



VELNEWS

Voice of Velammal Medical College Hospital & Research Institute

November 2014- January 2015.

The Healing Touch

Volume 3. Issue 1. News 12



Velammal Medical College
Hospital & Research Institute

“Velammal Village”, Madurai – Tuticorin Ring Road,
Madurai – 625009. Phone : 0452 2510000 Fax : 0452 2510010

www.velammalhospitals.in

Advisory Committee:**Dr. A. Srinivasan**, Dean**Dr. S. Somasundaram**, Professor, Surgery**Editor:****Dr. Rujuta Kakade**

Professor, Community medicine

Editorial Committee:**Dr. S. RajaRajeswari**

Professor, Obstetrics & Gynaecology

Dr. R. V. Jayabalaji

Associate Professor, Paediatrics

Dr. G. Kavitha

Assistant Professor, Obstetrics & Gynaecology

Dr. R. Ramesh

Assistant Professor, Medicine

Dr. M. Saravanan

Assistant Professor, Physiology

Dr. B. N. Vallish

Assistant Professor, Pharmacology

Dr. N. Uwaraja,

Head, Dept. of Emergency Medicine

Dr. S. Balaji,

Assistant Professor, Dept. of Paediatrics

Printed at :**Pearl Printers and Publishers Pvt. Ltd.**

Madhavaram, Chennai - 60.

email : pearlprinter@gmail.com

Designer :

C.V. Sathish

All rights reserved. No part of this newsletter can be reproduced in any manner without prior permission of the Editor/Publisher. The views expressed in these articles and/or any other matter printed herein, are not necessarily those of the Editor and/or publisher. Editor/Publisher does not accept any responsibility for the veracity of anything stated in any of the articles published here. Sincere efforts have been made to provide the latest and reliable information to the readers on health and related topics. But the reader is best advised to consult the physician/specialist for diagnosis and treatment in case of illness. The editor has the right to modify, accept or reject any article submitted. Suggestions, Feedback and Article contribution to VelNews are welcome. They can be given in person or email to velnews.vmch@gmail.com. All rights reserved. No part of this newsletter can be reproduced in any manner without prior permission of the Editor/Publisher. The views expressed in these articles and/or any other matter printed herein, are not necessarily those of the Editor and/or publisher. Editor/Publisher does not accept any responsibility for the veracity of anything stated in any of the articles published here. Sincere efforts have been made to provide the latest and reliable information to the readers on health and related topics. But the reader is best advised to consult the physician/specialist for diagnosis and treatment in case of illness. The editor has the right to modify, accept or reject any article submitted. Suggestions, Feedback and Article contribution to VelNews are welcome. They can be given in person or email to velnews.vmch@gmail.com.

Editorial Note

Curricular and co-curricular activities have equal significance in the teaching-learning process. Thus creation and development of infrastructure to meet adequate requirements for both is essential. Total personality development of students is the hallmark of an effective education system.

Every institution works towards realizing its institutional vision. Our institution has organized special functions for our annual day. The celebration of annual day provides an opportunity to assess our achievements and shortfalls.

The students are actively involved in all the segments of the program. Rather, they manage all the activities by themselves. The cultural activities provide an outlet for the students to exhibit their hidden talent and creativity. The students of today are not shy as they are exposed to the environment. However, they need mentoring and proper direction to channelize their potential.

To prove productive citizens, to serve the society in different walks of life, the students need to acquire latest knowledge through a rigorous academic process duly embedded with value education and skill orientation in their respective disciplines.

Team VelNews wishes our students and all faculty grand success for this event.

COVER PAGE

1. Velammal Medical College Hospital majestically lit up with serial lights
2. Hon'ble Minister for Health Dr. C. Vijayabaskar addressing the delegates of ISACON-14 held at VMCHRI campus in December 2014



M V Muthuramalingam
Chairman
Velammal Educational Trust



Dr. S Asokan
Vice Chairman



Dr. A Srinivasan
Dean, VMCHRI

Vice-Chairman's Message

Dear Friends!

Greetings from Velammal.

The Madurai Obstetrics and Gynaecological Society's annual conference has been conducted successfully at our premises on Dec 13th and 14th.

Later the 62nd National Conference of the Indian Society on Anaesthesiologists – ISACON 2014 was held at our premises from 25th to 29th Dec 2014. Both the occasions have brought immense happiness to all of us at Velammal.

There has been a spate of cases of Dengue fever in this region and as of 30.01.2015 we have had around 175 of such cases that have been treated at our hospital with nil mortality. Congratulations to the Dept of Paediatrics as well as General Medicine!

The Velammal Speciality Hospital for which Ganapathy Homam was held on 4th November 2014 is getting ready in the 4th and 5th floors of the hospital block. Already a 1.5 Tesla MRI, 128 slices CT, and Cathlab etc have been ordered. Our Chairman's grand vision of setting up a world class hospital is being implemented in phases. We are hoping to function in these premises from April onwards.

Let us march together to reach greater heights!

Thanking you,
Yours Sincerely,

Dr. S Asokan

vc@velammalmedicalcollege.edu.in

The 62nd National Conference of the Indian Society of Anaesthesiologists – ISACON 2014

*“All that befalls you is part of the great web”
-Marcus Aurelius, Roman Emperor and Philosopher*

It is a matter of pride and great joy to all Velammalians that our institution was the chosen venue for the **ISACON-2014, 62nd Annual Conference of the Indian Society of Anaesthesiologists** which was held from 25th to 29th December 2014.

By all available indications, the conference was an enriching and enjoyable experience to the huge gathering of about 3200 delegates and 800 accompanying persons. The visitors were enthralled by the grandeur of the venue – the imposing entrance, the majestic

buildings, spacious halls, wide corridors et al. Every one of the delegates spoke in glowing terms of the excellent venue and the amenities provided for the benefit of the delegates and the accompanying persons. It gives me great satisfaction to state that a single dissenting voice was never heard.

The management of the staff of the Velammal Medical College and Hospital worked in concert and harmonious rhythm to make this conference a great success and indeed they have succeeded in this task. Our institution is likely to see more of such academic events in the forthcoming years.



Flag Hoisting at the Conference



The arrangements made and the services provided at the venue of the conference have earned tributes from all sections of the gathering who have unanimously expressed the opinion that this conference shall stand out as a pioneer and a model as many “firsts’ have been achieved.

For the first time in the history of ISACON, the cavernous venue and spacious grounds available absorbed the crowd of 4000 easily and there was no rush or squash anywhere in the venue. The delegates were able to move around freely and comfortably in cool surroundings which contributed to a rich conference experience.

For the first time in the history of ISACON, the audiovisual facilities available in the various halls of the college building were of excellent

quality free from echo and other disturbances. The delegates received clear sound and sight without any hitch during the entire proceedings enriching their conference experience.

For the first time in the history of ISACON conferences, 11 workshops were arranged in the various halls of the college building and in the intensive care unit of the Hospital. Delegates found the variety very appealing and useful. For the first time in the history of ISACON conferences, the names of all the 3200 registered delegates was prominently displayed near the registration counters. Many delegates found the display board



Lectures in Progress

as a suitable background for photo opportunities. Every delegate was delighted to see his/her name in print and the idea was unreservedly appreciated by all.

For the first time in the history of ISACON conferences, only younger members of the Indian Society of Anaesthesiologists numbering about 535 were allowed to speak on their chosen subjects. Senior members of the society were only allowed to chair the sessions. This move to encourage the younger generation earned the admiration of all concerned.

Another star attraction of the conference was the trade section which accommodated about 110 stalls of the various pharmaceutical firms and manufacturing units which attracted a high volume of business.

In addition there was a separate spouse's area wherein the accompanying persons could relax and enjoy the cool ambience of the venue. A kids' play area adjoining the spouses area provided games and other absorbing deviations to the tiny tots.

The dining area was an extensive spread which could accommodate all the attendees easily without any hassles or crowding. The fare provided was a gastronomic delight and the delegates reveled in the taste of delicacies of the south Tamilnadu.



Poster Presentation

Thanks to the unstinted cooperation from our subordinate staff and the event managers of the conference, there was uninterrupted water supply and electricity and garbage disposal which immensely contributed to the resounding success of the conference. Their toils ensured the smooth running of the various events.

The Madurai City Branch of the



Delegates of the Conference Attending the Trade Section

were the perfect partners to the management and faculty of the Institution. Kudos to them.

Our heartfelt thanks are due to our Hon'ble Chairman, Hon'ble Vice Chairman and the Dean/Director for their focused efforts in organizing and supervising the various arrangements.

The department of Anaesthesiology takes justifiable pride in having been a small part of the big cogwheel of

the conference.

To conclude, there is only one thing to say about this mega conference – "accolades from all and angst from none "about sums it up.



The Other Feast: A sprawling dining hall with 'multi-cuisine food' which lavishly satisfied the national delegates!

Indian Society of Anaesthesiologists who are the organizers of the conference were extremely helpful and cooperative in the various preparations related to the organizing of the various events. Mindful of their obligations, they



Contributed by:
Dr.S.N.Krishnamoorthy
 Professor & Head
 Department of Anaesthesiology

Brief Profile of our Medical Superintendent



Dr. P Jayakumar
(M.Ch Paed. Surgery)

- Born in the early 50s of the last century
- Grew up in North Madras where schooling, graduate and PG courses in General Surgery were completed
- Advanced further to secure a Master's Degree in paediatric surgery by virtue of love and affection towards children as they are the future of India
- In addition, submitted papers to the University of Madras for securing Doctorate
- Served for a brief period in Uniformed Forces as a Company Commander (Capt.)
- Later joined Tamil Nadu Medical Services and ascended up as a professor and head of the department of Paediatric Surgery at the Govt Children's Hospital in Egmore, the pioneer institute
- Reached the zenith in services as dean of medical colleges in Government of Tamil Nadu
- Completed the cycle of government services as director, Govt Medical College, Pondicherry in the cadre of Director of Medical Education.

Prevention of Dengue

Dengue fever, also known as break bone fever, is a mosquito-borne disease, principally spread by *Aedes aegypti*. It is caused by the dengue virus. In India dengue hemorrhagic fever (DHF) is the leading cause of hospitalization and death among children. The number of Dengue cases ranges from 7-16 thousand per year.

The Indian government reports about 20,000 hospitalizations a year for dengue. It is estimated that the actual number of people who end up in the hospital because of the virus is more than 5 million.

Rates of dengue increased 30 fold between 1960 and 2010. This increase is believed to be due to a combination of urbanization, population growth, increased international travel, and global warming.

Although *Aedes aegypti* mosquitoes most commonly bite at dusk and dawn, they can bite and

spread infection at any time of day. There is no specific treatment or vaccination for dengue fever: all efforts should be made to prevent the breeding of these mosquitoes and also to avoid getting bitten by them.

Aedes aegypti mosquitoes breed in fresh water and particularly in man-made containers such as old tires, pot plant holders, buckets and tree hollows in urban areas.



Common and Easy Steps to Prevent Getting Dengue Fever

- Apply Mosquito Repellants
- Keep Doors Closed and Use Window Screens
- Wear Protective Clothing
- Use Mosquito Nets at Home
- Scrub and Clean Container Margins
- Avoid Pot Plates
- Change Water Everyday
- Clear and Remove Stagnant Water
- General Cleaning Once A Month
- Cover Open Tanks



Contributed By:
Dr. Rujuta Kakade
Dept of Community
Medicine

Laboratory Diagnosis of Dengue Infection

Dengue virus infection produces many non-specific symptoms; therefore we have to use some laboratory tests to confirm the diagnosis of Dengue fever. Early diagnosis can help in starting appropriate treatment early, which can be life-saving.

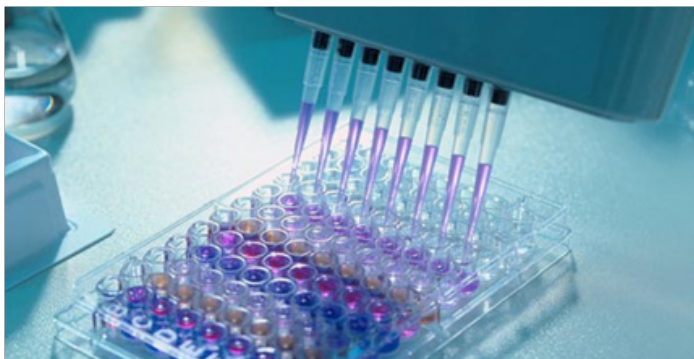
Dengue virus Antibodies against Dengue Fever

After dengue virus enters our body, dengue virus multiplies mainly in liver and in the cells lining the blood vessels. Subsequently, our immune system produces antibodies to specifically fight these viruses. Two types of antibodies are produced:

- Immunoglobulin M (IgM) appears around 5 days after the symptoms appear and last for about 3 months
- Immunoglobulin G (IgG) appears after 2-3 weeks after the symptoms and last for several years

Laboratory tests for dengue detection

Dengue infection is diagnosed in laboratory by detecting the virus (either whole virus, or specific parts of the virus) or specific antibodies produced against dengue virus. Sometimes, a combination of tests is done.



ELISA Test

A single blood sample (about 5 ml) is collected for performing the tests. The following tests can be done:

- **Dengue NS1 Antigen:** It can be detected as early as the first day of the symptoms. It almost confirms dengue infection. It can be detected by Rapid Card Method or by ELISA (Enzyme Linked Immunosorbent Assay) Method. Rapid Card Method is easy to perform, and can give results in less than 30 minutes. ELISA needs special equipments, trained personnel to perform the tests and require 3-5 hours to give results.
- **Dengue Antibodies:** They can be detected in the blood after 5-7 days of the symptoms. Detection of these antibodies is an indirect evidence of dengue infection. Presence of IgM antibodies indicates recent infection that needs to be treated. Presence of IgG alone is suggestive of past infection and generally does not require treatment. Antibodies can be detected by rapid card or ELISA methods.
- **Dengue viral RNA:** It can be detected by Polymerase Chain Reaction (PCR) in the initial 5-7 days of the illness. It is available

in only few laboratories, and is expensive: it is not regularly done. It is highly specific and sensitive investigation considered as gold standard test.

In addition to these tests, some other laboratory tests are usually done to assess patient's condition and response to treatment:

Complete blood count (CBC): to look for low platelet count typical of the later stages of the illness and to detect the decrease in hemoglobin, hematocrit, and red blood cell (RBC) count that would occur with blood loss associated with severe dengue fever

Tests to monitor kidney function and look for evidence of dehydration that can occur with severe illness



Rapid card test



Contributed by:
Dr. Anand B Janagond
Department of Microbiology

Velammal Faculty Provide Training for Lab Staff in Tuticorin as a Part of Prevention of Iodine Deficiency Disorders

Two faculties from our college - Dr. Rizwan SA and Dr. Rajagopal V (assistant professors in community medicine and biochemistry respectively) - were invited as resource persons to conduct two-day refresher training for Micronutrient Initiative lab personnel at Tuticorin on November 30th and 31st, 2014. More than 10 lab personnel from Andhra and Tamil Nadu attended the workshop. Dr. Rizwan presented the importance of Iodine deficiency disorder (IDD) control in India and principles of Laboratory Quality Assurance. Dr. Rajagopal presented principles of iodometric titration of common salt and made a practical demonstration of the technique. The participants were then asked to perform titrations on

their own and their faulty techniques were corrected. Followed by this, the participants performed titration of External Quality Assurance salt samples. IDD is a major public health problem in India, and can lead to various health conditions including goitre, spontaneous abortion, stillbirths, birth defects, cretinism, neonatal death, impaired mental function, etc. Though iodine is naturally present in various food items, the iodine content of food products is generally poor due to various factors. Fortification of food such as salt with iodine is a validated strategy to control IDD. Despite regulations, only 71% of households in India consumed adequately iodised salt according to a survey conducted in 2009.

Micronutrient Initiative (MI) is an NGO that is working to reduce IDD in India. MI provides free supplies of potassium iodate to small-scale salt manufacturers in Tamil Nadu, Andhra Pradesh, and certain other states for iodisation. MI also provides laboratory support for monitoring iodine levels: MI laboratories are set up at various locations in these states and monitor the salt iodine content of small-scale manufactures. They also conduct regular training programmes for lab personnel.



Contributed by:
Dr. Rizwan SA
 Dept of Community Medicine
Dr. Rajagopal V
 Dept of Biochemistry

YOGA A NEED OR DILEMMA (Part-1)

Whenever commonman thinks about yoga, there comes a complicated and complex body posture in the mind, is it yoga? It may be the part of it. Actually yoga is a systematic practice of physical exercise, breath control, relaxation, diet control, and positive thinking and meditation aimed at developing harmony in the body, mind, and environment.

The origin is a Sanskrit word "Yoga" meaning union. Yoga is a union of the organ systems in the body with the consciousness in the mind. Philosophically, yoga produces a union of body, mind, and energy (or soul or spirit) to bring about a state of equanimity (calmness). There is no written record of who invented yoga because it was practiced by yogis (yoga practitioners) long before any written account of it came into existence. For generations, this philosophy was passed on from the master teacher to the student. The first written records of

the practice of yoga appeared around 200 BC in Yogasutra of Patanjali. Yoga is an invaluable gift of our ancient tradition. Now international community also accepted it and the United Nations has adopted June 21 as "World Yoga Day" at the United Nations General Assembly in September 2014.

If it is practised on regular basis following benefits can be achieved

Physical

- o Improved body flexibility and balance
- o Improved cardiovascular endurance (stronger heart)
- o Improved digestion
- o Improved abdominal strength
- o Enhanced overall muscular strength
- o Relaxation of muscular strains
- o Weight control
- o Increased energy levels
- o Enhanced immune system

Mental

- o Relief of stress resulting from the control of emotions



- o Prevention and relief from stress-related disorders
- o Intellectual enhancement, leading to improved decision-making skills

Spiritual

- o Life with meaning, purpose, and direction
- o Inner peace and tranquillity
- o Contentment

A word of caution about the incorrect practice of yoga is necessary at this point. With the many benefits, it may be the cause of injury for new practitioners of yoga or those doing it without proper instruction.



Contributed by:
Dr. Raj Kishore Mahato
 Dept of Pharmacology

Ice age: Dawn of Embryos

In the movie "Jurassic Park," scientists extract 80-million-year-old dinosaur DNA from the bellies of mosquitoes trapped in amber. The oldest DNA samples ever recovered are from insects and plants in ice cores in Greenland up to 800,000 years old.

If this is possible in human embryos, we could freeze the human genetic material for even up to 10 years, which can be thawed and used again for a successful pregnancy in infertile couple.

But the real question is, is this possible? The answer is Yes!

This is possible by a process called vitrification. Vitrification (from Latin word vitreum, meaning "glass") is the transformation of a substance into a glass. Usually, it is achieved by rapidly cooling a liquid through the glass transition. Vitrification is a cutting edge technology for cryopreservation of embryos and eggs. It is a process by which highly

concentrated solution of cryoprotectant solidifies into a glass like state by rapid cooling. This does not damage the intracellular material and forms an ice like state which can be stored in cryocans for up to 10 years. Whenever needed, the embryos can be thawed and used for Transfer into uterus.

The use of vitrification technology to freeze eggs offers a new option for patients looking to preserve their fertility, and egg freezing with vitrification has been proclaimed as "woman's emancipation" from age-related infertility.

There is also interest in the subject as a method of extending fertility in healthy women, possibly taking away age-related barriers to childbearing.

Even if the human species becomes

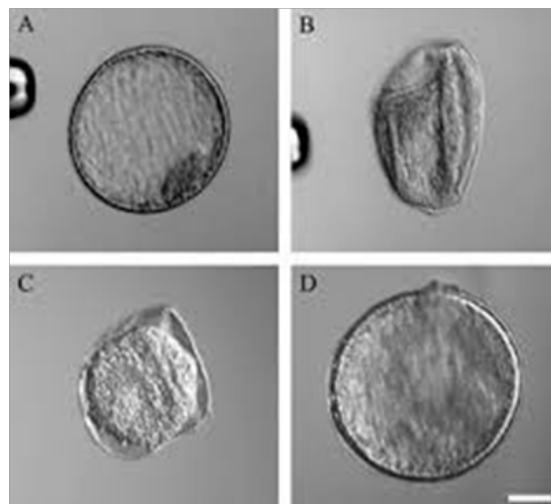
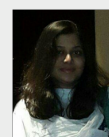


Figure 1A and B – Vitrification;
C and D – Thawing

extinct, these embryos in test tubes can be a boon for procreation. This could also be a nice story line for a Hollywood sci-fi movie!

Contributed by:



Dr. S. Lakshmi



Prof. Rajarajeswari
Dept of OBG

A Trip to Regional Institute of Medical Sciences, Imphal

Imphal is capital city of Manipur State in North east region of India. Manipur is a picturesque state which is located in a valley surrounded by hills. This city is home to the Regional Institute of Medical Sciences (Central Government), which is a pioneer Institute of Medicine in north east region.

This institution conducted the 62nd National Anatomy conference in November 2014: the NATCON 62. It was attended by galaxy of Anatomists from all over the world, and also by students. Hundreds of scientific papers in

field of embryology, teratology, gross anatomy & histology were read. A grand cultural programme was arranged in the evening which included the traditional Manipur dance.

During this conference, papers on Agenesis of Dorsal pancreas, and Metopic Sutures in Human Skull were presented by me. The materials for these papers were obtained from our institute. The case of agenesis of pancreas is of rare entity. These papers were well appreciated by the audience.

The experience was a memorable

one, and in the meanwhile we also highlighted the name of our college amongst the delegates who attended the conference.



Contributed by:

Dr. Arun Kumar Bilodi
Professor (Anatomy)

Why Should Some Medicines be Taken After Food?

Patients are advised to take many drugs only after consuming food. There can be four major reasons for this:

- 1. To protect the stomach:** Some drugs harm the stomach when taken on an empty stomach. Most of the painkillers belong to this group.
- 2. To protect the drug:** Some drugs are very easily destroyed by the stomach acid. If these drugs are taken in empty stomach, the acidity of the stomach at such an empty state will be too harmful to the drug. On the other hand, if the drug is taken after food, then the stomach acid will be busy digesting the food, and the drug just waits for the stomach to empty its contents into the intestines.

In fact, this is a very major concern with most of the drugs. That is the reason why many drugs are coated with acid-resistant films (film-coated tablets) or with material which dissolve only at an alkaline pH which is found in the intestines (enteric-coated tablets; enteric = related to the intestines), or the granules are enclosed in capsules. This is also the reason why these specially 'packaged' drugs should never be broken into halves before consuming.

- 3. To improve absorption of drug:** Some drugs (such as anti-HIV drug saquinavir) are very poorly soluble in water. These drugs should be taken after food, and the reason is very peculiar.

After the food is digested by stomach acid, it passes to the small intestines. The bile juice



from liver meets the food in the small intestines. Some components in this bile juice have an action to lower surface tension of food particles, especially fats. If the drugs with poor water solubility are also present among this foodstuff, the bile components also act on the drug, and it becomes easily absorbed. This effect is not seen if these drugs are taken in empty stomach, because bile juice is secreted in large amounts only after food intake.

- 4. To improve patient compliance of medicine:** For those drugs which offer no special advantage if taken either before or after food, most doctors advise to take the drugs *after* food. The reason is, a patient will *remember* to take the drug immediately after food. This is especially true for drugs which are taken over very long periods of time. This gesture will make the drug consumption a routine: the patient will make it a point to remember to take the drug as soon as meals is done.



Contributed by:
Dr. B N Vallish
Dept of Pharmacology



Dear Mankind! I'm Diabetes Mellitus,
Trust me,
I am not very friendly.
I push your blood glucose up,
I pull your health down,
Disturbing various metabolisms within you.

I come as two varieties that are quite similar in a class,
Insulin dependent and Non-Insulin dependent you can refer to them as.
As the first type, I decrease the production of insulin.
As the second type, I decrease the action of insulin.

I 'm a metabolic disorder,
I arise when blood glucose is out of order
The activity of insulin falls below its border
I reduce the weight of your body,
I 'm a major cause of Morbidity and Mortality.

I make you suffer from Glycosuria,
But the three 'P's are common too.
Polydipsia leaves your throat craving forever
While Polyuria turns you awkward and insane
Polyphagia urges you to visit every hour,
The much desired yet treacherous kitchen pane

I increase Sorbitol formation in chronic cases,
And also cause cataract of the eyes' lenses.
Additionally, I increase plaque formation leading to vascular diseases,
Not only in the form of Microangiopathy,
But also Neuropathy and Nephropathy.

If you are an obese person,
I will easily attack you
If you do exercise and have a balanced diet,
I will stay away from you
Remember these lines for years to come,
Because I am a fatal company for some!

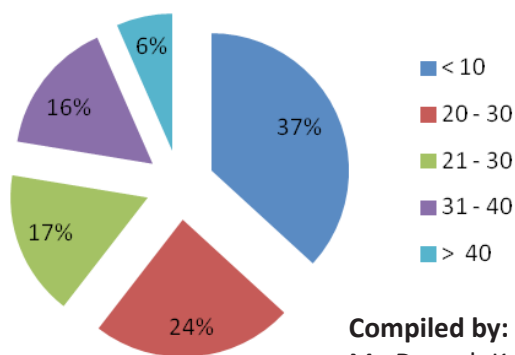


Contributed by:
A. Sowmiya
II MBBS

VMCH& RI Patients Statistics for the Duration of Oct - Dec 2014

Month	Inpatients	Dengue patients	% of Inpatients with Dengue
October	1069	19	1.7
November	1265	27	2.1
December	1100	30	2.7
Total	3434	76	2.2

Age wise distribution of Dengue Fever from VMCH& RI for the duration of oct-Dec-2014



Compiled by:
Mr. Denesh Kumar
Statistician
Dept of Community Medicine



Patient: 'Doctor, I think my wife is deaf because she never hears me the first time and I always have to repeat things. But she doesn't believe that she has deafness!'

Doctor: 'First we have to know how severe the problem is. Go home tonight and stand about 15 feet from her and say something to her. If she doesn't reply move about 5 feet closer and say it again. Keep doing this so that we'll get an idea about the severity of her deafness'.

So the patient goes home and does exactly as instructed. He starts off about 15 feet from his wife in the kitchen as she is chopping some vegetables and says, 'Radha, what's for dinner?' He hears no response.



He moves about 5 feet closer and asks again. No reply. He gets fed up moves 5 feet closer. Still no reply.

Confirmed that his wife is having severe deafness, he moves right behind her, about an inch away, and asks again, 'Radha, what's for dinner?'

Radha: 'That's the fourth time you asked me. It's Parota.'

Madurai Obstetrics and Gynecological Society annual conference was conducted in Velammal Medical College Hospital on December 13th and 14th.



It was attended by around 400 delegates, and the topics of interest were wide ranging. The conference was inaugurated by the chief guest Dr B Santhakumar, Vice Chairman Dr S Asokan, and Dean Dr A Srinivasan.

Prominent dignitaries were Dr Revathy Janakiram (Vice President, FOGSI), Dr Uma Devi (President, MOGS), and Dr C Shanthi (Secretary, MOGS)

Ganapathy Homam of the speciality hospital was performed on 4th November 2014



A CME on ‘Evolution of Cancer Chemotherapy: Basics to Nanotechnology’ was organized on 12.11.2014 by the department of Pharmacology



Dr. R Krishna Kumar from the Department of Oncology, MMHRC Madurai delivered the guest lecture