



# 2013-14

## ANNUAL REPORT 2013-14



World class care  
within everybody's reach

# WHO WE ARE

Meenakshi Mission Hospital & Research Centre (MMHRC ), is a 800 bed hospital run by S. R. Trust. We provide health care services with our cutting edge technology, clinical excellence and compassion to deliver quality health care to all patients every single day. We have shouldered social responsibility and have pioneered several charity initiatives.

## **Mission**

World-class care within everybody's reach.

## **Vision**

No man is too poor to afford first-grade medical treatment

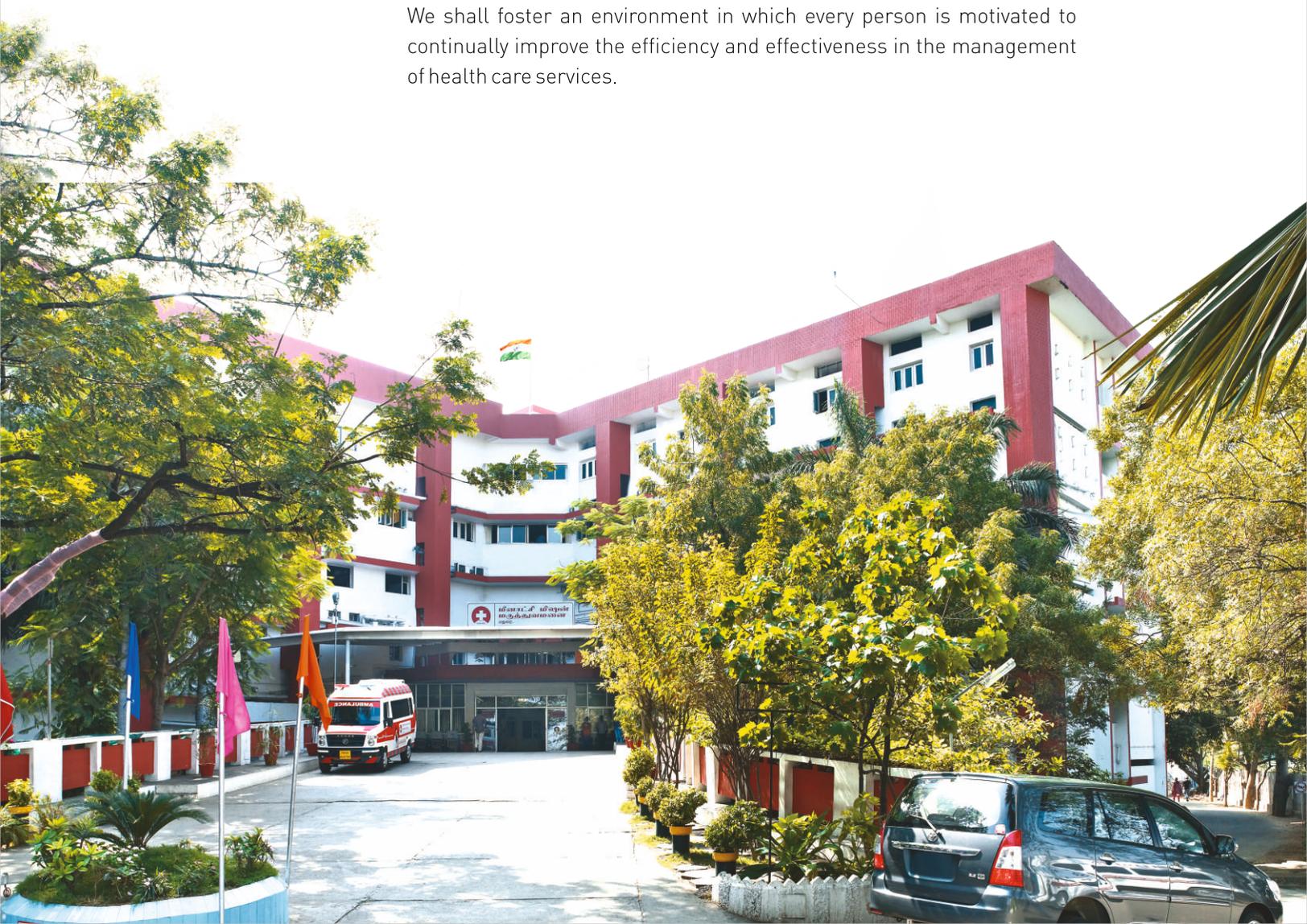
## **Values**

Care, Compassion, Commitment, Charity, Empathy, Quality Service

## **Quality Policy**

Meenakshi Mission Hospital & Research Centre, in pursuit of excellence, is committed to comply with applicable requirements for developing and providing world class health care at an affordable cost.

We shall foster an environment in which every person is motivated to continually improve the efficiency and effectiveness in the management of health care services.



**DR. N. SETHURAMAN**  
FOUNDER

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GENERAL MANAGER - HCD



## FROM THE FOUNDER'S DESK

**"Much has been accomplished in the past, but a great deal remains to be done"**

Dear Friends,

For a business firm, the main benchmark of success is profitability. Whereas In the world of non-profit organisations like us, success is measured primarily in two ways.....,

First of all, the success of a mission hospital, of course is measured in terms of the number of patients served in a year. Last year, more than 86,000 people got treated for various illness, which is a landmark in the history of our Hospital

Secondly, the satisfaction level of Donors who had supported our cause to accomplish our mission with their generous donations. More than 6000 Donors, 40 colleges, 25 schools 1400 charity box holders, 3 International Organizations and several corporates stood with us in accomplishing many of our charity programmes. This shows exceptional confidence; the donors had placed on us. This annual report describes all of our services that demonstrate our efforts in promoting "Holistic Health" across the state.

Meenakshi Mission Hospital & Research Centre is determined to support the patients by applying 'state of art' medical technologies to face the health challenges. In recent years, we have seen tremendous achievements which you can find throughout this report. Ultimately, we want everyone to be free from disease and attain a healthy life.

Of course, none of this exciting progress would have happened without the help of our satisfied patients, donors and well-wishers, to whom we are grateful all the time. I wish to extend special thanks to Direct Relief International (DRI) – who have offered us a new venture Rare Diseases Project for the free treatment of LSDSS patients and also Lions club Foundation who had donated for construction of Hospice. This year we have opened special services for septic patients, Bone Marrow transplantation, hospice services. The list will be extended in coming years too.

The success stories on the following pages are dedicated to all of you!

**I am grateful, and very inspired. I look forward to the many opportunities that await!**

**Dr. N. Sethuraman**

Founder

## FROM THE VICE CHAIRMAN'S DESK

**'Trust flowers upon the soil of hard work and the rain of honesty. It blooms quickly.  
The true challenge lies in keeping it alive!'**

As Meenakshi Mission Hospital and Research Centre (MMHRC) passes its 25th year, we are proud to say that we have kept up the trust of our patients in every way possible. With over 6 lakh patients treated so far, our relationship with our patients has only strengthened.

We began with the simple, yet profoundly demanding mission of providing 'world class healthcare at affordable rates.' Our team of doctors and medical staff have dedicated their learning, experience and time to this institution and to the patients, who were willing to place their trust in our mission. And now, after 25 years, we look back at a grand journey of continued successes and inspiring stories of the human spirit.

The year 2014 has been emotionally charged, since it marks the Silver Jubilee of this grand institution. And it is for this reason that our experienced team of doctors, nursing staff and support staff have worked doubly hard to scale newer heights in patient care and farther milestones in the growth of the hospital.

We have extended our Cardiology and Cardio-thoracic wards to accommodate more patients and continue to provide care with a personal touch. We are also proud to announce new additions to our special services that include dedicated services to patients ailing with infections through our septic ward services. We are also grateful and proud to announce our capability of handling Bone marrow transplantations. We have also inducted the **second** linear accelerator for our department of Oncology. This not only makes us the **first and only healthcare centre in South Tamil Nadu** to house two linear accelerators, but also the only centre that is capable of providing comprehensive cancer care to our patients. In this respect, as with many of our other services, we are on par with the rest of the world.



# FROM THE VICE CHAIRMAN'S DESK



With a combined strength of over 800 beds, we are technically, logistically and practically positioned to provide quality healthcare to all who seek it.

We have always shared a special bond with our patients. Our new Hospice centre reinforces this connection.

Personal responsibility, team work, and where necessary, collaboration with professionals beyond the hospital walls have been the three key ingredients to our continual successes and growth. In keeping with this, we have collaborated with Direct Relief International (DRI) to launch the Rare Diseases Project, an endeavour that aims at treating patients of LSDSS (Lysosomal Storage Disorders Support Society), India.

25 years of prolonged dedication to a common vision has brought over a thousand singular individuals under a single roof. We are glad to note that at Meenakshi Mission Hospital and Research Centre (MMHRC) we are a family of doctors, employees, donors, suppliers and well wishers, all of whom work together towards brighter horizons.

Welcome to MMHRC. You are now in safe hands.

Yours,

**Dr. S. Gurushankar**

Vice Chairman

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**MEDICAL**  
**EXCELLENCE**





## ACCIDENT & EMERGENCY MEDICINE

### Any Medical Emergency, Any Time, Any Age...

The Department of Accident and Emergency Medicine is one such department in a hospital provides 24-hours-per-day, 365-days-per-year care for people of all age groups. It is a unique hospital environment as it is at the frontline of the hospital medical patient care services. Its uniqueness resides in its own primary existence – to provide best emergency medical health care.

The Department of Accident and Emergency Medicine in MMHRC is dedicated to providing the highest-

quality, up-to-date, consistent, safe and efficient emergency care in a family-centered environment. Our team's focus on excellence and continuous performance improvement (CPI) has increased patient satisfaction, decreased lengths of hospital stay, and improved other metrics of emergency medical-care delivery.

MMHRC being the tertiary referral centre and level one trauma centre, we attend the most sick, complicated, critically ill and severely injured patients from in

and around Madurai. The emergency team in the department take utmost care of such patients by triaging them immediately on arrival, resuscitate and stabilize them before shifted to Intensive Care Units under specialize departments. The Emergency Department treats over 17,000 patients per year.

“Zero waiting time” has been successfully sustained by the committed emergency rescue team while providing appropriate and timely care to almost all patients. Reviving patients from cardiac

arrest has been a trade mark of our department with more than 70% success. Mass casualties have been dealt with success and well coordinated effort. Our nurses and paramedics are trained in rapid triage and prioritizing patients during mass casualties.

The Accident and Emergency Medicine department is 20 bedded fully equipped state-of-the-art department which is the busiest and largest in South Tamil Nadu not just in the dimension, but also in excellence by comprising skilled, qualified emergency physicians to provide best possible holistic integrated patient centric care for every such patient round the clock.

The Department is making continuous effort to improve the quality of medical services and build a model of clinical care that supports best practices for patients and families in medical crisis – in an environment where quality and patient safety are the driving forces for optimal quality and efficiency.

Continuing its effort the department works to fulfill its mission to serve the people through quality education, caring practice and advancement of the Health sciences. We are also invested in the education of medical, nursing, and paramedic students.

### Academic Initiatives

- **Post Graduate Diploma in Emergency Medicine (PGDEM)**

This program is to provide essential training to the General Physician in Emergency Medicine and help in strengthening the primary emergency care of our country. The course comprises practical hands

on training programme and lectures. The department of Accident and Emergency medicine has been successfully completed 2<sup>nd</sup> batch of Post Graduate Diploma in Emergency Medicine (PGDEM). 13 Physicians have successfully graduated in year 2013-14 and 15 Physicians have enrolled in year 2014-15. This is the only such course in the country, affiliated by George Washington University, USA and Indian Medical Association CGP(IMACGP).

- **Master in Emergency Medicine (MEM)**

Considering the rising demand and need of trained emergency physicians the department has started Masters in Emergency Medicine (MEM), affiliated by George Washington University, USA from July 2014. 12 students have joined in the first batch of MEM.

- **B.Sc (Accident and Emergency Care Technology)**

Bachelor of Science in Accident and Emergency Care Technology affiliated by Dr. M.G.R University has been successfully continuing 3<sup>rd</sup> year. This course prepares

trained, competent emergency medical technician to work in hospital as well as in the ambulance.

- **ACLS and BLS workshop**

The Department of Accident and Emergency conducted AHA (American Heart Association) certified course BLS / ACLS at conference hall MMHRC from 17<sup>th</sup> to 19<sup>th</sup> January 2014.

Besides academic initiatives, the Department of Accident and Emergency Medicine has been actively involved in raising awareness on Emergency care and First Aid. It has been associated with various Medical colleges, institutes across South Tamil Nadu to train General Physicians, nursing and paramedic staff on emergency and trauma care. The department has also been associated with Red Cross Society to raise public awareness on Drug abuse and with department of Police to commemorate First Aid Day by educating the mass on importance of First Aid services.

**Dr. Narendra Nath Jena,**  
Senior Consultant and HOD

- **President** - Society for Emergency Medicine in India (TN Ch).



Convocation PGDEM 2013 Batch. >

- Member - Editorial Team - National Journal of Emergency Medicine (NJEM), India.
- Organized Vice Chairman - Annual conference of Emergency Medicine, India (EMCON 2013).
- Course site Director and Faculty-Master Emergency Medicine (MEM)- GWU, USA.
- Course Coordinator and Site Director and Faculty- PGDEM- GWU, USA and IMACGP.
- Course Coordinator - B.Sc (Accident and Emergency care Technology) - MMHRC - Dr. M.G.R Medical University.
- Invited as a faculty and delivered lecture at International Conference on Emergency Medicine (EM conclave 2013) at Kolkata on 28th April 2013, and also conducted workshop on Emergency Medicine topics on 27th April 2013.
- Invited as a faculty and delivered lecture on Pain Management - Recent Advances and Controversy in EMCON 2013 at Wyanad - Kerala on 20th November 2013.
- Invited as a Guest speaker at National Symposium on Emergency medicine 2014 (NSEM 2014), Organized by Fortis Hospital, Mumbai on 8th and 9th February 2014.
- Invited as a faculty and delivered lecture on Trauma Management- at Dhanalakshmi Srinivasan Medical College and Hospital Perambalur as part of CME Program on 09.11.2013.
- Delivered lecture on Golden Hour Trauma Management for GP at Tuticorin Organised by MMHRC and IMA Tuticorin on 24.11.2013.
- Invited to deliver lecture at Sundaram Arulraj Hospital Annual CME, Tuticorin on 16th March 2014.
- Delivered lecture, behalf of IMA Meenakshi branch at IMA Kodaikanal on 29th March 2014.
- Invited to chair a session on Diabetic Emergencies at Diabetics Today CME at Kodaikanal on 30.11.2013.
- Invited to conduct workshop and deliver lecture on Emergency Medicine topics at Leonard Hospital, Batalagundu on 26th January 2014.
- Invited to deliver a lecture on saving Lives - First Aid at Sastra university, Thanjavur on 06.12.2013.
- Invited to conduct state level seminar and conference on Emergency and Critical care at Mount Zion college of Nursing, Pudukkottai on 6th of May on the occasion of "International Nurses Day".
- Invited to deliver lectures on BLS and Trauma Management at International conference on Emergency and Disaster Nursing organized by Sacred Heart Nursing College, Madurai on 30th January 2014.

## Conferences and Presentations

- Invited as a faculty and delivered two lectures in the Asian Conference on Emergency Medicine (ACEM) which was held in Tokyo, Japan from 23rd October to 25th October 2013.
- Attended the board meeting of the Asian College of Postgraduate Programme in Emergency Medicine from India in Tokyo, Japan.
- Invited as Guest speaker and Moderate at International summit on Emergency medicine and Trauma 2014 (ISEMT 2014) organized by JIPMER, Pondicherry on 14th to 16th of February 2014.
- Organized awareness Meeting on World First Aid Day on 14th September 2013 at Madurai.



Guest speaker at International summit on EM & Trauma 2014 in JIPMER, Pondichery. >



Speaker at Asian Society for Emergency Medicine in Tokyo, Japan.

- Delivered lectures and Conducted Workshops "FIRST AID TRAINING AND BASIC LIFE SUPPORT" at Heavy water plant and NLC Tamil Nadu power Ltd (NTPL), Tuticorin on 20<sup>th</sup> and 21<sup>st</sup> August respectively.
- Conducted Training Programme on First Aid and Disaster Management for 150 police personnel at Armed Reserve Grounds on 23<sup>rd</sup> January 2014. Madurai SP Mr. V. Balakrishnan inaugurated the training session.
- Attended conference on Intensive care and Emergency Medicine Best of Brussels in Pune from 12<sup>th</sup> to 14<sup>th</sup> July 2013.
- Attended GAPIO (Global association of Physicians of India Origin) annual conference at Kolkata from 10<sup>th</sup> to 12<sup>th</sup> January 2014 and was part of Disaster Management workshop.
- Awarded best social Activist award (medical) in Madurai by Indian Red cross society (Madurai ch.) and Central foundation for social services.
- Invited for deliver lectures at K.M.C.H, Coimbatore on 6<sup>th</sup> March 2014.
- Delivered lectures on First Aid and CPR Training Program at power Grid Corporation of India Ltd on 25.11.2013.

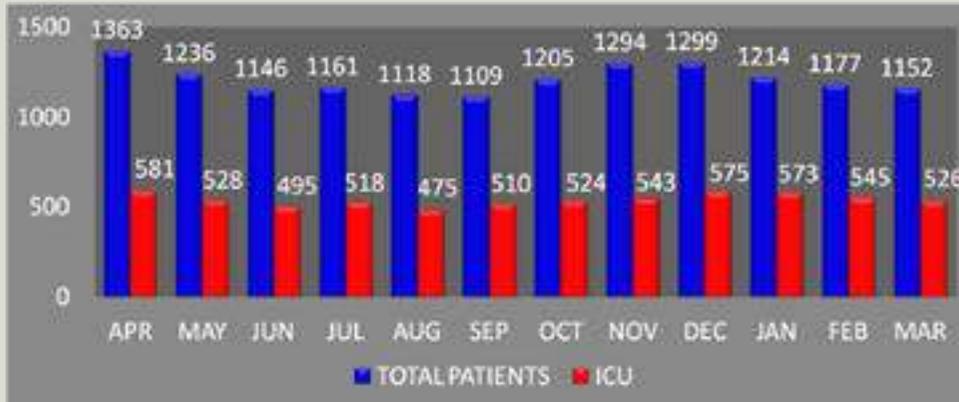
## Publication

1. Acute myocardial infarction and cocaine toxicity: One step closer. Indian Journal of Critical Care Medicine. 2014 Feb;18(2):118.
2. Lithium toxicity and sepsis: Time for a rethink? Indian Journal of Critical Care Medicine. 2013 May;17(3):194-5.
3. Epinephrine-induced myocardial infarction in severe anaphylaxis: is  $\beta$ -blocker a bad actor or bystander? American Journal of Emergency Medicine. 2013 Sept;31(9):1410.
4. Nicotinic acid in erythromelalgia associated with Clitocybe acromelalgia intoxication: theories and therapy. Clinical Toxicology (Phila). 2013 Sept-Oct;51(8):814.
5. Limitations and consumer aspects of point-of-care in snake envenomation. Emergency Medicine Australasian. 2014 Apr;26(2):208.
6. Pseudothrombocytopenia in perioperative patient: A significant laboratory artifact. Journal of Anesthesiology Clinical Pharmacology. 2013 Oct;29(4):553-4.
7. Clinical, laboratory, and educational challenges of diuretic doping. American Journal of Emergency Medicine. 2013 Feb;31(2):420-1.
8. Antabuse reaction due to occupational exposure--an another road on the map? American Journal of Emergency Medicine. 2013 Aug;31(8):1286.
9. Methylene blue for refractory anaphylaxis--is it a magic bullet? American Journal of Emergency Medicine. 2013 Jul;31(7):1140.
10. Thyrotoxic Periodic paralysis,  $\beta$ 2-Adrenergic Bronchodilator, and Insulin-an Interesting Interplay. Canadian Journal of Emergency Medicine. 2014 Apr 1;16(0):1.

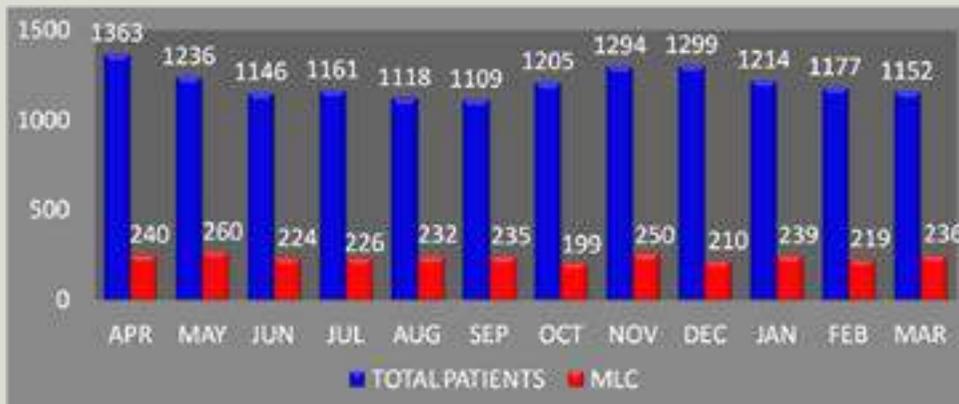


Received Best Social Activist Award (Medical) by Indian Red Cross Society (Madurai).

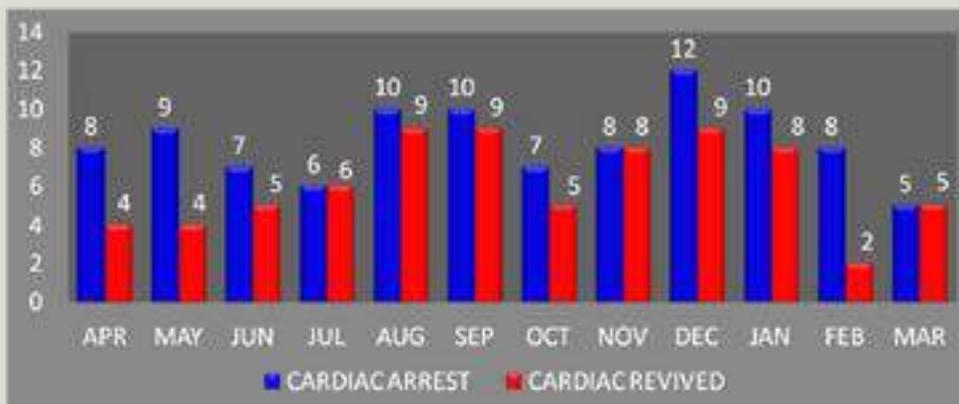
**Statistical Report on 2013 - 14**



More than 50% cases seen in Emergency Department during 2013- 14 are admitted in ICU's which tells about the severity of cases we handle.



Number of patients seen in Emergency Department during 2013 - 14 consists of a significant number of Medico-Legal Cases.



The success rate of reviving patients from cardiac arrest in emergency department during 2013-14 was 74%, i.e 74 patients were revived out of 100 cardiac arrest in ER.

**Way Ahead in 2014**

After consistent success of PGDEM, the department is in process to start Masters in Emergency Medicine (MEM), in July affiliated by George Washington University, USA & Diplomate National Board (DNB) in Emergency Medicine.



## ANAESTHESIOLOGY & PAIN CLINIC

A strict adaptation of Mission and Vision of our hospital, we provide excellent anesthesia service with the addition of latest equipments in our armamentarium like Supreme LMA, AIR- Q masked laryngeal airway, Fiberoptic bronchoscope to handle difficult airway, Ultrasound machine to aid central venous catheter insertion, peripheral nerve block, Bispectral index monitor which aids in preventing awareness during anesthesia, Haemodynamic monitoring-

CO monitoring (Flotrack) and modern anesthesia workstations for better patient care.

With experienced Senior Consultants, Consultants, Registrars, committed hardworking Post Graduates and Medical Officers, our department runs fifteen operation theatre, twenty bedded IRCU, Pain Clinic and Code Blue Emergency Services round the clock. Our service extends even outside the operation theatre like providing sedation or anesthesia for CT scan, MRI, Endoscopy and Oncology procedures.

### Statistics - Anaesthesiology

Outpatients	:	259
New	:	154
Review	:	105
Inpatients	:	291

### Statistics - Pain Clinic

Outpatients	:	261
New	:	52
Review	:	209
Inpatients	:	21

We have been providing labour Analgesia (painless labour) routinely as on patient's request. This service is available for 24 hours by specially experienced anesthesiologist in this field and also we have been providing Postoperative Pain Management with the aid of Infusion Pumps - Subcutaneous, Intravenous, Patient Controlled Analgesia (PCA), Continuous Epidural and Continuous Peripheral Nerve Block Catheters.

### Pain Clinic



### Statistics

#### General Anaesthesia:

Total Intravenous Anaesthesia	668
Assisted Mask Ventilation	1431
Controlled Ventilation	7166

**Total GA 9265**

#### Regional Anaesthesia:

Peripheral Nerve Blocks	48
Plexus Blocks	223
Central Neuroaxial Block	3192

**Total RA 3463**

#### Total Anaesthesia

**Workload 12728**

#### Acute pain Management:

IV Narcotics Infusion	1610
Continuous Epidural	0355
Subcutaneous Pain Pump	5

**Total 1970**

Pain is as old as mankind. Nowadays, Chronic pain is being recognized as a disease rather than a symptom. There is a need of special care for those sufferers. Understanding the fact, our hospital runs a separate Pain Clinic Service for the past 20 years with the recent upgradation

of our service with modern equipments like a Radio frequency generator, Ozone generator and ultrasound machine for guiding many interventions. We provide Interventional Pain Management both Diagnostic and Therapeutic as for the patient's need.

### Chronic Pain Relief

1. Diagnostic Sympathetic Block	- 07
2. Diagnostic Somatic Block	- 14
3. Neurolytic Sympathetic Block	- 12
4. Epidural Steroid Injection:-	
a) Caudal (Fluoroscopic Contrast Guided)	- 09
b) Interlaminar	- 14
c) Trans-foraminal	- 05
5. Intra-articular Steroid	- 04
6. Intra-discal Ozone Nucleolysis	- 02
7. PHN - Intra-lesional Steroid	- 02
8. Radio Frequency Lesioning of:-	
a) Gasserian Ganglion Block	- 22
b) Stellate Ganglion	- 02
c) Splanchnic Nerve	- 04
d) Lumbar Sympathetic	- 02
9. Sphenopalatine Block	- 02
10. Medial Branch Block (Facet)	- 03
11. Trigger Point Injection	- 13
12. Intercostal Block (Therapeutic)	- 01
<b>Total Interventional Pain Management Procedures</b>	<b>- 118</b>

## Academic Activities

We have DNB program every year involving 2 Post DA and 2 Primary candidates. Altogether ten candidates are with us. Lecture program, Clinical case discussions and Journal club are done twice a week. Brightful result in Diplomate National Board Examinations in every batch is an evident for our excellent academic programme which involves regular lectures, CMEs, workshops and life support courses. We actively take part in monthly ISA meetings with our team members holding the posts of joint secretary, vice president and executive committee member.

## Conference and Paper Presentations

### Dr. Kannan, DA.,DNB.,

Senior Consultant, Joint Secretary, ISA Madurai Chapter

- Article Published in MMJ 2013- 14:-
  - a) "Successful Anaesthetic Management of Neonatal Surgery".
  - b) "Advantages of Submandibular Intubation in Faciomaxillary Surgery".
  - c) "Awake Craniotomy" Anaesthetic Management.
- STARS, New Delhi, Aug. 2013 - Attended Smile Train Anaesthesiologist and Surgeons" Conference.
- MAC 2013, Madurai, Aug. 2013- Organizing Chairman in "Meenakshi's Anaesthesia CME and Workshop" conducted by Department of Anaesthesiology, MMHRC, Madurai.

- PEEP, Sep. 2013 - As delegate and member of organizing committee at Post graduate Extended Educational Programme, Madurai.
- PGDEM Forum, Apr. 2014, Madurai - (Faculty) Delivered lecture on "Basics of Mechanical Ventilation" in PGDEM Forum conducted by The George Washington University, USA, held at MMHRC, Madurai.

### Dr. K.M. Senthilkumar, DA.,DNB.,

Senior Consultant, Vice President, ISA Madurai Chapter

- Sep 2013, Glasgow - Participated and presented an e-poster in the European Society of Regional Anaesthesia held at Glasgow, United Kingdom.
- ISACON, Guwahati, Dec. 2013- Chaired the Kop's Paediatric Session and Smile Train Forum at Indian Society of Anaesthesiologist, National Conference Guwahati.
- Feb 2014, Goa - Judge for Poster Presentation at the Indian Association of Paediatric Anaesthesia, National Conference held at Goa.

### Dr. J. Rajesh, DA.,DNB.,FIPM

Consultant  
Executive Committee Member,  
ISA, Madurai Chapter  
Treasurer, ISSP Tamilnadu Branch.

- IMA Apr. 2013, Kumily - Delivered a Lecture on "Pain Management Awareness".
- MAC 2013, Madurai, Aug. 2013- Organizing Secretary and Faculty in "Meenakshi's Anaesthesia CME and Workshop on Pain Interventions and delivered a lecture on Facial Pain

Management "Conducted by department of Anaesthesiology, MMHRC, Madurai.

- Sep. 2013, New Delhi - Attended Workshop on Advanced Interventions for Pain Management at Sri Balaji Institute of Medical Sciences, Newdelhi.
- Nov. 2013, Kolkata - World Symposium on Pain - International Conference faculty for a Symposium on "Medicolegal Issues in Pain Practice".
- IMA Nov. 2013, Thoothukudi - Delivered a lecture on "Interventional Pain Management- An overview".
- Pain Update CME Jan. 2014, Chennai - Delivered a lecture on "Introduction to Pain Medicine"
- ISSPCON Feb. 2014, Mumbai- As delegate National Conference, Mumbai.
- PGDEM Forum, Apr. 2014, Madurai - (Faculty) Delivered lecture on "Airway Management" in PGDEM Forum conducted by The George Washington University, USA, held at MMHRC, Madurai.
- IMA Apr 2014, Theni - Delivered a lecture on "Interventional Pain Management - An overview".

All our **Postgradutes** are encouraged to take active part in the **CME programme** and **Live Workshop** like **ISACON**, **APGAP** Manipal, **RACE** Chennai, **PEEP** Madurai, **EORCAPS** Delhi, etc.



## ANDROLOGY & UROLOGY

■ The Department of Andrology and Urology of MMHRC is a tertiary care centre and preferred by many referring Physicians and Urologists. Most cases have two or more systemic diseases and results obtained with overwhelming morbidity and renal sickness is due to a team effort involving principally the Urologist also the Nephrologist, Radiologist and other Physicians including the Anesthesiologist. The Urology Department of MMHRC clearly reflects the team effort to provide the best for patients.

### A Curative Treatment of Erectile Dysfunction?

In 2014 after a trial of twenty MMHRC Erectile Dysfunction patients on the Low Intensity Shock Wave Therapy (LiSWT) it was concluded that this treatment had positive curative effects on ED. Patients who were dependent on oral PDE5 were able to perform better and stronger after LiSWT. Some patients could perform without drugs. Thus the theory that LiSWT causes neovascularization of the cavernosal bodies seemed true. It however has to be supported by

### Statistics - Urology

Outpatients	: 15014
New	: 2517
Review	: 12497
Inpatients	: 3254

### Statistics - Andrology

Outpatients	: 3469
New	: 1042
Review	: 2427
Inpatients	: 212

long term studies. The Israeli second generation model "Renova" LiSWT made by Direx was bought for the Department of Andrology. Patients are being treated by 'Renova' with promising results. It is an absolutely painless outpatient treatment. The Department of Andrology conducted camps for examination of patients and popularising the role of the Andrologist in the treatment of sexual disorders.

The Department of Urology conducted monthly camps in various centers. Many of the patients from the camps received concessional treatment at MMHRC. The Department of Urology continued its high profile work in all areas of Urology. Flexible Ureteroscopy is a standard procedure as is Bipolar TURP. Wherever possible Buccal Graft Urethroplasty was done in favour of an endoscopic urethral procedure. Radical surgery for cancer of the bladder and partial nephrectomy for cancer of the kidney were routinely performed. Pediatric Urology, Gynaec urology, Neurourology, Urodynamics and Renal Transplantation were also performed in significant numbers.

Two Consultants joined the Department Dr.Arunkumar who completed his DNB (Urology) from MMHRC and Dr. Ganesh Prasad who finished his M.Ch Urology from MMC, Chennai. Dr.Vipin K Sisodia (Urology P.G) won a prestigious scholarship to Singapore amidst tough competition in the examination conducted by Urological society of India. Papers were presented in all Indian conferences by the PGs. The Senior Consultant attended four International conferences. Both the PGs for the year 2010-2013

cleared the examination last year keeping up the laurels of the department high.

### Statistics

Urology	
Ureteroscopy	700
TURP	195
TURBT	85
Cystolitholopaxy	60
Cystolithotomy	2
Nephrectomy	80
Lap.Adrenalectomy	8
Nephroureterectomy	4
Radical Nephrectomy	30
Radical Cystectomy	10
Radical Prostatectomy	3
Bladder Repair	12
Pyeloplasty	20
Augmentation Cystoplasty	5
Pyelolithotomy	5
Uretercele incision	4
Endopyelotomy	3
Penile Repair	6
Ureteroureterostomy	15
Urethroplasty	14
Meatoplasty	6
Ureteric Reimplantation	30
Open Prostatectomy	5
VF	4
PCN	165
PCNL	200
Penectomy	3

EIU	26
Hydrocelectomy	40
Vasectomy	15
Hypospadias correction	30
Chordee correction	10
Orchidopexy	12
Orchidectomy	25
Herniotomy	20
AV Fistula	250
TVT / TOT	6
Trucut Biopsy	30
DJ Stenting	350
DJ Stent Removal	900
P.Scropy Massage	90
Cystoscopy	300
CMG	350
MCU	170
AUG	130
FNAC	8
Circumcision	200
Trocar SPC	95
Urethral Dilatation	110
BNI	55
I & D	30
Wound Debridement	30
PU Fulguration	18
PCCL	60
Lithotripsy	800

### Andrology

EEJ	40
Testicular Biopsy	250
Varicocelectomy	65
Penile Prosthesis	15
Rigiscan	250





## CARDIAC ANAESTHESIOLOGY

■ It is impossible to say when or who began Cardiac Anesthesiology, but it is possible to describe the evolution of this new medical specialty over the past seventy-five years. Cardiac Anesthesiology can be defined as the anesthetic practice focused on the preoperative, intraoperative and postoperative evaluation and

management of patients with cardiac and intrathoracic vascular disease. Those practicing Cardiac Anesthesiology generate new knowledge applicable to all, but have a primary focus on cardiovascular, pulmonary, renal and central nervous systems. Cardiac anesthesiology has evolved spectacularly especially over the

past 30 years, changing from a practice focused on the anesthetic

The past year has been a dynamic one. With the same enthusiasm, dedication and commitment, we are looking forward to meet all the challenges in the years ahead.

management of patients with cardiovascular diseases to a practice of cardiovascular medicine that contributes to the medical and surgical management of cardiovascular patients.

In our hospital, Cardiac Anaesthesiology has evolved over the past 15 years. Our vision is to innovate and deliver high quality, cost effective anesthesia care and pain management; to create rewarding careers for our staff; and to develop leadership in the field of Cardiothoracic Anesthesia, Cardiovascular Diabetology and Cardiac Rehabilitation.

## Statistics

The caseload comprises approximately 503 cardiac procedures of which 352 represent patients undergoing coronary bypass grafting, 53 valve repair or replacement, 37 combined procedures and 31 congenital procedures. This covers the entire gamut of cardiothoracic anaesthesia i.e. anesthesia for Coronary Artery Bypass surgery, Valvular heart surgery, Congenital cardiac surgery, Thoracic and Vascular surgery.

About 95% of our coronary revascularisation has been done on a beating heart, which requires quality care anaesthesia and immense hemodynamic monitoring.

## Facilities

- A well-equipped theatre with an invasive multi-channel monitor including monitoring of ETCO<sub>2</sub> and Cardiac Output.

- Nine-bedded ICU with multichannel monitors, latest Ventilators, and IABP machines.
- Trans Esophageal Echocardiography.
- A dedicated, well-trained staff is always in attendance, and each patient receives individual care by a single nursing personnel.
- An anaesthesiologist is available round-the-clock, and nothing is left to chance. This assures adequate post-operative care of the cardiac patient.
- In cardiac and post-cardiac surgical patients requiring prolonged mechanical ventilation, percutaneous tracheostomy is performed on a routine basis to facilitate secretion removal and to wean off from ventilator.

## Transesophageal Echocardiography (TEE)

An evaluation by TEE may be required to obtain the most precise information to guide surgical intervention (e.g. myocardial revascularization, valvular competence and repair of congenital heart defects) and to guide pharmacological support and/or fluid administration in the perioperative period. TEE is the biggest leap in haemodynamic monitoring and is a useful tool in the hands of Cardiac Anaesthesiologist.

In our hospital, TEE is used by the cardiac anaesthesiologist during mitral valve repair and heart failure surgeries and in the immediate postoperative assessment and also it has become imperative for the successful outcome of these surgeries.

## Cardiovascular Diabetology

Diabetes is a well-recognized independent risk factor for mortality due to coronary artery disease. In our hospital, more than 70% of our patients undergoing cardiac surgery are diabetic. When these patients need cardiac surgery, either coronary-aortic bypass (CABP) or valve operations (VO), the presence of diabetes represents an additional risk factor for these major surgical procedures. Although there is evidence to suggest new techniques like off-pump CABG and the use of arterial grafts have improved outcomes in diabetic patients, the optimal treatment for multivessel CAD continues to evolve for the diabetic patient population, which despite improvements in revascularization still suffers from significantly worse outcomes when compared to the general population. Utmost care is taken to maintain tight glycemic control during the perioperative period in our department to reduce wound infection and other comorbidities. We are also actively involved in the postoperative follow up of lifetime glycemic control of the cardiac surgery patients.

## Cardiac Rehabilitation

Cardiac rehabilitation was given special and well-deserved attention this year. We have a dedicated Cardiac Rehabilitation team (includes a dietician and a physiotherapist) which takes care of the rehabilitative needs of the patient. Cardiac rehabilitation includes all measures used to help people with heart disease return to

an active and satisfying life and to prevent recurrence of cardiac events. These services include both inpatient and outpatient cardiac rehabilitation. The aim of this program is to educate the patient and emphasize the need to apply the appropriate medical regimen in addition to the non-pharmacological treatment modalities of cardiac rehabilitation to achieve maximal benefit.

### Accomplishments

- **Dr. S. Kumar** was elected as Honorary Secretary of Indian Medical Association, Madurai Meenakshi Branch for a period of three years (from Jan. 2011 to Dec. 2013).

- **Dr. S. Kumar** was elected as Editor in Chief of Madurai Medical Journal which is the official journal of Indian Medical Association, Madurai Meenakshi Branch for a period of 3 years (from Jan. 2011 to Dec. 2013).

### Academic Activities

- A host of academic activities form part of the calendar and ensures that the team is kept abreast of the latest developments in anaesthesia.
- **Dr. S. Kumar** actively participated in National conference on Diabetes India in May 2013 at Cochin.
- **Dr. S. Kumar** actively participated as Faculty Moderator in Oral

Award paper session in National conference of Cardiac Anesthesia (IACATA) in Feb 2014 at Mumbai.

- **Dr. S. Kumar** actively participated as Faculty on panel discussion in Chennai Cardiac Update in 2013 at Chennai.

### Future

Looming large on the horizon are the prospects of

- Minimally invasive cardiac surgery.
- Heart failure surgeries.
- Heart Transplantation.
- Key-hole Robotic Cardiac surgeries.
- Thoracoscopic Lung Surgeries.





## CARDIO THORACIC & VASCULAR SURGERY

The department of Cardiothoracic Surgery in Meenakshi Mission Hospital continues to march ahead in providing excellent care to patients with cardiothoracic diseases with improved efficiency and quality.

It has entered the eleventh year of its activities after rejuvenation in 2003.

### Statistics

The total number of cases done from April 2013 to March 2014 is 503. In that, we performed 352 CABG, 53 Valve surgeries, 31 congenital

corrections, 6 Aortic Aneurysms, 37 Combined surgeries (Valves with CABG) and the rest includes 13 Thoracic, Vascular and Trauma cases. This covers the entire gamut of cardiothoracic surgery including Coronary Bypass Surgery, Valvular Heart Surgery, Congenital Cardiac Surgery and Thoracic and Vascular Surgery.

### Coronary Revascularisation Surgery

In Coronary Revascularisation surgery, the main emphasis is on Beating

Heart CABG because of significant reduction in morbidity and cost. About 95% of our coronary revascularisation has been done on beating heart. We have a large volume of left main coronary artery stenosis treated with CABG with outstanding results that

### Statistics

Outpatients	: 6597
New	: 644
Review	: 5953
Inpatients	: 708

can be very well comparable with international data. We emphasize on total arterial revascularisation to achieve better patency rate of the grafts. We undertake all high-risk cases like those with low ejection fraction, ventricular aneurysm, concomitant carotid stenosis, Acute Aortic dissections, ischemic mitral regurgitation and some thoracic cases such as pneumonectomies and lobectomies.

### Valvular Heart Surgeries

In Valvular heart disease, apart from routine valve replacement, Valve Repair is also been done. Valve repairs by experienced surgeons have been found to offer substantial advantage over replacements in terms of lowering the valve related complications. We, in our department also offer valve repair to suitable patients and have shown good results.

### Congenital Heart Surgeries

In Congenital heart surgery, the common operations like ASD, RSOV VSD and PDA are being done routinely. We have also performed high-risk complex operations like Total Correction of Tetralogy of Fallot, DORV. In keeping with the latest trends in surgery, minimal invasive techniques are being

increasingly applied. Now we have started doing minimally invasive coronary bypass surgery in selected patients.

Our results have been very gratifying with internationally acceptable results. Even in emergency operations performed in patients in Cardiogenic shock, the department had shown good results. We are one of the few units in the country offering Endoscopic Vein Harvesting Technology to our patients at affordable cost.

### Infrastructure

The operation theatre dedicated to Cardiothoracic surgery is a state-of-the-art facility with a seamless stainless steel cladding of the walls.

Our OT has started using the new methods of sterilization techniques with silver nitrate and hydrogen peroxide (Ecoshield) solutions.

All these things will help to reduce the infection rate to zero. There is a ten-bedded ICU with all the latest gadgets available in the most developed centers in India. We have 3 Intra-aortic balloon Pumps to salvage patients with Myocardial Infarction in Cardiogenic shock.

An Endoscopic Tower has been procured for Endoscopic Vein harvesting.

### Academic Activities

The department has not lagged behind in Academic activities.

We regularly attend conferences and workshops conducted in National and International levels, thereby pacing ourselves with the current trends in cardiac surgery.

The National Board of Examinations has recognized our department for training students in this branch leading to DNB (Cardiothoracic Surgery) with duration of six years. We have four students currently. There is a sanction for intake of one student annually.

### Conferences/ Workshop Attended

#### Paper presentations

Valve Repair- Our Experience (Mitral valve Repair workshop September 2013-Coimbatore).

"Great vessel surgery from a Tier-II city"(IACTS 2014- Trivandrum).

"Post Infarction Ventricular septal Rupture and Infarct exclusion Technique (IACTS 2014- Trivandrum).

### Publications

Iatrogenic Foreign Body Aorta- November 2013-Asian Annals of Cardiothoracic surgery.

Attended the Annual Conference of European, Association of Cardiothoracic surgery in Barcelona, Spain.

### Future Challenges

The future looks very encouraging. We, in the Department of Cardiothoracic Surgery share the dreams of our Chairman to perform Heart Transplantations and Key-Hole Robotic Cardiac surgeries before long in our institution.



Cardiothoracic Surgery ICU

Sl No	Category of surgery	Name of surgery	No. of surgery
1	Coronary Artery Bypass Grafting	Beating Heart CABG	343
		On Pump CABG	9
2	Valve Replacement Surgeries	Mitra Valve Replacement /repair	27
		Aortic Valve Replacement	19
		Double Valve Replacement	5
		Redo MVR	3
		Redo AVR	2
3	Combined surgeries	Mitral Valve Repair + CABG	11
		MVR + CABG	5
		AVR + CABG	5
		DVR + CABG	1
		VSR + CABG	5
		Carotid Endarterectomy + CABG	1
		MVR + TV repair	4
		MVR + Maze operation	1
		AVR + MV repair	2
		ASD + TV repair surgery	2
4	Aneurysmal Surgeries	BENTALL'S Procedures	4
		Aortic aneurysmal repair surgeries	2
5	Coarctation of Aorta repair		2
6	LA Myxoma surgeries		6
7	Thymectomy		2
8	Congenital Correction surgeries	Closure of ASD	21
		Closure of VSD	2
		Intra Cardiac Repair/TOF repair	6
9	Thoracic Surgeries	Thoracotomy	7
		Pneumonectomy	3
		Lobectomy	2
		Decortication	1
		<b>Total</b>	<b>503</b>



## CARDIOLOGY

■ The Cardiology department of Meenakshi Mission Hospital and Research Centre comprises of 24 hours emergency services to manage case of Acute myocardial infarction for thrombolysis (or) primary angioplasty and its subsequent management, and to manage cases of congestive cardiac failure for stabilization and various other acute cardiac cases for round the clock management. The department is well equipped with Critical care unit with the monitors and ventilators.

The department also possess Computerized ECG, Tread mill test, Colour doppler and 24 hours Holter monitoring.

### Cath Lab

The department has its unique two cardiac cath labs from GE INNOVA. The lab performs various diagnostic and interventional Cardiac procedures. A team of specialists and interventional Cardiologists are involved in performing the procedures.

### Cardiac Procedures Performed in Cath Lab

The Cardiology department is effectively supported by Cardiothoracic surgical team which provides surgical standby

### Statistics

Outpatients	:23727
New	: 5409
Review	:18318
Inpatients	: 5262

during interventional procedures. They also perform closed and open heart procedures including valve replacement and coronary by-pass surgery.

This unique hospital which is located in Southern Tamilnadu has its pride in providing world class health care particularly to the rural population.

### Cardiac Procedures in the Cath Lab

- Coronary angiogram.
- Right heart catheterisation.
- Coronary angioplasty/ stent implantation.
- Ballon mitral valvuloplasty.
- Balloon aortic valvuloplasty.
- Balloon pulmonary valvuloplasty.
- Balloon tricuspid valvuloplasty.
- PDA coil closure.
- Temporary and permanent pacemaker implantation.
- Carotid angioplasty with distal protection device.
- Renal angioplasty.
- ASD / VSD device closure.
- PDA closure / COA stenting.

### Facilities

#### 1. IABP:

Intra Aortic Balloon Pump, which is a necessary equipment useful in patients who present with low blood pressure due to Acute MI or other causes, for artificial maintenance of blood pressure in emergency situations.

#### 2. ACT Machine:

It can detect activated coagulation time, to monitor the dose of Heparin, particularly during PTCA and CABG.

#### 3. TEE:

Trans oesophageal echo useful as a Diagnostic tool, to detect various cardio abnormalities particularly in the setting of any clot in Heart, ASD device closure and assessment of prosthetic valve function and also during operative procedure to assist the surgeon.

#### 4. Echo:

This modality is useful to Diagnose and Prognosticate Coronary Artery disease patient. It is a more sensitive and specific than Routine Tread Mill

test, performed as Exercise Stress Echo (or) Dobutamine Stress Echo.

#### 5. Thallium (or) Technitium Study:

We have well equipped Nuclear Medicine Department with spect camera for Thallium for Technitium 99 M Sesta MIBI Myocardial viability assessment study.

#### SPECIAL REMARKS:-

Our Institute is well equipped to provide primary PTCA as a modality of Therapy in Acute Myocardial Infarction, in this Region of Tamilnadu. In recent past we have done Reasonable number of Primary PTCA in AMI including those with IABP assisted Stenting.

#### 6. IVUS

#### 7. FFR

#### 8. Rotablation

### Facilities Available in the Department of Cardiology

- Two well equipped Hi-Tech Cath Labs
  - a) GE-INNOVA 2001 flat panel and state of art technique cath system.



- Philips iE 33 dedicated Colour Doppler Echo Cardiogram.
- Tread Mill Test – NASEN.
- Computerized Resting ECG.
- Holter Monitoring – DL 820-3/12 LCD Recorder.
- Well equipped Coronary Care Unit which comprises – NIBP monitors, Hitech Cardiac monitors and ventilators with ICU trained cardiac nurses.
- Hitech Ambulance on call for 24 hours – Hitech Phone No: 98421-23232.

### Academic Activities

- The National Board Examination has accredited MMHRC to conduct 3 years course in Cardiology to award post – doctoral fellowship in DNB Cardiology.
- The Cardiologists are updating their knowledge by attending regularly the National and International conferences and live workshops.
- Annual update of all the Interventional procedures in the National Interventional Council of India.

### Procedures

Cardiologists of MMHRC perform 4000 Angiograms annually and 1500 Angioplasties every year. We perform 150 Balloon Mitral Valvotomies every year.

### Coronary Angioplasty

- MMHRC performs highest number of Primary Angioplasty for Acute Myocardial Infarction for the entire Tamilnadu.
- We also perform 2 vessel and 3 vessel Angioplasty.
- We also perform angioplasty in a critically ill patients with Intra Aortic Balloon Pump support.
- We offer both bare metal and drug eluting stents for Angioplasties.

### Intervention for Heart Failure

MMHRC is equipped to provide biventricular pacing as a treatment for heart failure.

### Procedure for Cardiac Arrhythmias

- Electrophysiological study and radiofrequency ablation for various cardiac arrhythmias.

- Implantable cardioverter and defibrillator for prevention of sudden cardiac death.

### Intervention for Valvular Heart Disease

- Balloon mitral valvuloplasty.
- Balloon aortic valvuloplasty.
- Balloon pulmonary valvuloplasty.

### Intervention for Congenital Heart Disease

- PDA coil closure/Device closure.
- ASD / VSD device closure.
- COA balloon angioplasty.

*Correction of congenital heart defects in underprivileged children is done free of cost as a part of KID AID foundation. Children started getting benefits under this scheme.*

### Intervention for Peripheral Vascular Disease

- Renal angioplasty.
- Carotid angioplasty.
- Iliac and femoral angioplasty.
- Below knee angioplasty.



**Pericardiocentesis**

Emergency pericardiocentesis to prevent death from cardiac tamponade.

**Angiograms**

- Coronary angiogram.
- Cerebral, Renal and Pheripheral angiogram.
- Cardiac catheterization with oxymetry, pressure study and angiogram for congenital heart defects.

**Pacemaker Implantation**

- Temporary pacemaker implantation on emergency basis round the clock.
- \*Single and double chamber permanent pacemaker implantation.

**Miscellaneous**

- Alcoholic septal ablation for HOCM.
- EP study / RF Ablation.

**Cardiac Procedures in the Cath lab**

- Coronary angiogram.
- Right heart catheterisation.

- Coronary angioplasty/stent implantation including primary PTCA.
- Balloon mitral valvuloplasty.
- Balloon aortic valvuloplasty.
- Balloon pulmonary valvuloplasty.
- Balloon tricuspid valvuloplasty.
- PDA coil closure/Device closure.
- Temporary and permanent pacemaker implantation.
- ASD/VSD device closure.
- COA Balloon Angioplasty.
- Carotid and Renal angioplasty.
- EP study / Radiofrequency ablation.
- Non cardiac Procedures.
- Aortogram.
- Cerebral Angiogram.
- Renal Angiogram.
- Peripheral Angiogram.
- Mesenteric Angiogram.
- Renal angioplasty/stent implantation.
- Peripheral angioplasty/ stent implantation.
- Therapeutic vascular embolisation.

**Statistics**

Coronary Angiogram	4002
PTCA	1956

Balloon Mitral Valvotomy	110
Permanent Pacemaker Implantation	45
Cerebral Coil	01
Renal Angioplasty	05
IABP	25
Pericardial Tapping	13
Temporary Pacemaker Implantation	84
Cardiac Catheterisation	03
Pheripheral Angiogram	01
Pheripheral Angioplasty	01
PDA Coil Closure	11
PDA Device Clousure	01
ASD Device Closure	27
IVC Filter	10
Aortogram	01
Balloon Pulmonary Valvotomy	05
Balloon Aortic Valvotomy	01
Aortic Stenting	04
ICD	01
Carotid Angioplasty	01
Subclavian Stent	02
COA Stenting	02
Uterine Artery Embolisation	25
Bronchial Artery Embolisation	01
Carotid Angioplasty	01
E.P.Study	42



CRT	04
Iliac Artery Stenting	01
Others	14
Total	<u>6400</u>

## Conference Attended

### Dr. R. Sivakumr, MD.,DNB.(Cardio),

Sr. Consultant and Interventional Cardiologist

- Tamilnadu Interventional Council TIC January 2014 and participated in a debate for the use of intra aortic balloon pump.
- February 2014 and Asia PCR single live delivered lecture on complex PCI using Rota + IABP.
- RACI March 2014 conducted live course in PCI and demonstrated October in BVS implant.
- TANCSI - Participated as faculty on participated in a debate for 2 stents are useful in bifurcation PCI.
- IBC - Delivered lecture on Tap teg in bifurcation PCI in Indian bifurcation chib at New Delhi.
- Madurai CTO club - Conducted CTO live with Japanese operations and demonstrated retrograde PCI.

### Dr. S. Selvamani,

DNB.(Gen.Med.),DNB.(Cardio),

Sr. Consultant and Interventional Cardiologist

- Tamilnadu Interventional Council- Chennai January 2014 and participated as Faculty and give lecture on Prosthetic valve and pregnancy.\*Demonstrated Dedicated Bifurcation Stenting Technique.
- RACI March 2014 conducted live course in PCI and demonstrated CTO / ROTO / BVS / IVS in PCI.
- IJCTO - Bombay May 2013 - Delivered and Presented case on Left Main CTO Technique.
- Cardiology and G.P - Participated as faculty at Bangkok, Thailand- September 2013.
- TANCSI - October 2013 - ERCAD. Participated as faculty and delivered talk on Carotid Stenting.
- Madurai CTO club - Participated in Live cases and CTO Technique with operators from Japan.
- 2013 July Advance Cardiac therapeutics; Chennai - Presented case on left main and BVS techniques and was a faculty.

### Dr. M. Sampathkumar,

DMD.,DM.(Cardio),

Sr. Consultant and Interventional Cardiologist

- Singapore Live February 2014 at Singapore.
- TANCSI - 2013 October at YERCAUD - Delivered a talk on bifurcation stenting.
- RACI 2014 - March 2014 at Madurai.

### Dr. N. Ganesan, DMD.,DM.(Cardio),

Sr. Consultant and Interventional Cardiologist

- India Live - Delhi, 2013.
- National Intervention council Meet NIC 2013, Cochin.
- EURO PCR - Paris, May 2013.
- TCT Sanfrancisco- U.S.A, November 2013.

### Dr. Hari Om Tyagi, MD.,DM.(Cardio),

Consultant and Interventional Cardiologist

- India Live - Delhi, 2013.
- National Intervention council Meet NIC 2013, Cochin.
- RACI 2014 - March 2014 at Madurai.
- Madurai CTO club - Participated in Live cases and CTO Technique with operators from Japan.





## DENTAL & MAXILLOFACIAL SURGERY

Since there is an increasing demand and need for conservative and cosmetic dentistry among this modern population our centre is now fully equipped with all the modern equipments required for cosmetic and conservative dentistry. We are now completely equipped with,

- Digital orthopantomogram (OPG)
- Dental laser unit
- Dental operating microscope

- Digital RVG (Radio visuography)
- Endomotor with apex locator

Also this year we have increased our focus towards the cleft orthodontic care. Most of the cleft palate patients will have completely collapsed dental arches. We are treating them with complete cleft orthodontic protocol which begins with fixed maxillary expansion screws followed by fixed orthodontic appliance. We are proud that our centre is one among the very few centres in Tamilnadu giving the complete cleft orthodontic care.

### Treatment Facilities

#### Routine Dental Treatment Procedure

- Extraction
- Oral prophylaxis – scaling (dental cleaning and polishing)

### Statistics

Outpatients	: 3746
New	: 497
Review	: 3249
Inpatients	: 90

- Tooth colour filling and other aesthetic restoration
- Periodontal procedures
- Removable orthodontic appliances
- Removable partial dentures
- Complete dentures
- Fixed crowns and bridge dentures.
- Smile designing
- Depigmentation of gums
- Management of oral sub mucous fibrosis
- Alveoloplasty
- Implants
- Temporary and immediate crowns

### Specialized Treatment Procedure

- Root canal treatment using microscope, endomotor, RVG and Apex locator
- Dental implants
- Gingivectomy - Using Laser
- Frenectomy - Using Laser
- Root canal sterilization - Using Laser
- Excision of mucocele - Using Laser
- Fixed maxillary expansion for narrow maxillary arches
- Correction of abnormally positioned teeth by orthodontic [fixed /removable/ surgical correction]. We do the latest MBT fixed orthodontic procedure
- Facial cosmetic surgery
- Management of impacted teeth and related problems
- Dental alveolar surgeries
- Obturators for cleft palate
- Bleaching of discoloured tooth
- Immediate dentures placed immediately after extraction of the tooth
- Splinting of mobile tooth
- Maxillofacial trauma and fracture surgeries [maxilla, mandible, zygoma, alveolus etc..]
- Surgical management of cysts of the jaws
- Endodontic surgery – apicectomy
- Management of various neurological problems of the orofacial regions
- Management of dental and orofacial infections
- Management of temporomandibular joints and related problems
- Management of salivary gland associated dysfunction
- Periodontal and gingival surgical procedure
- Single visit complete dentures
- Management of oral cancers
- Pediatric dentistry
- Geriatric dentistry
- Cosmetic / cosmogenic dentistry
- Dental management in pregnancy
- Dental management of medically compromised patient  
Eg. Diabetic, hypertensive, asthmatic, epileptic, cardiac,

mentally and physically handicapped patient.

Complete rehabilitation of mandible & condyle using Titanium Plates & screws after mandibulectomy in carcinoma of mandible cases.



DENTAL LASER UNIT >



OPG X RAY UNIT >

### Awareness Programme

Free Dental camps for the general public are being held Every Wednesday from morning 9.30a.m. – 1.30p.m. in the dental OPD.

Regular dental camps are conducted in schools and colleges for dental screening and oral hygiene education in and around Madurai.



## DERMATOLOGY & VENEREOLOGY

The Department of Dermatology, Cosmetology and Venereology is in touch with the latest developments in the field. It deals with various dermatological procedures apart from accurate diagnosis and treatment of even troublesome acute and chronic skin diseases including sexually transmitted disease.

### Statistics

Outpatients	: 5765
New	: 1405
Review	: 4360
Inpatients	: 48

<b>Phototherapy Unit:</b> NBUVB Therapy PUVA Therapy	Vitiligo, Psoriasis, Erythroderma Atopic Dermatitis Morphia
<b>Micro Dermabrasion</b>	Superficial acne marks and scars Age spots, fine lines and wrinkles Photo damaged skin oily greasy skin, enlarged pores stretch marks
<b>Cryo Therapy:</b> Liquid Nitrogen	Molluscum contagiosum, viral warts, genital wart, Keloids, corn feet
<b>Chemical Peeling</b>	Melasma Acne Facial hyperpigmentation

<b>Tattooing</b>	Vitiligo, Post inflammatory depigmentation
<b>Piercing Gun</b>	Ear and nose stud piercing
<b>Biopsies:</b> punch, needle	Psoriasis, LP, vesiculobullous disorders.
<b>SSS (slit skin smear)</b>	Leprosy
<b>Intra Lesional Injections:</b> 1. Steroid	Morphoea Alopecia areata Prurigonodularis Keloid
2. Sclerotherapy	Pyogenic granuloma Hemangioma
Lasers: Co2 laser	Removal of warts, DPN, mole, cutaneous tags Acne scar revision
<b>Q-Switched Nd:</b> YAG laser	Tattoo removal, freckles nevus of OTA, facial hyper Pigmentation
Fractional laser	Scar removal Stretch mark
<b>Diode Laser</b>	Hirsutism (Facial Hair/Trunk Hair)
<b>Derma Roller</b>	Post operative scars Herpes zoster scars Acne scars
<b>Skin Graft Techniques:</b> Punch graft Ultra thin skin graft	Lip vitiligo Facial, trunk and limb vitiligo
<b>Platelet Rich Plasma Therapy</b>	Hair loss, Under eye dark circle Skin rejuvenation Acne scars
<b>Botox Injection</b> Fillers	Wrinkles and aging skin Acne scar

### Sexually Transmitted Infection – Investigations

- Wetmount, KOH mount.
- Genital wart management.
- Dark ground microscopy.
- Gram stain for cervical and urethral discharge.
- Glacial Acetic acid test – (Early detection of cervical Intra epithelial neoplasia).



## DIABETOLOGY

Our sincere efforts and hard work towards achieving world class diabetic care to everyone continues this year also. A lot of support and response from other units, management and people has helped us to deliver excellent care to patients. With the blessings of everyone, we are very happy to share our achievements.

### Our Services

- Total diabetic care under one roof like Retinopathy, Neuropathy, Nephropathy and heart care (Cardio Vascular disease).
- Custom made Diabetic footwear.
- Diabetic Club.
- Free insulin for Type – 1 diabetic patient.
- Monthly magazine– "KasakkumInippu"– to educate diabetic subjects.
- Intensive monitoring for GDM (pregnant diabetic) subjects.
- Tele and e-glucose monitoring (telephone and e-mail).
- Diet counselling by qualified nutritionists.
- Patient education by using diabetes maps.

### Statistics

Outpatients	: 8700
New	: 582
Review	: 8118
Inpatients	: 93

## Facilities

- CGMS (Continuous Glucose Monitoring System).
- Insulin pumps.
- Diabetic neuropathy screening: we have Biothesiometry to detect early diabetic neuropathy and foot pressure mapping to make customized foot wears.
- Hand Doppler for Diabetic vasculopathy screening.

## Medical Care

We manage case admitted for DKA (Diabetic ketoacidosis), diabetic ulcer foots and other patients admitted with complications of diabetes (like MI, Stroke, CKD, Surgical illness etc.,).

All diabetics are treated and monitored to prevent the onset of long-standing complications like retinopathy, neuropathy and nephropathy. This includes screening for diabetic complications like fundus photographs, heart check -ups, peripheral vascular screening, tests for micro albumin, urine PCR, nerve conduction study and autonomic nerve system study.

We do minor procedures like corn footwear outlet at our department. The patients can get footwear of their choice by customization.

CMEs are conducted every year on recent advances in the field of diabetes for the benefit of our junior doctors and general practitioners.

## New Services (This Year)

- Neuropathy Clinic
  1. Vibration perception. Threshold (or) Biothesiometer.

For screening Neuropathy by screening through vibration or Vascular Doppler.

2. Hand Doppler.

For screening Vascularing by finding Ankle Brachial index.

3. Harrismat (or) Foot Mapping.

To provide appropriate foot wear for an individual for sole of foot by the pressure in sole of footwear.

4. Podiatry Kit To heat corn calluses, cracks in the sole of foot & also pedicure.

- Insulin Pump Therapy.

1. Continous Glucose Monitoring System (CGMS).
2. Continuous subcutaneous insulin insemination (CSII).

- Diabetic foot care (team work).

## Conference Attended

- World diabetes congress – Melbourne Dec 2013.
- Diabetic foot society of India – Jaipur Aug 2013.
- National Diabetes Summit – Mumbai Jan 2014.

## Presentation

Talk on patient centered approach in Diabetes management - At Dindigul Diabetes Club Web conference - Talk on moving from targets to patients.

## Charity

We are providing free insulin for Type 1 diabetic children up to 18 years. So far, Nineteen twelve children have been benefited through this service.

## World Diabetes Day

ACME was conducted in collaboration with IMA at our hospital on recent advances in Diabetes. About 150 doctors attended the CME.



World Diabetes Day CME Programme



## DIETETICS & CLINICAL NUTRITION

■ Dietetics is a field, specializing in therapeutic and clinical nutrition. The dietetics profession is expanding work in multi-disciplines to provide wholesome health care to patient. Dietetics and therapeutics department is one of the most important hospital services contributing to the recovery of health through scientifically prepared diet. This department contributes towards the basic needs for good nutrition for the patients.

In addressing the patient needs, MMHRC has qualified dietitians

who provide the beneficiary services.

The chief dietitian with a team of 8 dietitian all work towards one goal, i.e. providing good nutritionally balanced meals to all the indoor patients as per their disease and medical requirement.

The aim of the department is to promote health, prevent disease and aid in the management of illnesses. The team ensures optimum nutrition for patients undergoing or recovering from the

various treatments. Dietary intervention in people can improve tolerance to various medical procedures in addition to inpatients and outpatients.

Clinical nutritionist assesses the nutritional status of patients, calculate individual nutritional requirements, design a plan of care to meet these nutritional requirements and educate families on special and health promoting diets or nutritional support.

Nutrition and food service staff help patients select their daily menus and deliver meals to the bed side.

- Bedside counseling for IPD patients.
- Nutritional assessment of IPD patients.
- Providing customized diet to the patients.
- Visiting patients daily and solving their diet related problems.

To disseminate nutrition knowledge to the patients through discussions, lectures, pamphlets, etc. We provide a comprehensive service to patients requiring dietary advice nutrition support when a child or young.

### In Case Patient Referred to us we will:

- Assess the need for dietary management.
- Check height, weight and other measures of growth and nutrition status.
- Plan the correct feed or diet based on our assessment.
- Explain the dietary treatment in a way that is understandable and manageable.
- Monitor the child's progress and advice on changes when needed.
- Keep all the health care professionals up to date about dietary changes when a child or young person be referred to a dietitian.

### About the Department

We work across Cardiology, Diabetes, Food allergy, Gastroenterology, Inherited metabolic disease, Nutrition support, Neurology, Oncology and Renal disease. Many in patients

require specialized infant formula and tube feeds. These need to be prepared accurately and in the clean environment of the special feeds unit. We work closely with the catering and the diet cooks to provide special diets for the inpatients.

### Outpatients Service

They also provide nutritional care and advice about lifestyle modifications Good nutrition planning includes:

- Eating well when dining out.
- Planning healthy meals at home.
- Feeding people at home with different nutritional needs.
- Heart - healthy eating.

### Referral Guidelines

#### Diet and Lifestyle:

A balanced and health promoting lifestyle, which should include moderate physical activity, a nutritious and healthy diet, adequate sleep and effective stress management helps in improving one's overall quality of life.

#### Inpatients and Outpatients Service:

The dietetic service provided by the Department Dietetics and Nutrition are mainly focused on supporting the care of our patients in the hospital with the assistance of multidisciplinary teams. The nutrition therapy provided is dependent on the patient's medical conditions, nutrition issues and the nature and complexity of care required. Any health care professionals can identify and suggest patient to the doctor for a dietitian referral. Only a doctor can do referrals to a dietitian.

Upon referral the dietitian will perform an initial nutritional assessment and suggest a nutrition care plan based on the diagnosed nutrition issues. Patients and/or family will also receive nutrition education and/or counseling, where indicated based on the individual nutrition care plan to meet the nutritional goals. Patient's nutritional progress will be monitored and reassessed at regular intervals, to meet the individualized nutritional goals.

In patient's requiring out patients follow-up after discharge will be given outpatient dietitian appointments. If the patient is discharged to an intermediate or long term care facility, a memorandum on the nutrition care plan will be provided.

### We Assist Patients with the Following Conditions:

#### Cancers:

- Head and neck, stomach, colon, liver, etc.
- On surgical, chemotherapy and/or radiotherapy treatments critically ill.
- Mechanical ventilation requiring non-oral nutrition therapy.

#### Gastrointestinal Disease:

Crohn's disease, Diverticular disease, Irritable Bowel Syndrome (IBS), GERD, etc.

- Diabetes Mellitus.
- Eating disorders.
- Gout.
- Hypertension (High blood pressure).
- Heart failure.
- Hyperlipidemia (High blood cholesterol).

**Kidney Disease:**

Chronic kidney disease, pre-dialysis, hemo-dialysis, peritoneal dialysis, etc.

**Stone Disease:**

- Kidney stone.

**Malnutrition:**

- Loss of appetite, poor diet, unintentional weight loss, etc.

**Weight Management:**

- Overweight, underweight, Bariatric surgery, etc.

**Osteoporosis:**

- Post-surgery for optimal nutrition and wound-healing.

**Stroke:**

The department provides nutrition support and dietary interventions/ education to inpatients, outpatients and those attending day care services.

Dietitian's/Clinical Nutritionists assess the nutritional status of the patient determine individual nutritional requirements and

formulate a plan of care to meet these nutritional requirements. Education is provided for patients on nutritional support and/or special dietary intervention's appropriate to their plan of care.

Specialist dietetic services are provided in a number of areas, which include Nephrology, Endocrinology, Gastroenterology, Cardiology, Care of the elderly, Critical care, GI surgery, Stroke service and Pediatrics.

**Internship Training**

Every year, Our department provides internship training for UG and PG diploma students of food science. Nutrition and dietetics, food service management from the southern districts. We provided practical training and exposure to the students of Kamaraj University, Gandhigram Rural Institute-Deemed University, and Manonmanium Sundharanar University.

**Diet Counseling**

Total IP diet counseling 11,86,325  
Total OP diet counseling 16,600

**Diet Sent Through Our Department**

Special room diet	82,542
ICU diet	68,445
Paediatric oncology diet	20,388

**Conference Attended**

**Indian Dietetic Association**

Mrs.J.P. Jeyanthiall, Chief dietitian participated in 46th Annual National Conference 12-14th December 2013 at pune on topic "New Paradigms in Nutrition Research and Practice".

**Statistics**

Total number of students attended internship training during the year 2013-2014.

Sl. No	Course	No. of Students
1	Under graduate	164
2	IGNO	1
3	Post graduate diploma	20
	Total number of students	185





## ENT (OTORHINOLARYNGOLOGY)

The Department of ENT is progressing well with advanced instruments and improved surgical techniques.

### This Year We have Got

- 1 Stryker Microdebrider and Skull Base drill for improving the outcome in Functional Endoscopic Sinus Surgery (FESS) and Skull Base drill for doing Skull Base Surgeries with ease and precision.
- 2 Coblator - Which uses radiofrequency for coagulation

and ablation with which the following can be treated easily.

- Surgical treatment of snoring.
  - Nasal Turbinate reduction for Allergic Rhinitis.
  - In laryngeal tumors, papillomas and sub glottic stenosis.
  - Bloodless Tonsillectomy.
- 3 Advanced Brainstem Evoked Response Audiometry (BERA) for identifying hearing defects in children.

### Academic Performance

- Attended Dr. SATORU Nagata's workshop in Japan on auricular reconstruction.
- Gave a lecture on the Dr. Nagatas method of auricular reconstruction

### Statistics

Outpatients	: 6463
New	: 1604
Review	: 4859
Inpatients	: 426

in monthly AOI meet held on February 2014.

- Invited speaker in ' TINNITUS-CME' conducted by Strides Arcolab in March 2014.

**Statistics**

**Otology**

Mastoidectomy with Tympanoplasty	137
Stapedectomy	11
Facial Nerve Decompression	1
Facial Nerve Schwannoma Excision	1
Type II First Branchial Cleft – Total Excision	1
Miscellaneous	17

**Total cases 168**

**Rhinology**

Fess /Septoplasty /SMR	49
Endoscopic Skull Base Surgery	28

Endoscopic DCR	3
Diagnostic Nasal Endoscopy and Cautery	62
Benign Tumors – Endoscopic Excision	13
Endoscopic Biopsy	13
Fracture Nasal Bone Reduction	9
Rhinoplasty	3
Miscellaneous	23

**Total cases 203**

**Laryngology, Head and Neck**

Tonsillectomy and Adenoidectomy	57
DL Scopy or FOB/ BIOPSY	63
Microlaryngeal Surgery	21
Tracheostomy	54
Thyroid and Thyroglossal Cyst	6
Thyroplasty	1

Partial Laryngectomy	1
Neurofibroma Excision	2
Coblation Surgeries	3
Maxillectomy	1
Para Pharyngeal Tumor – Intra Oral Excision	1
Miscellaneous	51

**Total cases 261**

**Total number of surgeries 605**

**OP Statistics**

DNE	1200
Video Laryngoscopy	750
PSG	23

**Audiology Statistics**

Audiogram	1200
BERA	30
Speech Language Therapy	1800
Hearing Aids Sold	60
Accessories	200



Skullbase Drill >



Debrider & Endoscopy Unit >



Coblator >



Zeiss Microscope >



## GENERAL MEDICINE

Medicine is the field of applied science related to the art of healing by diagnosis, treatment and prevention of disease. It encompasses a variety of health care practises evolved to maintain and restore health by the prevention and treatment of illness.

The medicine department at MMHRC is a premier patient care and teaching centre. It is one of the core units of our hospital that treats a maximum number of critically ill patients.

### **Diseases Concerned**

#### **Infectious Diseases**

All common and serious life threatening infectious diseases like Dengue, Chickungunya, Thypoid, Malaria, Leptospirosis, Scrub typhus, Sepsis, UTI, meningitis etc. are managed efficiently by our best team of doctors.

#### **Hypertension and Diabetic Mellitus**

Our department focusses on early deduction complete investigations and diabetes. The importance of

stress management, changes in life style, periodic regular checkup, proper compliance in taking the drugs is regularly stressed upon each patient.

### **Statistics**

Outpatients	: 16775
New	: 3777
Review	: 12998
Inpatients	: 2781

It is stated that "If you take life long treatment, you will have long life". The importance of non drug therapy such as food modification and regular exercise is also emphasized.

### Other Endocrinological Diseases

Diseases like Addisons, Cushings, Thyroid abnormalities, lipid abnormalities, electrolyte imbalances are promptly diagnosed and treated.

### Connective Tissue Disorders

All types of connective tissue disorders like systemic lupus erythematosus, mixed connective tissue disorders, Sjogrens syndrome, Systemic onset rheumatoid arthritis are thoroughly investigated and managed by our team of doctors.

### Respiratory Illness

All respiratory cases (Bronchial asthma, COPD, Pleural effusions, Pneumothorax, Interstitial lung diseases, TB Bronchiectasis, occupational lung diseases, Respiratory failure, Pulmonary and Extra pulmonary) are also treated by us.

### Hematology

Blood disorders like anaemia, haemolytic anaemia, pancytopenia, immune thrombocytopenia purpura etc., are efficiently diagnosed and managed.

### Emergency Cases

Emergency cases of sepsis with multiorgan dysfunction, DIC, Acute

respiratory distress syndromes, Pulmonary oedema, Acute pulmonary embolisms are managed round the clock.

### Well Being Clinic (Master Health Check Up)

"Prevention is better than cure". After the age of 35 it is better for everybody to have their body screened for any illness like high blood pressure, Diabetes mellitus and Cardiac ailments. Many diseases are manifested only after much damage has been already taken.

Hence the well being clinic is run in our hospitals to cater to the need for busy people which offers investigations and treatment taking minimum valuable time of the customer.

### Intensive Medical Care Unit

Our department is having intensive care unit taking care of the seriously ill patients round the clock with utmost care. It is equipped with uninterrupted oxygen supplies and other life saving measures (Intubation, Ventilator, Defibrillator, central line equipment) with a doctor and round the clock nursing care.

### Academics

The department is recognised by the national board of examinations, New Delhi for the Diplomate of national board degree in general medicine and family medicine since 1992 the academic course starts in the month of December and we admit

2 candidates in general medicine and 4 candidates in family medicine for training.

- We have regular classes comprising of case discussions, topic discussions, journal club.
- We have a very good track record.

### Major and Minor Procedures

- Bone marrow aspiration and Biopsy.
- Lumbar Puncture.
- Pleural aspiration.
- I.C.D procedure.
- Diagnostic tapping.
- Diabetes foot care.
- Pulmonary Function test.
- Central line placement.

### Tips for Healthy Living

- Regular diet.
- Regular exercise.
- Sufficient sleep.
- Taking drugs regularly (compliance).
- Periodic monitoring by doctor.
- Relaxed and stress free mind.

**Dr. P. Krishnamoorthy,**  
M.D(Gen. Med.), FCGP., FIAMS.,  
Senior consultant & HOD Medicine.



## HEMATOLOGY & BONE MARROW TRANSPLANTATION

It is a great privilege and pleasure to start a new department at MMHRC, Department of Haematology and Bone Marrow Transplantation, first of its kind in Southern Tamilnadu. Hematology caters to patients with disease of the blood. The diseases of the blood include benign disorders, malignant disorders and disorders of haemostasis. Benign disorders include Aplastic anaemia, ITP, Myelodysplastic Syndrome, Haemolytic anaemias and various types of anaemia. Malignant disorders

include Acute and Chronic leukaemias, Myeloproliferative disorders, Plasma cell disorders like Multiple myeloma, Hodgkin and Non Hodgkin lymphomas.

Various bleeding disorders managed include Hemophilia, Von Willebrand Disease, Factor VII deficiency, Factor V deficiency, platelet function disorders like Bernad Solier syndrome and Glanzman Thrombasthenia. We have a state-of-the-art coagulation lab. We can be proud that we are the first hospital in Southern Tamilnadu

to have a coagulation laboratory which can do a comprehensive coagulation factor assays. We can also do surgeries for Hemophiliacs as we have the facilities to monitor factor levels.

### Statistics

Outpatients	: 2086
New	: 324
Review	: 1762
Inpatients	: 369

We have a dedicated oncology ward, which caters to the Acute leukaemias and Lymphomas. The nurses are trained to handle central venous catheters and PICC lines with sterile precautions. We also have the opportunity to keep the severely neutropenic patients in the HEPA filtered room, so the chance of acquiring invasive fungal infections are minimised.

We are all set to start the bone marrow transplant programme. We have the necessary infrastructure in the form of well trained staff nurses, HEPA filtered rooms, 24 hours functioning regional blood bank, 3 state of the art apheresis machines (COBE Spectra and Fresenius Kabi), facility to irradiate blood products and 80 cm deep freezers.

Following is the list of cases managed in the financial year 2013-14.

Diagnosis (Malignant Haematology)	Total No. of Cases
AML	34
ALL	15

CML	28
CLL	9
MDS	19
Multiple myeloma	10
POEMS syndrome	1
Polycythemia rubra vera	22
Myelofibrosis	4
MPN unclassified	2
Lymphoma	4
Total	148
Diagnosis (Benign Haematology)	Total No. of Cases
Aplastic Anaemia	32
Fanconi anaemia	2
PNH	5
Megaloblastic anemia	24
Iron deficiency anemia	65
Thalassemia	10
AIHA	22
Haemolytic anemia	5

Evans syndrome	7
ITP	67
TTP	2
Bleeding disorder	29
DVT & CVT	24
SLE with hematologic manifestations	4
Total	298

**Conferences Attended**

1. PHOCON 2013, Delhi – November 2013.
2. American society of Haematology Conference, New Orleans – December 2013.
3. Apollo Cancer Conclave – February 2014.

**Invited Lectures**

1. TAPICON 2013: TPO mimetic in the management of ITP.
2. API DIAS 2014: Approach to Anemia.



Neutropenic patient being kept in special HEPA filtered (Arrow) room to prevent infections >



## IMAGING SCIENCE & INTERVENTIONAL RADIOLOGY

The Department of Imaging and Interventional Radiology made a humble start in 1990 with a 300 mA X-ray machine with image intensifier and a portable Black and White Ultrasound machine with a total staff strength of six.

As our Institution began establishing itself as one of the best health care centers in South India, the demands from our consultants began to grow during the mid 90's.

Since then we have added various radiology equipments to our

armamentarium to keep up with the developments in the field of radiology and also to cater to the needs of our patients.

### 1996

- Whole body colour Doppler.
- Spiral CT scanner.

### 2000 - 2005

- Mammography equipment.
- Whole body 3D colour Doppler machine.
- Mobile Cath lab.

### 2005 - 2010

- 0.2 T MRI.
- Multislice CT (16 slices) scanner.
- Fixed Cath lab with 3D rotational angiography.
- Endoscopic ultrasonography.
- Computerized radiography.
- Teleradiology.
- Interventional radiology clinic.

### 2011 - 2014.

- 64 slice CT scanner.
- 1.5 T MRI.

- DEXA (Dual Energy X-ray absorptiometry) for detecting osteoporosis.
- Endovenous Lasertherapy.
- PIGA CT Guidance system.
- Picture Archival and Communications Systems.

### Academic Activities

We have also shown a steady growth in the academic field.

Our DNB radiology course was started in the year 2000 and we have so far produced 30 successful Radiologists, some of whom are placed in various International and National Radiology, while others have started high class radiology centres in various parts of the country. We conduct regular teaching programmes and training programme for DNB PG's to help them face their exams with confidence.

We have also represented our department in various conferences, presented papers and published our research works in various journals. Meenakshi Radiology

forum was started in 2006 to interact with Radiologists in and around Madurai and to share our experience and knowledge with PG students from various institutions.

We have conducted various CME's and regional and state level conferences. We conduct short term training programmes for Radiologist in Ultrasound, CT, MRI and basic interventional radiology techniques.

### Academic Achievements Radiology Consultants

#### Dr. T. Mukuntharajan

Sr. Consultant & HOD

- Best Doctor Award - MGR Medical University (2012).
- Invited Faculty in various state and National conferences.

#### Dr. N. Karunakaran

Consultant

- Invited speaker for State level Radiology conferences.
- Won prizes Poster presentation in state level conferences (2007).
- Won prizes in Quiz competition in the National level (2010).

#### Dr. Ganesh Rajagopal

Consultant

- Conducted quiz in 63rd state IRIA conference, Madurai.
- Won prizes for poster presentations in state level Radiology conference (2004, 2007).
- Won Prizes in quiz competition in State and National levels (2006, 2014).

### Radiology DNB Post Graduates

#### 2004: Dr. S. Leve Joseph Devarajan

- Prize for Best poster presentation in GI imaging, Chennai.

#### 2006. Dr. N. Thayanandar

- First prize in quiz competition in State IRIA 2006.

#### 2007 Dr. S. Visagan

- First prize for poster presentation in State IRIA, Chennai.

#### 2009 Dr. Jaishree Vijayanand

- Second prize in poster presentation, TARGET 2009, Chennai.



- First prize in quiz - BIR CME on OB and G at Chennai.
- First prize in physics quiz - Radiation safety CME, GRH, Madurai 2010.
- First prize in poster presentation 63rd State IRIA, Madurai 2010.

#### 2009 Dr. S. Kamalashubramanian

- First prize SONODATE, Salem.

#### 2010 Dr. N. Vijayarman

- First prize in physics quiz - Radiation safety CME, GRH, Madurai.

#### 2012 Dr. Chirag Ghodasara

- First prize in the online quiz conducted by Barnard in "Case of the week" - July session 2012.
- Second prize for poster presentation "A pictorial array of Twisters" in BRACE CME, Chennai - July 2012.
- Second prize in the quiz conducted in BIR PG primer course - February 2013.

#### Dr. Saket Ballabh

- Second prize in the paper presentation in IRIA monthly meet, October - 2012. Rameswaram.

#### Dr. A. Kokilan

- First prize in the quiz conducted by the Madurai Alumini Radiologist Society, November 2012.

#### 2014

- First prize in annual clinical society meeting for maximum number of paper presentations.

#### Dr. Priyadarsini

- Third prize in the quiz conducted in 66 State IRIA at vellore, December 2013.

#### Dr. Kiranmai

- First prize in the quiz conducted by the Madurai Alumini Radiologist Society, August 2013.
- Third prize in the quiz conducted in 66 State IRIA conference at Vellore, December 2013.

Today our department is one of the best centres in the field of diagnostic and interventional radiology, performing a good number of diagnostic and interventional procedures with high level of accuracy and excellence.

### Glimpse of Facts

#### Radiology:

Routine x-rays	77,891
Contrast studies like IVU and Barium etc,	1,213

#### Inverventional Radiology:

Angiographies, Angioplasties	198
Stenting, Embolisations	198

Drainage procedure and Biopsies	991
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#### Ultrasound:

Color Doppler	3,821
Echocardiography	
Doppler procedures	1,039
Doppler studies of various organs	42,030
Routine U/S imaging	

### CT

Routine CT scans	11,267
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CT guided procedures	940
Coronary angio	27
CT renal and other angio	445

### MRI

Routine MRI scans	3,292
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### Conferences Conducted

- Hosted the state annual Radiology conference with IRIA in the year of 2011.
- Pre conference Interventional Radiology workshop.
- Midterm IRIA meet.
- Neuroradiology - CME.

### Conference Attended

#### Dr. T. Mukuntharajan

- Invited Faculty for National ISVIR conference - Kovai.
- Invited Faculty for STATE IRIA Conference - Vellore.

#### Dr. N. Karunakaran

- Echocardiography course conducted by MMM, Chennai.

#### Dr. Ganesh Rajagopal

- International Neuroradiology Course, Coimbatore 29<sup>th</sup> and 30<sup>th</sup> Jun - 2013.
- MRI and CT Education, Chennai, 14-15 Sep 2013.
- 66<sup>th</sup> State IRIA conference at Vellore, Dec - 2013.
- European congress of Radiology, Vienna, Austria, Mar - 2014.

**Dr. T. Mukuntharajan, DMRD.,**  
Sr. Consultant & HOD.



## INTENSIVE RESPIRATORY CARE UNIT & TOXICOLOGY

This Critical unit with 20 beds, assure maximum isolation, barrier nursing, privacy and sterility, providing Intensive care and high dependency care in the same unit with the aid of appropriate pharmaceutical, therapeutic, and diagnostic interventions and modest technical backup.

### Our Technical Arsenal

Sophisticated multipara monitoring devices, drug delivery systems, ABG Analyzer, Capnography and new generation of Mechanical Ventilators

aided by smooth man-machine interactions.

### We Take Pride in

Vigilant and dynamic monitoring by a dedicated team, motivated and guided by a team of full time Anesthesiologists, delivering excellent patient care with a human touch.

### We Indulge in -

- Enhancing practical skills in the handling of complex equipments, monitoring, procedures and performance of Invasive techniques.

- Enhancing clinical skills in recognizing, preventing and managing critical illness, infection control and organ support.

### Our Collaterals

- Infection control team.
- Trained physiotherapist.
- Dieticians.
- Biomedical Backup.
- Family counseling / Psychiatric consultation for Patients with suicidal attempts.

**Our Key to Success -**

Patient - centric comprehensive, multi-disciplinary care with coordinated, collaborative and cost effective approach in a compassionate and healing environment.

**We Deliver**

- Advanced Mechanical ventilatory therapy including Non-invasive ventilation.
- Diagnostic and therapeutic fiber-optic bronchoscopy.
- Percutaneous dilational Tracheostomies.
- Central venous and arterial

cannulations and temporary cardiac pacing.

- Mechanical ventilatory support for post-operative and polytrauma patients.
- Management of Various complicated Poisonings.
- Orientation, teaching and training programmes for medics and paramedics.
- In-hospital "code Blue" based Cardio-Pulmonary Resuscitations.

**Conference Attended**

ISCCM – Criticare 2014 at Jaipur- Dr. S. Karthikeyan, M.D., (A/E).

**Statistics**

Total No of Admissions :	1292
Total No of Patients on Ventilator	1122
Total No of Poisoning Patients	199
Total No of Percutaneous dilational Tracheostomies	476
Total Survival Rate	86%
Survival Rates–Ventilated patients	82%
Survival Rates - Poisoning Patients	97%





## LABORATORY SERVICES

MMHRC's Laboratory is the first NABL accredited lab (C.M- 0369) in South Tamil Nadu among Multi Speciality hospitals. Our Laboratory has a state-of-the-art unit fitted with the finest equipments for comprehensive diagnostic support to our clinical counterparts. Yet, the approach is patient – centric. Our qualified and experienced laboratory professionals follow good laboratory processes on par with international standards, followed by ISO 15189:2007.

### Quality Policy

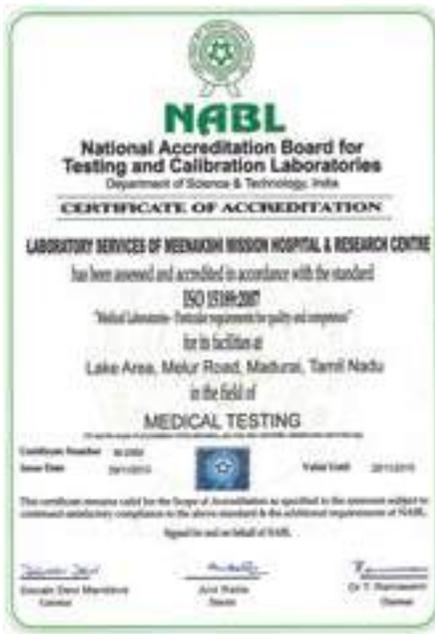
- Our Laboratory Quality Policy is to provide quality laboratory services to its customers using internationally approved methodologies in an ethical manner as a professional team.
- Management complies with ISO 15189:2007 medical laboratories– These are particular requirements for quality and competence with international standards.
- We also ensure compliance with NABL and regulatory requirements.

- We ensure that our team familiarizes itself with quality documentation and implementation of international standards at all time.

### Quality Objectives

- To ensure customer satisfaction.
- To adhere to international standards.
- To provide timely examinations report with minimum uncertainty.
- To provide reliable service at affordable cost to the customer.
- To follow good laboratory practices.

## Quality Assurance



Our Laboratory Service is accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL). It has documented its policies, processes, procedures and instructions based on the requirements of ISO 15189:2007 and communicated to all relevant concerned personnel.

Our Laboratory participates in Internal Quality Control, External Quality Control and Inter Laboratory comparison programmes.

## Bio Chemistry

The Bio-Chemistry Department has Integrated Unicel DxC 860i, which is an IT Integrated modular auto analyzer. It performs both clinical chemistry and Immuno chemistry parameters (CLIA method). We conduct 1640 tests/hour. This instrument is a well equipped method (Closed Tube System) built chiefly to avoid bio hazard exposure to the operators. We have two backup instruments for DxC 800, Synchron Cx 9 Pro (Clinical Biochemistry) and Access 2 (Immuno chemistry).

The Bio - Rad D10 Analyzer is used for HBA1C Test by HPLC (High Performance Liquid Chromatography) method. Periodic maintenance and calibration is done as per manufacturer guidelines.

### Investigations

- Blood Glucose (Fasting).
- Blood Glucose (PP).
- Blood Glucose (Random).
- Glucose Challenge Test (GCT)- 50gm.
- Oral Glucose Tolerance Test (GTT).
- HbA1C (Glycosylated Hb).
- Plasma Urea.
- Blood Urea Nitrogen (BUN).
- Plasma Creatinine.
- Sodium.
- Potassium.
- Chloride.
- Bicarbonate.
- Cholesterol-Total.
- Triglycerides.
- HDL Cholesterol.
- LDL Cholesterol\*.
- Bilirubin Total and Direct.
- Total Protein.
- Albumin.
- SGOT / AST.
- SGPT / ALT.
- GGT.
- Alkaline Phosphatase.
- Amylase.
- Lipase\*.
- Creatine Kinase (CK).
- CKMB\*.

- Troponin-T\*.
- LDH.
- Calcium.
- Inorganic Phosphorous.
- Uric Acid.
- Iron (Fe)\*.
- Iron Binding Capacity (TIBC)\*.
- Magnesium.
- Ammonia\*.
- Pseudo Cholinesterase\*.
- Osmolality - Serum\*.
- Adenosine De Aminase (ADA)\*.
- Cystatin-C\*.
- Copper\*.
- Ceruloplasmin\*.
- hCRP\*.
- Serum Lactate\*.
- Hb Electrophoresis\*.
- Protein Electrophoresis\*.
- Cyclosporine\*.
- Blood Alcohol\*.
- Procalcitonin\*.

### Urine Investigations

- Protein / Creatinine Ratio\*.
- Micro Albumin\*.
- Osmolality\*.
- Urine BJP\*.
- Urine Spot Sodium\*.
- Urine Spot Potassium\*.
- Urine Spot Chloride\*.
- Urine Spot Calcium\*.
- Urine Spot Uric Acid\*.

### Biochemistry Profile

- Liver Function Test (LFT).
- Lipid Profile\*.

- Electrolytes.
- Urine Electrolytes\*.

### **Immunochemistry Investigation (CLIA)**

- Total T3.
- Total T4.
- Free T3.
- Free T4.
- TSH.
- FSH.
- LH.
- Prolactin.
- Testosterone.
- HCG.
- Estradiol\*.
- Progesterone\*.
- Cortisol.
- Growth Hormone\*.
- Troponin I\*.
- Ferritin.
- Total PSA.
- Free PSA.
- CA 125\*.
- CA 19.9\*.
- AFP.
- CEA.
- Parathyroid Hormone (PTH)\*.

### **24hrs Urine Investigations**

- Protein / Creatinine Ratio\*.
- Creatinine Clearance Test\*.
- Metabolic Workup\*.
- Protein\*.
- Calcium\*.
- Phosphorus\*.
- Uric Acid\*.

- Oxalate\*.
- Citric Acid\*.
- Electrolytes\*.
- VMA\*.

### **Haematology**

The Haematology department has LH 780 and LH 750 cell counters with IT integration. This instrument is equipped with advanced electrical impedance with VCS (Volume Conductivity Scattered) technology, with histogram for RBC, WBC and Platelet.

The department also consists of The Vesmatic 80 analyzer, which is dedicated only to analyze Erythrocyte Sedimentation Rate (ESR).

The ACL TOP 300 coagulometer is used to test PT, APTT, Fibrinogen, FDP, Factor V, Factor VIII, Factor IX, Factor XIII, Fibrinogen and D-Dimer.

In clinical pathology, we have 2 urine analyzers (Erba-Urodip 300) which analyze urine investigations.

### **Investigations**

- Hemoglobin.
- PCV.
- Total WBC Count.
- Total RBC Count.
- Differential Count.
- Platelet Count.
- ESR.
- MCV.
- MCH.
- MCHC.
- Absolute Eosinophil Count (AEC).
- Absolute Neutrophil Count (ANC).
- Reticulocyte Count.
- Complete Heamogram.

- Complete Blood Count - HB, TC, DC, ESR.
- Smear for MP\*.
- Smear for MF\*.
- Peripheral Blood smear\*.
- Bleeding Time (BT)\*.
- Clotting Time (CT)\*.
- Clot Retraction Time\*.
- Clot Lysis Time\*.
- Plasma ketone\*.

### **Special Investigations**

- G6PD\*.
- Sickle Cell\*.
- OFT\*.
- LE Cells\*.
- Mantoux\*.

### **Coagulation Investigations**

- Pro Thrombin Time (PT) - INR\*.
- APTT - Activated Partial.
- Thromboplastin Time\*.
- FDP - Fibrin Degradation Products\*.
- Fibrinogen\*.
- D - Dimer\*.
- Factor XIII\*.
- Factor V\*.
- Factor VII\*.
- Factor VIII\*.
- Factor IX\*.
- Factor XI\*.
- Factor XII\*.

### **Clinical Pathology (Urine and Stool Investigations)**

- Urine Complete Analysis\*.
- Protein\*.

- Glucose\*.
- Acetone\*.
- Bile Salts\*.
- Bile Pigments\*.
- pH\*.
- Specific gravity\*.
- Myoglobin\*.
- Chyluria\*.
- Fat globulin\*.
- Hemoglobin\*.
- Nitrite\*.
- Urine LH\*.
- Leukocytes\*.
- Pregnancy Test (UPT)\*.
- Bilirubin\*.
- Urobilinogen\*.
- Eumorphic \* Dymorphic (Urine RBC)\*.
- Urine Routine Analysis\*.
- Stool Routine\*.
- Stool Reducing Substance\*.
- Stool Occult Blood\*.
- Stool pH\*.
- Stool Fat Globules\*.

## Microbiology

The Microbiology department has FDA approved Automated Continuous monitoring Bactec™ culture system for accurate and fast recovering pathogens with detection in the first 24hrs.

Bactec™ MGIT system is a liquid culture technology used for complete TB diagnose including pulmonary and extra pulmonary TB, Drug sensitivity test and detection of MDRTB.

The department also performs aerobic and fungal cultures. It is a

safe and sterile setup with bio-safety cabinet and laminar air flow. Our qualified and experienced laboratory professionals follow good laboratory practices for assuring quality.

## Investigations

- Culture and Sensitivity.
- Blood\*.
- Urine\*.
- Sputum\*.
- Pus\*.
- Stool\*.
- CSF\*.
- Synovial Fluid\*.
- Ascitic Fluid\*.
- Pleural Fluid\*.
- Pericardial Fluid\*.
- Semen\*.
- CAPD\*.
- AFB Culture\*.
- ET\*.
- Tip\*.
- Bronchial Wash / Bronchial Brush\*.
- Rectal Swab\*.
- Grams Stain\* (ALL).
- AFB Smear\* (ALL).
- KOH Stain\* (ALL).
- Stool Hanging Drop\*.
- Fungal Culture and Sensitivity\*.

## Serology

The serology department performs infectious disease investigations and auto immune markers analyzed by CLIA - Chemiluminescence method using Vitros EciQ, Johnson

and Johnson Equipment, ELISA, Immuno Chromatography technique and western blotting techniques.

## Investigations

- RA\*.
- ASO\*.
- CRP\*.
- WIDAL\*.
- VDRL\*.
- HIV CLIA\*.
- HBsAg CLIA\*.
- HCV CLIA\*.
- Western Blot for HIV\*.
- ANA\*.
- Anti Ds DNA\*.
- Anti HAV\*.
- Anti HEV\*.
- Anti Hbe\*.
- HBe Ag\*.
- C3 and C4\*.
- Influenza A and B Antigen (Rapid)\*.
- CMV IgG and IgM\*.
- Dengue IgG and IgM\*.
- Dengue Antigen (Rapid)\*.
- Chikungunya IgM (Rapid)\*.
- Malaria Antibody (Rapid)\*.
- Leptospira IgG and IgM\*.
- Chlamydia Antigen (Rapid)\*.
- Anti HBc\*.
- Scrub Typhus\*.
- Anti - CCP\*.

## Histopathology

Pathology Department deals with processing and reporting of biopsy samples (small and large), FNAC, Fluid Cytology and cervical Pap

smears. Reporting of bone marrow aspirate, Peripheral smear, LE cells test are done by three regular pathologists round the clock. We also perform frozen sections for difficult intra operative cases. 50 Immuno histochemistry markers are being done for solving problematic cases related to oncopathology cases.

### Special Stains

- Hamatoxolin and Eosin stain\*.
- Papanicolaou stain\*.
- Modified may-Grunwald Giemsa Stain (MGG)\*.
- Acid-fast bacteria ziehl-neelsen stain (AFB)\*.
- Alcian blue - acid mucopolysaccharides\*.
- Alcian Blue-Pas\*.
- Bile - hall's bilirubin stain\*.
- Congo red – highman's amyloid\*.
- Connective tissue van gieson's (vg)\*.
- Copper - rhodanine method\*.
- Elastic tissue fibers Verhoeff's van Gieson (EVG)\*.
- Fibrin stain – MSB\*.
- Fite's stain – lepra bacilli\*.
- Fontana-masson method melanin\*.
- Geimsa - Harleco rapid helicobacter\*.
- GMS - methenamine silver grocott's, modified\*.
- Grams stain, bacteria - modified brown and brenn\*.
- Iron - Prussian blue reaction perl's method\*.
- Luxol fast blue - Modified Kluver's- Myelin Sheath\*.
- Massons trichrome stain (Tri)\*.
- Melanin bleach\*.
- Methenamine silver- basement membranes - jone's\*.
- Mucicarmine stain - southgate's mucin\*.
- Oil red O - fat\*.
- Pas - mcmannus' periodic acid schiff's - glycogen\*.
- Pas/D - glycogen digestion diastase\*.
- Phosphotungstic acid-hematoxylin, mallory's (Ptah)\*.
- Reticulin stain – Gordon and Sweet's\*.

### Molecular Genetics

The major goal of this department is to enable the state-of-the-art Real Time PCR based Diagnostic facility in MMHRC was to diagnose major infectious diseases (eg: HBV, HIV, TB etc: Qualitative and Quantitative; viral load), Malignancies, genetic disorders (prenatal and Pre implantation genetic diagnostics) and HLA typing (Transplantation Matching and Registry).

Now, we make use of the latest version of LIGHT CYCLER 480 II (ROCHE) real time PCR machine to perform all the above mentioned tests coupled with Fragment Analysis technology where necessary.

### Highlights /Achievements

1. Our laboratory services are the first NABL accredited lab services in South Tamil Nadu among the multi speciality hospitals. We received accreditation in 29/11/2011 and renewed on 29/11/2013 and valid up to 29/11/2015.
2. The Biochemistry department was ranked 10 out of a total

121 laboratories participating in the national External quality Assurance programme of Biorad(U.S) in 2008.

3. The Laboratory started a quality circle called the RUBY Quality Circle .It won the Excellence award at the 18th chapter convention on quality circle 2008 held at Kodaikanal for its project on reducing delay in reporting.
4. The laboratory services organized a national conclave in clinical laboratory management on the 14<sup>th</sup> and 15<sup>th</sup> of February 2009. It was followed by a workshop on NABL standards. It received participation from delegates from all over south India.
5. The Laboratory services along with foundation for quality India (FQI), Bangalore, conducted a three day training program on Internal auditing NABL 15189:2007 from 27<sup>th</sup> to 30<sup>th</sup> June 2013.
6. The laboratory services organized a CME on "Laboratory Medicine" in view of laboratory professional day on 27th April 2014. 350 Laboratory professionals from all over South Tamil Nadu attended the event.

### Academic Activities

1. We conduct theory classes and practical training for students of B.Sc Medical Laboratory Technology and Applied microbiology for our Meenakshi Mission Hospital College.
2. We provide guidance to trainees from other institutions.
3. We guide degree students in their project works.

4. We provide guidance to students doing hospital administration.
  5. We provide Post- qualification practical training for DMLT, BSc and MSc Biochemistry and Microbiology students from private colleges and institutions in and around Madurai.
  6. We train nursing college students in phlebotomy and other collection procedures.
  7. We assist MD pathology and MD Biochemistry Post graduate students from different Medical colleges in south Tamil Nadu, by performing rare Laboratory tests as a part of their dissertation work.
- Future Plans**
1. Expansion and renovation of 5<sup>th</sup> level central laboratory.
  2. To act as reference laboratory for High end tests (PCR, Flowcytometry, Cytogenetics).
  3. To act as referral unit for Anatomic pathology (Oncopathology, LHC, Frozen).
  4. To start Home collection to provide better service to regular local patients.
  5. Samples collected from all wards & blood collection centres to reach the particular Laboratory by Pneumatic system.
  6. Expansion of our laboratory by having sub branches in and around Madurai districts.

## Statistics

Sl. No.	Services Provided	Number of Tests Performed
1	Clinical biochemistry	912708
2	Hematology	634058
3	Clinical pathology	354147
4	Microbiology and serology	133884
5	Histopathology	5858
6	Pap smears	3030
7	Cytology / FNAC / Frozen section	1367
8	Immuno histochemistry + special stains	2123
9	Bone marrow studies	551
10	Peripheral smear study	8436
11	Number of samples sent to referral laboratory	1892
12	Number of samples received from outside hospitals to our lab	430
13	Number of fumigation samples received	6652
14	Number of NABL training programs conducted	45



# MEDICAL ONCOLOGY

Multidisciplinary management of cancer involves integration of multiple modalities of treatment including surgery, radiotherapy, chemotherapy, endocrine manipulation and immunotherapy. The application of this multimodal approach has improved survival rates among cancer patients over the past few decades, leading to "Cure" of many cancers. To say it broadly, a medical oncologist's role may be curative or palliative. Definitive chemotherapy can be given as adjuvant chemotherapy,

neoadjuvant chemotherapy or conversion chemotherapy where the intent is curative.

### Our Facilities and Services

Our unit is one of the reputed and leading tertiary care of cancer department. Since 1990, we have been rendering massive advancements in the field of cancer treatment at our unit. The unit of Medical Oncology is committed to improving the diagnosis and treatment of patients with cancer.

To meet this mission there is a broad range of clinical research, patient care and counseling. We treat all cases of hematological malignancies including stem cell transplant; as well as give chemotherapy for majority of solid

Statistics	
Outpatients	: 8115
New	: 250
Review	: 8240
Inpatients	: 3077
Day care Chemotherapy	: 2257
OP Procedure	: 216

tumour in the various settings as mentioned above.

### Outpatient Services

The unit runs outpatient clinic services with readily available appointments all 6 days of a working week. We had 8238 patients as outpatient service since April 2013 (of which 250 were new cases) to March 2014.

### Inpatient Services

At a time, around 40 patients are admitted on a weekly basis for a diagnostic evaluation, chemotherapy and management of complications and palliative supportive care.

All patients receive standard chemotherapy regimens as per global and institutional protocols, after tumour board directed treatment decisions. Newer molecules like monoclonal therapy (Bevacizumab, Cetuximab, Nimotuzumab), Gefitinib, Imatinib, Erlotinib and Sunitinib are being used in the treatment of various cancers. A fraction of our patients with advanced malignancy, get palliative therapy with tender and terminal care with love for which our hospital has started Hospice centre. We had 3076 inpatient admissions since April 2013 to March 2014.

### Day Care Chemotherapy Services

As the hospital caters to most of the people within and about 300km radius, most patients with single day chemotherapy benefit from our day care chemotherapy services, where the patient walks in, into the unit in the morning, gets his/her chemotherapy delivered and walks out by evening. Our unit runs a

6 bedded day care centre manned by staff fully trained in chemotherapy administration and medical officers trained in medical oncology. The unit has so far administered about 2257 cycles of chemotherapy as day care since April 2013 to March 2014.

### Minor Procedures

At the unit, we do most minor procedures such as bone marrow aspiration/biopsy, ascetic tapping, pleural tapping and fine needle aspiration cytology under full aseptic precautions. We perform 80-100 minor procedures every month.

### Stem Cell Transplant Services

Our hospital has installed a new apheresis machine for stem cell collection. Our unit has started autologous stem cell transplant for malignancies like the NHL, HL, and Multiple Myeloma.

### Clinical Research Projects

The unit has been regularly conducting clinical trials, in coordination with radiation and surgical oncology services, with various phase 1, 2, 3 and Ref. Table 1 phase 4 trials.

### Academic Achievements

- **Dr. Krishnakumar Rathnam**, Senior Consultant, Cleared the European Society of Medical Oncology Examination held in Amsterdam - Sept 2013 and was conferred the "European Certified Medical Oncology (ECMO) degree".
- **Dr. Krishnakumar Rathnam**, Senior Consultant, completed training in clinical research

certification course and acquired a Professional Diploma in Clinical Research (PDCR) qualification Feb 2014.

- Cleared the National Board of Examination (DNB) in Medical Oncology - Apr 2014.

### International Conferences Attended

- Attended the European Society of Medical Oncology Cancer Congress - Amsterdam; September 2013.
- Presented 2 papers titled "Pleurodesis in Malignant Pleural Effusion - Experience from a tertiary care centre in South India" and "Oral Etoposide versus best supportive care in elderly patients with advanced non small cell lung cancer: Experience from a tertiary care centre in South India" in World Conference on Lung Cancer 2013 (WCLC); Sydney, Australia, October 2013.

### Awards and Recognition

"BEST DOCTOR AWARD" conferred upon by the EKAM Foundation and Udhavum Ullangal Organisations, Chennai - for Community Oncology Services - Sep 2013.

### Public Awareness Talks

1. CANCER AWARENESS FOR YOUNG WOMEN - Thiyagaraja College of Engineering - Women's Day Lecture - March 2013.
2. TOBACCO RELATED CANCER HAZARDS AND TOBACCO CESSATION - Internal awareness meeting for all labourers - Meenakshi Mission Hospital and Research Centre, Madurai - May 2013.

3. Awareness lecture on women's cancers - Lady Doak College, Madurai - Sept 2013.
4. Newer insights in medical management of Lung cancer - JIPMER, Pondicherry.
5. Lymphoma - basic approach for physicians - API Madurai Chapter June 2013.
6. Panelist - Best of ASCO - Academic Session 2013, Mumbai, July 2013.
7. Basics of Oncology for community practice - IMA Kovilpatti, July 2013.
8. An overview of correct early breast cancer management - Trichy Oncology forum Sep 2013.
9. Palliative and hospice care for cancer patients - IMA Tuticorin Nov 2013.
10. Invited panelist - Breast cancer CME; Chennai - Jan 2014.
11. Invited panelist - Apollo Cancer Conclave, Chennai - Feb 2014.
12. World Health Day Lecture - Thiyagaraja College of Arts, Madurai - Apr 2014.
13. Invited panelist - Pancreatic cancer CME, Pondicherry - May 2014.

### Invited Lectures / Awareness Lectures for Doctors

1. Medical emergencies in Oncology Practice - PACE 2013 national conference, Meenakshi Mission Hospital, Madurai.
2. Role of targeted agents in head and neck cancers - City AROI Meeting, Chennai.
3. Role of Medical Oncologist in Community practice - IMA Tirunelveli.

**Dr. Krishnakumar Rathnam,**  
**M.D., D.M., DNB., PDCR., ECMO.(Europe),**  
 Senior Consultant: Dept. of Haemato  
 Oncology/ Medical Oncology  
 Dept of Pediatric oncology.

**TABLE 1**

### Clinical Research Projects

Sl. No	Diagnosis	Name of Trials	Phase	Status
1	Advanced stage Follicular Lymphoma	GP 13 - 301	III	ONGOING
2	NHL - DLBCL	RI- 01 - 002	III	ONGOING
3	NSCLC	20070782	III	ONGOING
4	Advanced Refractory Solid Tumor	PL225B/71/11	I	ONGOING
5	Ovarian Cancer (or) Multiple Myeloma	NCS - 124 - 12 - C	BA/BE	COMPLETED
6	B Cell Chronic Lymphocytic Leukemia	BCD - 028 - 01	I	COMPLETED
7	Advanced Refractory Solid Tumor	P7170/70/11	I	COMPLETED
8	Chronic Myelogenous Leukemia or with pH+ Leukemias	CA 180 - 226	II	COMPLETED



## NEPHROLOGY

Nephrology Department has delivered comprehensive treatment for a whole gamut of kidney diseases over the last two decades.

### Facilities and Services

#### Hemodialysis Unit

With one of the largest HD units in South India, we provide state-of-the-art round-the-clock maintenance and emergency dialysis with 20 HD machines. In addition, ICU dialysis is provided for patients suffering from multi-organ failure through

advanced CRRT machine. Dedicated dialysis units for HBV and HCV infected patients are available. Patients on dialysis are provided regular counselling for lifestyle modifications.

#### CAPD (Continuous Ambulatory Peritoneal Dialysis)

Our unit has one of the largest numbers of home dialysis programs in India. Annually more than 50 patients are initiated into home dialysis which is a fast growing segment with a potential

to provide excellent quality of life. There has been a steady improvement in peritonitis rates with low drop outs from CAPD. Our centre has been ranked among the best at national levels with excellent survival results in home dialysis.

#### Renal Transplantation

We have performed more than 500 renal transplantations with excellent success rates. There has been a trend of increasing deceased donor transplantations last year

with good graft survival. Our hospital ranks among the top centres in the state for carrying out deceased donor transplantation.

### Interventional Nephrology

Dr. K. Sampath Kumar is heading a core group of Nephrologists in India in this nascent field to provide cutting edge advances to the patients. Tunneled permcath and CAPD catheters are inserted in the Interventional nephrology suite specially designed for this purpose. Regular workshops are conducted to train Nephrologists at the National level.

### FRCP Conferred

Our chief Nephrologist, Dr. K. Sampath Kumar has been conferred the prestigious "Fellowship of Royal college of

physician" award (FRCP Glasgow) for his outstanding contribution to the field of Nephrology in the last two decades.

### Charity Services (Free)

We provide,

- Regular Free Dialysis for HD patients.
- Dialysers and blood lines, distributed freely for needy/poor patients.
- Renal diet during dialysis.
- CAPD catheter for paediatric care.
- CAPD programs are provided free for needy poor patients.
- Kidney Donor's Meet.

We regularly conduct kidney donor's meet in collaboration with MOHAN FOUNDATION to honor all the family

members who donated organs to their loved ones.

### Academic Activities

- Since 2005, we have been conducting Nephrology super speciality PG courses recognized by National Board of Examinations, New Delhi.
- Regularly we publish Nephrology articles and papers in National and International journals.
- We also conduct case discussions, journal reviews, lectures, topic discussions etc.
- We organize clinical society meetings and conduct medical audits.
- We conduct monthly nursing Program for new staff and a special class on BLS and ACLS every six months.
- We conduct regular CME programs.
- We have an excellent library equipped with modern teaching aids and nephrology journals like Kidney International, AJKD, JASN etc.

### Publications

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2. Dr. Sampath Kumar K, Dr. Ramakrishnan M, Dr.Sah AK, Dr.Sooraj Y, Dr.Ajeshkumar R- "Tunneled central venous catheters: Experience from a single centre" Indian J



Dr. K. Sampath Kumar is being conferred with FRCP, Glasgow >

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  10. Dr. Sampath Kumar K, Dr. Sooraj YS, Dr. Nlahaldar AR, Dr. Ramakrishnan NI, Dr. Ajeshkumar R, Dr. Ravichandran R- "Percutaneous CAPD Catheter insertion by a nephrologist versus surgical placement: A comparative study". Indian J Nephrol. 2008 Jan 18 (1): 5 - 8 Pubmcd PMID:20368912; Pubmcd Central PMCID: PNIC2847731.
  11. Dr. Sampath Kumar K, Dr. Murali TR, Dr. Sooraj YS, Dr. Mahaldar AR- "Emphysematous prostatitis in renal transplant". Indian J Urol. 2007 Oct; 23 (4):476 - 8. Pubmeci PNIID: 19718309; Pubmed Central PMCID: PMC2721585.
  12. Dr. Sampath Kumar K, Dr. Sooraj YS, Dr. Ajesh Kumar RP, Dr. Nlahaldar AR, Dr. Nluthiah R- "The Case Acute paraplegia with anuric ARF. Occlusive aortic thrombus with ischemia of spinal cord and Kidneys". Kidney Int. 2007 Sep; 72 (5): 657 - 9. Pubmed PM ID 17713565.
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## NEUROLOGY

The Department of Neurology at MMHRC has been growing on and on. It offers comprehensive evaluation and treatment for patients with Neurological disorders. The department has two Consultant Neurologists and four Medical Officers available round the clock. We have a state-of-the-art Neuro-electro-physiology laboratory for a nerve conduction study, sleep laboratory, where sleep related problems are effectively managed. The number of patients this department has catered for this year has doubled, as against

last year. We have 1351 new cases and 2261 old cases, all related to neurological disorders. Which include diseases related to the brain, spinal cord, nerve roots, myoneural junctions, muscles, plexus etc.,

Polysomnography for sleep related disorders and for obstructive sleep apnea, which is coming to be known by the public is done in our lab. We also diagnose rare neurological disorders.

### Facilities and Equipment

- Nerve conduction machine.
- EEG.

- Muscle and Nerve biopsy.
- PSG - to diagnose OSA, Restless leg syndrome.

### Scope

Weakness of one side (hemiplegies) form the majority of admissions and

### Statistics

Outpatients	: 8115
New	: 1722
Review	: 6393
Inpatients	: 933

all of them are managed effectively with significantly reduced mortality and disability, including the opening of the blocked vessel in the brain by tissue plasminogen activator.

### Stroke ICU:

Stroke ICU is the latest buzz in Neurology specialty all over the world. Here we admit all patients with ischemic or haemorrhagic stroke. There is a protocol for hypertension control (eg: B.P.

In acute ischemic stroke should be reduced only if  $>180/110$  mmHg)., Glycemic control, infection control etc., here patient receives good physiotherapy. Also very good motivations patients receive from us make them independent in activities of daily living. So apart from reducing the mortality, it also reduced morbidity. Special protocols for drop in GCS, seizure are followed. Hand pitched nursing staff work here.

We have been able to manage many demyelinating neuropathies and myasthenia Gravis with the help of electro physiology lab support. Most of the cases received immune modulator therapy and thymectomy was done in 2 cases of myasthenia Gravis.

**Dr. T.C. Vijaya Anand, M.D., DNB.**  
(Neuro), - Consultant

**Dr. K. Ganesan, M.D., DM.(Neuro)-**  
Consultant

## Statistics

Month	New Cases	Revisit Cases	Total OP Cases	IP Admission
April	160	518	678	91
May	164	539	703	75
June	139	504	643	65
July	189	524	713	75
August	146	538	684	82
September	133	540	673	93
October	124	528	652	54
November	150	559	709	84
December	126	541	667	89
January	123	509	632	83
February	121	525	646	77
March	147	568	715	65
Total	1722	6393	8115	933
Avg. Pat	5	18	22	3

EEG	Bed Side EEG	PSG	NCS	AFS	BPS	CTS	EMG	FNS	VEP	RNS
790	306	33	163	15	24	33	15	18	32	20



## NEUROSURGERY

Our Neurosurgery Department is keeping pace with the rapid changes occurring in the field of Neurosurgery. Now this year we are gradually moving towards minimally invasive Neurosurgery. While we have been doing microsurgical work so far, minimally invasive neurosurgery allows us to tailor our craniotomy size such that the craniotomy size is small but gives good access to lesions especially in the skull base. For example, now anterior skull base lesions are done by small supra orbital craniotomy with a small

eyebrow incision. Previously we used to do this with large skin flaps and large craniotomy. This year we have expanded our skull base Neuroendoscopic procedure. We are routinely doing extended endoscopic skull base approach. Also other Neuroendoscopic procedures for intraventricular lesion and third ventriculostomy for hydrocephalus are a routine now in our department. All these minimally invasive procedures have less morbidity and hence patients can be discharged early.

Apart from these all neurosurgical procedures from basic trauma to more complicated procedures like vascular surgeries are done routinely. For elective surgeries we have better results with less morbidity and practically nil

### Statistics

Outpatients	: 6741
New	: 1154
Review	: 5587
Inpatients	: 1760

mortality on par with the best centres in the world. All specialties in Neurosurgery like Pediatrics, Skull base, Vascular, Spine, CV junction, Functional neurosurgery, Trauma, Endoscopic and Stereotaxy are undertaken in our department.

This year we have moved into a bigger Neurosurgical ICU with 11 beds and all necessary advanced gadgets. We have also procured ICP monitoring by which we can precisely control the intracranial pressure.

### Conference Attended and Papers Presented

#### Dr. K. Selva Muthu Kumaran

- Attended Advanced Endoscopic Skull Base Workshop - held in Germany on July 2013 - NSI Mumbai.
- 1. Paper presentation of Pregnancy and Neurosurgeries.
- 2. Case report: Endoscopic skull base bone aneurysmal cyst excision.

- Neurovascular Conference in Hyderabad.
- Paper presentation on spinal AVM in pregnancy.

#### Dr. K. Bagathsingh

- Clinical Skull Base Training at UPMC Pittsburgh, USA - 3 weeks.
- 2014 American Association of Neurosurgery, Sanfrancisco-USA.

OPERATIONS	TOTAL
EDH	41
SDH	58
Chronic SDH	41
ICH	36
Contusion	42
Depressed Fracture	54
Decompressive Craniotomy	17
Osteomyelitis Skull	15
Cerebral Abscess	9
Cranioplasty	16
EVD	21
V.P.Shunt	62
Burrholes	42
Skull Base Repair Endoscopic	17
Stereotactic Biopsy	6
Vascular Surgeries	14

Spinal Tumor	4
Cervical Discectomy	10
Lumbar Discectomy	3
Laminectomy	10
Spinal Stabilization	8
Spinal Dysraphism	3
Tumors Supratentorial	85
Pituitary	4
CP Angle	10
Meningioma	2
Posterior Fossa Tumor	6
Cavernoma	2
Wound Debridement	23
Neurofibroma	1
STA To MCA Bypass	1
Craniopharyngioma	2
<b>TOTAL</b>	<b>665</b>



# NUCLEAR MEDICINE

The division of Nuclear Medicine, as in the previous years, has shown an overall and a steady increase in the number of both diagnostic and therapeutic procedures in the academic year 2013-2014. Procedure like Radiosynovectomy (for joint pain arising from various arthropathies), Peptide Receptor Radionuclide Therapy (PRRT) for neuroendocrine tumours are being planned shortly. PET-CT facility is expected in the near future.

Some of the well known applications of Nuclear Medicine include estimation of individual kidney GFR/split function, differentiation of non-obstructive

from obstructive hydronephrosis, screening for skeletal secondaries in patients with known malignancies prone to disseminate to the skeletal system (ex. CA Prostate, CA Breast), assessment of inducible ischemia and viability, detection of ectopic gastric mucosa, function evaluation of thyroid gland, detection of ectopic thyroids, etc.

Therapeutic applications of Nuclear Medicine include treatment of hyperthyroidism and post-operative ablation of remnant thyroid/differentiated secondaries in patients with differentiated carcinoma of the thyroid.

No. of procedures performed in the department of nuclear medicine in the calendar year 2013 – 2014:

Diagnosis scans	: 2059
Low dose Iodine whole body scans	: 370
Low dose Iodine – 131 therapy for hyperthyroidism	: 61
High dose Iodine – 131 therapy for differentiated carcinoma of thyroid (post-operative)	: 115

## Statistics

Outpatients	: 2020
New	: 388
Review	: 1632
Inpatients	: 127



## OBESITY

India is gaining weight. Traditionally known for malnutrition, Indians now report overweight, obesity, and their consequences more and more frequently. Indians exhibit unique features of obesity in the form of excess body fat, abdominal adiposity, increased subcutaneous and intraabdominal fat and deposition of fat in ectopic sites (such as liver, muscle, and others). Obesity is a major driver for the widely prevalent metabolic syndrome and type 2 diabetes mellitus (T2DM). Although this

phenomenon is a global one, India is unique in that it has to grapple with both over and undernutrition at the same time.

Articles on Indian studies, indicate that the living conditions in rural areas have improved considerably. Transport facilities, medical care and food habits, educational status, and family income have dramatically improved, which along with easy access to city and television watching, results in unwanted changes in life-style. These have eventually led to significant increase

in body mass index(BMI) as well as abdominal obesity in both sexes. Compared to a similar study conducted in the year 1989, the prevalence of overweight rose from

### Statistics

Total Cases	: 1310
New	: 286
Review	: 804
Opinion	: 220
Package	: 153

2 to 17.1%. The changing lifestyle of the those in rural areas was a contributory factor for the rising rates of obesity and associated metabolic diseases such as diabetes.

**Obesity Statistics**

**Over the Past 4 Decades:**

- Quadrupled among children aged 6-22 years.
- Tripled among adolescents age 12-19 years.
- Doubled among children age 2-5 years.

- Today 23 million children and teens, who are either overweight or obese.
- Obesity strongly associated with cardiovascular disease risk, hypertension, type 2 diabetes and dyslipidemia.

3. Gave a lecture to menopause society(for doctors)onJC residency.
4. Published articles in various Newspapers.
5. Conducting water aerobic classes for arthritic patients.

**Awareness Programmes**

1. Published an article about obesity on doctor's vikatan.
2. Conducted cookery seminars for public and patients.

**Future Plans**

1. To conduct a live telecast program on satellite TV.
2. To run residential obesity programs.
3. To provide counseling to foreign patients through face time.



Cookery Class >



Before >



After >



## OBSTETRICS & GYNAECOLOGY

The Obstetrics and Gynaecology Department at MMHRC is a premier patient care and teaching Centre. Ours is a medical and surgical specialty concerned with the management of pregnancy and childbirth and with the overall health of the female reproductive system. Our aim is to care for women beginning with adolescence and walking with her through the various phases of her life including menopause.

### Obstetrics

"Life of every mother and neonate counts" - Obstetrics is the branch

of medicine concerned with childbirth and the treatment of women before and after childbirth. Our center is a tertiary level referral center for the management of various high risk pregnancies. We provide the highest quality care for women experiencing complicated pregnancies in a multidisciplinary setting in liaison with other colleagues including Cardiologist, Nephrologist, Diabetologist, Neurologist, Medical and Surgical gastroenterologist, Pediatrician and Radiologist.

### Highlights

- Obstetric HDU.
- Management of High Risk Pregnancies.
- Fetal medicine - Fetal Diagnosis and Treatment.

### Statistics

Outpatients	: 14757
New	: 2461
Review	: 12296
Inpatients	: 1947

- Pain-free Labor.
- Counseling and Evaluation of Recurrent Pregnancy Loss and Bad Obstetric History.

### **Obstetric HDU- High Risk Pregnancies:**

At MMHRC, we have a dedicated High Dependency Unit (HDU) to care for women with medical and obstetric complications. HDUs are specialised wards for people who need more intensive observation, treatment and nursing care, short of invasive ventilatory and circulatory support.

Mothers suffering from various medical disorders such as Diabetes, Severe pre-eclampsia, Eclampsia, HELLP syndrome, Chronic hypertension, Heart diseases, Renal disorders, Post renal transplantation pregnancies, Systemic lupus erythematosus, Epilepsy and Bleeding disorders are routinely cared for in our center.

### **Maternal and Fetal Medicine**

The field of Maternal-Fetal Medicine is one of the most rapidly evolving fields in obstetrics that focuses on fetal diagnosis, prenatal therapy and management of high risk pregnancies. Management includes comprehensive Obstetric Ultrasound screening for aneuploidies, invasive prenatal diagnosis like genetic amniocentesis, chorionic villus sampling, cordocentesis, selective fetal reduction and advanced fetal therapy and surgeries. We have achieved tremendous growth in this emerging and challenging subspecialty, since the visit of Dr. Asha Rijisinghani, Visiting Professor, Maternal and Fetal medicine Division, Department of

Obstetrics and Gynaecology, University of IOWA, USA in November 2008. We have great input from our referring doctors and awareness has been created regarding the importance of antenatal screening for genetic disorders.

We offer pre-conceptual counseling, genetic counseling and prenatal diagnostic testing including serum markers and invasive procedures like Amniocentesis, Chorionic villus sampling and Cordocentesis.

Aneuploidy screening is offered to all our antenatal cases booked prior to 20 weeks. Two of our consultants- Dr. S. Padma and Dr. Vanitha Anna Selvi are certified for performing first trimester aneuploidy screening by FMF (Fetal Medicine Foundation, UK). Serum screening for biochemical markers is also done in first and second trimesters. CVS, Amniocentesis and Karyotyping are done for screening positive women. Fetuses with IUGR and severe oligohydramnios are periodically reviewed with Fetal Doppler Studies, Biophysical profile and CTG and delivered at the most appropriate time for better postnatal survival.

### **Gynaecology**

Minimal Access Surgery is an established advanced technique for doing all types of surgical procedures. Our Gynaecology unit has proved itself to be one of the best units specialized in Minimal access surgeries - laparoscopic and hysteroscopic surgeries. This technique offers faster recovery, lesser post operative pain and minimal post surgical complications. We perform minimal access surgeries to the majority of patients needing surgery for better patient

comfort at an affordable cost. Services available in our unit include,

- Adolescent and Pediatric Gynaecology.
- Menorrhagia clinic.
- Menopausal clinic.
- Gynaec oncology.
- Family planning.
- Minimal access surgeries.
- Urogynaecology.

### **Various Surgeries Performed in our Unit Include,**

A) Minimal access surgeries:

- Laparoscopic hysterectomy.
- Laparoscopic myomectomy.
- Ovarian cystectomy.
- Adhesiolysis.
- Surgical management of ectopic pregnancies.
- Sterilization.
- Diagnostic hysteroscopy.
- Operative hysteroscopy.

B) Open surgeries:

- Abdominal and Vaginal hysterectomy.
- Site specific repair of prolapse, including post hysterectomy vault prolapse repair, mesh repair.
- Burch Colposuspension.
- Tubal Recanalisation.

### **Gynaec-Oncology**

It has been estimated that there are about 1,30,000 new cases diagnosed with and 72,000 deaths every year due to cervical cancer in India. We offer screening and prevention strategies for cervical cancer like routine PAP smears, HPV testing and vaccination, colposcopy and LEEP/LLETZ and cone biopsy.

With an increasing prevalence of malignancies, we have achieved a milestone in performing radical surgeries too. The surgeries include staging laparotomy, Wertheim's hysterectomy, pelvic and para aortic lymph node dissection. We have performed 15 Wertheim hysterectomies and 20 staging laparotomies in the current academic year which shows that the numbers have increased dramatically compared to previous years.

### Urogynaecology

Site specific repair of pelvic organ prolapse is performed, including Mesh repair, Sacrospinous fixation and Abdominal Sacrocolpopexy are being done in our unit for Post hysterectomy vault prolapse.

### Family Planning

Counseling is done to help the couple to adopt the appropriate method of contraception following delivery or abortion. MMHRC is a Government recognised center for performing sterilization procedures.

### Future Plans

As of now, we do amniocentesis, CVS (Chorionic Villus Sampling), Cordocentesis and intrauterine transfusion as a part of invasive fetal diagnosis and therapy. We propose to extend the horizon of fetal therapy in the near future at our centre:

1. Fetoscopy and laser ablation for monochorionic twins with TTTS (Twin to twin transfusion syndrome).
2. EXIT (Ex-utero intrapartum treatment) procedures for fetal congenital diaphragmatic hernia, neck masses, etc.,

### Academics

The department is recognised by the National Board of Examinations, New Delhi for the Diplomate of National Board Degree in Obstetrics and Gynaecology since 2000. The academic course starts in the month of June and we admit 4 candidates each year- 2 primary and 2 post Diploma for training. We have regular seminars for Postgraduate students on every Saturday 8:30a.m. Monthly assessment of their performance is done every second week of the month.

#### Dr. S. Padma, MD., DNB.(OG),

Fellowship in Gynaec Oncology, Senior consultant and HOD

- Fetal Medicine Foundation Certification for performing first trimester aneuploidy screening with USG.
- Attended IAGE 2013, Bangalore
- Attended SICOG 2013, Singapore.
- Faculty at FORCE- PG Crash Course 2013 - Gestational Diabetes.
- Panelist in AGOICON, November 2013, Pondicherry. Topic: Cervical cancer prevention strategy. And faculty at Pre congress workshop on CIN.
- Faculty at Nellai Surgicon, December 2013. Demonstrated TLH in live workshops.
- Guest speaker at MOGS annual conference, December 2013. Topic: Genital reconstruction.
- Guest speaker at ACOG, February 2014. Topic: Post menopausal adnexal lump.
- Observer in Fetal surgery at Fetal care centre, Cincinnati Children's Hospital, Ohio, USA.

- Presented a paper on "Endometrial stromal cell sarcoma arising from endometriosis" at the World endometriosis symposium, March 2014, Atlanta, USA.

#### Dr. SivakamaSundari, MD.(OG),

Senior Consultant

- Attended RCOG World Congress, Hyderabad (Mar 2014).

#### Dr. Mahalakshmi, DGO.,

Consultant

- Attended ICON, Coimbatore (December 2013).

#### Dr. D.Vanitha Anna Selvi, DNB.(OG),

Consultant

- Fetal Medicine Foundation Certification for performing first trimester aneuploidy screening with USG.
- Attended conference PROGRESS 2013, Chennai. (July 2013).
- Paper presentation on Transvaginal Scan Parameters of early Pregnancy and Pregnancy outcome at MOGS Annual Meet, Madurai. (December 2013).
- Poster presentation on Epidemiology and treatment outcome of Gestational Trophoblastic Disease at a Tertiary Care Centre - RCOG World Congress, Hyderabad. (March 2014).

#### Dr. P. Daphin, DNB.(OG),

Registrar

- Paper presentation on Laparoscopic Oophorectomy on the management of adnexal torsion - A 5 year study at MOGS annual meet, Madurai. (December 2013).

**Prizes**

1. Dr. D. Vanitha Anna Selvi, got first prize in the quiz competition in PROGRESS 2013, Chennai. (July 2013).
2. Dr. PadmaLakshmi, our final year postgraduate won first prize for her paper on Maternal and Fetal Outcomes of Dengue in Pregnancy at YUVA FOGSI South Zone, Trichy. (Aug 2013).

**Presentations by Our Postgraduates**

**Dr. S. NISHA, DGO.,**

- Advent of Prenatal Diagnosis in Antenatal care (Paper) - YUVA FOGSI, Trichy.

- Analysis of Pregnancy and Perinatal Outcome in Oligohydramnios (Paper) - MOGS Annual Meet, Madurai.
- Persistent Urogenital Sinus - High Confluence urethral type genital reconstruction (Poster) - RCOG World Congress, Hyderabad.

**Dr. G. Padmalakshmi**

- Maternal and Fetal Outcomes of Dengue in Pregnancy(Paper) - YUVA FOGSI,Trichy.
- Comparison between one step and two step procedure for the diagnosis of gestational diabetes (Paper) - MOGS Annual Meet, Madurai.
- Maternal and Fetal Outcomes of Dengue in Pregnancy (Poster) -

RCOG World Congress, Hyderabad.

**Dr. Ulhas Mahajan**

- Comparison between MRI findings and Laparoscopy in Endometriosis (Paper) MOGS Annual Meet, Madurai and AKCOG, Kerala.

**Dr. Ch. Haritha**

- Dengue in Pregnancy (Paper) - MOGS Annual Meet, Madurai.
- Conservative Management of Ovarian torsion(Poster) - RCOG World Congress, Hyderabad.
- A rare case study of Endometrial Stromal Sarcoma (Poster) - RCOG World Congress, Hyderabad.



RH ISOIMMUNISED PREGNANCY- INTRAUTERINE TRANSFUSION



Fibroid Uterus

Lap Myomectomy Done

Interceed Placed

LAPAROSCOPIC MYOMECTOMY



BEFORE SURGERY

AFTER SURGERY

ADNEXAL TORSION - DETORSION & OOPHOROPEXY



ABDOMINAL ENCIRCLAGE- G3A2, 14WKS, CERVICAL INSUFFICIENCY



Congenital Adrenal Hyperplasia - Genital Reconstruction >



Persistent Urogenital Sinus: Single Common Channel for Both Urethra & Vagina >

**Statistics**

S. No.	Major Procedures	No. of Cases	
	General Gynaecology		Total
1	Diagnostic Hysteroscopy - Total		26
2	Diagnostic Hysteroscopy - Total		91
	a. Adhesiolysis	1	
	b. Septal Resection	3	
	c. Cu T Removal	2	
	d. Foreign Body Removal	1	
	e. Endometrial Biopsy	81	
	f. Polypectomy	1	
	g. Myomectomy	2	
3	Diagnostic Laparoscopy And Proceed - Total		128
	a. Adhesiolysis- Chocolate Cyst Excision & Endometriosis Cauterisation	12	
	b. Ovarian Cystectomy	27	

	C. PCOD Puncturing	6	
	D. Salpingectomy	40	
	E. Cauterisation Of Haemorrhagic Cyst	2	
	F. Oophorectomy	6	
	G. Excision Of Rudimentary Horn	5	
	H. Laparoscopy	40	
4	Excision of Scar Endometriosis		2
5	Laparoscopic Hysterectomy		142
6	Laparoscopic Myomectomy		8
7	Laparotomy And Proceed / Ectopic		27
8	Open Myomectomy		6
9	Total Abdominal Hysterectomy		121
10	Vaginal Hysterectomy		19
11	Laparotomy - Ovarian Cystectomy		8
12	Tubal Recanalisation		3
13	Laparoscopic Abdominal Encerclage		1
14	Open Abdominal Encerclage		1

<b>Urogynaecology</b>		
15	Abdominal Sacrocolpopexy	3
16	CPT Repair	2
17	Genital Reconstruction	1
18	Lefort's Repair	1
19	Mesh Repair - Cystocele	2
20	Sacrospinous Fixation	1
21	Vaginal Reconstruction	–
22	Fothergill's Repair	1
<b>Gynaec Oncology - Operative</b>		
23	Staging Laparotomy	24
24	Wertheim's Hysterectomy	12
	Total	630
<b>Minor Procedures - Gynaecology</b>		
1	Bartholin Cyst Excision	4
2	Cervical Biopsy	16
3	Check Curettage	14
4	Delayed Primary Suturing	2
5	Examination Under Anaesthesia	11
6	Fractional Curettage	61
7	Labial Tumor Excision	
8	Mirena Insertion Under Anaesthesia	2
9	Polypectomy	2
10	Pyometra Drainage	3
11	Release Of Labial Adhesions & Urethral Dialatation	
12	Secondary Suturing	4
13	Sucton Evacuation	52
14	USG Guided Cyst Aspiration	2
15	USG Guided D & C	8
16	Vaginal Vault Tear Suturing	
17	Colposcopy Under Anaesthesia	1
18	Wound Exploration	6
19	Vulval Biopsy	4
20	Gartner Cyst Excision	2
21	Incision & Drainage	1
	Total	195
<b>Major Procedures - Obstetrics</b>		
1	Cesarean Section - LSCS	370
2	Obstetric Hysterectomy	6
3	Hysterotomy	5
4	Uterine Inversion Repositioning	1
5	Classical Cesarean Section	1

6	Internal Iliac Artery Ligation	6
	Total	389
<b>Minor Procedures - Obstetrics</b>		
1	Cervical Cerclage - Vaginal Route	18
2	Cervical Artery Ligation	
3	Vaginal Packing	1
4	Manual Removal Of Placenta	2
	Total	21
<b>Labour</b>		
1	Normal Delivery	193
2	Spontaneous Expulsion	50
3	Assisted Breech	18
4	Outlet Forceps	8
5	Vacuum Delivery	1
6	VBAC	3
	Total	273
	Total Deliveries	655
<b>Fetomaternal Medicine Procedures</b>		
1	Amniocentesis	12
2	Amnioreduction	–
3	Chorionic Villous Sampling	–
4	Cordocentesis	2
5	Intrauterine Transfusion	2
6	Selective Fetal Reduction	2
	Total	18
<b>Family Planning</b>		
1	Laparoscopic Sterilisation	13
2	Puerperal Sterilisation	64
3	Interval Sterilisation	–
4	MTP With Open Tubal Ligation	5
5	MTP With Laparoscopic Tubal Ligation	18
6	MTP	16
	Total	116
<b>Outpatient Procedures</b>		
1	Pap Smear	2421
2	Colposcopy	18
3	Fractional Curettage	73
4	Copper T Insertion	29
5	Mirena Insertion	9
6	CTG Monitoring	1135
7	HSG	58
8	Intrauterine Insemination	18



## OPHTHALMOLOGY

The department is an advanced tertiary care centre, providing subspecialty level care to the patients. Its integration with a multispecialty hospital gives it a unique position of catering to patients having diseases and conditions related to other systems like the heart, lungs, kidneys and especially diabetics.

At present, the latest evolution of cataract surgery, namely refractive cataract surgery is our forte. This philosophy aims at providing the patients a vision suited to their needs, with great accuracy. This service is further complemented by Multifocal Intra Ocular Lenses (Multifocal IOLs) and Toric IOLs,

that are on offer. Today, our unit is among select centers in the state capable of offering such service.

The usual array of services like the cornea, glaucoma (field analyzer), squint, medical retina (Angiography and retinal laser) are available to meet the needs of our patients. We offer emergency eye care round the clock making it a unique feature in this city.

Our focus on community service remains consistent and camps are conducted for the poor and underserved persons in remote areas of the surrounding seven districts. These patients are provided free cataract surgery with IOL implantation along with other related care during the period.

The unit is geared towards meeting further challenge of diabetic eye disease, that is of epidemic proportions. Emphasis on screening diabetic patients, delivering counseling and treatment are important components of this endeavour. Laser treatment and intravitreal anti angiogenic injections are available in the unit.

### Statistics

Outpatients	: 2805
New	: 638
Review	: 2167
Inpatients	: 223



# ORTHOPAEDICS & TRAUMATOLOGY

Centre for Joint Replacement, Arthroscopic and Spinal Surgery

The Department of Orthopaedics and Traumatology has become one of the tertiary referral centers for management of musculoskeletal disorders, joint replacements, trauma, arthroscopic and spine surgeries. The department has been recognized by the National Board of Examinations, New Delhi, for Postgraduate training for the award of Diplomate of National Board degree in Orthopaedics.

The academic course starts in the month of June and we admit two candidates every year. We are

awaiting approval from the National Board to admit 4 candidates per year.

We are backed with the state-of-the-art facilities on par with international standards in the Managements of Trauma. We are experienced in managing mass casualty cases and in disaster management. Management of Polytraumatised victims is a regular feature and multidisciplinary interaction under one roof is a boon for successful management of these patients. Round the clock Accident and Emergency services and readily

available specialists provide the best possible treatment to patients. Teamwork has been a hallmark of functioning in this institution and availability of many teams has led to successful, simultaneous management of the accident victims,

## Statistics

Outpatients	: 12528
New	: 2750
Review	: 9778
Inpatients	: 1362

thereby reducing the waiting time for surgery, earlier rehabilitation and also reduced hospital stay. High velocity trauma results in multiply injured patients with multisystem involvement as well as involvement of the skeletal system. We follow the latest modalities of fracture fixation which includes the AO principles and in most of the patients with long bone fractures; the patient is ambulated on the 2<sup>nd</sup> post-operative day. Intramedullary interlocking nailing has reduced the morbidity of the patient and helps the patient get back to work at the earliest. Locking compression plating has been a very good option in condylar fractures, periarticular fracture, fractures of the upper limb and in Osteoporotic fractures.

Apart from trauma, successful management of spine disorders and backache forms the mainstay of the functioning of this department. The patients are approached systematically, with the latest modalities of treatment. Patients are benefited by minimally invasive surgeries and Endoscopic surgeries. Quite commonly we see cases that have recurrent problems and spinal deformities. These are managed successfully and to the utmost satisfaction of the patients. Lumbar and cervical disc surgeries with or without stabilization, decompression and stabilization for treatment of lumbar and cervical stenosis are a regular feature in the department. Elderly patients commonly sustain Osteoporotic vertebral compression fractures and early mobilization of these patients is the order of the day to prevent long term recumbency of the patient. Simple, effective way of treating these fractures by vertebroplasty has made these

elderly patients return to their day to day activities at the earliest. Kyphotic deformity (forward bending of the spine) is effectively corrected by Kyphoplasty in indicated patients. We have a comprehensive spinal injury setup and all patients with such injuries are managed effectively along with appropriate rehabilitation measures. A totally crippled individual can be made either ambulatory or wheelchair bound so as to cater to his / her daily activities.

With the growing geriatric population, the incidence of arthritis is on the rise, which is again doubled due to rheumatoid arthritis. Arthritis is managed according to the stage, and the cause, the management varying from conservative management with health education, diet management, physiotherapy, minimally invasive surgeries, and arthroscopic surgeries and in severe cases, total joint replacement. The awareness of the patients about total joint replacement has increased in the nuclear families and elderly patients would like to be independent. Total joint replacement has been a boon to them and as the research and advancements in the design of the implants have improved, we now have total joints replaced wherein the patient can perform all normal activities including sitting on the floor, sitting cross legged, squatting and also kneel doing their prayers regularly. Younger patients with Avascular Necrosis of the femoral head and secondary arthritis are being benefited by surface Replacement Arthroplasties. Even the international guests visiting our center are impressed by our set up and the quality of joint replacement work taking place in this centre.

Sports injuries are quite common these days as the number of people taking up sports for fitness as well as a profession is on the rise. Contact sports and adventure sports are also increasing, so also the injuries. Meniscal injuries are best managed arthroscopically and through Arthroscopy assisted ligament reconstructions, treatment of meniscal injuries have reduced the morbidity. Patients are able to get back to their sporting activities at the earliest. Arthroscopic shoulder surgeries are gaining popularity nowadays.

Health education has also been an integral part of the department activities and recently, we have started public awareness and education programs about the musculoskeletal disorders. We have conducted awareness camps. We are planning to conduct more camp at different places and also about different disorders. We also conduct free camps, have meetings with Doctors and appraise them for the recent advancements in Orthopaedics.

## Services Available

### Total Joint Replacements Minimally Invasive

- Total Hip.
- Total Knee.
- Total shoulder.
- Total elbow.
- Surface Replacement arthroplasties.
- High performance arthroplasties.
- Metal on Metal.
- Ceramic on Ceramic.

### Spine Surgeries

- Spinal injury comprehensive management.
- Comprehensive management of primary and metastatic spinal tumors.
- Management of vertebral and epidural infections.
- Minimal invasive spine surgery.
- Surgery for spinal canal stenosis and spinal instability.
- Scoliosis, Kyphosis and Adult Deformity Correction.
- Revision spinal surgeries.
- Disc replacement (Cervical and Lumbar).
- Vertebroplasty and Kyphoplasty.

### Arthroscopy

- Diagnostic.
- Debridements.
- Meniscal repairs.
- ACL, PCL reconstructions.

### Trauma

- Closed interlocking nailing – Femur and Tibia.
- Reconstruction nailing.
- Proximal femur nailing.
- Distal femur nailing.
- Flexible nailing in children.
- Locking compression plating.
- DCS, DHS.
- Bridge plating.
- Closed reduction and casting.

### Compound Fractures

- Primary stabilization with flap covers.

### Limb Reconstruction

- Deformity correction.
- Lengthening.
- LRS.
- Ilizarov.

### Hand Injuries

#### Management of Musculoskeletal Tumors

Well qualified, experienced and dedicated faculty available round the clock have treated many polytraumatized patients and saved the lives and limbs of these unfortunate victims. The faculty also gets updated with the latest developments round the world through frequent interaction.

### Conferences Attended

#### Dr. V. Sathyanarayana

1. Gave a lecture and presented 2 papers and 2 posters at the Annual Conference of the Karnataka Orthopaedic Association.
2. Recent trends in Joint Replacement Surgery at Kaulalumpur, Malaysia.
3. Orthopaedic Update Series at Cairo, Egypt.
4. Deformity correction course using Hexapod at Goa.
5. Delta Revision Hip and Knee course at Hyderabad.
6. Annual Conference of the Association of Spine Surgeons of India at Chennai.
7. Annual Conference of Indian Society of Hip and Knee Surgeons at Delhi.
8. Annual Conference of Indian Orthopaedic Association at

Bhubaneswar.

9. National Conference of AO Trauma, Mamallapuram.

10. APOA 2012 at New Delhi.

### Membership with Professional Bodies

#### Member of:

1. Indian Medical Association.
2. Karnataka Orthopaedic Association.
3. Tamilnadu Orthopaedic Association.
4. Indian Orthopaedic Association.
5. Asian Association of Dynamic Osteosynthesis.
6. American Academy of Orthopaedic Surgeons.
7. Association of Spine Surgeons of India.
8. Arthroplasty Association of India.
9. Indian Society of Hip and Knee Surgeons.
10. National Association of Interlocking Surgeons (Founder Member).
11. Orthopaedic Association of South Indian States (Founder Member).
12. AO Spine.
13. SICOT.

#### Dr. Balasubramanian

#### Conferences Attended and Presentations:

1. Association of Spine Surgeons of India Conference, Chennai- Jan 2009.
2. Tamilnadu Orthopaedic Association Annual Conference, Coimbatore.

3. Ganga Operative Spine Course, Coimbatore.
  4. Deformity correction by Ilizarov Hexapod apparatus, Goa.
  5. AO Spine Global Interactive advanced course, Kuala Lumpur, Malaysia.
  6. Instructor course of the Indian Trauma and Critical Care Society.
  7. Instruction course of ICS 2012, Srinagar, India.
  8. AO Spine Advance line surgery course in degeneration in New Delhi.
- c) Management of Polytrauma victims.
  - d) Low back pain management at BHEL, Trichy.
  - e) Management of Spinal Injuries at a CME for Physiotherapists at DMH, Madurai.

#### Membership

1. Indian Orthopaedic Association.
2. AO Spine- Asia Pacific.
3. Association of Spine Surgeons of India.
4. Indian Trauma Association.
5. Tamilnadu Orthopaedic Association.
6. Delhi Orthopaedic Association.
7. Madurai Orthopaedic Society.

#### Dr. Naresh:

Attended a Fellowship in Joint preserving Surgery at Schoen Klinik, Germany.

#### Dr. Raghavan

Attended a fellowship in Spine Surgery at Frankfort University Hospital.

#### What's New

- Endoscopic Spine Surgeries.
- Single Incision for both Anterior and Posterior spinal decompression and Stabilization.
- Low Friction Arthroplasty.
- Metal on Metal Joint Replacement.
- Ceramic on Ceramic Joint Replacement.
- Single Stage Bilateral Total Knee Replacement.
- Stem Cell therapy in treatment of various Orthopaedic conditions including the Spinal cord injured.
- Arthroscopy of the smaller joints.
- Vertebroplasty-Kyphoplasty.
- Spinal tumour surgery (Enblock Ventrectomy).

#### Delivered Talk on

- a) Osteoporosis-prevention and Medical Management strategies.
- b) Common causes of foot pain-Diagnosis and treatment at Private Medial Practitioners Association at Rajapalayam, Aug 2009.





## PEDIATRIC HEMATOLOGY – ONCOLOGY

The division of pediatric hematology-oncology has seen a consistent increase in the number of children with cancer and blood disorders referred by physicians across the southern districts of Tamil Nadu. The following is a brief report of our activities for the previous 12 months ending March 2014.

### Performance:

New oncology patients: In the past twelve months ending March 2014, we have treated 85 newly diagnosed patients with various types of cancer

at the Camila Children's Cancer Center. The most common types of cancers include leukemias, brain tumors, and a variety of solid tumors including rlymphomas, neuroblastoma, Wilms tumor, and Ewing sarcoma. There have also been some rare cancers.

Acute lymphoblastic leukemia	41
Acute Myleoblastic leukemia	7
Malignant brain tumors	1

Hodgkin's lymphoma	4
Non Hodgkin's lymphoma	7
Wilms tumor	2
Neuroblastoma	4
Sarcoma 's	7
Langerhans cell histiocytosis	3
Germ Cell tumor	5
Rare malignancies	4
<b>Total</b>	<b>85</b>

Total number of pediatric hemato-oncology admissions in 12 months: 1976. Our average inpatient census is 20; and outpatient attendance is 15/day. Of the 85 new patients, 70 (82%) are alive, with a median follow-up of about 6 months. Of these 70 patients, 60 of them are in complete remission, and are doing well; As we follow these patients for more than three years, we will be able to estimate a more realistic cure rate, which will probably be better than 75%. With better strategies to prevent infections, we aim to decrease the number of serious infections and hope to achieve a cure rate of 80% that is commonly seen in the West and other developed nations.

Pediatric Hematology: In addition to the Oncology patients, we have seen 97 new hematology patients: Their diagnoses include: thalassemia, iron deficiency anemia, ITP, Fanconi anemia, Aplastic anemia; and other pancytopenias.

Aplastic anemia	6
Thalassemias	20
Fanconi anemia	6
Iron deficiency anemia	5
Autoimmune hemolytic anemia	4
Anemias miscellaneous	25
ITP	9

Hemophilia A	8
Von Willebrand disease	3
Glanzmann's thrombasthenia	1
Henoch-schonlein purpura	1
Infectious mononucleosis	2
Viral neutropenia	2
Benign lymphadenopathies	2
Osteopetrosis	1
Myelodysplastic syndrome	1
Chromhidrosis	1
<b>Total number</b>	<b>97</b>

A commitment to treat all children with cancer: We continue to uphold our principle and commitment to treat all children with cancer, regardless of their financial capability, thanks to the unlimited support from MMHRC and the generous support of Camila Children's Cancer Fund. The fund pays for the patients' expensive cancer chemotherapy drugs and antibiotics. More than 160 patients have received help from CCCF amounting to more than Rs. 60,00,000 (sixty lakh rupees). We continue to receive generous

donations from the public including many of the physicians practicing in the community.

## Academic Activities

### Dr. S. Jayabose

#### Conferences Attended

- April 2013: Annual Meeting of American Society of Pediatric Hematology –Oncology, Miami Florida.
- March 13, 2013, Cord blood transplantation in Children sponsored by stemcyte.
- January 11-12 2014. International conference on ALL; hosted by Adyar cancer Institute.

#### Abstracts in Conference

- Rasburicase in Tumor lysis syndrome.
- Modified MACOP B and ABVCP regimen in treating intermediate and high risk Hodgkin Lymphoma.

## Academic Activities

### Dr. Kasi Viswanathan

#### Conferences Attended

- PHOCON 2013, Delhi –Nov 2013.
- American Society of Hematology Conference, New Orleans – Dec 2013.
- Apollo Cancer Conclave – Feb 2014.

#### Lectures:

- TAPICON 2013: TPO mimetics in the management of ITP.
- API DIAS 2014: Approach to Anemia.

## Fellowship Programme

In 2014, the Post Doctoral Fellowship programme in Pediatric Hemato – oncology was successfully begun in our centre.

## Grants and Major Funding

- Dance Marathon – Dance performed by various college students in Tamil Nadu on February 2014, raised funds of Rs. 10, 00, 000—organized by Department of Resource and Development at MMHRC.
- All fund-raising activities for Camila Children's Cancer Fund through various activities of R&D including Cash Box donations raise a total of more than Rs. 7,00,000 annually.

## Our Team

- Dr. S. Jayabose – Director.
- Dr. T. Kasi Viswanathan – Consultant.
- Dr. Krishna Kumar Rathanam- Consultant.
- Dr. S.R. Vignesh Kumar – Medical Officer.
- Dr. Stanly Jeba Rani – Medical Officer.
- Mrs. Nirmala Jayabose – Administrator.
- Ms. Preetha – Medical Social worker.
- Ms. Abirami – Data Manager and Infection control Nurse.

- Ms. Sangeetha – Ward In charge.
- Mrs. Sangeetha – Teacher.
- Mrs. Vijayarani – Child life specialist cum Dietician.

## Personnel Added

- Dr. Anna Poorani: Jr. Consultant in Pediatric Oncology.
- Dr. Nisha S. Iyer: Fellow in Pediatric Hemato – Oncology.
- Dr. S.P. Manoj as Medical Officer in Pediatric Hematology- Oncology.
- Dr. B. Anandraj as Medical Officer in Pediatric Hematology- Oncology.
- Ms. Yuveka – Medical Social worker, Pediatric Oncology.
- Ms. Georlin Sweety Angel- Medical Social worker, Pediatric Oncology.

## In the Near Future:

- A hematopoietic stem cell transplant (bone marrow transplant) program - in collaboration with the division of medical oncology.

## Social Events:

- After four years of tireless and dedicated service, Dr. Jayabose, Director in Pediatrics & Pediatric

Hematology-Oncology left our department in March 2014. In appreciation of his service we conducted our pediatric oncology Survivor Union meet on January 5th 2014 in which more than 150 families of children with cancer participated and expressed their appreciation and bid good bye to Dr. Jayabose & Mrs. Nirmala Jayabose.

- International Childhood Cancer day was held on February 2nd 2014 at Thirupuramkundram Temple Park. We arranged a picnic for our patients and their families. More than 50 members participated in this picnic. Children played around the park all morning, lunched together and then participated in numerous competitions (drawing, running, etc).

Our thanks, to the hospital administration for their unlimited support, to our colleagues from various other departments for their tireless cooperation; to our nursing and other support staff in our division for their tireless dedication; and most importantly to all the physicians in the community who put their patients welfare and quality of life on priority and referred their patients to this center, where care for children with cancer and blood disorders transcends paying capability, income and other such boundaries.

### Dr. T. Kasi Viswanathan, MD DM

Consultant  
Pediatric Oncology – Hematology

### Dr. Krishna Kumar Rathanam

M.D., D.M., DNB., PDCR., ECMO.(Europe),  
Consultant  
Medical & Pediatric Oncology





## PEDIATRICS & NEONATOLOGY

The Department of Pediatrics is growing quickly like a child's brain. As a referral center we are providing excellent service to many complicated and referral cases. Through our dedicated service we have acquired a very good reputation for diagnosing and treating all types of pediatric cases.

- We offer a complete range of health care services for children from birth supporting all through their childhood and growing years. We offer the following comprehensive pediatric care

services as a part of our out patient and in patient department.

- Critical care supported by our level 3, Neonatal intensive care unit (NICU) and pediatric intensive care unit (PICU).
- Care of illness supported by our multidisciplinary specialty services including, general Pediatrics, Neonatology, Nephrology, Neurology, Cardiology, Gastroenterology, Hematology and Nutrition.
- Pediatric Surgery.

### Statistics of Pediatrics

Outpatients	: 13396
New	: 2937
Review	: 10459
Inpatients	: 1795

### Statistics of Neonatology

Outpatients	: 1593
New	: 905
Review	: 688
Inpatients	: 847

- Vaccination and immunization programs.
- Preventive health care advocated through a series of awareness and wellness programs.
- Nutrition education.

### Neonatal Intensive Care Unit

- 25 bedded NICU.
- To avoid cross infection the unit is divided into septic and aseptic units.
- Round the clock availability of Consultants, DNB Residents and trained Medical Officers.
- One to one care with well trained critical care nurses.

#### The NICU is equipped with

- Mechanical ventilator with High frequency ventilation mode.
- CPAP.
- Incubators.
- NIBP monitors.
- Cardiac monitors.
- Pulse Oximeters.
- Centralized oxygen supply.
- Sufficient infusion pumps.
- Double sided phototherapy units.
- Open care warmer systems with radiant warmers.
- A warmer and air conditioner in order to maintain a thermo neutral temperature.

### Services

- Our Neonatal Intensive Care Unit is well known for its excellent service to the term, preterm and sick newborn babies.

- Utmost importance is given to aseptic techniques while dealing with neonates.

- MMHRC is one of the best hospital in Madurai to provide surfactant therapy and ventilator care with high frequency ventilation for premature babies.

- The outcome of premature babies treated with surfactant therapy and parenteral nutrition and babies with hyperbilirubinemia treated with exchange transfusion and phototherapy are well comparable with any other well equipped tertiary care centre in our country.

- Ventilator care and surfactant therapy provided here have improved the survival rate of VLBW and ELBW preterm babies.

- Exchange transfusions have saved many newborn with Rh hemolytic disease without any sequelae.

- All sick cases requiring inotropic support are managed with central venous access which is done under strict aseptic precautions.

### Pediatric Intensive Care Unit

- Ensures high quality care to all critically ill children at an affordable cost.

- All children admitted here are managed directly under the supervision of highly qualified Pediatric Intensivist and they provide round the clock on-site care for sick children.

- We are equipped with 8 bedded pediatric critical care unit with isolation and barrier nursing facilities.

- Well trained critical care nurses providing one to one care.

- 24 x 7 bedside care provided by DNB residents and trained medical officers.

- Invasive and noninvasive ventilation facilities.

### Pediatric Ward

- General pediatric ward is equipped with centralized oxygen supplies, critical care resuscitation trolley, suction apparatus, intubation sets, emergency drugs, nebulizers, cardiac monitors, pulse oximeter, infusion pumps.

- We are treating lots of cases of viral hemorrhagic fever with less mortality.

- We have diagnosed about 60 cases of scrub typhus last year and managed them effectively.

- With the help of blood bank and free availability of blood component therapy, complicated and rare bleeding disorders, platelet disorders, thalassemia, septicemia and hemophilia are managed successfully.

- Several interesting yet complicated cases and rare syndromes have been diagnosed and treated in our department successfully.

- Super specialties in surgery, urology and plastic surgery helps us to provide the best treatment to children with acute surgical and urological problems and also correction for congenital anomalies.

- Our team of physicians and nurses provide emotional support and individualized attention to all pediatric patients and their families.

- Our support staff organizes and takes care of admission

procedure, makes discharge arrangement and helps you understand insurance benefits that you may be eligible for.

- We are dedicated to providing the highest quality of health care for your child and it includes routine well child, care right from birth to adolescence, treatment for illness and 24 x 7 pediatric emergency services.

### Pediatrics OPD

- The department has considerable expertise in treating all common. Pediatric problems. The child is looked after on all domains including growth assessment, dietary assessment, developmental assessment, routine immunization and immunization in special situations.
- According to the latest IAP schedule, all vaccines are offered to children and optional vaccines are offered to children in special situation and to normal children after one to one discussion with the parents.
- We do follow up of chronic cases like, Rheumatic heart disease, cerebral palsy, epilepsy, developmental delay, asthma,

diabetes, genetic diseases, like Down's syndrome, CAH, IEM, etc.

- All rare cases which are referred here for further management are properly evaluated, managed and counselled with all expertise advice.
- As per our aim to serve poor people, we are also conducting free pediatric health camps on every Saturday to the lower socioeconomic group children. Laboratory investigations are done at concessional rate during these camp days. By this economically deprived people are also getting superior treatment from our hospital.
- We also provide free immunization (BCG and OPV) on all working days.

### Academics

- The department also runs a postgraduate course affiliated to the National Board of Examinations (NBE), New Delhi, whereby four Residents are enrolled every year through a national entrance exam and centralized merit based counseling.
- There are currently 10 DNB residents in the department,

5 Primary (Post MBBS) and 5 secondary (Post DCH). Their academic activities include regular seminars, Journal clubs, case presentation, group discussions, OSCEs, thesis / dissertations and their research works.

- Senior and experienced professor are appointed for taking classes for the residents.
- Our PG's actively participate in the monthly clinical society meetings of the hospital as well as pediatric CME's and conferences held at other places also.
- Various research activities are carried out in the Department of Pediatrics and Neonatology. Our PG's are doing research about retinopathy of prematurity, neonatal sepsis, congenital anomalies in newborn, neonatal jaundice, scrub typhus and febrile seizures.

The Department of Pediatrics and Neonatology has treated 14989 outpatients and 2642 in patients from April 2013 to March 2014. The various types of cases treated as inpatients in the department of paediatrics and Neonatology are as follows.



## Statistics

### Pediatrics

<b>Respiratory System</b>	
Bronchopneumonia	64
LRI	37
ALT B	6
Bronchiolitis	6
Consolidation	4
Pleural effusion	1
Interstitial Pneumonia	5
HRAD	10
pneumothorax	6
Acute Severe asthma	3
URI	1
Pyothorax with collapse of lung	1
Tuberculosis	4
Emphysema thorax	3
Acute respiratory failure	2
Pulmonary hypertension	4
ARDS	5
Congenital stridor	3
Necrotizing pneumonia	2

<b>Cardiovascular System</b>	
Dilated cardiomyopathy	1
Congenital heart disease	32
Mitral valve prolapse	1
Viral myocarditis	4
Ebstein's anomaly	1
Congestive cardiac failure	1

<b>Gastro Intestinal System</b>	
AGE	167
Gastritis	19
Pancreatitis	3
GE reflux	9
Hepatitis	36
Acute liver failure with encephalopathy	1
Malrotation	4
Portal hypertension	1
Intussusception	6
Chronic diarrhoea	2
Ileitis	2
Cholecystitis	1

GI bleed	2
Appendicitis	2
Cholelithiasis	1
Granulomatous lesion (Lung and spleen)	1
Vomiting for evaluation	8
Abdominal pain for evaluation	1
Acute dysentery	5
Abdominal TB	1

<b>Central Nervous System</b>	
Cerebral palsy	4
Febrile seizures	37
Atypical febrile seizure	53
Seizure disorder	60
Status epilepticus	29
Acute CNS Infection	50
Encephalitis	8
TB Meningitis	9
Acute disseminated encephalomyelitis	1
Hepatic encephalopathy	2
Hypertensive encephalopathy	1
Acute cerebellitis	1
Neuro degenerative disorder	1
IC bleed	7
Meningomyelocele	1
Proximal myopathy with ptosis	1
Ataxia for evaluation	1
Salmonella meningitis	1
Migraine	1
Optic neuritis	2
Infantile hemiplegia	1

<b>Renal Disorder</b>	
Nephrotic Syndrome	37
Acute glomerulo nephritis	25
Acute kidney injury	4
Acute pyelonephritis	8
Lupus nephritis	1
Ectopic right kidney	1
PUJ obstruction	1
Hematuria for evaluation	1
Congenital adrenal hyperplasia with salt losing type	1
Bartter syndrome	2
Acute renal failure	2

Haematology	
Hemolytic Anaemia	4
Anaemia	1
Haemophilia	1
Idiopathic thrombocytopenic purpura	3
Acute leukemia with tumour lysis syndrome	2

### Dermatology

Staphylococcal scalded skin syndrome	2
Flexural dermatitis	1
Utricularial vasculitis	1
Acute urticaria	2
Herpes simplex with erythema multiformae	1

### General Pediatrics

Dengue fever	301
Dengue Haemorrhagic fever	221
Dengue shock syndrome	103
Viral Haemorrhagic Fever	10
Pyrexia of unknown origin	35
Acute febrile illness	75
Enteric fever	13
Malaria	16
Acute exanthematous fever	3
UTI	18
Scalds	11
Foreign body aspiration	10
Septicemia	17
Leptospirosis	1
Multiorgan dysfunction syndrome	3
Foreign body ingestion	5
Chocking	1
Scrub typhus	19
Fever with thrombocytopenia	5
Oral candidiasis	1
Scarlet fever	1
Near drowning	2
Cervical adenitis	1
Hyper pyrexia with delirium	1
Strangulation	1
Cellulitis leg	5
Mastoiditis	1
Multiple abscess	1

Cystitis	1
Adenotonsilitis	1
Chikungunya	2
Rhumatoid arthritis	1
Recurrent epistaxis	1
Septic arthritis	1
Reactive arthritis	1
Tonsilopharyngitis	3
Acute suppurative otitis media	5
DIC	2
HUS	2
Orbital cellulitis	2

### Poisoning

Accidental ingestion of Antipsychiatric drug	2
Accidental ingestion of snuff powder	1
Hydrocarbon poisoning	1
Accidental ingestion of snuff powder	1
Organophosphorus Poisoning	1
Accidental ingestion of Rodetidine	1
Camphor ingestion	1
Kerosene poisoning	2
Cow dung poisoning	1
Ant killer poisoning	1
Eucalyptus oil toxicity	1
Insect bite	1
Scorpion bite	3
Snake bite	2
Drug overdose	2
Accidental ingestion of precatious seeds	1
Unknown bite	1

### Road Traffic Accidents and Trauma

Fracture left femur	1
Head Injury	5

### Miscellaneous

Developmental delay	2
Diabetes mellitus	2
Hyper IgM syndrome	1
Insulin dependent diabetes mellitus with DKA	2
Down's syndrome	1
Eisenmenger's syndrome	1

Oculocutaneous albuminism	1
Multiple hemivertebrae	1
Persistent metabolic alkalosis with hypokalemia	1
Failure to thrive	1
<b>Neonatology</b>	
Respiratory System	
Newborn with respiratory distress	12
Preterm with RDS	41
MAS	15
Pneumothorax	2
Lung collapse	1
Pulmonary hemorrhage	2

<b>CVS</b>	
TAPVC	1
CHD	19
Persistent pulmonary hypertension of newborn	1
Global hypokinesia with severe LV dysfunction	1
Complete AV canal defect	1
Tetralogy of palate with pulmonary atresia	1

<b>Gastro Intestinal System</b>	
Hirschsprung disease	1
NEC	5
Neonatal Hepatitis	1
Ileal atresia	1
Meconium ileus	2
Neonatal cholestasis	1
Erb's palsy	1

<b>CNS</b>	
Birth asphyxia	21
Neonatal seizure	26
Hypoxic Ischemic Encephalopathy	22
Intraventricular Haemorrhage	2
Neonatal encephalopathy	7
Hemivertebrae	1
Kernicterus	1
IC bleed with ICP / Late vit K deficiency	1
Inborn error of metabolism	1

<b>Neonatal Jaundice</b>	
Physiological jaundice	159
RH incompatibility	7
(Exchange transfusion done)	4
ABO incompatibility	3

<b>Anomaly</b>	
Hydrops foetalis	1
Colloiden baby	3
Pierre robin syndrome	2
Single umbilical artery	1
Congenital diaphragmatic hernia	2
Cleft lip and cleft palate	2
Congenital hydrocephalus	1
Dysmorphic facies to r/o chromosomal anomalies	1

<b>Miscellaneous</b>	
Congenital hypothyroidism	2
Level I care	383
Septicemia	38
IUGR	5
Epidermolysis bullosa simplex type	1
Acute kidney injury	1
Multiple pyemic abscess	1
Bilateral hydro uretero nephrosis	2
Adrenal Insufficiency	1
Posterior urethral valve	1
Septic arthritis	1
Fetal anaemia	1
Acute renal failure	12
Bleeding neonate	3
Infant of diabetic mother	8
Neonatal shock	5
Torsion testis	1
Neonatal thrombocytopenia	1
UTI with VUR	1
Down syndrome	1
Bilateral tunica vagina hydrocele	1



## PEDIATRIC ICU

Pediatric Critical Care Unit at MMHRC is the first of its kind in South Tamilnadu providing quality critical care since 2011. It is an efficient and well motivated team headed by Dr. S. Senthil Kumar, the full time Pediatric Intensivist. We as a team strive hard not only to improve survival and minimize disability, but also relieve pain and suffering with a humane touch.

### Facilities and Equipments

Our PICU is an 8 bedded unit, specifically designed to provide

highly specialized care for critically ill children at an affordable cost. The PICU is equipped with state-of-the-art advanced diagnostic and monitoring equipments.

We provide both invasive and non invasive ventilation to sick children with latest generation ventilators. A team of well trained, skilled and experienced critical care nurses forms the backbone of our services. We provide one to one nursing care for every child.

Trained pediatric resident doctors and duty doctors are posted in the

unit to provide round the clock intensive care.

A separate isolation and barrier nursing facility to manage immunocompromised children and children with contagious diseases like chicken pox, measles, tuberculosis and MRSA infection is provided.

Strict infection control measures to prevent hospital acquired infections are practiced.

Our support team includes Respiratorytherapist,Physiotherapist,

Dietitian and a Social Worker to counsel the parents.

The unit is well supported by the full spectrum of in house specialities, like Pediatric surgery, Pediatric hemato-oncology, Radiology, Neurology, Neurosurgery, Nephrology and Cardiology.

### Bedside Monitoring

- Intra-arterial blood pressure (IBP) monitoring.
- Central venous pressure (CVP) monitoring.
- Continuous end tidal CO<sub>2</sub> (ET CO<sub>2</sub>) monitoring.
- Intra abdominal pressure monitoring.
- Invasive Intracranial pressure monitoring.
- Continuous EEG monitoring.
- Echo cardiogram.
- Ultrasonogram.

### Bedside Procedures

- Chest tube placements.
- Peritoneal dialysis.
- Continuous renal replacement therapy (CRRT).
- Bronchoscopy - flexible and rigid.
- Intrososseous line placement.
- Bone marrow aspiration & biopsy.
- Lumbar puncture.
- Venous cut down.
- Biopsies.
- Fasciotomy and Debridement.

### Pediatric Procedural Sedation Services

We assist Pediatric Oncology and Pediatric surgery departments by providing sedation for minor operative procedures and bone marrow aspiration and intrathecal chemotherapy procedures.

We are part of the infection control committee of the hospital providing regular training to the nurses in infection control practises.

### PICU Transport Service

A pediatric ICU transport team mobilises sick children from referral centres to our PICU.

### Academic Activities

- Attended the national conference on Paediatric critical care held at Mahabaleshwar.
- Attended the national conference on Paediatric emergency medicine held at Ahmedabad.
- Organised a workshop on PICC line procedure in MMHRC as part of the Tamil Nadu state Neonatology conference.
- Presented several CME on paediatric topics at various IMA meeting held in south Tamil Nadu.
- Was part of the paediatric Advanced life support (PALS) courses as an instructor, which was held at Madurai.



### Our performance

Total number of admissions	543
Pediatrics	253
Pediatric Surgery	191
Pediatric Oncology	65
Pediatric ICU	17
Neuro Surgery	6
General Surgery	3
Hematology	2
Plastic surgery	2
Orthopaedics	1
Diabetology	1
Radiation Oncology	1
Imaging Sciences	1



## PEDIATRIC SURGERY

Pediatric Surgery division is a new addition to our hospital with a pediatric surgeon available round-the-clock. The division offers dedicated surgical service to children. In the short span of past thirty months since September 2011, we have operated many complicated neonatal and other pediatric surgical cases. With the excellent new born services in the hospital, we are able to perform major neonatal surgeries like tracheoesophageal fistula, congenital diaphragmatic hernia, bowel atresias, anorectal malformations and neonatal tumors

and able to give very good post operative care. Sick older children are taken care of in dedicated Pediatric Intensive Care Unit (PICU) and postoperative care to them is given by the Pediatric Surgeon along with qualified Pediatric Intensivist.

As we have a very advanced pediatric oncology division in the hospital, we regularly operate pediatric malignancies. In fact, ours is the only center in South Tamilnadu doing permanent life port insertions in significant numbers, for administering chemotherapy in children. This is a milestone in care for children with

cancer which has improved their quality of life. Our experience of the life port insertions has been published in Indian Journal of Pediatrics (IJP) and has been presented in the World Conference of Pediatric Surgeons in Berlin and was appreciated well.

### Statistics

Outpatients	: 598
New	: 155
Review	: 443
Inpatients	: 234
Major Surgeries	: 212
Minor Surgeries	: 86

Our team is providing all pediatric surgical services including, neonatal surgeries gastrointestinal and Hepatobiliary surgeries, pediatric thoracic surgeries, pediatric urological open surgeries, endo urological procedures and oncological surgeries and laparoscopic surgeries.

We do several minor operations and procedures for children at the minor operation theatre which saves a lot of time and allows pediatric patients to be managed on day care basis.

### Other Activities

- Attended international workshop and conference (WOFAPS) at Berlin, organised by the World Association of Pediatric Surgeons and presented posters on the podium.
- Attended and presented papers in National and State Pediatric surgery conferences held at Kanyakumari.

- Delivered lectures in various IMA meetings to improve the awareness on pediatric surgical problems to the general practitioners.
- Contributed to Madurai Medical Journal by regularly writing articles.
- Visiting referral doctors at various towns surrounding Madurai.

### Major Operation

- Exstrophy bladder
- Laparoscopic cyst excision
- Thoracoscopic cyst excision
- Thoracoscopy - tumor excision
- Laparoscopic Cholecystectomy
- Tongue Tumor
- Presacral mass excision by abdominal approach

- Large neuroblastoma in infant
- Large Wilm's tumor
- Splenectomy
- Rectal polypectomy
- Rectal myectomy
- Ranula
- Nephrectomy
- Thoracotomy Decortication
- Urchal cyst excision
- Laparotomy Omental cyst excision
- Herniotomy
- Cohen's cross trigonal ureteric reimplantation
- Nephroureterectomy for Wilm's and other renal tumours
- Mini posterior sagittal anorectoplasty
- Posterior sagittal anorectoplasty
- Laparotomy for peritonitis due to perforated appendix
- Laparotomy small bowel resection and anastomosis
- Laparoscopic appendectomy
- Laparotomy and resections
- Duhamel operation
- Appendectomy
- Rectal biopsy
- Diagnostic sigmoidoscopy
- Herniotomy
- Whipple's pancreaticoduodenectomy
- Liver resections

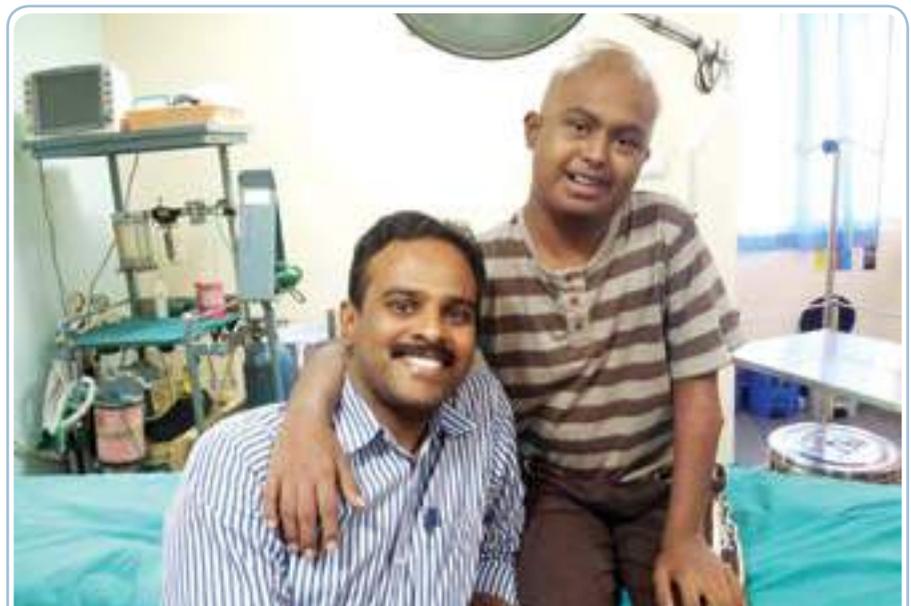


- Macrostomia repair
- Biliary atresia-Kasai procedure
- Cleft palate-Repair
- Thyroglossal cyst-Excision
- Diagnostic laparoscopy
- Hypospadias repair
- Umbilical hernia repair
- Branchial sinus Excision
- Neonatal cholestasis-  
Laparotomy intra operative  
cholangiogram liver biopsy
- Congenital adenomatoid  
malformation-Thoracotomy  
and lobectomy
- Thoracotomy and tumor excision
- Bowel resection for caecal tumor
- Intestinal duplication with bowel  
gangrene-resection anastomosis
- Haemangioma-Excision
- Malrotation-Ladd's procedure
- Morgagni hernia repair
- Surgery for cloacal abnormality-  
Total urogenital mobilization and  
anorecto vagino plasty
- Congenital diaphragmatic hernia  
repair
- Tracheo esophageal fistula  
repair
- Bowel atresias surgery
- Cystic hygroma with air way  
obstruction,excision
- Sacrococcygeal and cervical  
tetratomas excision
- Choledochal cyst excision with  
Roux - en - Y common hepatic  
jejunostomy
- Laparotomy/Adhesions  
release
- Pyloromyotomy

- Colostomy
- Colostomy closure
- Fistulectomy
- Cystoscopy with fulguration
- Circumcision
- Laparotomy B/L orchipexy with  
excision of uterus
- Orchidectomy
- Orchipexy / Laparoscopic  
orchipexy
- A-H Dismembering  
pyeloplasty
- Diagnostic cystoscopy
- Life port
- Life port removal
- Laproscopic adhesiolosis
- Thoracotomy - Mediastinal  
tumor excision
- Repair of giant amphalocele
- Surgery for meconium ileus
- Mitrofanoff-cathetrizable  
channel
- Torticollis correction

### Minor Operation

- Excision biopsy
- FNAC
- Flank drainage
- MCU
- Anal dilation
- Barium enema
- Intralesional bleomycin injection
- Excision biopsy
- Wound debridment
- Secondary suturing
- Picc line insertion
- I & D
- Trucut biopsy
- DJ Stent removal
- Flank drainage
- Labial adhesions separation
- Pleural tapping
- ICD
- Tongue tie release
- Barium swallow





## PHARMACY

Our hospital has an on-site pharmacy department, to ensure the right medicines are received at the right time, through a highly efficient and economical system. We adopt and apply the best pharmaceutical expertise to help in maximizing drug efficacy and minimize drug toxicity.

### Services

- 24 hour Pharmacy.
- Quality patient care services.
- Ourentiresystemiscomputerized.
- Online prescription for Inpatients and Outpatients.
- Well-trained and qualified pharmacists.
- Delivery of standard medicines to the customers.

- Well-stocked with all necessary pharmaceutical and medical products.
- Disposables, surgical, anti-cancer and life saving drugs also available.
- Adheres to the guidelines as per Drugs and Cosmetics Act of 1948 for Pharmacy Management.
- Genuine medicines from leading manufacturers, available round-the-clock.
- Controlled temperature helps in maintaining quality and efficacy of medicines.

### Objectives

- To educate the patients .
- To work towards maximum customer-focus.

- To facilitate adverse drug monitoring.
- To ensure quality patient services at all times.

### Achievements

- Won Golden award in 21<sup>st</sup> Chapter convention on Quality Circles 2011.
- Won Excellence award in 19<sup>th</sup> Chapter convention on Quality Circles 2009.
- Won Distinguished award in 23<sup>rd</sup> National convention on Quality Circles 2009.
- Drug formulary issued to all departments.

### Future Plans

- All inpatients changed to credit system.
- Inpatient pharmacy extension.



## PHYSICAL MEDICINE & REHABILITATION

The department of Physical Medicine and Rehabilitation work with the philosophy of 'The patient come first' under any circumstance.

Physiotherapy Department in Meenakshi Mission Hospital and Research Center is one of the largest and is equipped with latest equipments, working in all sub specialties in Physiotherapy. We have a qualified and highly experienced team of physiotherapists providing OPD services (Direct and Referral) and IPD services (in wards

and intensive care units) with treatment procedures of international standards, to offer a multifaceted approach to the patients rehabilitation.

Physiotherapist provides a wide range of therapies after examination, tailored to suit individual needs. Physiotherapist aims to restore functioning of the body, to reduce impact of dysfunction, disability and pain of the body, from trauma and disease. To improve mobility, health and reduce risk of injuries.

### Therapies Includes

**Manual Therapy:** Stretching, manual resistance training, joint mobilization and manipulation, manual lymphatic drainage (post lymphedema), chest physiotherapy.

**Electro Therapy Techniques:** Short-wave-diathermy, ultra-sound

### Statistics

Outpatients	: 5158
Inpatients	: 6256

therapy [1mhz, 3mhz], pelvic and cervical traction[continuous and intermittent], interferential therapy, wax-bath, electrical muscle stimulator, T.E.N.S, slim-up, vacuum therapy.

**Exercises:** Posture training, muscle strengthening, cardiovascular training and stretching.

**Other Services:** Advice orthosis and prosthesis (post amputation) offering information regarding equipment aids (wheelchairs, walking aids), taping and splinting.

## Facilities

**Electrotherapy** - SWD/IFT/ Ultrasonic/ MS Stimulator, T.E.N.S, paraffin wax bath, cryotherapy.

**Diagnostic** - S D curve/MS testing/ ADL assessment.

**Mechanical** - Traction-cervical/ Lumbar/Pelvic/C.P.M. for lower extremity. Tilt table, rowing, treadmill.

**Manual Mobilization Therapies-** Mobilization couch with specific features for mobilization.

**Exercise Therapy** - Active/Assisted/ Passive/Resisted/Graded resisted exercises, PNF techniques, suspension therapy, Theraband/ tube exercises.

**Chest Physiotherapy** - Assessment of pulmonary functions, therapeutic functions, postural drainage, therapeutic, interventional physiotherapeutic procedures, nebulization breathing exercises, incentive spirometer, humidification, home care and follow ups.

**Gynae/Obstertric** - Antenatal and postnatal ex., postural correction and awareness.

**Fitness** - Assessment and improvement.

**Post Operative Cardiac Surgeries-** Following cardiac surgeries pre and post operative physiotherapeutic exercise for patients including-breathing exercises, chest maneuvers, humidification, nebulization, incentive spirometers, limb physiotherapy, cardiac rehab- phase I -IV.

**For Neurological Disorders-** Proper positioning of the limbs (Anti synergic patterns) general mobility and strengthening exercises, PNF, Bobath.

**ICU Post Surgical Care** - Chest Physio and general mobility ex, incentive Spiro meter ex, bronchial hygiene, proper positioning of the operative side/part, ambulation.

**Oncology and Palliative care** - Physiotherapy in the field of Oncology and Palliative care is a continually evolving and developing specialty. The Aim of Physiotherapy and Rehabilitation to maximise

independence and dignity and reduce the extent of cancer and other life-limiting illness interferes with an individual's physical, psycho-social and economic functioning. Whilst physiotherapy focuses on the care and treatment of a wide range of physical problems. Which may optimize their increase the quality of life.

**Hemophilia Federation of India** Madurai chapter gives physiotherapy care and advice through our department.

**The core idea at the department of Physical Medicine and Rehabilitation is to ensure that rehabilitation is done in short a period as possible making life near normal.**

## Academic Activities

Various physiotherapy colleges under affiliated to Tamil Nadu Dr MGR Medical University has tie-up with our hospital to get C.R.R.I for their BPT students.

PHYSIOTHERAPY INTERVENTION			
S. No	MODALITIES	IP	OP
1	Short Wave Diathermy	227	347
2	Ultrasound Massage	615	1136
3	Wax Bath	1443	1453
4	Chest Physiotherapy	43149	1
5	Exercises Therapy	35090	3381
6	Traction	1282	220
7	Interferential Therapy	977	1734
8	IRR	4	1
9	Electrical Stimulation	362	80
10	T.E.N.S	951	243
11	CPM	293	
12	Cryotherapy	507	4
	Total	84900	8600



Excellence Governor of Tamilnadu Mr.Rosaiah awarded **Dr. N. Panchavarnam, MS.,M.Ch.,** LIFE TIME ACHIVEMENT AWARD Dedication,Talent & Tireless passion - The Smile Train USA

## PLASTIC SURGERY

Plastic surgery is a unique problem solving speciality. The problem may be the result of a congenital abnormality, an accident, a disease of the aging process. Plastic surgery is based mainly on principles than on the details of specific procedures. This allows the plastic surgery to solve unusual problems, to operate skin soft tissue and bone from head to toe. Plastic surgery consists of reconstructive surgery and

cosmetic surgery but the boundary between the two innovations is the key to the current success of plastic surgery.

### Cosmetic Surgery

With the advent of more and more awareness about self appearance and beauty, nowadays cosmetic surgery has become a significant field of plastic surgery. We have been doing all types of cosmetic surgeries like hair transplantation,

#### Statistics - Plastic Surgery

Outpatients	: 2167
New	: 350
Review	: 1817
Inpatients	: 407

#### Statistics - Plastic Surgery (Smile Train Projects)

Outpatients	: 3102
New	: 642
Review	: 2460
Inpatients	: 872

blephroplasty, face lifts, rhinoplasty, breast augmentation, gynaecomastia correction, liposuction, abdominoplasty and body contouring.

### **Congenital Abnormalities**

Microtia, hypospadias, congenital anomalies of hand and toes, constriction ring syndrome, and branchial cleft defects are some of the congenital anomalies which are managed in our department.

### **Reconstructive Surgery**

Post cancer surgery reconstruction of head and neck or breast, pressure sore coverage, lymphedema surgery, chest wall and abdominal construction or reconstruction of lower limb defects due to trauma or tumor excision.

### **Cleft lip and Palate Surgery**

Totally free of cost in cleft lip palate surgery is conducted successfully with appreciation at MMHRC from 2003 onwards. Up to now we have done 7500 cleft lip

cases with free of cost. Quality and safety are the principles in surgery; MMHRC is one of the best centers recognized at the New York head office, USA.

### **Head, Neck and Face Surgeries**

Hemangiomas, hairy nevus and facial reanimation surgeries are done.

### **Hand Surgery**

All types of hand trauma, tendon injuries, amputations, metacarpal and pharyngeal fractures and dislocations are managed by plastic surgeons. Reimplantation of the amputated part of microvascular surgery is a very important field in reconstructive surgery of the hand. Other hand conditions like depuytren's icontracture, Tendon transfer for palsy hand, soft tissue infection of hand and brachial plexus injuries are also managed by plastic surgery.

### **Burns**

All types of thermal, electrical and chemical burns are managed in

our department. Both acute burns and post burna sequelae are managed.

Our department has dedicated operation theatre for plastic surgery cases with 2 tables functioning at a time. The operation theatre is equipped with state of the art Boyle's apparatus and multi parameter monitor with a fully equipped recovery room.

### **Maxillo Facial Surgery**

All types of facial bone fractures and mandibular fractures are managed by open reduction and internal fixation using mini plates and screws. Temporal mandibular joint ankylosis is managed by interposition arthroplasty.

**Dr. N. Panchavarnam, MS.,M.Ch.,**  
HOD-Plastic surgery, Project Director  
Smile Train, MMHRC

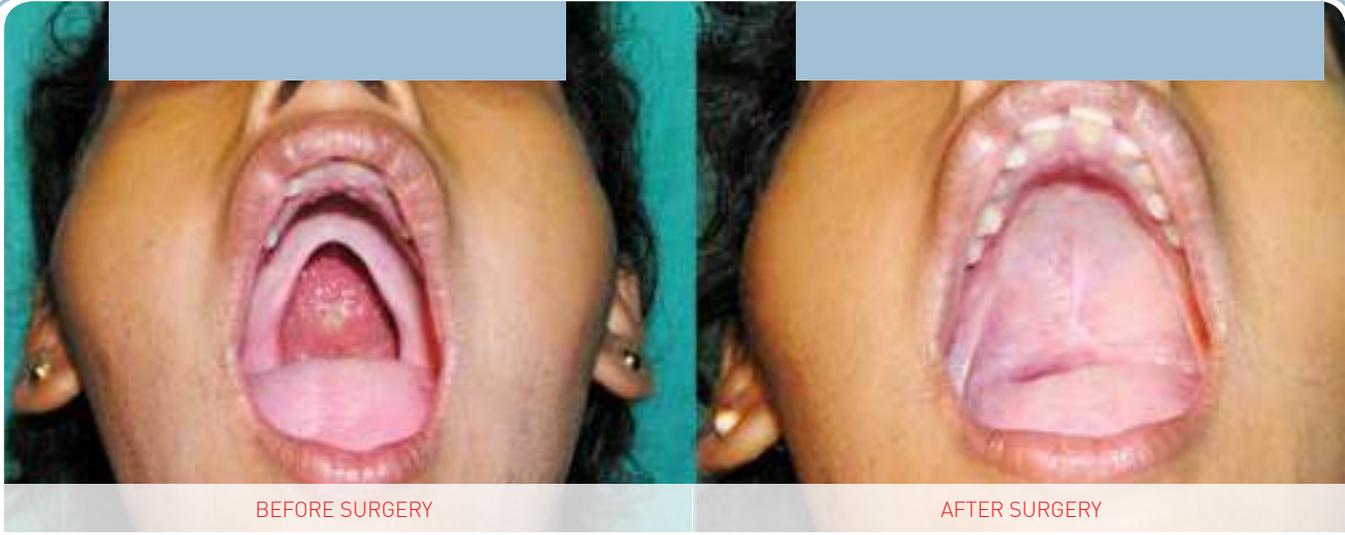


BEFORE SURGERY

AFTER SURGERY



Bilateral Cleft Lip, Palate Repair >



Cleft Palate Repair >

Sugeries	No
Unilateral Lip	2657
Bilateral Lip	553
Palatoplasty	3531
Facial Cleft	41
Revision Lip	414
Revision Palate	442
Fistula Repair	154
Pharyngeal Flap	315
Secondary Nose correction	89
Alveolar Bone Graft	126
Liposuction	01
Gynaecomastia	01

Rhinoplasty	03
Contracture release	02
Haemangioma	03
Burns	03
Tongue tie release	09
Flap Cover	05
Skin Cover	15
Primary closure	17
Pressure sore	02
Chronic ulcer lower limb	35
Filleting	01
Reduction Surgery	02
TM joint ankylosis release	01



## PREVENTIVE MEDICINE

Preventive medicine in MMHRC works with well experienced consultants of all departments. We health check-up departments receives all not our patients as our valuable customers who wants to prevent all anticipated diseases like cardiac diseases, liver diseases, diabetic, renal/kidney diseases etc., Our health check-up various plans suits your minimal expenditure. By doing Health check up are different plans with you and all your family members healthy & happy

families. Your future medical expenses will be decreased. Our motto "healthcare prevention to all your family members with affordable cost."

Healthcare for any individuals from child - adult geriatrics. Our life span increased from 62 years - 85 years, because of healthcare Treatment, healthcare prevention. you & your family becomes happy.

Every year spending small amount for you & your family medical checkups, screening all your health system, you can prevent diseases

like Heart diseases, Kidney diseases, liver diseases, Neuro diseases, Liver cancer and Diabetes.

### Statistics

Year	: 2013-2014
Beneficiaries	: 7493
Income (INR)	: 2,15,55,527

## New Initiatives (Corporate Tie Ups - For Health Check Ups)

1. Coco-cola pre-employment.
2. HCCB - Chennai.
3. Reliance - Chennai.
4. AMAS Medical Services Pvt Ltd., (Mumbai).
5. Bethesda Child Development Centre, Madurai.
6. Indian Builders Association - Tuticorin.
7. Idea Cellular.
8. ICICI Pre Insurance Policy.
9. HDFC Executives Annual Health Check-up.
10. TVS Fire Stone.
11. Repco Bank.
12. Tamilnadu Paralympic Association.
13. ITBP Armed Force.
14. Cauvery Build Tech - Chennai
15. South Zone Chartered Accountant's Association.
16. Mount Zion College of Engineering Technology - Pudukottai.
17. Lankan Airlines - Srilanka (Mihin Lanka).
18. Axis Bank.
19. RK Bajaj (Madurai and Sivakasi).
20. Abi Amudham Health Care (for Medical Tourism).
21. Lakshmi Vilas Bank Officers Association.

## Mobile Health Check-up

1. Mahatma Schools in Madurai.
2. Aavin - Madurai.

3. The Hindu - Madurai.
4. All small corporates in and around Madurai district.

## Promotions

1. Good health gift card.
2. Paper advertisement.
3. FM radio advertisement with sponsor.
4. Local cable TV advertisements.
5. Send brochure and health awareness programme - All pensioners clubs to promote senior citizen health check-up.
6. Send brochure and health awareness programme to - All chambers of commerce members and maditssia members to improve corporate clients.
7. Send brochure and health programme to - All lions club, rotary clubs, ladies club with doctor's team to improve cancer screening, pre-marriage, executives diabetic health check-up.
8. To promote cancer screening - An advertisement in Aval Vikatan, Snekithi, Mangayar Malar.
9. To improve diabetic health check-up - Send brochure to all diabetic patients.
10. Health awareness programme with doctor's team for police department.
11. To improve cardiac health check-up pamphlets distribution and health awareness programme with cardiologist team walkers club, railway ground, race course, joggers club.
12. Weekly article in newspapers.

13. To improve bank health check-up packages - Plans to conduct health awareness programme for all bank employees in and around Madurai.
14. To improve foreign health check-up - Plans to visit all travel agencies.
15. Planning to conduct special awareness mega camp and health awareness in the heart of the city for health check - up programmes.
16. Plan to conduct health awareness programme for all North Indian associations (like Jains, Gujaratis, etc.,).
17. To improve corporates - Send awareness letter and brochures to all our well wishers and suppliers (TPA's and corporates).
18. Question and answer session in FM and satellite TV with doctors team.
19. To send brochure of health check-up to all IMA's.
20. Plan to introduce family health check-up packages for to promote senior citizen health check-up and child health check-up.
21. Plan to introduce platinum heart check-up.
22. Planning to conduct "World Heart Day" on 28th Sep. 2014.
23. Planning to conduct "World Obesity Day" on 26th Oct. 2014.
24. Planning to conduct " World Diabetes Day" on Nov. 14th 2014.
25. Planning to conduct Health Awareness Programme for Teachers and Students on Dec. 2014.



## PSYCHIATRY

The Department of Psychiatry envisages to provide humane and modern psychological health care by incorporating most recent Psychopharmacological interventions and psychotherapeutic techniques at affordable cost to clients suffering from Psychiatric Disorders.

As alcoholism has emerged as a major public health menace and as a scourge that ravages the lives of thousands of young and old men and robs them of their most productive years of life, further wrecking havoc on the well being of innumerable families and the entire society at large. Our department has the vision of establishing a well equipped deaddiction and rehabilitation center which provides holistic health care to those

suffering from alcohol and drug dependence.

Consultation-liaison services to manage psychiatric comorbidity of medical disorders, delirium and agitation in intensive care units and medically unexplained physical symptoms are provided to improve treatment outcomes of clients of other departments.

To provide enhanced focus on psychological methods of managing crisis situations, now we are providing scheduled Counseling and Psychotherapy sessions for suicide prevention, crisis intervention, child-adolescent guidance and marital disharmony.

Modified ECT and Intensive Psychiatric Care to major mental illness and

psychiatric emergencies are provided at our hospital has emerged as the tertiary care center for referral of treatment resistant psychologically ill patients and mentally ill patients with medical complications.

We intend further to improve and expand the therapeutic horizons to provide solace to the psychologically ill populace with most modern and holistic therapeutic interventions designed to alleviate pain and suffering due to psychiatric disorders.

### Statistics

Outpatients	: 6091
New	: 433
Review	: 4827
Opinion	: 831
Inpatients	: 321



## PULMONOLOGY & SLEEP MEDICINE

The beauty of Pulmonary Medicine is its broad scope. There are many different primary pulmonary diseases, and the lung is also secondarily involved in many other systemic diseases. The Department of Pulmonary and Sleep Medicine caters to a wide spectrum of diseases of the chest ranging from airway disorders like COPD (chronic bronchitis and Emphysema) and bronchial asthma, infections like pneumonias and tuberculosis, pleural disorders, carcinomas of the respiratory tract, occupation-related lung disorders,

interstitial lung diseases, sleep related breathing disorders.

On July 1, 2013 Department of Pulmonology and Sleep Medicine was started at MMHRC with the aim of delivering quality clinical services to all patients suffering from respiratory illness.

Comprehensive care for Asthma, COPD and treatment for all forms of Tuberculosis (Pulmonary and Extrapulmonary) - Drug sensitive and Drug resistant (MDR-TB) is given under Pulmonology service.

A good dedicated Sleep Lab with sleep lab technician is available for the diagnosis and treatment of sleep disordered breathing

### Statistics

Outpatients	: 1571
New	: 267
Review	: 1250
Inpatients	: 207
Bronchoscopy	: 150

disorders. A team consisting of Pulmonologist, ENT Physician and Neurologist treat sleep related disorders.

### Facilities and Equipments

- 1 OPD: Monday-Saturday daily from 9am to 6pm.
- 2 Inpatient general ward, private rooms, deluxe rooms, ICU's.
- 3 Multispecialty consultations round the clock with 24 hour emergency Services.
- 4 24 hour biochemistry, pathology and microbiology laboratory (NABL Accredited).
- 5 Comprehensive Sleep Lab.
- 6 Comprehensive Spirometry.
- 7 Fiber Optic Bronchoscopy.
- 8 Advanced diagnostic methods for Drug resistant Tuberculosis Services.

### Diseases Treated in the Department Include:

#### Airway Disorders:

- 1 Bronchial asthma (Comprehensive Asthma care).
- 2 COPD - Chronic Bronchitis Predominant.
- 3 Bronchiectasis.

#### Parenchymal Diseases:

- 1 Infectious: Pulmonary Tuberculosis (Drug sensitive and Resistant tuberculosis) Pneumonia (Lobar and Bronchopneumonia) Lung Abscess.
- 2 COPD- Emphysema Predominant
- 3 Bronchogenic Carcinoma Interstitial Lung diseases: Like IPF, NSIP, Sarcoidosis etc. Eosinophilic Lung diseases.

#### Pleural Diseases:

- Pleural effusion.
- Pneumothorax, Pyothorax, Hydropneumothorax.

- Pleural Malignancies.
- Pulmonary Vasculature.
- Pulmonary Hypertension.
- Pulmonary Embolism.
- Extrapulmonary Tuberculosis (both drug sensitive and drug resistant tuberculosis).
- Respiratory complications - Either due to Direct/Indirect lung injury.

### Procedures Done

- 1 Bronchoscopy- Diagnostic and Therapeutic.
- 2 Pleurocentesis - Diagnostic and Therapeutic.
- 3 Pleurodesis.
- 4 Intercostal drainage.
- 5 Lung Biopsy.
- 6 Pleural Biopsy.
- 7 No. of Bronchoscopy - 150.

**Dr. G. Velkumar, M.D.,**  
(Pulmonary Medicine) -  
Consultant Pulmonologist





## RADIATION ONCOLOGY

■ The Department of Radiation Oncology, a part of the oncology service in our hospital for nearly twenty five years has treated number of cancer patients with radiation therapy. And now, the department has 3D – conformal Radiation therapy. We are happy to say that, we have treated 15% patients more last year.

In three Dimensional Conformal Radiation Therapy (3D-CRT), there is an advantage of greater penetration with reduced side effects because of its higher beam energy and sharper beam characteristics.

The equipment also offers greater flexibility in treatment delivery option. This is possible because it provides the necessary clearance to perform a wider range of gantry and table position.

It also has the capability and capacity of delivering photon energy at increased adjustable dose rates while lowering the dose to the skin. It is useful for treating all types of tumor.

### Advantages

1. Very high energy beams can be created with a machine that is

not very bulky or cumbersome to use.

2. The edges of the beams are much more sharply defined, allowing additional precision in dose delivery.

### Statistics

Outpatients	: 14256
New	: 516
Review	: 14701
Inpatients	: 1399

3. The dose rate per minute is variable and can be increased to a high degree. This allows the patient to be located at a substantial distance from the machine. It's also possible to create large fields for total body irradiation while maintaining adequate dose rate.

### Future

The department will have another Linear Accelerator equipment functioning from the month of August 2014 with additional facilities like, IMRT - Intensity Modulated RT, IGRT (Image guided Radiotherapy), VMAT – Volumetric Modulated ARC Therapy which will be the first of its kind in South Tamilnadu.

### Other Facilities

#### Brachytherapy

Micro Selectron HDR Brachytherapy is a clinically proven and economical option for treatment in various Cancers. ICRT (Ca Cervix and Ca Endometrium), ILRT (Ca Oesophagus), Interstitial (Ca Breast) and Surface Mould Brachytherapy.

Brachytherapy is a high precision radiation therapy, in which a radiation source is placed close to the tumour itself, to kill cancer cells and shrink the tumour. This precision Brachytherapy enables the application of a highly concentrated dose of radiation inside a small area. This causes less damage to the normal tissues

and organs over short periods of exposure.

#### Treatment Planning System (TPS)

Computerized Treatment Planning Systems are used in external and internal beam radiation therapy to generate beam shapes for dose distribution. This provides maximum control and minimizes normal tissue complication while providing a 3D view of patient anatomy and tumor. Besides, the CT scan has networked with TPS which makes the treatment procedure highly precise.

#### Research Activities

Indications for which the trials are being conducted in the Department.



S. No	Name of the Trials
<b>ON GOING</b>	
1	Breast Cancer
2	Renal Cell Carcinoma
3	Non Small Cell Lung Carcinoma
4	Colorectal Carcinoma
5	Head and Neck cancer
<b>CLOSED</b>	
1	NHL / DLBCL
2	NSCLC
3	Head and Neck cancer
4	Pancreatic and Ovarian
5	CML
6	Follicular NHL
7	Breast Cancer

**Dr. K.S.Kirushna Kumar,**  
MD., (RT)

**Conferences Attended**

- European Society of Medical Oncology, Amsterdam.
- Eurasian Head and Neck Cancer- International Conference held on July 2013 in Russia.

**Personal Achievements**

- Attended Various Investigators Meeting for Research Activities.
- Audited by USFDA for Two Research studies.

- Advisor in Aravind Medical Research Foundation.

**Dr. P. Ananda Selva Kumar,**  
MD., (RT), DNB., (RT), PDCR

**Conferences Attended**

- Best of ASCO - Annual meeting 2013 held on June 2013 in Mumbai.
- 28<sup>th</sup> Annual Conference of Radiation Oncologist of India, Tamilnadu and Puducherry.

**Personal Achievements**

- Completed Professional Certificate in Pharmacovigilance on Feb. 2013.
- Underwent 30 days of training in Palliative Medicine under three different Palliative Care Institutions for Fellowship in Palliative Medicine.
  1. Life Member – Association of Radiation Oncologists of India.
  2. Life Member - Indian Brachytherapy Society.
  3. Life Member – Indian Palliative Care Association.
  4. Life Member – Indian Medical association – Meenakshi Branch, Madurai.
  5. Member – European Society of Medical Oncology.

**Statistics**

Cervix	189
Head & Neck	131
Breast	109
Rectum	55
Brain	43
Lung	34
Oesophagus	29
Bladder	26
Endometrium	26
Bone	21
Non Hodgkin's	21
Eye	20
Prostate	16
Stomach	13
Myeloma	10
Spine	10
Thyroid	10
Penis	10
Pancreas	7
Others	63
Total	843

**Radiation Therapy**

The Total number of patients treated with external radiation therapy	843
Total number of sessions treated with brachytherapy	510
The Total number of patients treated with Radiation therapy under Anesthesia	10



## REGIONAL BLOOD TRANSFUSION CENTRE

The Blood Bank has shown Considerable growth in the past few years. MMHRC has a government licensed Blood Bank. The blood is collected only from Voluntary and Relative donors and each unit is screened for blood transmissible diseases like HIV, Hepatitis B, Hepatitis C, VDRL, Malarial and Filariasis.

The screened units are supplied free of cost to needy patients admitted at MMHRC and other hospitals of South Tamil Nadu.

We separate blood components and issue packed cells, fresh frozen plasma and platelet concentrate. Through the Hemophilia Society, the department issues factor VIII and Factor IX to correct bleeding disorders. There are 124 People with Hemophilia (PWH). Every year, the department observes World Hemophilia Day on Apr 17<sup>th</sup>.

The department also celebrates the Blood Donor's day on October 1<sup>st</sup> every year and felicitates the camp organizers, blood donors and the

institutions instrumental to organize the blood donation camps in a big way.

### Special Procedures - Cell Separator

Apart from Regular blood bank activities, the Regional Blood Bank at MMHRC also performs blood component separation based on APHAERESIS technique. Apheresis machine from Cobe Spectra and Fresenius Kabi are employed. By using above Instruments method

blood components like Plasma, Platelets, Granulocytes and stem cells can be separated from the donor. The Apheresis cell separator can be used for autologous and allogenic stem cell transplantation.

Vitros system from ortho clinical Diagnostics, a unit of Johnson and Johnson was installed in the blood bank which uses the chemiluminescence method for immuno assays (CLIA). This system is used for screening of blood for various diseases such as HIV,

HBsAg and HCV which are carried out on each unit of blood that is issued from the blood bank. By installing this system, the safety of the blood issued is ensured.

### Achievement

- Leuco pheresis (granulocyte Concentrate procedure).

### Conferences Attended

- Our Blood bank staff attended ISBTI Conference three days at Bangalore Hotel Vivanta by Taj.

### Future Plan

- Blood grouping by Card technique.
- Fully Automated Grouping and Cross Matching System.
- Nucleic Acid Test (NAT).
- Peripheral blood Stem Cell separation by Apheresis.

### Services Provided

During the last year 2013 to 2014, there was a substantial increase in the workload under Blood Bank services.

## Statistics

Total Blood Collection	9844 Units
Total No. Of Camps	43 Units
Total camp collection	3832 Units
Voluntary donors	5419 Units
Relative donors	593 Units
IP and OP Grouping	29091 Sample Tests
Free Grouping	16774 Tests

### BLOOD ISSUED

MMHRC	8358 Units
Outside	1008 Units
Govt. Hospital	150 Units
Leukodepleted red cell Concentrate	69 Units

### FRESH FROZEN PLASMA

Issued	4040 Units
Cryoprecipitated	195 Units
Outside Hospital	136 Units

### PLATELET RICH PLASMA

Issued	5093 Units
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### APHEREISS

Single Donor Platelets Procedure	95 Donors
Leuco Pheresis (Granulocyte Concentrate Procedure)	2 Donors



# REPRODUCTIVE MEDICINE

## Introduction

There is an increasing demand in fertility treatment in recent years due to urbanization, environmental pollution, professional and domestic stress, chemical exposure and increased competition. Our Department of Reproductive Medicine provides state-of-the-art facilities for the investigation and treatment of infertility with a dedicated team of specialists in this field, helping couples combat and overcome fertility management issues. Ours is a fully functional,

independent department that is equipped with a range of cutting edge diagnostic and therapeutic technologies, which offer comprehensive and success oriented treatment, all under one roof. We have brought smiles to the lives of infertile couples from all parts of our country. We offer excellent patient care and stand for consistent quality of treatment and healthcare. Ours is a team of well-trained faculty and dedicated staff. Our mission is to offer a combination of the best scientific and medical

practices with the highest level of care and consideration for each couple at an affordable cost.

Each patient is an individual with unique needs and issues. Being a tertiary level hospital, most patients present themselves to us with the

## Statistics

Outpatients	: 3662
New	: 257
Review	: 3405
Inpatients	: 191
Total Cases	: 3853

added pain of failed previous treatments. Hence, we carefully customize our treatment protocols and cater to the needs of each couple, taking into consideration their age, duration of infertility and severity of disease. The emotional stress of not having a child further affects fertility. So our prime concern has always been to help these couples alleviate stress completely through elaborate and empathetic counseling before initiating medical treatment.

We offer treatment for a full range of problems like infertility associated with polycystic ovarian disease, endometriosis, fibroids, pelvic inflammatory disease, congenital uterine anomalies, amenorrhoea, premature ovarian failure and recurrent pregnancy loss. Our department offers a variety of medical and surgical fertility promoting services including In Vitro Fertilization (IVF) and Intra-cytoplasmic Sperm Injection (ICSI). We also provide a highly successful Egg Donation programme and minimally invasive fertility enhancing surgeries. We work in collaboration with a well equipped and established Andrology department. All treatment procedures offered at our hospital are done with strict adherence to ICMR guidelines. We also offer training on the basics of infertility to our DNB postgraduate students.

## Services

- **Comprehensive Infertility evaluation:** This includes all basic blood investigations, Hormone analysis, Transvaginal Ultrasound and Follicle Monitoring Study, Hysterosalpingography (HSG) and Semen Analysis.

- **IUI [Intra Uterine Insemination]:** We offer IUI with husband or Donor semen. We use frozen donor semen obtained from recognized semen banks where proper screening of the donors is done according to ICMR guidelines. We also found an improvement in IUI success rates with frozen donor samples. We produce an overall success rate of 20% in IUI which is considered to be far above average.

- **IVF – ET [In vitro Fertilization-Embryo Transfer] and ICSI – ET [Intra - Cytoplasmic Sperm Injection-Embryo Transfer]:** These Artificial Reproductive Techniques are being offered to couples with repeated IUI failures, severe male infertility, tubal factor and endometriosis. We have an embryology lab well equipped with advanced high quality instruments. We rake in a net success rate of 33% in IVF and ICSI which is of international standards. A unique feature with regard to IVF and ICSI at our center, is that we do not practice IVF or ICSI in batches. This enables us to perform the procedure on the basis of the need of the patient and allows us to provide individualized care, meanwhile reducing the waiting period. This is made possible with an in-house embryologist. We also use the best quality drugs for ovarian stimulation at the most reasonable cost, giving appropriate importance to quality of treatment.

- **ICSI with TESA, PESA Sperm [Testicular Sperm Aspiration, Percutaneous Epididymal Sperm Aspiration]:** This is being offered for patients with obstructive azoospermia. In such cases,

the advanced andrology department in our hospital provides us with TESA or PESA sperm samples enabling ICSI to be done for these patients.

- **Blastocyst culture**
- **Egg donation:** At our center, our egg donation program adheres strictly to ICMR guidelines in both spirit and practice, with extreme caution and transparency. Our recent success rates with egg donation has almost reached 75%.
- **Embryo donation.**
- **Surrogacy.**
- **Cryopreservation of semen & embryo:** We perform the freezing of excess, good quality embryos following IVF or ICSI for frozen embryo transfer at a later stage.
- **Evaluation and treatment of recurrent miscarriage:** We have treated many such patients and delivered healthy babies following appropriate treatment.
- **Laparoscopic and hysteroscopic Fertility enhancing surgery:** We offer the entire range of laparoscopic and hysteroscopic surgeries which include diagnostic hysterolaparoscopy, hysteroscopic tubal cannulation, septal resection, polypectomy and submucous myomectomy and laparoscopic endometriotic cyst excision with adhesiolysis, polycystic ovarian drilling, salpingectomy following ectopic pregnancy or hydrosalpinx and myomectomy.
- **Evaluation of Reproductive Endocrinological problems and their solutions.**
- **Antenatal Care:** we offer intense antenatal care and follow-up for our pregnant patients. We have

facilities to manage various complications during pregnancy and delivery.

- **Fetal medicine:** We have facilities for fetal reduction in triplet pregnancies in association with our radiology department.

### Patient wise Diagnosis of new patients

Primary infertility	184
Secondary infertility	73
Male Factor	103
Female factor	131
Combined Male / Female	34
PCOD	65
Endometrial TB	7
Endometriosis	15
Premature ovarian failure	10
Tubal Factor	43
Fibroid Uterus	10
Hypothyroid	20
Cervical stenosis	4
Unexplained Infertility	44
Recurrent pregnancy loss	12

### OP Procedures

Trial ET	55
Review Trial ET	4
HSG	72
Endometrial Biopsy	11
IUI-H	108
IUI-D	26
Pap smear	133
FMS	102
NST	19

TVS Review TVS	50
Colposcopy	3
Endocervical swab c/s	50

### IP Procedures

D. Laparoscopy	30
D. Hysteroscopy	50
PCO Puncturing	11
Chromopertubation	29
Lap. Bilateral chocolate cystectomy	2
Coagulation of Endometriotic spots	5
Cystectomy	5
Laparoscopic salphingo oophorectomy	1
TVS guided Cyst Aspiration	6
Septal resection	2
D & C	2
Cervical Dilatation	3
Polypectomy	2
Adhesiolysis	5
Cervical Encerclage	1
Entometrial biopsy	45
Salphingectomy	3

### Deliveries

Normal Delivery	1
LSCS	11

### Pregnancy Complications

Multiple Pregnancies	4
GDM	4
Anemia	1
Breech	2

Rh-ve	1
PPROM	2
Placenta Previa	1

### Infertility Treatment Procedures

Procedure	No. of Cycles	Success rate
IUI	122	20.0%
IUI (H)	71	15.5%
IUI (D)	51	25.5%
Total No. of IVF & ICSI	46	46.0%
Oocyte Donation	4	75.0%

### Conferences Attended:

1. Attended workshop on "Ovarian Tissue Cryopreservation" at the 2nd International Conference conducted by the Academy of Clinical Embryologist, at Bangalore on 9th August 2013.
2. Workshop on "Ovulation Induction" at Yuva Fogs conducted by TRIOGS at Trichy in August 2013.
3. Participated in ICON 2013-OBGYN UPDATE conducted on 7th and 8th December, 2013 by Women's Centre, Coimbatore.
4. 19<sup>th</sup> Annual Conference of ISAR (Indian Society of Assisted Reproduction) conducted at Gujarat Convention Centre, Ahmedabad during 14-16th February which included a "Workshop on Ultrasound in Infertility".
5. Attended 21<sup>st</sup> Annual Conference of Madurai Obstetrics and

Gynaecological Society, at IMA Hall, Madurai during 21-23<sup>rd</sup> February 2014 which included two workshops on CTG and Fetal medicine.

6. Participated in Gyno Ferticon 2014 conducted by Guru Fertility Centre and ICOG on March 1st and 2nd which included workshops on Gynaec-oncology and Fertility enhancing endoscopy.

### Department Activities

1. We organized 6 free camps during this academic year at the following places.
  - Thirumangalam - 15<sup>th</sup> May 2013.
  - Natham - 27<sup>th</sup> July 2013.
  - Aruppukkottai - 5<sup>th</sup> October 2013.
  - Theni - 17<sup>th</sup> October 2013.
  - Dindigul - 28<sup>th</sup> December 2013.
  - MMHRC - 22<sup>th</sup> March 2013.
2. We established Monthly OP's at Meera Hospital, Aruppukkottai, Annai Perinbam Hospital, Dindugal and Subam hospital, Thirumangalam as an effort to increase patient load for ART at our hospital.
3. We also held marketing activities like the meeting of various practitioners at Theni, Cumbum, Bodi, Melur, Thirumangalam, Tuticorin, Dindugal and Aruppukkottai.

### Future Plan

- To improve outpatient numbers and admissions by conducting camps and by other marketing activities.
- To start doing preimplantation Genetic Screening & Diagnosis (PGS & PGD).

### A 25 Year Report Summary

- The Department of Reproductive Medicine took shape on the 6<sup>th</sup> of September 1994, sensing the need of the hour. The department initially began by performing intra uterine insemination (IUI) with husband and donor semen which was the mainstay of treatment in the pre IVF era. We have done approximately 5500 IUI cycles of which 1400 were donor cycles. Through IUI, almost 17% of the couples were blessed with babies.
- Gradually, six years later, in the year 2000, state-of-the-art ART lab, with theatre complex was established with high tech instruments like Kirloskar laminar air flow, Pharma and Hera Cell incubators, Nikon microscope and Planner slow freezing machine. Initially with the help of a visiting embryologist, In Vitro Fertilisation (IVF) was started at our hospital which was one among very few centers at Madurai to start ART. We have accomplished nearly 200 IVF cycles so far.
- Later, in 2004 with the advent of Nikon Micromanipulator, we started doing Intra Cytoplasmic Sperm Injection (ICSI) after which we could treat Infertile couples with obstructive azoospermia using their own sperms obtained by testicular aspiration or biopsy. Since then we have completed almost 400 ICSI cycles. With both IVF and ICSI put together we are consistently garnering a success rate of 33%.
- We have also started freezing excess embryos by slow freezing. Recently we started practicing

vitrification of excess embryos. We also developed facilities for semen freezing for appropriate cases.

- We have recently developed a properly organized Donor Oocyte Program strictly following the ICMR guidelines, which has helped increase the success rate of ART to 75%. Apart from Semen and Oocyte donation, we also offer embryo donation facilities.
- We handle the whole range of laparoscopic and hysteroscopic fertility enhancing procedures making all kinds of uterine, tubal or ovarian pathologies treatable.
- We properly evaluate and treat patients with recurrent pregnancy loss and thereby achieve successful deliveries of normal babies among the childless couples.
- We offer fetal reduction in multiple pregnancies (triplets) in association with the department of radiodiagnosis.
- Over the past 25 years, our department has delivered almost 1000 precious babies, and infused infertile couples from all over the country, with new life. We have treated patients of all age groups including postmenopausal women and successfully delivered their babies. We have also made pregnancy possible in post ovarian cancer survivors with surgical premature ovarian failure. In summary, the department of Reproductive Medicine has brought about a beautiful positive change in a lot of families.



## SURGERY & SURGICAL GASTRO ENTEROLOGY

The unit of Surgery and Surgical Gastroenterology is a high volume center for therapeutic Endoscopy, Laparoscopy and Surgical Gastroenterology procedures. Significant number of our patients are treated for gastrointestinal malignancies. GI Malignancies comprises cancer of esophagus, cancer stomach, GIST stomach, liver tumours, periampullary cancers, cancer pancreas, colon and rectal cancers. We provide holistic and multidisciplinary approach to all GI malignancy.

Extensive preoperative work up for accurate preoperative staging and standard of care treatment for stage by stage approach is followed. Curative surgery is carried out by our best team. Our department is equipped with Ligasure Force Triad, Thunder Beat, Enseal, Radiofrequency ablation to help us perform surgery faster and with minimal blood loss. Our experience in advanced Laparoscopy helped us in doing GI oncology procedures like, Lap Gastrectomy, Lap Hepatic resection, Lap Esophagectomy, Lap

Whipple's, Lap colectomy, Lap anterior resection and Lap APR. apart from curative resection.

### Statistics

Outpatients	: 16932
New	: 4830
Review	: 12102
Inpatients	: 3800

Our Endoscopy division is one of the most active endoscopy units of Tamil Nadu. We have performed more than 5000 scopes in the past academic year. Our unit is equipped with advanced endoscopes of international standard endoscopic accessories [HIGH-DEFINITION ENDOSCOPY] We serve as the referral centre for various endoscopic procedures like ERCP-CBD stone removal, biliary stenting, pancreatic stenting, Biliary/Colonic/ Esophageal SEMS placement, diagnostic EUS, EUS guided celiac plexus block, EUS guided FNAC, endoscopic polypectomies, endotherapy for fundal varices, percutaneous biliary drainage etc. We receive referrals for emergency therapeutic endoscopies like UGI bleeds, cholangitis, foreign body ingestion which we are capable of doing round the clock. We perform emergency therapeutic procedures like variceal, ligation for bleeding esophageal varices, glue injection for bleeding fundal varices, APC for GAVE, heater probe and hemocliping for bleeding ulcers, bronchoscopic and gastroscopic foreign body removal.

**Performed Surgeries**

Laparoscopic Cholecystectomy	408
Laparoscopic Appendectomy	184
Diagnostic Laparoscopic Laparotomy Resection Anastomosis	155
Laparoscopic Mesh Hernioplasty	140
Open Mesh Hernioplasty	90
EUA + Open Hemorrhoidectomy	75
Stapler Hemorrhoidectomy	195
Choledochal Cyst excision	15
Whipple's Procedure	25
Frey's procedure	38
Splenectomy	35
Total Gastrectomy	34
DU Perforation Closure	34
GI Vagotomy	45
Obesity surgery	20
LR Shunt	4
APER	20
	25

Coloplasty	9
Colostomy	42
Colostomy Closure	50
Hemicolectomy	30
Laparoscopic Rectopexy	9
Radical Cholecystectomy	7
Oesophagectomy	22
Cystogastrostomy	50
Wound Debridement	195
Amputation	15
Excision Biopsy	42
Lap. Fundoplication	18
Hepatico Jejenostomy	23
Laparoscopic Cardiomyotomy	9
Anoplasty	7
CBD Exploration	27
Total Colectomy	6
Liver Resection	16
Anterior Resection	50
Lap. Heller's Cardiomyotomy	9



**Performed Endoscopic Procedure**

Endoscopy	3617
Sclerotherapy	20
Esophageal Banding	300
Achalasia Cardia Balloon Dilatation	10
Endoscopy Operative Procedure (ERCP)	350
Diagnostic ERCP	75
Polypectomy	100
Dilatation	150
Sigmoidoscopy	205
Colonoscopy	350
OGD Foreign Body Removal	65
Bronchoscopy-Foreign Body Removal	55
Stent Removal	100
OGD-Esophageal Stenting (SEMS) Uncovered	30
Ulcer Injection	105
APC	20
ERCP+SEMS (Biliary) Uncovered	30
Fundal Glue Injection	200
PEG	5
Pseudocyst Drainage/ Cysto Gastrostomy	5
Heater Probe	10
Endo Loop	10
Fistula Glue Injection	15
Piles Banding	25
PTBD (SEMS)	40
Colonic (SEMS)	5
Intra Luminal Radiation Therapy	40

Haemoclip	30
Diagnostic Endoscopic Ultrasound	450
EUS Guided Celiac Block	15
EUS Guided FNAC, Biopsy	55
EUS Guided Pseudocyst Drainage	1
Capsule Endoscopy (Include Material Cost)	3

**Conference Attended****Dr. Ramesh Ardhanari**

Senior Consultant &amp; HOD

1. MAHA-ISG CON 2013, Maharashtra chapter at Goa 19.4.2013 as a Faculty member.
2. AMASICON-2013 at Indore 22.08.2013 to 25.8.2013 as a Faculty.
3. International Endoscopic Conference at Mumbai from 5.9.2013 to 6.9.2013 at Mumbai as a Faculty member.
4. APASP - 2013 from 20.9.2013 to 22.9.2013 Kakkinada, Andrapradesh as a Faculty.
5. IASGCON-2013 at Kolkata from 2.10.2013 to 6.10.2013 as a Faculty.
6. Society of Gastrointestinal intervention at Seoul, Korea from 24.10.2013 to 27.10.2013 as a Faculty.
7. CEMAST (Centre for Excellence Minimal Access Surgeons Training) Advanced Laparoscopic Surgery Conference at Mumbai from 13.11.2013 to 14.11.2013 as a Faculty.
8. ACRSI-2013 at Ahamadabad on 24.11.2013 as a Faculty.

9. European colorectal congress-complications in colorectal surgery 1.12.2013 to 5.12.2013 at Switzerland as a Faculty.
10. ASICON-2013 from 24.12.2013 to 29.12.2013 at Ahmedabad as a Faculty.
11. 11th Annual Conference of Indian Chapter of International Hepato Pancreato Biliary Association from 9.1.2014 to 12.1.2014 as a Faculty.
12. International Symposium on the Surgical and Medical Treatment of Chronic pancreatitis from 6.2.2014 to 8.2.2014 university of South Africa at Klawash Island.
13. Asian Institute of Gastroenterology Conference from 28.2.2014 to 2.3.2014 at Hyderabad as a Faculty.
14. AMASICON-2014, from 4.4.2014 to 6.4.2014 at Simla as a Faculty.

**Dr. N. Mohan, MS, DNB., FACS.,**

Sr. Consultant

1. Attended as delegate. International federation for surgery of obesity and metabolic disorders (IFSO) at Istanbul, Turkey from August 28th to 31-2013.
2. Invited as a faculty for Indian association of surgical gastroenterology october 2013, kolkotta.
3. Invited as faculty for ENDOCON 2014 from 13<sup>th</sup> March to 16<sup>th</sup> March 2014, Pune.

**Dr. P.L. Alagammai, MD, DM., (MGE)**

1. Indian National Association for Study of Liver Disease - Jaipur National Conference at 2014.
2. ISGCON - Tamil Nadu 2014 Japter Tirunelveli.



## SURGICAL ONCOLOGY

Surgery remains the best modality, either by itself or in combination with adjuvant treatments in solid tumors. The Department of Surgical Oncology brings to the bedside the best diagnostic acumen coupled with the state of the art surgical expertise. We offer both outpatient and inpatient services for screening, diagnosis and treatment of cancer patients. Our department is equipped to perform all major cancer surgeries and associated reconstructions.

Specifically, our department provides expertise in the care of

patients with breast, head and neck, gynecologic and soft tissue malignancies.

Our mission is to provide cutting edge multidisciplinary cancer treatment in a personalized and caring environment.

In addition to patient care, the Surgical Oncology Department is actively involved in teaching and research activities also. The department offers training for surgical postgraduates in the field of surgical oncology.

### Conferences / Meetings Attended

1. National Conference - Association of Breast Surgeons of India, May 2013, Chandigarh.

### Statistics

OP New	:	732
OP Review	:	3844
Inpatients & Discharge	:	609
OP Procedures	:	612

2. Annual conference of Association of Surgeons of India, TN and Pondichery chapter, Trichy, August – 2013.
3. EAFO-EASHNO Meeting in Head and Neck Cancers - St. Petersburg, Russia, September 2013.
4. Apollo Cancer Conclave 2014, January 2014, Chennai.

**Cancer Awareness Meetings**

Delivered Cancer awareness lectures at select colleges around Madurai/Dindigul.

**Awards**

Received prestigious TN and PASI - Travelling Fellowship Award for Young Surgeons at TN and PASICON meeting held at Trichy.

**Major Cases**

<b>Breast Cancers</b>	<b>174</b>
MRM	92
BCS	4
Lumpectomy	47
Microdohectomy	10

Simple Mastectomy	9
<b>Gynecological Cancers</b>	<b>43</b>
Werthiem's Hysterectomy	10
Interval Cytoreduction	12
TAH + BSO	8
<b>Head and Neck Cancers</b>	<b>150</b>
Thyroid	55
Parotid	15
Composite Resection	6
Laryngectomy + TEP insertion	2
<b>Urological Cancers</b>	<b>12</b>
Bilateral Orchidectomy	6
Penectomy	3
<b>Lung Cancers</b>	<b>7</b>
Lobectomy	2
Bronchoscopy + Biopsy	4
<b>GIT Cancers</b>	<b>31</b>
Exploratory Laparotomy	14
Gastrectomy	2
Diverting Colostomy	7
Anterior Resection	3
<b>Skin, Soft tissue tumors and others</b>	<b>109</b>
Major Biopsy	41
Wide excision + Flap	16
Wound Debridement	14

I & D	18
Inguinal Block Dissection	1
<b>Minor Cases</b>	
EUA	5
Biopsy	98
Tracheostomy	14
ICD	17
I & D	13
Wound Debridement	5
Secondary suturing	11
Corrugated drain insertion	4
Central line	1
<b>Total Number of Cases</b>	<b>694</b>
<b>Major of Cases</b>	<b>526</b>
<b>Minor Cases</b>	<b>168</b>

**Ongoing Research Projects:**

**Intramural Study:**  
Prospective study comparing the efficacy between USG guided FNAC and sentinel lymphnode biopsy of axillary lymphnode in patients with early breast cancer.





## TELEMEDICINE - HEALTH INFORMATICS

The Department of Tele-medicine has grown gradually in multiple dimensions since its inception. The Telemedicine Department was initiated with the aim of improving healthcare delivery system in the underserved rural areas. Now with the help of Telemedicine techniques the expertise of the health care professionals of Meenakshi Mission Hospital and Research Centre (MMHRC) is now made available to the patients, physicians, and other healthcare professionals using latest technologies, the Department of Telemedicine regularly facilitates linkages between remotely located patients and health professionals.

### Services

We provide confidential clinical consultations, public health and medical education services. The department has adopted various modes of health care delivery to the needy people in:

- Rural Telecare Sub-centre.
- Mobile Telemedicine.
- Tele-education.
- Tele-public health training.

### Rural Telecare Sub-centers

Meenakshi Telecare centres are established in association with partner organizations. At present there are five centers functioning at Anaiyur, Varapur, Thonugal,

Therespuram, and Olaikuda villages in Madurai, Sivagangai and Virudhunagar, Tuticorin, and Ramnad district respectively. Our collaboration with Ujjeewan Healthcare Private Limited, Raniganj facilitates to cater the needs of Patients from Raniganj Westbengal through telemedicine service. Everyday nearly 10-15 patients receive healthcare services in respective centers. We provide patients, speciality consultations such as dermatology, gynaecology, cardiology, diabetology, general medicine, pediatrics, urology gastroendrology and pulmonology.

The centre functions with help of the trained village health guides who are available at the remote site (rural

telecare sub-center] to assist the doctor in consultations. On arrival of patients at the rural telecare sub-center, village health guides attend the patients and connect to the doctor in Meenakshi Mission Hospital through the Telecommunication link. The nurses in MMHRC Telecare record the vital parameters such as BP, pulse rate, temperature, ECG, respiratory sounds, and heart sounds using latest electronic technology namely 'Remedi kit" apparatus. Through Remedi kit, all the vital data of patients are stored in the server at MMHRC, and this can be retrieved later for further consultation and Research. As per doctor's advice, the village health guides distribute the available medicines. The village health guide/nurse are equipped to handle minor emergency conditions that can be monitored from distance by the doctor through telemedicine. Once stabilized and if required the patients are referred to a near by tertiary care hospital or to MMHRC.

### Mobile Telemedicine

MMHRC's mobile telemedicine service is one among the 17 in the entire India. This service was started with support of Direct Relief International USA and Indian Space Research Organization. The mobile telemedicine provides super specialty services and diagnostic facilities such as X-ray, ECG, ultrasound, echo and other laboratory services in remote rural and disaster affected areas.

### Tele-education

In order to strengthen our academic activities further, we have initiated a new project of tele-education to share our academic programs and live surgeries transmission with other medical institutions using video conferencing.

The department regularly organizes Continuing Medical Education programs and guest lectures through video conference. Some of them were in the fields of surgery, nephrology, urology, gynaecology, pediatrics, etc.

### Tele-public Health

In the villages, the village health guides visit every household for purpose of health education, data collection. They explain about the common prevalent diseases and communicable diseases in the village, create awareness regarding various diseases and also prevention of diseases. The village health guides conduct health education programmes in rural areas on various topics such as tuberculosis, cholera, diarrhoea, hand washing, chikungunya, dengue, malaria cervical and breast cancer etc.

### Training Programmes

The department has organized several training programmes in health informatics and telemedicine for students from Engineering colleges, nursing colleges, and management colleges and Social work PG Students, Students from other countries do visit the Meenakshi Telecare Projects for learning purpose.

### Benefits

- Access to specialized healthcare services to underserved, semi urban and remote areas.
- Early diagnosis and treatment.
- Saves time and money of the patient.
- Follow up of patients.
- Most effective for disaster management.
- Patients can get specialized opinion with less waiting time.

### Conference Attended

Mr. Rakesh T K, Manager-Marketing and Mrs. Rosemary, Assistant Nursing Superintendent attended TELEMEDICON 2013 the 9<sup>th</sup> International Conference of Telemedicine Society of India (TSI) that was held at Jaipur, Rajasthan from 29<sup>th</sup> November 2013 to 1<sup>st</sup> December 2013.

### Future Plans

- To setup more telemedicine centres in India and overseas by finding the appropriate locations.
- Single patient end connected to multiple specialist doctors during the teleconsultation, which can ultimately provide the best treatment for the patients.
- To perform Telesurgery for the patients.

### Statistics

Telemedicine Consultation	
Telemedicine Centre	Total Patients
Anaiyur	654
Varappur	383
Thonugal	494
Olaikuda	157
Threspuram	162
Vadipatti	300
Kolkatta	285
Telemedicine Camps	
Place	Total Patients
Viruthunagar I	182
Viruthunagar II	164
Chokkampatti	193
M.Mettupatti	121
Viruthunagar III	192
Viruthunagar IV	155
Arupukottai	211
Kadaladi	118
Thonugal	193
Rameswaram	358
Sivakasi I <sup>st</sup> Camp	159
Sivakasi II <sup>nd</sup> Camp	212
Sriviliputhur	700



## VASCULAR SURGERY

Department of Vascular Surgery at MMHRC offers state-of-the-art diagnosis and comprehensive treatment of diseases of veins and the arteries. With the aid of superb facilities at MMHRC, vascular surgeons perform procedures that produce excellent outcomes and rapid recovery for life threatening vascular disease.

Department of Vascular surgery of MMRCH works closely with other specialists in Cardiovascular Diseases and Vascular Medicine, Neurology, and Diagnostic and Interventional Radiology to care for patients with common vascular diseases, complex illnesses and complicated vascular problems.

Our team provides comprehensive state-of-the-art diagnostic and therapeutic interventions for the entire spectrum of circulatory

disorders, including Aortic aneurysms, Aortic ulcers and dissections, Acute limb ischemia, Carotid disease, Mesenteric vascular disease, Peripheral vascular disease (PVD) and critical limb ischemia Renovascular disease, Thoracic outlet syndrome, Treatment of vascular infections and its Complications, Venous diseases, Vascular access surgery for renal failure patient.

### Statistics

During the year 2013-2014 the department of vascular surgery has treated 474 cases in the outpatient department which include all types of vascular lesion and treated 75 inpatients. Surgeries were performed on these patients with good results.

### Surgeries Include

- Aorto iliac surgeries in 9 patients of which 3 patients had a poor

cardiac function and Juxtarenal aortic occlusion were done with all the 3 patients had good results and only 1 Aortoiliac patient died in the postoperative period.

- Thoracic outlet syndrome in 2 patients with Subclavian artery aneurysm repair.
- 17 cases of Femoro-popliteal Bypass.
- Femoro-popliteal Angioplasty in 4 cases.
- Tibial artery bypass in 6 cases.
- 17 cases of emergency vascular intervention in road traffic accident, limb salvaged in all the patients.
- 9 cases of Acute limb ischemia with 8 had limb salvage. One patient had poor outcome because presented very late.

# NURTURING EXCELLENCE





Doctors' Day Celebration - RAJAPALAYAM IMA

## PROMOTIONAL INITIATIVES

Today's competitive scenario in the healthcare industry, demands that the Marketing Division of any hospital ensures a steady and increasing flow of patients. However, at MMHRC, the Marketing team, under the able guidance of our Founder Dr. N. Sethuraman, has always been working towards not only increasing the number of patients, but to also impart knowledge about the preventive, corrective and palliative ways of treating diseases. This is what differentiates MMHRC from any other hospital.

### Referral Division

Referral Division plays a vital role in bringing the patients to our hospital. The officials in Referral Division regularly meet all the doctors in Southern TamilNadu to promote the MMHRC achievements in medical field, recent activities and thus we initiate the doctors to refer a patient to our centre.

Since, we have the good rapport with all the IMA's bodies, we conducted CME programmes, Conferences, Workshops, Doctors

Day Celebrations, Deepavali, Pongal, New Year Celebrations with Doctors Family Get-together Functions and IMA office Bearers Installations in Madurai, Ramnad, Theni, Karaikudi, Rajapalayam, Tenkasi, Sankarankoil, Dindigul and etc with the respective IMA's.

We regularly send our official IMA Medical Journal, namely MMJ in every month to 10,000 doctors. This journal carries our hospital's recent rare medical procedures and achievements which build the brand image of MMHRC.

Referral Patients	14700
Referral Business	49.31 Cr
CME Programmes	13
Conferences	3
Doctors Day Celebrations	7
New Office Bearers	
Installation Ceremony	3
Deepavali Celebrations	2
New Year Celebration	1

### Corporate Division

From the inception of our hospital corporate division gives regular business. Around 5000 patients are benefitted every year and gives around six crores business every year.

#### Achievements

Around 40 corporates in our clientele list including public sector undertakings and private companies.

#### Latest Approvals and Initiatives

Liquid Propulsion Systems Centre, Mahendragiri and Indian Space Research Organization, Trivandrum. Given below are few among many of our actively supporting corporates.

Sl. No	CORPORATE NAME (ACTIVE SUPPORTERS)
1	Tuticorin Port Trust
2	TPTCHD-Tuticorin
3	Heavy Water Plant- Tuticorin/ NFC, Pazhayakayal
4	I.I.A-Kodaikanal / Bangalore
5	Power Grid Corporation of India Ltd.,
6	CECRI-Karaikudi

7	Indian oil Corporation Ltd.,
8	AVTEC-Hosur
9	Hindustan Petroleum Corporation Ltd.,
10	Titan Industries - Hosur
11	Central Marine Fisheries Research Institute
12	TVS Groups
13	Nuclear power corporation of India Ltd., Kudankulam
14	Mahatma Schools
15	Air India Ltd.,
16	Oil and Natural Gas Corporation Ltd.,

### Insurance Division

In the Indian non-life insurance industry health insurance is the second largest segment. Our hospital health insurance is set to reach new height in the coming years. We have tie up with all TPA's and Insurance companies. Our future plans are to find out new Insurance companies and do tie up with them for the betterment of the beneficiaries. Around 4000 patients have availed cashless benefit and total business of Rs. 40 crores was done.

### Camp Division

#### Medical Camps

During the year 2013-2014 the Camp Division has conducted 150 Free Medical Camps of which included School, Colleges, Telemedicine, Diabetic, Pensioners, General and First Aid Camps.

#### Blood Donation Camps

During the year 50 Blood Donation Camps were conducted. We were able to collect 3000 Units of Blood.

### Eye Camps

We also conducted 50 free Eye diseases camps we followed up with Free Cataract Surgery for 140 Patients.

### Speciality Camps

We have conducted 15 Speciality Medical Camps which included Urology, Nephrology, Cardiology and Reproductive Medicine (IVF) Camps.

#### Total Camps Conducted -265

### North-East Division

- In the year 2013-14, Total % increase in business amount from North East India is 14%.
- In the year 2013-14, Total % increase in no. of patient from North East india is 6%.
- 60 No. of patients were undergone major surgical treatment.
- 5 new sponsor appointment in the year 2013-14.
- Sponsor meeting conducted in hospital premises.
- Steps are taken to start telemedicine in West Bengal in coming year.

### Achievements

- Conducted a Blood Donation Camp on National Republic Day, 15.08.13 at Nethaji Nagar, Madurai around 110 Blood Units were collected.
- Conducted a Multispeciality Medical Camp at Madurai Local on 22.09.2013 in association with Maruthuva Vikadan around 510 patients benefitted.
- Conducted a Special Corporate Medical Camp at Thuluakkapatti

- (Virudhunagar Dt.) on 29.09.13 in association with Ramco Cement.
- Celebrated National Blood Donation Day Function-Honouring the Blood Donor Institution on 01.10.13.
- Mega Blood Donation Camp at Madurai Thamukkam-460 Units Blood collected on 14.02.14 for T.N.Chief Minister's birthday function.
- Conducted a Asthma Speciality Medical Camp at MMHRC on 15.02.2014.
- 'World Kidney Day' Speciality Nephrology Medical Camp at MMHRC on 12.03.2014.



Doctors' Day Celebration Courtallam Branch >



Hon. Finance Minister **O. Panneer Selvam** honoured by **Dr. V.N. Rajasekaran**, Medical Director (Emeritus), MMHRC & **Dr. S. Kumar**, Hon. Secretary, IMA Madurai Meenakshi Branch at IMA Cumbum Valley Branch, Theni >



Deepavali Celebration at Madurai >



IMA Madurai Meenakshi Branch New Office Bearers Installation Ceremony >



IMA National Appreciation Award for Madurai Meenakshi Branch & IMA Madurai Medical Journal at Rajamundri - Andhra Pradesh >



Meritorius Award Function - Paramakudi Chief Guest Hon. Minister **S. Sundarraaj** >



## QUALITY SERVICE

Meenakshi Mission Hospital and Research Centre, in pursuit of excellence, are committed to comply with applicable requirements for developing and providing world class health care at an affordable cost. We shall foster an environment in which every person is motivated to continually improve the efficiency and effectiveness in the management of health care services.

The goal of the Quality Service Department at Meenakshi Mission Hospital and Research Centre is that our patients receive the best

care possible. We have taken a "patient centered" approach to healthcare while at the same time using the most up-to-date medical evidence and the best in technology.

Here at Meenakshi Mission Hospital and Research Centre, we intend to continue our tradition of providing high quality care in a caring, compassionate environment. In order to maintain our high standards, the Quality and Innovation Department focuses on patient safety, healthcare quality and having open lines of communication within

the hospital community. We strive to meet the needs and expectations of our patients, their families and others whom we serve. We consider that quality and safe care are our top priority and therefore we strive to eliminate unsafe practice by:

- Providing an environment that is clean.
- Conforming with safety regulations and legislation.
- Fostering professionalism.
- Ongoing Quality improvement training program that empowers

our staff, patients and their family.

- Involving outpatients and their families in decision making about their treatments in order to achieve care that is acceptable to our cultures, with minimum cost possible, without compromising the quality of service we provide.
- Exercising a system of sharing knowledge and responsibilities with the key aim continuously improving our system and processes based on measurable objectives.

### A. Spark

SPARK is the employee suggestion scheme which we have implemented. We have a suggestion committee who meets every month and review the suggestions from employees. Around 70 to 80 suggestions are received per month. We are giving gifts to all employees who have given their valuable suggestions for the organizational development and a SPARK master is selected every month who has given the maximum number of accepted suggestions.

### B. Patient Feedbacks

We conduct daily rounds in inpatient and outpatient areas and collect patient feedback regarding the care and other services in the hospital. All the complaints are informed to the concerned departments and we ensure the complaints are rectified within a reasonable time frame.

### C. Quality Rounds

Our teams conduct daily rounds in whole hospitals to ensure, identify the quality failures and providing assistance for augmenting the whole hospital quality.

### D. Studies Conducted

We do time and motion study in various aspects on which we get most of the complaints and we are suggesting recommendation for the improvement of the departments . The following are some of the studies which we conducted last year:

- Pharmacy process study.
- HK process study.
- Patient flow analysis.
- Master health check up time study.

- Admission process study.
- Canteen services, production and study.
- Study on canteen wastages.
- Out patient flow.
- Diet process study.
- Study on E-prescription.
- Dialysis patient flow analysis.
- Radiology time study.
- Phlebotomy time study.
- OT time utilization study.

### Major Achievements

- Golden Peacock National Quality Award for the year 1999.
- Performance Excellence Award for the year 2008.

Quality Circles are one of the quality improvement tools which we are using. We have participated in I.I.T Kanpur Held on 17<sup>th</sup> to 20<sup>th</sup> December 2012 and the following Quality Circle teams won the awards:

Rose (Nursing)	Gold
Bright (Laundry)	Gold
Pinnacle (Biomedical)	Gold

### The following employees are the SPARK masters for the last year:

S. No	Month-Year	Name	Department
1	May-13	Mrs. Nagarathinam	Nursing
2	Jun-13	Mrs. Nagarathinam	Nursing
3	Jul-13	Mrs. Nagarathinam	Nursing
4	Aug-13	Mr. R. Karuppasamy	Nursing In Charge
5	Sep -13	Ms. Muthumari	Medical Records
6	Nov-13	Mr. Rajakumar	Medical Records
7	Dec-13	Mr. Midhun	Operations
8	Jan-14	Ms. Priya	Communication
9	Feb-14	Ms. Esther princiya	Nursing
10	Mar-14	Mr. Mathu	Communication



Lions MMHRC Hospice Centre was inaugurated by Honourable **Thiru. Sellur K. Raju**, Minister for Co-operation in presence of **Thiru. L. Subramanian**, District Collector, Madurai.

## RESOURCE & DEVELOPMENT

*Our Pledge of good stewardship and accountability.  
Meenakshi Mission Hospital and Research Centre (Managed by S.R.Trust) is committed to the highest standards of good stewardship and accountability. Funds received by the hospital are carefully monitored to ensure that it complies with donor intent.*

### An Act with a Caring Heart

Our sincere thanks to our major donor Hon. Sellur K Raju and family for sponsoring a ward in the Department of Accident and Emergency, named as "Tamilmani Memorial Ward". Our founder Dr.N.Sethuraman inaugurated the program on 14.01.2014 in the presence of the family members of Hon. Sellur K Raju, (Minister for Co-operation, Tamil Nadu) and Hospital Staff.



### Overseas Volunteers

There are countless reasons why thousands of people volunteers from abroad come to Meenakshi Mission Hospital every year to learn health care. The possibilities are endless.

Besides health care, Volunteers feed the hungry; teach the sick children, counsel the parents etc. Working in a third world country like India, International volunteers gain most inspiring, challenging and exciting experience.

This year there were 52 volunteers who contributed their time and skills for the benefit of patients.



**Dr. Jochebed Oh and Dr. Inka.P. Butz**  
from Germany – distributing free meals to patients

### Dance Marathon Event

Dance Marathon is a student movement involving college students to perform a continuous dance on a single day at a time allotted to them for the benefit of cancer affected children. The marathon dance was performed by 41 college students with lots of enthusiasm with the aim to raise funds for the treatment of the children with cancer.

The idea came, from the University of IOWA, where the students conduct this kind of event every year in order to generate funds for the University of IOWA Children Cancer Hospital.

This year, for the first time Meenakshi Mission Hospital and Research Centre conducted a Dance Marathon event at Lakshmi Sundaram Hall on 23.02.2014. 41 colleges participated and through this event more than Rs. 10 Lakhs was raised for the Camila Children’s Cancer Fund.

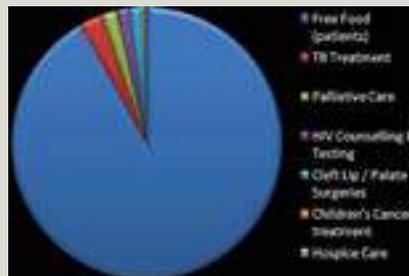


Students performing the dance...

### Donor Support – An Overview

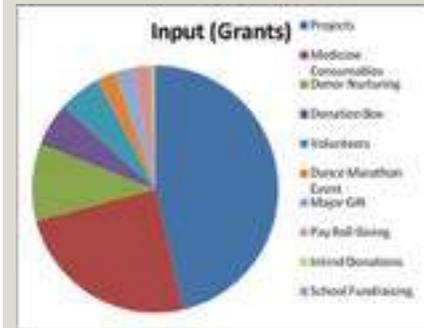
We are extremely thankful to our donors, partner organisations and volunteers whose efforts had given us the power for the selfless service.

### Impact - Beneficiaries

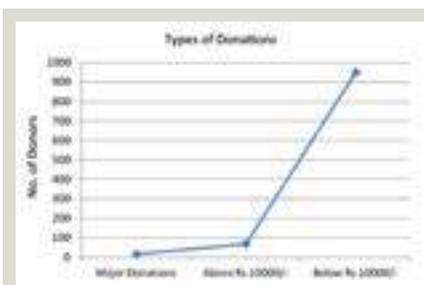


Services	No's
Free Food (No. of patients)	37804
TB Treatment	1456
Palliative Care	905
HIV Counselling & Testing	823
Cleft Lip / Palate Surgeries	807
Children Cancer treatment	173
Hospice Care	45

### Technique wise Income - Resource Mobilized



Input (Grants)	
Technique	Amount
Projects	18990661
Medicine Consumables	10026459
Donor Nurturing	4127172
Donation Box	2325631
Volunteers	2281326
Dance Marathon Event	1000631
Major Gift	1000000
Pay Roll Giving	985969
Inkind Donations	197829
School Fundraising	15753



Types of Donations	No of Donors
Below Rs.10,000/-	950
Above Rs.10,000/- to Rs.50,000/-	69
Major Donation - Above Rs. 50,000/-	25

## Conference Attended

- Emergency Response- Capacity Building Workshop – 2 days workshop was conducted by Americares, India. Dr. N. Sethuraman, Founder, Meenakshi Mission Hospital and Mr. Victor Chandran, Head of the Department of Resource and Development participated in this workshop.
- Mr. P. Sundarraj – Senior Manager of Department of Resource and Development participated in the National conference on higher education in India organized by UGC – Academic Staff College, Madurai Karamaraj University and also presented a paper on “Technology Intelligence in the field of resource mobilization a proactive need in the education sectors”.
- Executive development program on “CSR” organized by Chazhoor John Consultancy Services, Chennai was attended by P. Sundarraj.

## New Projects

### I. Lions – MMHRC Hospice Centre



Hospice Care is an active, holistic approach to care terminally ill patients with a focus on relieving the physical, social and psychological sufferings. Hospice care provides optimal comfort and quality of life and peace of mind despite the likelihood of near death.

Our Hospice centre has the infrastructure to care 25 terminally ill patients at a time. The centre has a common prayer hall, garden, provision of indoor and outdoor games and ambulance services.

### II. DRI – Rare Disease Project



LSD support Society meeting (LSDSS) was inaugurated by Cine Actor Karthi at Chennai

An innovative tie up with Direct Relief International USA by Meenakshi Mission Hospital and Research Centre was made this year for getting free medicine for Lysosomal storage diseases (LSD) and also to serve the patients suffering from LSD.

Lysosomal storage diseases are a group of approximately 50 rare inherited metabolic disorders. A leading pharmaceuticals company Shire, USA has come forward to supply of medicines through Direct Relief International, USA.

In India, Meenakshi Mission Hospital and Research Centre have taken the responsibility for distributing medicines to LSD patients throughout India. There are about 54 patients in the world identified for this program, 25 of which are from India. The cost of medicine per patient is about 1 to 1.5 crore rupees. Further, Lysosomal storage disorders support Society in India has come forward to create awareness about the rare disease, and also to do advocacy and lobby with the Government to provide and

necessary support services. In coming days Meenakshi Mission Hospital and Research Centre and Lysosomal Storage Disorders Support Society (LSDSS) team will join hands to conduct periodical awareness programs in metro cities.

## New Initiatives

### Charity Week



For the first time Meenakshi Mission Hospital celebrated charity week in the month of Oct' 2013. More than 300 employees, ranges from Doctors to Housekeepers enrolled themselves for Pay Roll giving. The event was inaugurated by Dr.M.P.Gurusamy, Secretary of Gandhi Museum, and Dr.M.Kannan- Principal of Madurai Institute of Social Sciences with the grand participation of all our employees. This event successfully achieved its goal.

### Achievement

INDO – US Bilateral agreement was renewed for another 5 years to receive in kind donation from overseas Donor Organisations.

### Award



“Best Institution Award” received from Kilakarai Town welfare Society, Kilakarai by Dr.S.Sundarraj, Minister for Textiles, Tamil Nadu.

## Future Plans

- Capital Campaign initiation for medical college project.
- Awareness program on "Planned giving" initiated among paid old age homes, hire less and retired officials.
- A fundraising / image raising event which will be leading to a "World Record" during this 25<sup>th</sup> year of celebrations of our hospital.
- A "Warm mail campaign" to raise funds for Hospice Centre.

In the 25<sup>th</sup> year of Celebrations of our Hospital, the Department of Resource and Development proudly presents the various charity activities of the Hospital during the past 25 years:

- Free distribution of Vitamin A capsules for the prevention of blindness in more than 20 lakhs children.
- Free food to more than 2 lakhs poor inpatients.
- In collaboration with Direct Relief International, Free medical camps and distribution of medicines, food items, household vessels, fishing nets, dress materials for more than 1.5 lakhs Tsunami affected families.
- More than 72,840 blood units distribution at free of cost.
- Free Cataract Surgeries for more than 26,588 poor patients.
- Free family planning operations for more than 24,301 poor patients.
- Free treatment and counselling for more than 23,600 HIV patients.
- Free Cleft lip / Palate surgeries for more than 8,314 patients.

- More than 5,364 free medicals camps were conducted in the rural areas.
- Telemedicine services provided for more than 17,400 patients.
- 186 surgeries performed for children with cardiac ailments.
- 304 children availed medical intervention for cancer with the assistance from the Hospital and Government.
- Free Family Counselling Services to 2943 clients.
- Free Hospice Care for terminally ill patients started in October 2013. So far 45 patients got the benefit.
- Free Palliative Care for more than 7966 poor patients.
- Lysosomal Storage Disorder (LSD)- Rare Disease Project was initiated in 2014 (25 no. of beneficiaries).
- During Uttarkand disaster, Rs. 10 lakhs was given to the Central Government towards helping the Disaster victims.

List of top donors & donor organisations (Donated more than Rs.50, 000/-).

M/s. Direct Relief International, USA.

Lions Club Foundation, USA.

Dr. Mrs. Vimala Lal, Ph.D., New Delhi.

Mrs. R. Jeyanthi Raju, Madurai.

M/S Sivakasi Project Abroad Private Limited, Madurai.

Dr. David Spence, UK.

Dr. Maria Zeena Johnson, Chennai.

M/s. Syed Ammal Engineering College, Ramnad.

Dr. S. Jayadev, Kuwait.

Dr. P. Thirumalai, M.D., D.M., Chennai.

M/S Women's Welfare Syndicate, Chennai.

Mr. Anand Kumar, Kuwait.

Mrs. B. Lavanya, Karur.

Mrs. K. Lakshmbai, Karur.

Mrs. P. Vijayalakshmi Paranjothi, Madurai.

M/s. Ulaipavarku Udhavi Trust, Chennai.

M/S. Shasun Pharmaceuticals Limited, Chennai.

M/S .Aruppukottai Sri Jayavilas Limited Cotton Spinning Mills, Virudhunagar.

Mr. M.A.Rajeev, Madurai.

The Gandhigram Rural Institute Deemed University, Dindigul.

M/s. Madurai Medical College, Madurai.

M/S Medical Record Department, MMHRC.

Mr. K.S. Chandra Mouleeswaran, Sivagangai.

M/s. Chella Software PVT LTD, Madurai.

M/S MCR Charitable Trust, Erode.

Mr. Mohamad Sayeed, Coimbatore.

### Thank you donors....

We strongly believe that individuals and corporates do have the capacity to change lives of the poor with their contribution.

For the past 25 years, we have been with the poor in their fight for their better life. There is still so much more to do. Together, we can change their lives.

# ACADEMIC EXCELLENCE





# LIBRARY

■ The library is open from 9:30 am to 9:00 pm on working days and 10.00 am to 1:00 pm on Sundays and Holidays. Our library has access to the Digital Library to ensure that all relevant information are allocated in Books, Journals, Website, DNB DVD`S, Research papers to suit the local conditions.

## Library Resources

S. No	Details	Quantity
I Books		
1	Medical Books	3625
2	Management Books	3918
3	Hospital Administration Books	138
4	Miscellaneous Books	431
5	Siddha Books	149
	Total	8261
II Journals		
1	International Journal	35Topics
2	Indian Journal	58 Topics
III Audio Cassettes		
1	Medical	61
2	Management	84
1V	Cd`S [Medical&Management]	1101



# MEENAKSHI MISSION HOSPITAL COLLEGE

## A Division of Meenakshi Mission Hospital & Research Centre

### Vision

Developing health care professionals of today's relevance with insight to tomorrow's need.

### Mission

Internationally renowned centre for healthcare education.

### Objectives

- To remain as an innovator in course design relevance to global need.
- To generate demand for courses by widening admissions from different countries preferably with work experience.

- To develop competent intellectual teachers with multinational exposure.
- To strengthen quality input of education through personal attention, individual development and cultivation of integrative capabilities.
- To remain close to practice through partnership with leading practitioners.
- To enhance quality output by developing strong committed healthcare leaders and entrepreneurs governed by right attitude and efficient systems.

- To promote research and publications enabling continuing education.

### Approved Institution Affiliated to

The Tamil Nadu Dr. M.G.R. Medical University and Madurai Kamaraj University.

### Admissions and Students Strength

This academic year we admitted 31 students in the UG courses, 3 students in the full time PG courses and 31 students in the Distance Education courses. The total strength

UG courses are 47 Students, and 3 students are undergoing full-time PG courses. The break up is as follows:

## UG Courses

### The Tamil Nadu

#### Dr. M.G.R. Medical University

B.Sc. Accident & Emergency  
Care Technology 1st Year 20

B.Sc. Accident and Emergency  
Care Technology 2nd Year 07

B.Sc. Accident and Emergency  
Care Technology 3rd Year 09

B.Sc. Medical Lab Technology  
1st Year 09

B.Sc. Medical Records Science  
1st Year 02

## PG Courses

M.B.A. Hospital and Health  
System Management 1st Year 01

## Madurai Kamaraj University

P.G. Dip. In Total Quality  
Management 02

## DDE Courses

P.G.Dip.in Nutrition and  
Dietetics 20

P.G.Dip.in Biostatistics 06

P.G.Dip.in Radiography and  
Imaging Technology 01

P.G.Dip.in Hospital  
Documentation Management 02

P.G.Dip.in Pharmaceutical  
Chemistry 03

## Academic Performance, Higher Studies and Placement

- Undergraduate students achieved a 100% result and Postgraduate students achieved a 99% result in the university examinations.

- In the academic year ending 2013 totally 65 students were graduated, break up as follows:

## Mother Teresa Women's University

### 2010 - 2013 Batch students

B.B.A. Hospital Administration 11

B.Sc Applied Biochemistry 07

B.Sc Applied Microbiology 09

## Madurai Kamaraj University

### 2011-2013 Batch students

M.B.A. Hospital  
Administration 37

## Higher studies and Placement

Almost all PG graduates of management courses are placed as managers in leading hospitals, health centres, health projects and micro finance organizations. Also students who have successfully completed the under graduation courses are employed as management executives/lab technicians/ tutors/ teaching assistant in hospitals, clinical labs, study centres etc.

## Endowment Fund

Dr. N. Sethuraman, the Founder, MMHRC contributed for the Endowment Fund in the name of Thirumathy N.Chinnamal (Mother of Dr. N. Sethuraman) for awarding Medals to the University toppers of MTWU. Miss. S. Priya (2011 -2013 batch) got University 1st Rank in B.Sc Applied Biochemistry of Mother Teresa Women's University and got Medal in Thirumathi N. Chinnamal Endowment Fund.

## Infrastructure

As on date there are 7 classrooms, exclusively for students, in addition

to 2 faculty rooms, one students seminar hall, two students lab, one store room, one students library and a medical cum management library in the campus.

## Parents Teachers Meet



We facilitated "Parents - Teachers" meet ensuring healthy discussions on the progress of students' performance and career growth.

## Special Days



We celebrated Pongal and National Youth Day and distinguished guests chaired the functions.

## Student Activities

Meenakshi Mission Hospital College, initiates various student activities.

B.Sc. MLT students took part in Chief Minister's Birthday Blood Donation Camp, Tamukam and Blood Donation Camp at Mohamed Sathak Engineering College, Keelakarai.

Our students participated in MILAN 2013 – Best Manager Contest conducted by K.L.N. College.

## Rank Holders

M.B.A Hospital Administration

**J. Vijayalakshmi (2011 -2013)**

B.Sc. Applied Biochemistry

**S. Priya (2011 – 2013)**

B.Sc. Applied Microbiology

**Silpa Rajan (2011 - 2013)**

B.B.A. Hospital Administration

**R. Ashwini (2011 - 2013)**

## A Beacon of Continued Education

Our hospital is emerging as an internationally renowned centre for education offers unique job oriented courses developed with the aim of imparting skill – based training to health care professionals of tomorrow's need.

## Milestones of Meenakshi Mission Hospital College (MMHC)

1 In developing Health care Professionals of today's relevance with insight to tomorrow's need, MMHC in collaboration with Mother Teresa Women's University (MTWU) offered B.Sc. degree in Medical Lab Technology in 1997.

In recognition by Indian Medical Association (IMA), the following 2 diploma courses were started:

- Diploma in Medical Lab Technology (DMLT).
- Diploma in X-Ray Imaging Technology (DXIT).

2 In 1998, MTWU added 2 more courses:

- B.Sc Medical Microbiology.
- B.Sc Medical Biochemistry.

MMHC entered into a Memorandum of Understanding with MKU in conducting Vocational Courses in the health care industry including PG Diploma in Total Quality Management in Hospitals and M.S. Non Government Organization and Management.

3 During 1999 in collaboration with MKU and MTWU the following two courses started,

- P G Diploma in Medical Records Management.
- B.B.A Hospital Administration.

MMHRC is recognized by MKU and The Tamil Nadu Dr. MGR Medical University (TNMGRMU) for Ph.D. Programmes under the guidance of Dr. V.N. Rajasekaran. The Royal college of Surgeons of Edinburgh, England has bestowed the recognition to MMHRC to train doctors seeking AFRCS Examinations. MMHRC is also recognized by the National Board of Examinations to conduct Diplomate of National Board (D.N.B) Postgraduate courses in:

- General Medicine.
- Family Medicine.
- General Surgery.
- Obstetrics and Gynaecology.
- Anaesthesiology.
- Orthopaedic Surgery.
- Radio Diagnosis.
- Genito Urinary Surgery.
- Cardiology.
- Cardio Thoracic Surgery.
- Neuro Surgery.
- Minimal Access Surgery.
- Pediatrics.
- Nephrology.
- Surgical Gastroenterology.

4 PG Diploma in Micro Credit Management and PG Diploma in Fundraising Management Courses were approved by MKU during 2003 and 2004 respectively.

5 MMHRC enjoyed an Approved Institutional status of MKU in 2006 offering M.B.A Hospital Administration and MMHRC was recognized " Training Centre" to offer the following PG Diploma Courses under Directorate of Distance Education:

- PG Diploma in Nutrition and Dietetics.
- PG Diploma in Biostatistics.
- PG Diploma in Hospital Laboratory Technology.
- PG Diploma in Radiography and Imaging Technology.
- PG Diploma in Pharmaceutical Chemistry.
- PG Diploma in Hospital Documentation Management.
- PG Diploma in Health Information Management.

6 In March 14, 2007, e-book (Digital Library) on Microfinance was installed by the efforts of Dr. Rajagopal, University of IOWA, USA that was benefited by Micro Credit Management Students.

7 Our students were strongly supported to participate in the intercollegiate competitions and won prizes in different competitions. In particular the Overall Championship was won on March 12, 2007 SEMTIB 07, an intercollegiate meet organized by Yadava College, Madurai.



BIOMICHA 2007 – One day Seminar on Health Sciences was organized for Higher Secondary level students on Jan 06, 2007.

Dr. N. Sethuraman, the Founder, MMHRC contributed to the Endowment Fund in the name of Thirumathy N. Chinnamal (Mother of Dr. N. Sethuraman) for awarding Medals to the University toppers of MTWU.

8. "SSTHREE – Federation of Women Activities" honoured our

Institution as one of the Best Women Oriented Colleges, on March 23, 2008 towards offering Hospital Management courses.

9 B.Sc Accident and Emergency Care Technology course started in 2011 and affiliated with the Tamil Nadu Dr. MGR Medical University, Chennai.

10 HOSMAN 2012- One day National Level Conference was organized on Health Insurance and Health IT on March 31, 2012. Three more Degree courses such as:

- B.Sc Medical Laboratory Technology.
- B.Sc Medical Records Science.
- MBA Hospital and Health System Management.

were initiated by TNMGRMU in 2012.

11. The Overall Championship was won by students of MMHC on Feb 13, 2013 – BIOFEST 2013, an intercollegiate meet organized by The Gandhigram Rural University, Dindugal.



**Quality Circle Award** – 2 Silver medals were won by PG Students for the competitions conducted by the National Convention of Quality Circle Forum of India.



Recognition Award was given to MMHC on National Blood Donation Day, 2013.

PG doctorial fellowship in Pediatric Oncology and Haematology was started during 2013.

12 Recognitions:

- Recognized as Post Graduate Institution by University of Colombo to train students in Post Graduate Diploma in Family Medicine.
- Recognized by Indian Medical Council to train students in the Diploma, Fellow of College of General Practitioners that will lead to Diploma in Family Medicine.
- Recognized by several Universities in India and Abroad for Research Projects.
- Recognized training Centre for Physiotherapists.
- Recognized by all the leading Nursing Colleges for Internship.
- Recognized for Management Internship.
- Recognized training Centre to train Health Care Providers (HCPS) by USAID.
- Recognized training centre to train Nurses to USA.

13 Special Days:

National Youth Day, Pongal Celebrations, International Women's Day, National Girl Child Day, National Science Day, Parents'-Teachers' Meet, Sports Day, Students Day, Teachers' Day, Saraswati Pooja were celebrated with variety of competitions and distinguished guests chaired the functions.

14 Practical Training / Additional Courses / Seminars:

- Students of Management Courses underwent management training

in 20 areas of the Hospital in Partial fulfillment of the requirement of the courses.

- Students visited different types of health care organizations like private / government hospitals, single / multi-specialty hospitals, nursing homes, clinics, health centers, health projects, diagnostic center, etc. to get an understanding about the different types of providers in health care.
- Field visits / training programmes were organized exclusively for science course students thereby they underwent observation training at the centre for Research in Medical Entomology, Agricultural College and Research Institute, Coonoor Pasteur Institute, Food Processing Industry, Dairy Products Manufacturing Units, etc.
- Students were actively involved in all our community outreach programmes and health care projects.
- Students had ample Opportunities to develop their skills in events Management, as they were totally involved in all our continuing Medical education/ National as well international seminars and other training programmes.
- Students were encouraged to undergo the short term courses offered at the campus in the areas of Medical Transcription, Spoken English, Spoken Hindi, Mushroom cultivation, Vermi composting.
- Besides, students were encouraged to actively participate in the Seminars, Workshops, Rallies, etc. organized by MMHRC, as well other Educational and Health care Organizations.

# HOSPICE DONATION APPEAL

Dear Friends,

When the healthcare determines that the diseases can no longer be controlled and the patient is at the end stage of life, medical testing and treatment often stop. Care for terminally ill patients continues with an emphasis on improving the quality of life of the patients as well as their loved ones and making the patients free from pain and comfortable for the rest of their life period.

## Lion's - MMHRC Hospice Centre:

The centre has a capacity of 25 beds, having comprehensive infrastructure with a team of professionals from various disciplines. "Individual Care Plan" will be developed to meet each patient's needs such as symptom and pain management, emotional and psychological

## Our Services:

- \* Medical Management
- \* Symptom and pain management
- \* Bereavement services
- \* Grief support services
- \* Continuous care during crisis etc.,

## Donation Options

- Rs. 3,00,000/- to Rs. 7,00,000/- (for Ambulance / Vehicle)
- Rs. 90,000/- (for corporate donation per year)
- Rs. 50,000/- (for cot/ Mattress/ Bed Spread/ Pillow for one patient)
- Rs. 20,000/- (Dresses for 10 poor patients)
- Rs. 20,000/- (for Family rehabilitation)
- Rs. 7,500/- a month (Expenses for caring a patient at a subsidized rate)
- Rs. 5,000/- (Expenses for After life management)
- Planned giving (assets & others)
- Volunteering Services (Skill training, Counselling, Spiritual assistance, Outings etc.,)



## Conceive - Console - Act!!

Cheque / Demand draft in favour of "S.R. Trust" payable at Madurai.

Note: Tax exemption for your donation from Income Tax under section 80G PAN NO: AACTS0376F

"If we listen and observe carefully, hospice care will teach us to prepare for the end of our own life journey"

(Any information pertaining to Hospice Centre, please contact the below mentioned address)

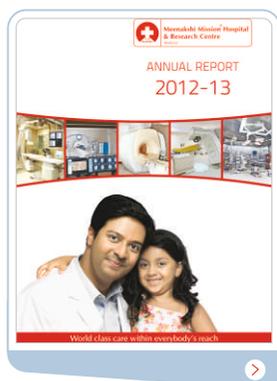
Expect your valuable suggestions and feedback about our services

## Dept. of Resource & Development



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## PUBLICATIONS





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