What's Up? @St John's Hospital

Issue 15, December 23rd , 2018

Red, Blue, Yellow & Green! It's the serial light decorations. The Institution is all ready to welcome Christmas and the New Year.
PC: Dr. Rakesh

St John's National Academy of Health Sciences
St John's Medical College Hospital, Bengaluru

MERRY CHRISTMAS

CONTENTS

MESSAGE FROM THE EDITORIAL TEAM

Kalispéra se ólous !!!

"What's Up? @ St John's Hospital" magazine's fifteenth issue and the last issue of this year is out today. The campus looks bridal with the decorations and the spirit of Christmas is in the air. We wish you all, a very happy Christmas, lots of love, joy and peace for the New year. This issue of the magazine is themed for Christmas.

We thank Dr. Savita Nagaraj (Professor, Dept. of Microbiology and AMS) and the quality team for providing us a write up on patient safety measures in St. John's Medical College Hospital. This is to highlight 'World patient safety day' which was observed on 9th December 2018. There are a lot of essential things to know, please do not miss it.

We also thank Dr. Sitalakshmi (Professor and Head, Department of Immunohematology and Transfusion medicine) for the write up on Haemovigilance.

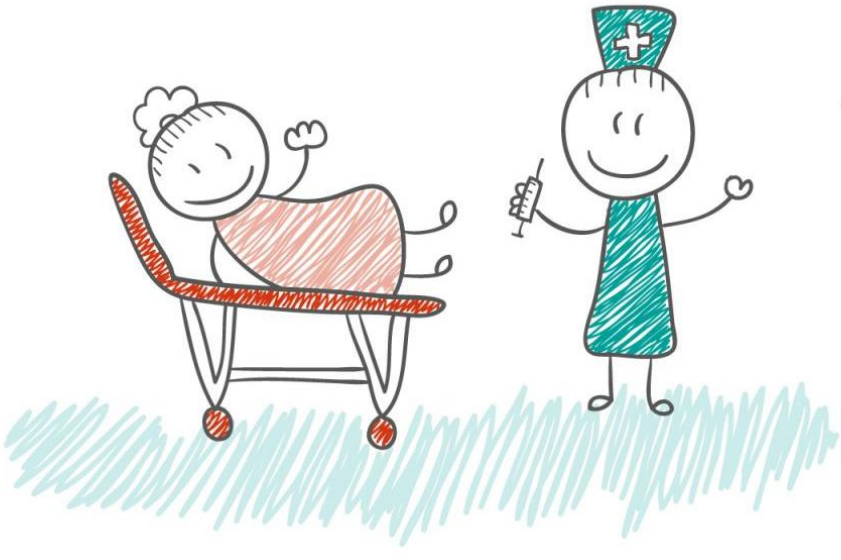
Do not forget, to know about the neuro-rehabilitation services offered by Department of Physical Medicine & Rehabilitation, and Physiotherapy in SJMCH in 'Know your hospital' section.

At last, we have to bid farewell to Dr. Pratiksha T Rao from our editorial team. We appreciate her time and efforts to the magazine. We wish her all the best and success for her future.

Feel free to communicate with us for publishing your achievements and events.

Editorial Team

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY
9th DECEMBER 2018



What is patient safety?

When we talk about patient safety we mean how hospitals and other health care organizations (including clinics, primary health centres) protect their patients from errors, injuries, accidents, and infections during the process of healthcare delivery and reduce the risk of unnecessary harm to an acceptable minimum. An acceptable minimum refers to the collective notions of given current knowledge, resources available and the context in which care was delivered weighed against the risk of non-treatment or other treatment.[1,2] As many as 440,000 people die every year from preventable errors in hospitals world wide. Every point in the process of care-giving contains a certain degree of inherent unsafety.

Beginning in 2004, WHO, working in partnership with the then World Alliance for Patient Safety, initiated two Global Patient Safety Challenges: "Clean Care is Safer Care" highlighting the importance of hand hygiene in prevention of transmission of pathogens and infections especially in hospitals (in 2005) and, "Safe Surgery Saves Lives" the second Global Patient safety challenge was launched to reduce bad outcomes among patients undergoing surgery in 2008. This initiative brought about the use of the surgical safety checklist for every patient undergoing surgery [1]

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY

These challenges mobilised worldwide commitment and action to reduce health-care-associated infections and risk associated with surgery, respectively. At the second Global Summit of Health Ministers on Patient Safety in Bonn, Germany, on March 29, 2017, the Director-General of WHO announced that the Third Global Patient Safety Challenge, “Medication Without Harm”, would address medication safety. It aims to reduce the level of severe, avoidable harm related to medications by 50% over 5 years, globally.

Who is responsible ?

It’s up to everyone to make sure that patient safety is the number one priority at every hospital. Some hospitals have hidden dangers, but there are things all categories of staff can identify and work to prevent them from happening.

Clear policies, organizational leadership capacity, data to drive safety improvements, skilled health care professionals and effective involvement of patients in their care, are all needed to ensure sustainable and significant improvements in the safety of health care.

Patient Safety Measures in St John’s Medical College Hospital, St. John’s National Academy of Health Sciences

Patient Safety Committee has been formed with the Associate Director Hospital (Rev. Fr. Pradeep Kumar Samad) as the Chairman and representatives from laboratory, engineering, nursing, doctors, security, fire safety etc. Safety issues and actions needed, arising due to unsafe infrastructure, equipment and clinical care(both nurses and doctors) will be addressed by the committee.

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY

INCIDENT (any untoward event) AND SENTINEL REPORTS

A **sentinel event** is defined by American healthcare accreditation organization The Joint Commission (TJC) as any unanticipated **event** in a healthcare setting resulting in death or serious physical or psychological injury to a patient or patients, not related to the natural course of the patient's illness. foreign object, falls and performing procedures on the wrong patient, unexpected occurrence involving death or serious physical or psychological injury, or the risk of death or serious injury.

The sentinel reports from various sections of the hospital should be reported by an online form. The incident report is an online form which can be accessed by your official email ID by using the following link:

NOT FOR GENERAL PUBLIC

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY

Goal	Patient Safety Goal	Description
1	Identify patient correctly	Patient are identified with the name and MRD number. The two identifiers are used across the hospital before: • Administering Medicine • Blood Transfusion • Collecting blood samples and other specimen • Performing all procedures and surgeries
2	Improve effective communication	Ensuring effective communication during: • Clinical handing over of patients among healthcare workers after each shift • Verbal orders • Communication of critical results from Laboratory and Radiology services • Education of patient and family members
3	Medication Safety	Medication safety is ensured by: • Proper storage: Medicines are stored in clean, safe and secure environment incorporating the manufacturer's recommendations. • Labelling: LASA and High-risk medications are labelled. Medicines once opened are labelled with name of drug, date and time of opening, patient name. • Identifying who can write the prescription: Registered doctor only can write a prescription. • Dispensing: All medicines are dispensed only against the physician's order • Administering: Medications shall be administered by those who are permitted to do so.
4	Ensure correct-site, correct procedure, correct patient surgery	It can be ensured with: • Surgical safety checklist • Preoperative verification checklist • Patient identification method • Surgical site marking • Identification of patient-specific implants and special equipment

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY

Goal	Patient Safety Goal	Description
5	Reduce the risk of healthcare associated infection	It can be achieved by following: • Hand hygiene guidelines • Infection control training • Disinfection and sterilization
6	Reduce the risk of patient harm from falls	The risk of fall can be avoided with the use of: • Bed rails • Grab bars • Safety belts for beds/trolleys/ wheel chairs • Antiskid tiles • Assistance for vulnerable/ high-risk patients • Safety brakes for trolleys/ wheel chairs

PATIENT SAFETY GOALS

1

2

3

4

5

6

UPDATES THIS WEEK
WORLD PATIENT SAFETY DAY

What is the difference between patient safety and quality?

Patient safety is an important element of an effective, efficient health care system where quality prevails. Here's how you can break it down:

1. **Safety** has to do with lack of harm. **Quality** has to do with efficient, effective, purposeful care that gets the job done at the right time.
2. **Safety** focuses on avoiding bad events. **Quality** focuses on doing things well.
3. **Safety** makes it less likely that mistakes happen. **Quality** raises the ceiling so the overall care experience is a better one.

Patient's Responsibilities:

The nurses, doctors and loved ones all want the same outcome, the patient to get better quickly. Patient is also a part of the health care team. It's important that patients speak up; Remember:

- Patients will observe and interpret activities and conversations differently from that of health care team.
- Patients must be encouraged to share their experiences with the family members and health care team to make sure they get the best care possible.
- Patients can help the team do a better, safer job. As members of the care team, patient and the family can hold other team members accountable.
- Patients should speak up immediately if you see something that is not right or safe. To ensure safe care, it is important to be an active member of the health care team.

1.https://www.who.int/patientsafety/en/
2. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31047-4/fulltext

HOPE ALL OF US PLACE THE PATIENT IN THE CENTRE OF OUR ACTIVITIES IN THE SPIRIT, MISSION AND VISION OF THIS GREAT INSTITUTION.

UPDATES THIS WEEK
FRIDAY CLINICAL MEETING
14TH DECEMBER 2018
CME ON HAEMOVIGILANCE

Dept. Of Transfusion Medicine and Immunohaematology in Association with Haemovigilance Programme of India under The National Institute of Biologicals, MOHFW, Govt of India

Haemovigilance is an integral part of blood safety. The scope of haemovigilance may cover the whole transfusion chain, from collection of blood and its components to follow-up of recipients. Haemovigilance is the best quality management system of the transfusion chain.

Originally, haemovigilance was a system which intended to assess and collect the information on the undesirable and unexpected effects resulting from the collection and use of blood products, and to prevent their occurrence and recurrence. 'Haemovigilance' is required to identify and prevent occurrence or recurrence of transfusion-related unwanted events, to increase the safety, efficacy and efficiency of blood transfusion, covering all activities of the transfusion chain from donor to recipient.

It has now grown into a worldwide network which observes, records, collects, reports, monitors, evaluates and analyses the blood transfusion information in a controlled way, and uses its results to identify preventable errors, assess the hazards, recommend, or implement measures to document success and/or failures of new safety initiatives. By operating this haemovigilance programme, the beneficial and untoward effects of blood transfusion can be better understood and the quality and safety of transfusion chain have been improved.

This CME was organised jointly by the Dept of Transfusion medicine and Immunohaematology in association with Haemovigilance Programme of India under the National Institute of biologicals, MOHFW, Govt of India.

UPDATES THIS WEEK
FRIDAY CLINICAL MEETING
CME ON HAEMOVIGILANCE

Dr Akansha Bisht who is the head of HVPI, represented the National Institute of Biologicals.

Drugs control department being the regulatory authority for Blood banks ensures that the requirements of the Gazette are fulfilled and the processes are in place to ensure safe transfusion., Mr Amaresh Tumbagi, the Drugs controller, State of Karnataka, was the chief guest. He discussed role of the Drugs control department in this initiative

Dr George D Souza, the Dean, SJMC and Dr Sanjiv Lewin, Chief of Medical Services, SJMCH were the dignitaries who inaugurated the CME along with the chief Guest Mr Amaresh Tumbagi, Drugs controller and Dr Akanksha Bisht, National Institute of Biologicals.

The CME was designed to give an overview of the HVPI by Dr Akansha Bisht who is the head of HVPI. Dr Shanthala Devi A M, Professor from our department discussed the approach to investigation of transfusion reaction. Dr. Vanamala, Professor discussed the donor adverse reactions

The session included case discussions by our own faculty and faculty from other institutions and were interactive.

Our clinical colleagues from ICU and anaesthesia depts will discussed the importance of recognising and managing transfusion reactions in the OT and ICU.

Dr Sitalakshmi moderated the panel discussion which was a part of our Friday clinical meeting. This included the Chief of Medical Services, Nursing Superintendent, clinicians and transfusion medicine experts and NIB representatives. Nursing team which plays a critical role in transfusion were also a part of this program.

With these sessions, we intend to improve our processes in transfusion for patient safety

UPDATES THIS WEEK
FRIDAY CLINICAL MEETING
CME ON HAEMOVIGILANCE

One hundred and fifty seven delegates from across the state of Karnataka participated in the CME. The delegates included clinicians, transfusion medicine experts, pathologists, nursing staff and paramedical staff and students and medical post graduates

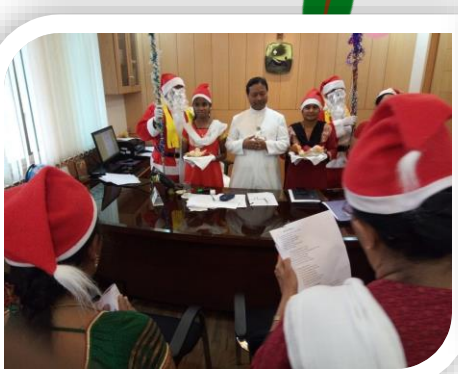
The feedback from the delegates was good. Karnataka Medical Council granted two credit hours for this program.

UPDATES THIS WEEK
CHRISTMAS CELEBRATION
IN THE HOSPITAL

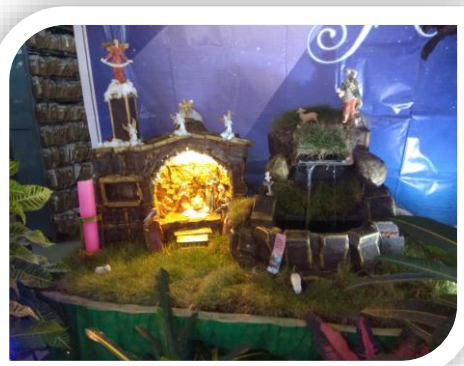
It's Christmas everywhere in the campus. Every wall, every room, every corner in the campus is decorated to celebrate Christmas and welcome the New year 2019. Here we present a few pictures depicting the joy of Christmas in the campus. **Zoom the picture petals to see**!!!

UPDATES THIS WEEK
CHRISTMAS DECORATIONS
IN THE HOSPITAL

Mrs. Salomy, one of the oldest staff in St. John's who have celebrated more than 50 Christmases with the Institution!



UPDATES THIS WEEK
CHRISTMAS DECORATIONS
IN THE HOSPITAL



UPDATES THIS WEEK
CHRISTMAS DECORATIONS
IN THE HOSPITAL

Carol singing

JOY

PEACE

LOVE

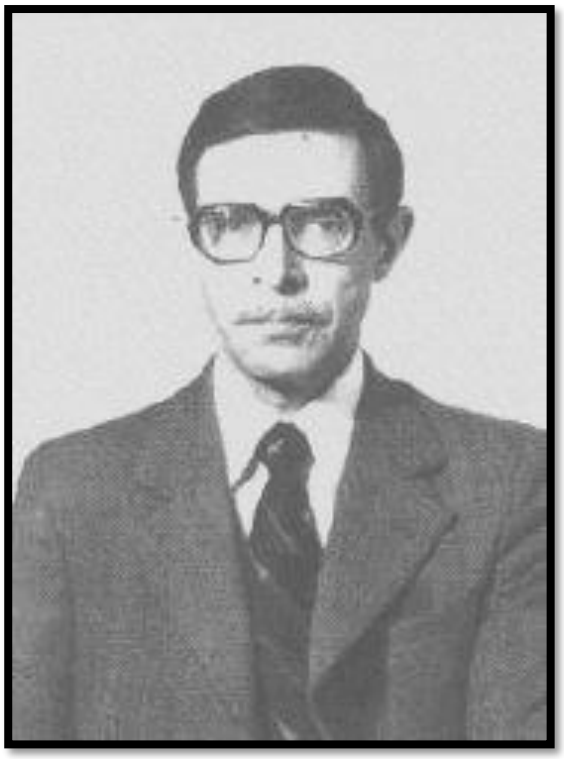
IG NOBEL 😂

1992 - LITERATURE

Yuri Timofeevich Struchkov

Yuri Struchkov, unstoppable author from the Institute of Organoelemental Compounds in Moscow, for the **948 scientific papers** he is credited with publishing between the years 1981 and 1990, averaging more than one every 3.9 days.

For many academic scientists, having a list of published papers is the single most important factor that determines prestige, pay, promotions and job offers. Some scientists are more prolific than others. But one man, Yuri Struchkov, established a record of almost superhuman accomplishment. During a 10-year period he published more - far more - research papers than any other scientist on earth.



Yuri Timofeevich Struchkov (1926-1995)

©IUCr

Yuri, Vice-President of the IUCr (International Union of Crystallography), passed away on 16 August 1995, at the age of 69. He was one of the pioneers of X-ray crystallography applied to chemistry in the former USSR. Yuri and his team (built up in the Institute of Organo-element Compounds of the Academy of Sciences of the USSR) have contributed more than 1000 entries to the Cambridge Structural Database (CSD).

However, it is not so easy to remove the invisible veil from the life of Yuri Struchkov, the man and the scientist. Apart from the last few years, he spent his whole life in a very closed society determined by the rules of the Ice Age, moved by a very slow and painstaking thaw to a welcome end in 1991. Yuri was born on 28 July 1926 in Moscow at the time when the promising New Economic Policy was halted and the first Five Year Plan of Stalin pushed millions of peasants into misery and destruction.

REF: https://www.improbable.com/ig/winners/

IG NOBEL 😐

1992 - LITERATURE

Yuri Timofeevich Struchkov

He was only 12 when his father Timofey Frolovich was arrested in 1938 as the people's enemy and executed immediately thereafter (he was, of course, innocent). Yuri and his mother lived almost in poverty in the 1930s followed by the hard years of the Great Patriotic War. The road accident in which he lost his right hand prevented him from undertaking military service. Thus, he was able to enter Moscow State University in 1943.

In 1948, he graduated in chemistry and became a research associate of the Institute of Organic Chemistry under the supervision of the founder of organic crystal chemistry, Alexander I. Kitaigorodskii. There, he prepared his PhD thesis and defended it in the Institute of Crystallography in 1954. In the same year, master and pupil moved together to the newly opened Institute of Organoelement Compounds in Moscow. Both remained there and made invaluable contributions to chemical crystallography until their deaths.

The total number of his publications (including papers published in journals not covered by the CSD in the early years) amounts to nearly 2000 original reports and more than 30 reviews. One may ask why Yuri forced publication so hard, what was the motivation that did not permit him to make his mission easier? His most convincing argument for not joining the Communist Party was his deep preoccupation with research which left no time for anything else. ***He felt his only choice was to work hard, harder today than yesterday and much harder tomorrow.***

REF: https://www.improbable.com/ig/winners/
https://www.iucr.org/people/crystallographers/yuri-timofeevich-struchkov-1926-1995

KNOW YOUR HOSPITAL!!

NEURO-REHABILITATION SERVICES IN ST.JOHN'S MEDICAL COLLEGE HOSPITAL

The Department of Physical Medicine and Rehabilitation:

Neurological Rehabilitation is the core of the department of Physical Medicine & Rehabilitation (PMR). St. John's Medical College hospital started PMR department in April 1999. It has been in existence 20 years continuously serving, treating, providing rehabilitative services to the patients with neurological, orthopaedic and paediatric disabilities

Neuro-Rehabilitation as a specialty in India is still in evolving stage. In India, there are overall 300 medical colleges, but only 30 of them have department of rehabilitation medicine. St Johns Medical College is one of the few colleges in India and the only college in Karnataka offering MD in PMR

Location: PMR OPD No.10

Neurological Rehabilitation –The Team:

Neurological Rehabilitation is a team approach, multidisciplinary method to treat patients and the team consists of following doctors, nurses and therapists. Each one has unique role in treatment:

1. **Doctors**: Assessment and goal setting, medical evaluation, spasticity management with medication and local injections, deformity correction with surgeries
2. **Nurses:** Health education

KNOW YOUR HOSPITAL!!

NEURO-REHAB SERVICES contd…

3. **Physiotherapists**: Exercises to facilitate mobility.
4. **Occupational Therapists**: Activities to improve functional independence.
5. **Speech & Language Pathologists**: Speech, language and swallowing assessment and treatment
6. **Orthotist and prosthetist**: Providing assistive/mobility devices, splints
7. **Social worker**: Psychosocial; counselling, vocational rehabilitation

Neurological Rehabilitation –The Patients

Under Neuro-rehabilitation speciality patients are referred from Departments of Neurology and Neurosurgery from both within SJMCH and outside the hospital. It sees a variety of patients with neurological conditions like spinal cord injury, acquired brain injury which includes traumatic (road-traffic accidents) and non-traumatic brain injury (disorders of consciousness, stroke, tumours, hypoxic brain injury, infection).

The department sees patients both as out-patient and in-patient on all days of the week Patients are admitted for neurological rehabilitation in acute, sub-acute and chronic stages. In view of many patients getting referred at an acute stage directly from ICUs, PMR ITU with 3 beds was started from January 2018.

This unit mostly get patients for hypoxic brain injury and spinal cord injury patients. More than 70% of patients coming for treatment for hypoxic brain injury are successfully rehabilitated so far. Department provides **vocational rehabilitation** too for spinal cord injury patients which not many institutes offer.

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NEURO-REHAB SERVICES contd…

Vocational rehabilitation enables patients to have employment opportunities and lead a normal life

Department has tie up with APD (Association of People with Disability) and on an average 200 patients visit OPD and 40 patients utilize inpatient services of the department

Front Row Left to right Dr.Annit Sunny, Raina Dsouza, Misha P.K, Dr Maitreyi C Patil, Sr. Elizabeth, Dr. Kurian Zachariah, Dr. Rajalakshmi Hariharan, Dr. Nidhi Rawat, Henna Babu Sangeetha M , Diya Sebastian.
Back Row Left to right Dr.Navin B P, Dr. Ijaz Pillai, Samuel Jeba, Dr. Sameer Deo, Vineeth Thumulapalli,& Dr Ranjan S S

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NEURO-REHAB SERVICES contd…

Role of Department of Physiotherapy in Neuro-Rehabilitation

Scope:

1. Care of patients who are admitted in the hospital.
2. Care of the patients who come as inhouse reference as well as direct reference from other hospitals.
3. Care of patients with stroke, head injury, spinal cord injury, Guillain Barre syndrome, Parkinson's disease, Movement disorders, Neuromuscular disorders, Peripheral nerve disorders, Neurodegenerative conditions of brain and spinal cord, Pediatric neuro cases (such as cerebral palsy, developmental delay, Muscular dystrophy, High risk babies etc.)

The aim of the neuro-rehabilitation is to restore the functions and make the patient functionally independent.

The general measures used to achieve this goal is by means of:

a. Exercises to maintain and retain the joint and muscle functions.
b. Functional electrical stimulation and other modalities to facilitate and improve the paralyzed and weakened muscles.
c. Prevention exercises for patients who are prone to develop complications such as, deep vein thrombosis, pressure sores, chest complications, deformities and contractures
d. Strengthening exercises to improve muscle strength and power.
e. Functional training exercises to improve the functions of sitting from lying down position, standing and ambulation.
f. Balance training exercises to improve and maintain equilibrium and balance in patients with vestibular, co-ordination issues.
g. Transfer training program for patients with spinal cord injury, stroke etc..

KNOW YOUR HOSPITAL!!

NEURO-REHAB SERVICES contd…

Role of Department of Physiotherapy in Neuro-Rehabilitation

h. Gait training program to improve ambulation in patients with brain and spinal cord lesions.
i. Perception and cognitive training program for the patients suffering with brain insult.
j. Developmental exercise program for the childiren with milestone delay.
k. Assessing and prescribing the assistive devices like orthosis, walking aids to the patients who requires.
l. Habitating and Rehabilitating the neonates and children

Front row- Mr. Antony Paul (Asst. Prof. Ortho-Physiotherapy(PT)), Ms. Deepa Shekar (Tutor, Ortho-PT); Second row - Mrs. Briliya Bhaskar (Lecturer –Ortho-PT), Mr.Arun Stephen, Asso prof(Ortho-PT), Dr.Annie Thomas (HOD and Asso. Prof. heading Neuro-PT), Mrs.Smita Elizabeth (Asst. Prof., pediatric PT), Ms. Appireddy Gari Haritha (Lecturer, Community based rehabilitation (CBR)), Ms. Jennifer Gabriella Vincent (Lecturer, pediatric-PT), Ms. Anju Joby (Junior PT-Cardiorespiratory PT), Ms. Nimmy (Junior PT - Pediatric PT); Third row - Mr. Shankar Ganesh (Lecturer, Cardiorespiratory PT), Mrs. Pavani (Lecturer, Cardiorespiratory PT), Mr. Devanand (Junior PT, Neuro-PT, Mr. Immanuel Abraham (Tutor, Cardiorespiratory PT), Mr.Rendev (Junior PT, CBR), Mr. Akshay Shaji (Neuro-PT), Ms. Bindi Barucha (Lecturer, Ortho-PT), Dr. Pratiksha Rao (Asst.Prof., Neuro-PT), Mr. Rameez Hulhaji (Ortho-PT)

LAUGHTER IS THE BEST MEDICINE...

CHRISTMAS SPECIAL

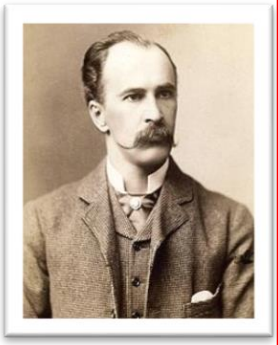
On New Years', just remember: if your cup runneth over, you've probably reached your limit.

Four-year-old to her two-year-old sister: "Let's play Christmas. I'll be Santa Claus and you can be a present and I'll give you away."

Q: Why does Santa go down the chimney?
A: Because it soots him!

While I was working as a store Santa, a boy asked me for an electric train set. "If you get your train," I told him, "your dad is going to want to play with it too. Is that all right?"
The boy became very quiet. So, moving the conversation along, I asked, "What else would you like Santa to bring you?"
He promptly replied, "Another train."

THE QUOTABLE OSLER



SIR WILLIAM OSLER

Maintain a good Humor:

Hilarity and good humour, a breezy cheerfulness, a nature "sloping toward the southern side," as Lowell has it [referring to the sunny side, from "An Epistle to George Willian Curtis" by James Russell Lowell (1819-1891)], help enormously both in the study and in the practice of medicine. To many of a sombre and sour disposition it is hard to maintain good spirits amid the trials and tribulations of the day, and yet it is an unpardonable mistake to go about among patients with a long face.

REF: The Quotable OSLER: Edited by Mark E Silverman, T. Jock Murray, Charles. S Bryan

MEDICINE DIS WEEK

A Bird's Eye View…..

Vitamin D supplementation doesn't reduce incidence of cancer or cardiovascular events

In a large randomized trial evaluating vitamin D3 supplementation (2000 international units daily) versus placebo in over 25,000 adults (mean age 67 years, mean serum 25[OH]D 30 ng/mL [77 nmol/L]), with median follow-up of 5.3 years, there was no difference in the occurrence of the primary cardiovascular endpoint (composite of myocardial infarction, stroke, or cardiovascular death) or the primary cancer outcome (invasive cancer). The incidence of death from cancer, cardiovascular disease, or any cause did not differ significantly between the two groups. We suggest not administering vitamin D supplements above and beyond what is required for osteoporosis or fall prevention.

- Manson JE et al., N Engl J Med. 2018 Nov 10.

Five-year outcome of antibiotic treatment of acute uncomplicated appendicitis

Ninety percent of patients with uncomplicated acute appendicitis can be managed with antibiotics alone, but their long-term outcome was unknown. Now, a study of over 250 such patients reports that the cumulative incidence of recurrent appendicitis was 27 percent within one year of initial presentation and ranged from 34 to 39 percent at two to five years. Since a significant proportion of patients initially treated with antibiotics alone will eventually require surgery because of recurrent appendicitis and there is no reliable method of identifying these patients a priori, we suggest appendectomy for all adults who present with acute uncomplicated appendicitis. Patients who prefer initial treatment with antibiotics alone must be clearly counselled on the risks and benefits of that options.

-Salminen P et al., JAMA. 2018 Sep 25;320(12):1259-1265.

The NEW ENGLAND JOURNAL of MEDICINE

REFERENCE 1: MEDICINE DIS WEEK

ORIGINAL ARTICLE

Vitamin D Supplements and Prevention of Cancer and Cardiovascular Disease

JoAnn E. Manson, M.D., Dr.P.H., Nancy R. Cook, Sc.D., I-Min Lee, M.B., B.S., Sc.D., William Christen, Sc.D., Shari S. Bassuk, Sc.D., Samia Mora, M.D., M.H.S., Heike Gibson, Ph.D., David Gordon, M.A.T., Trisha Copeland, M.S., R.D., Denise D'Agostino, B.S., Georgina Friedenberg, M.P.H., Claire Ridge, M.P.H., Vadim Bubes, Ph.D., Edward L. Giovannucci, M.D., Sc.D., Walter C. Willett, M.D., Dr.P.H., and Julie E. Buring, Sc.D., for the VITAL Research Group*

ABSTRACT

BACKGROUND

It is unclear whether supplementation with vitamin D reduces the risk of cancer or cardiovascular disease, and data from randomized trials are limited.

METHODS

We conducted a nationwide, randomized, placebo-controlled trial, with a two-by-two factorial design, of vitamin D_3 (cholecalciferol) at a dose of 2000 IU per day and marine n–3 (also called omega-3) fatty acids at a dose of 1 g per day for the prevention of cancer and cardiovascular disease among men 50 years of age or older and women 55 years of age or older in the United States. Primary end points were invasive cancer of any type and major cardiovascular events (a composite of myocardial infarction, stroke, or death from cardiovascular causes). Secondary end points included site-specific cancers, death from cancer, and additional cardiovascular events. This article reports the results of the comparison of vitamin D with placebo.

RESULTS

A total of 25,871 participants, including 5106 black participants, underwent randomization. Supplementation with vitamin D was not associated with a lower risk of either of the primary end points. During a median follow-up of 5.3 years, cancer was diagnosed in 1617 participants (793 in the vitamin D group and 824 in the placebo group; hazard ratio, 0.96; 95% confidence interval [CI], 0.88 to 1.06; P=0.47). A major cardiovascular event occurred in 805 participants (396 in the vitamin D group and 409 in the placebo group; hazard ratio, 0.97; 95% CI, 0.85 to 1.12; P=0.69). In the analyses of secondary end points, the hazard ratios were as follows: for death from cancer (341 deaths), 0.83 (95% CI, 0.67 to 1.02); for breast cancer, 1.02 (95% CI, 0.79 to 1.31); for prostate cancer, 0.88 (95% CI, 0.72 to 1.07); for colorectal cancer, 1.09 (95% CI, 0.73 to 1.62); for the expanded composite end point of major cardiovascular events plus coronary revascularization, 0.96 (95% CI, 0.86 to 1.08); for myocardial infarction, 0.96 (95% CI, 0.78 to 1.19); for stroke, 0.95 (95% CI, 0.76 to 1.20); and for death from cardiovascular causes, 1.11 (95% CI, 0.88 to 1.40). In the analysis of death from any cause (978 deaths), the hazard ratio was 0.99 (95% CI, 0.87 to 1.12). No excess risks of hypercalcemia or other adverse events were identified.

CONCLUSIONS

Supplementation with vitamin D did not result in a lower incidence of invasive cancer or cardiovascular events than placebo. (Funded by the National Institutes of Health and others; VITAL ClinicalTrials.gov number, NCT01169259.)

From the Department of Medicine, Brigham and Women's Hospital and Harvard Medical School (J.E.M., N.R.C., I.-M.L., W.C., S.S.B., S.M., H.G., D.G., T.C., D.D., G.F., C.R., V.B., E.L.G., W.C.W., J.E.B.), and the Departments of Epidemiology (J.E.M., N.R.C., I.-M.L., W.C.W., J.E.B.) and Nutrition (E.L.G., W.C.W.), Harvard T.H. Chan School of Public Health — all in Boston. Address reprint requests to Dr. Manson at the Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, 900 Commonwealth Ave., 3rd Fl., Boston, MA 02215, or at jmanson@rics.bwh.harvard.edu.

*A complete list of the members of the VITAL Research Group is provided in the Supplementary Appendix, available at NEJM.org.

This article was published on November 10, 2018, at NEJM.org.

DOI: 10.1056/NEJMoa1809944

REFERENCE 2: MEDICINE DIS WEEK

JAMA | Original Investigation

Five-Year Follow-up of Antibiotic Therapy for Uncomplicated Acute Appendicitis in the APPAC Randomized Clinical Trial

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IMPORTANCE Short-term results support antibiotics as an alternative to surgery for treating uncomplicated acute appendicitis, but long-term outcomes are not known.

OBJECTIVE To determine the late recurrence rate of appendicitis after antibiotic therapy for the treatment of uncomplicated acute appendicitis.

DESIGN, SETTING, AND PARTICIPANTS Five-year observational follow-up of patients in the Appendicitis Acuta (APPAC) multicenter randomized clinical trial comparing appendectomy with antibiotic therapy, in which 530 patients aged 18 to 60 years with computed tomography–confirmed uncomplicated acute appendicitis were randomized to undergo an appendectomy (n = 273) or receive antibiotic therapy (n = 257). The initial trial was conducted from November 2009 to June 2012 in Finland; last follow-up was September 6, 2017. This current analysis focused on assessing the 5-year outcomes for the group of patients treated with antibiotics alone.

INTERVENTIONS Open appendectomy vs antibiotic therapy with intravenous ertapenem for 3 days followed by 7 days of oral levofloxacin and metronidazole.

MAIN OUTCOMES AND MEASURES In this analysis, prespecified secondary end points reported at 5-year follow-up included late (after 1 year) appendicitis recurrence after antibiotic treatment, complications, length of hospital stay, and sick leave.

RESULTS Of the 530 patients (201 women; 329 men) enrolled in the trial, 273 patients (median age, 35 years [IQR, 27-46]) were randomized to undergo appendectomy, and 257 (median age, 33 years, [IQR, 26-47]) were randomized to receive antibiotic therapy. In addition to 70 patients who initially received antibiotics but underwent appendectomy within the first year (27.3% [95% CI, 22.0%-33.2%]; 70/256), 30 additional antibiotic-treated patients (16.1% [95% CI, 11.2%-22.2%]; 30/186) underwent appendectomy between 1 and 5 years. The cumulative incidence of appendicitis recurrence was 34.0% (95% CI, 28.2%-40.1%; 87/256) at 2 years, 35.2% (95% CI, 29.3%-41.4%; 90/256) at 3 years, 37.1% (95% CI, 31.2%-43.3%; 95/256) at 4 years, and 39.1% (95% CI, 33.1%-45.3%; 100/256) at 5 years. Of the 85 patients in the antibiotic group who subsequently underwent appendectomy for recurrent appendicitis, 76 had uncomplicated appendicitis, 2 had complicated appendicitis, and 7 did not have appendicitis. At 5 years, the overall complication rate (surgical site infections, incisional hernias, abdominal pain, and obstructive symptoms) was 24.4% (95% CI, 19.2%-30.3%) (n = 60/246) in the appendectomy group and 6.5% (95% CI, 3.8%-10.4%) (n = 16/246) in antibiotic group ($P < .001$), which calculates to 17.9 percentage points (95% CI, 11.7-24.1) higher after surgery. There was no difference between groups for length of hospital stay, but there was a significant difference in sick leave (11 days more for the appendectomy group).

CONCLUSIONS AND RELEVANCE Among patients who were initially treated with antibiotics for uncomplicated acute appendicitis, the likelihood of late recurrence within 5 years was 39.1%. This long-term follow-up supports the feasibility of antibiotic treatment alone as an alternative to surgery for uncomplicated acute appendicitis.

TRIAL REGISTRATION ClinicalTrials.gov Identifier: NCT01022567

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It's story TIME

THE STORY OF MEDICINE

OLD TESTAMENT MEDICINE

The Old Testament (the Hebrew Bible) was written between the 8th and 3rd centuries BC. It has documented that the ancient Hebrews believed disease resulted from displeasing God, and that only priests could help.

Hebrew medicine excelled in the area of public health. The priests acted as primitive medical officers of health, and were keen to prevent the transmission of disease from one person to another.

They were fanatical about cleanliness, and demanded that hands always be washed after handling dead bodies or impure substances and before eating — a remarkable rule for a desert people, and perhaps borrowed from Egyptian priests during their days under the pharaohs.

PEARLS OF WISDOM

It is good to be children sometimes,
and never better than at Christmas,
when its mighty Founder was a child Himself.
-Charles Dickens

Christmas is not a time nor a season, but a state of mind. To cherish peace and goodwill, to be plenteous in mercy, is to have the real spirit of Christmas.
-Calvin Coolidge

I am not alone at all, I thought. I was never alone at all. And that, of course, is the message of Christmas. We are never alone. Not when the night is darkest, the wind coldest, the world seemingly most indifferent. For this is still the time God chooses.
-Taylor Caldwell

REF: 365 Days of Wonder: R.J.Palacio.

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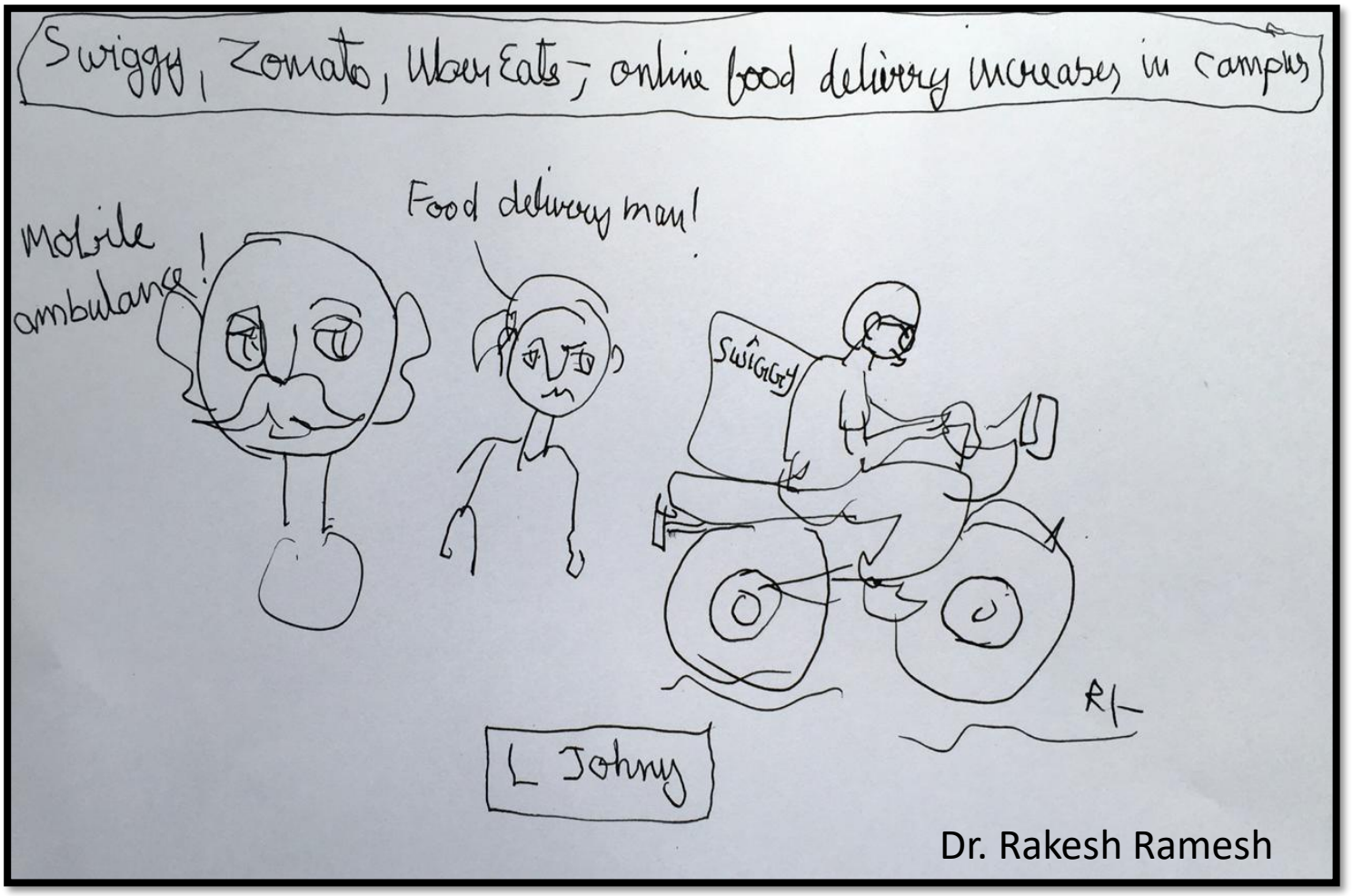

Did You Know?

The Haskell Free Library and Opera House has two postal addresses; one Canadian and one American. It is so built on the border between Canada and the United states that the stage is in one country and the audience in another! It is sometimes alluded to as the only library in the USA with no books and the only opera house in USA with no stage!!

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