sign

CARTO® 3 SYSTEM

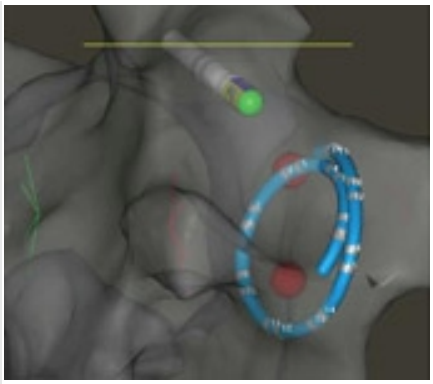
First time in Western India

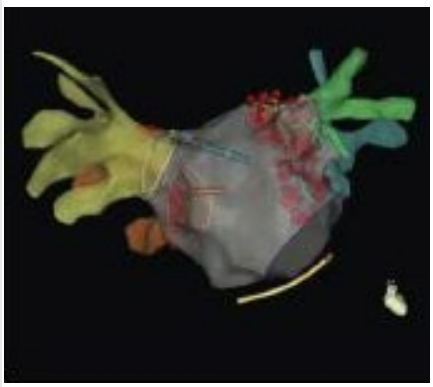
Care Institute of Medical Sciences takes cardiac care commitment to heart

State-of-the-Art Imaging System Offers Enhanced Visualization for Treating Arrhythmia Patients

The Carto 3-D Mapping system is an invaluable tool and complements the conventional EP system for treatment of complex arrhythmias such as:

1. Ventricular Tachycardia (VT) that are difficult to tackle due to LV dysfunction, Post MI status, hemodynamic instability and multiple morphologies.
2. Atrial Fibrillation.
3. Atypical and Typical Atrial Flutters, Atrial tachycardia.
4. Complex arrhythmias in patients with complex heart disease (congenital anomalies, RHD, post CABG etc.)





CIMS is proud to announce that patients can now get the benefits of an unprecedented advanced imaging technology used in treating cardiac arrhythmias.

This three-dimensional imaging system allows our doctors to quickly and accurately visualize cardiac anatomy, and it will be especially useful in the treatment of atrial fibrillation, or AFIB and ventricular tachycardia.

3 patients of post MI, LV dysfunction and VT storm have already been treated by this novel therapy in the past 2 weeks, thus saving their lives.

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 : _____

Phone (O) _____ (M) _____ Email: _____

- 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 5 questions will get a Certificate of CME of One Hour (1 Hour) from CIMS-3C-CON
- Please send your answers by post to our office address.

Answer Sheet of the Quiz of Healthy Heart Volume-1 Issue-12 (November 5, 2010)

Question No.	A	B	C	D
Question-1	○	○	○	○
Question-2	○	○	○	○
Question-3	○	○	○	○
Question-4	○	○	○	○
Question-5	○	○	○	○

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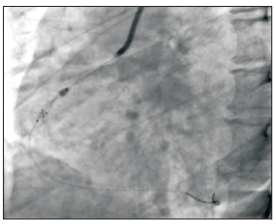
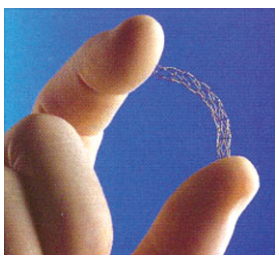
CIMS Volcano S5 Intravascular Ultrasound (IVUS)

The Heart Care Clinic team was the one of the first in India to use colour VHS IVUS since 2007

Volcano S5 Intravascular machine to improve the quality of performance of PCI (Angioplasty, Stents etc.).

The system console, connected to a catheter via the patient interface module, gathers and displays high resolution intraluminal images that can be analyzed both qualitatively and quantitatively before & after Angioplasty.





Using "VIRTUAL HISTOLOGY" (VH) (available on Eagle Eye Catheters)

- Traditional IVUS has improved the effectiveness of catheter based coronary therapies.
- The VH software enhances the current gray scale IVUS diagnostic approach to coronary artery disease by automating the vessel border boundary detection and providing the user with color-coded images that more precisely identify what type of plaque is present.
- The VH IVUS system is intended to automatically visualize vessel boundary features and provide detailed assessment of lesion classifying and color-coding tissue composition.

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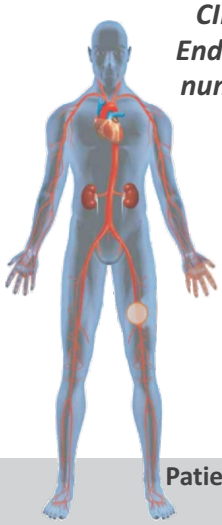
PVD Workshop February 3, 2011



CIMS Team has done over hundreds of Endovascular cases including a very large number of carotid interventions over the last few years.

Patients who are at High Risk are:

- Older Age
- Family history of heart or vascular disease
- Past or current smokers
- High cholesterol levels
- H/O Recurrent TIA (Eg.: Temporary blindness/Paralysis), CV Stroke
- H/O, HT, DM, IHD
- H/O Smoking or Tobacco use

Patients will be provided following FREE services:

1. Consultation 2. ABI

Daily screening camp of the concerned patients will be held in the month of January, 2011 at CIMS. Time : 12.00 noon- 5.00 pm

Please contact us for further details:

Mr. Ketan Acharya: 09825108257, Mr. Dilip Chauhan: 09825376321

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An informative and excellent academic program at CIMS

November 28, 2010

Dr. Navin Nanda
The world's pioneer of echocardiography at CIMS

Schedule for CME

7.30 am Registration with Breakfast at CIMS

8.30 am Application of Newer modalities in Echocardiography with live Demonstration by the Master :

- 3D Echo
- Contrast Echo
- Tissue Doppler
- Strain rate

2.00 pm Lunch

If interested, it is mandatory to register (FREE) for CME with
Mr. Ketan Acharya (M) +91-98251 08257
Mr. Mahendra Desai (M) +91-90990 66527
(limited registrations)

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February 1-3, 2011
The Maharaja Sayajirao University of Baroda, Vadodara, INDIA

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Clinical Care Consultants

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  - ☐ **Clinical Cardiology, Echo Cardiography & ECG Workshop**
  - ☐ **Management & Financial Leadership in Health**

☐ Prof. ☐ Dr. ☐ Mr. ☐ Mrs. ☐ Ms.

Full Name _____

Qualification : _____

Resi. Address : _____

City : _____ State : _____ Pin Code : _____

Ph. (STD Code) (O) _____ (R) _____ (M) _____

Email : _____

Payment Details :

(***Please note behind the cheque the chosen certification course***)

Rs. _____ in word : _____

DD/Cheque No._____ Bank _____ Dated _____

**If you want hotel accommodation? ☐ Yes ☐ No

(The accommodation package is priced at ₹ 3,000/- for 2 nights with twin sharing & ₹ 4500/- for 3 nights)

_____
Signature

Cheque or DD's to be made A/C payee and in the name of **'CIMS Hospital Pvt. Ltd.'**
Kindly mail the registration form along with the cheque/DD to our office.
All Cash Payment are to be made at 'CIMS Hospital, Ahmedabad' only.

* Choose any one certification course
** Hotel Accommodation is optional. If you have applied for accommodation, please send a separate deposit cheque of ₹ 3000 to cover the cost of your stay for two nights (Additional ₹ 1500/- night). Students also need to pay for Hotel Accommodation at the same rate.
Due to limited seating in various venues, register early to avoid disappointment.

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