

# MEDITIME

A Medical Bulletin from TIME Pharmaceuticals (P.) Ltd.

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TECHNICAL COLLABORATION



Couching Lives, Delivering Promises



# MEDITIME

A Medical Bulletin from TIME Pharmaceuticals (P.) Ltd.

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# Editorial

It is my pleasure and great privilege to present the current issue of MEDITIME in the beginning of New Year 2076 as an opportunity to introduce the "Technical Collaboration of TIME Pharma ceuticals with SQUARE Pharmaceuticals, a giant Multi-National Pharma Company". The current era is the era of SMART pharmaceuticals with advancement in the technologies. TIME Pharmaceuticals recognizing the necessity of



advancement in the technology, has joined hands with SQUARE Pharma for bringing transformation in research & development for the betterment in the quality of products.

Technological changes play a key role in overall economic and industrial growth. The objective of technology transfer is to increase the output, upgrade the skill of technical manpower and accelerate the process of industrialization through the adoption, adaptation & absorption of imported technologies. The acquisition of the imported technologies is one of the important strategies of TIME pharmaceuticals to penetrate more in domestic market as well as to improve the competitiveness in international market by complying international standards of quality. We believe that upgrading technological capabilities by importing & adopting foreign technology will definitely increase the support of our valued doctors & well wishers. TIME Pharma, the domestic company who is trying to meet the international standards through technology transfer, always seeks the support and suggestion from our valued doctors for its development. We hope this initiation of TIME Pharma will also help in the economic development of the nation which is not possible with the support of our valued doctors and well wishers.

This issue is very important issue for us as it is dedicated for the introduction of Technology transfer and we feel happy to share the information with our valued readers. Beside this, we are happy to share information related to diabetes, lung cancer, hormonal contraceptives & its impact and may more articles. I thankfully acknowledge all medical fraternities for your continuous support for our MEDITIME and wish similar support with valuable feedback and suggestion for improvement.

At last, I also take this opportunity to wish Happy New Year 2076. May this new year brings lots of joy, happiness, good health and indeed wealth.

With Best Regards,

Sudarshan Pal Shrestha Editor in Chief

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# Health News Line

# To halt malaria transmission, more research focused on human behavior needed

25 April, World Malaria Day

Wherever possible, researchers should not just focus on mosquito behavior when working to eliminate malaria, but must also consider how humans behave at night when the risk of being bitten by an infected mosquito is highest, new findings from the Johns Hopkins Center for Communication Programs (CCP) suggest.

A CCP-led review article published in Malaria Journal finds that while there is substantial research into when malaria mosquitoes bite, when they are most active and which species are most likely to spread disease, there is very little that considers the other side of the equation: People.

"The neglected piece has really been human behavior," says April Monroe, senior program officer at CCP who led the research. "There's been a big focus on mosquito behavior. But you have to look at mosquitoes and people together to really understand what is going on and how to reduce malaria risk."

Insecticide-treated bed nets are the leading reason why there has been a significant reduction in malaria over the past 15 years, with a 41% decrease in malaria rates and a 62% decrease in malaria deaths. But bed nets only work when people sleep under them

While studies have shown that most people who have nets use them, there are times when malaria mosquitoes are biting when it may not be possible to use a net. These include while doing household chores and socializing in the evening before bed, as well as during outdoor night-shift jobs, such as providing security or fishing, and while attending community events such as funerals, weddings or religious events which can last throughout the night.

"Insecticide-treated nets are our best tool for preventing malaria right now, but we also know that nets alone won't be sufficient to bring the number of malaria cases to zero," Monroe says. "While nets will remain crucial for years to come, we must also provide appropriate solutions to people that protect them where and when they need it."

For their review, the researchers screened nearly 3,000 peer-reviewed journal articles and analyzed 26 that provided information on when and where people are exposed to malaria-transmitting mosquitoes and what nighttime activities are occurring during the hours when mosquitoes are most active.

After conducting the review, Monroe and her colleagues recommend that researchers use a standardized approach to measuring both human and mosquito behavior across time and settings. This information, is essential for targeting existing tools, social and behavior change interventions and the development and deployment of prevention tools to complement bed nets and indoor spraying.

"People are still getting malaria, even in places where there is broad use of bed nets," Monroe says. "We need to fill these research gaps and make decisions on how to better protect people. A greater understanding of human behavior and the interaction of humans and mosquitoes is crucial if we are going to eliminate malaria."

## New blood pressure guideline could prevent 3 million cardiovascular events over 10 years

17 MAY, World Hypertension day

In 2017, the American College of Cardiology and the American Heart Association released new blood pressure guidelines, lowering hypertension threshold to 130/80mmHg from the previous 140/90mmHg. A new study predicts that achieving and maintaining the 2017 guideline blood pressure goals could prevent more than 3 million cardiovascular disease events over 10 years.

"Treating high blood pressure is a major public health opportunity to protect health and quality of life for tens of millions of Americans," said the study's lead author Adam Bress, Pharm. D., M.S., Assistant Professor in Population Health Sciences at University of Utah Health. "Achieving these lower goals will be challenging."

Bress and his team wanted to explore the impact of achieving and maintaining the lower guideline-recommendations on the public compared to earlier blood pressure and treatment levels, as well as patients' ability to achieve and maintain earlier guideline recommendations.

The team predicted the number of cardiovascular events averted in middle-age adults based on the blood pressure goals of the 2017 blood pressure guidelines (< 130/80mmHg), the seventh Joint National Committee (JNC7) guidelines (< 140/90mmHg) and the eighth Joint National Committee (JNC8) guidelines (140/90mgHg for patients younger than 60 and 150/90mmHg for patients older than 60).

Their analysis projects 3.3 million fewer cardiovascular disease events after achieving and maintaining the 2017 blood pressure goals compared to current blood pressure levels. They also found that achieving and maintaining the JNC7 and JNC8 recommended blood pressure goals would prevent 2.6 and 1.6 million cardiovascular disease events, respectively.

This study made these predictions using several contemporary, population-based databases. The NHANES (National Health & Nutrition Examination Survey) dataset is a national representative survey of the U.S. adult population and provides population sizes of hypertension treatment groups by blood pressure levels and chronic conditions. The REGARDS (Reasons for Geographic & Racial Difference in Stroke) database provides a source for the risk of fatal and nonfatal cardiovascular events. A recent meta-analysis of 42 randomized blood pressure-lowering clinical trials, consisting of more than 140,000 participants, provides the risk reduction predictions for cardiovascular events based on achieving and maintaining different blood pressure treatment targets.

The majority of cardiovascular disease events prevented came from those with current blood pressure levels above 140/90mmHg. Models assumed that patients achieved and maintained blood pressure goals over the course of the simulation.

Previous studies suggest the initial upfront investment for treating more adults for hypertension leads to health gains and cost savings over the lifetime of treatment. But change does not always come easily.

"A change in longstanding clinical guidelines is disruptive to patients and providers who are accustomed to clinical practice patterns that integrate the earlier guidelines," said Andrew Moran, associate professor of Medicine at the Columbia University Irving Medical Center and senior author on the paper. "It is important to project and quantify the range of potential benefits and risks expected if we make these fundamental changes to the way health care providers practice."

Treating more patients to achieve lower blood pressure goals does have risks. Bress notes that medications often come with side effects, which need to be monitored and managed.

"The number of medication-related adverse events was roughly equivalent to the number of cardiovascular disease events prevented," Moran said. "But the adverse events tend to be minor and transient, while the avoided cardiovascular events can lead to serious life time health problems and are sometimes even fatal."

The results are based on a database that is not representative of the diversity in the country, including information for only white and black patients that are at least 45 years old. It also does not directly account for future changes in blood pressure or changes in antihypertensive medications through time.

"A conversation and shared decision making between provider and patient about benefits and risks of increasing the dose of a medication or adding a new medication to achieve a lower target are important," Bress said. "Benefits to reduce the risk of heart attacks, stroke and heart failure are clear and may often outweigh risk of minor, transient side-effects."



# New Era of TIME Pharmaceuticals

Ashesh Bhandary
Pharmacist
Factory Operation Director
TIME Pharmaceuticals

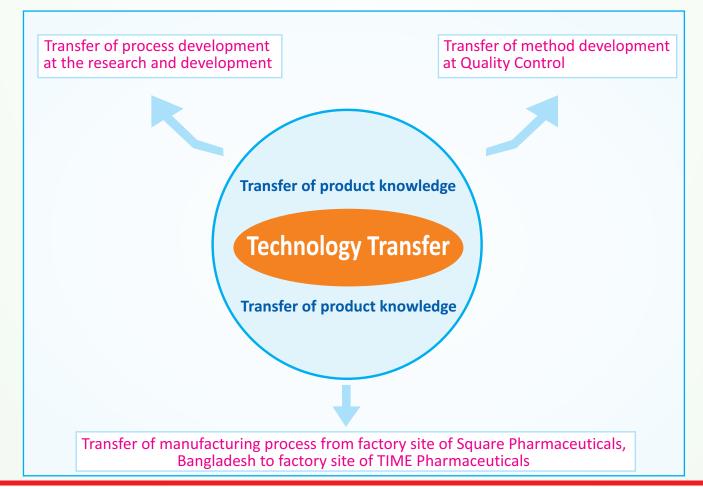


Technology is a new variable in the equation of economic relations. Traditional theories of international business assumes that all nations have equal access to technology and therefore that there is no need to transfer technology from one country to another. Recent research findings have invalidated this assumption. Rather they point to technological differences as primary cause of international inequalities in economic achievements. Inorder to reduce the inequalities, technological capabilities of the backward nations must be strengthened. The easiest and quickest way to do so is to transfer technology from the developed to developing nations.

Technology transfer, also called transfer of technology (TOT), is the process of transferring (disseminating) technology from the places and in groups of its origination to wider distribution among more people and places. It is the movement of technologies from one area to another, it also can involve appropriate technology, not necessarily high-tech or expensive, that is better disseminated, yielding robustness and independence of systems.



Technology transfer holds great potential to improve the health and livelihoods of people living in poorer countries like Nepal. The creation or absorption of new technology has become a vital component for companies to improve or maintain their competitive position in the market place. Companies operating in pharmaceutical sectors of Nepal where competition takes place on the basis of price or molecule or dosage from, may rely on new technologies to improve their





efficiency in their productive processes or acquiring new machinery and equipment or robust formulation and analytical technologies. They may also use new technology to better commercialize their products or to improve their management structure, control and communication.

TIME Pharmaceuticals has been looking to acquire the transfer of technologies from foreign partner who can aid in creating a new industry standard, can be a tool for the future technology development and ultimately can turn into a potential source of revenue.

**About SQUARE Pharmaceuticals, Bangladesh** 

SQUARE Pharmaceuticals Limited is the largest pharmaceutical company in Bangladesh and it has been continuously in the 1st position among all national and multinational companies in Bangladesh since 1985. It was established in 1958, converted into a public limited company in 1991 and listed with stock exchanges in 1995. The turnover of Square Pharma was US\$ 540 million with about 16.95% market share having a growth rate of about 8.52% (July 2017– June 2018). It pioneered exports of medicines from Bangladesh in 1987 and has been exporting antibiotics and other pharmaceutical products. Present export market covers 42 countries. This extension in business and services has manifested the credibility of Square Pharmaceuticals Limited.

Agreement between TIME Pharmaceuticals and SQUARE Pharmaceuticals Bangladesh



A MOU has been signed between TIME Pharmaceuticals (P) Ltd., Gaindakot-10, Nepal and SQUARE Pharmaceuticals Bangladesh for manufacturing of mutually selected SQUARE products by means of technology transfer comprising process development

at the research and development, method development at the Quality control, manufacturing processes from Factory site of SQUARE Pharmaceuticals Bangladesh to Factory Site of TIME Pharmaceuticals during the commercial production phase. The goal of technology transfer activities is to transfer product and process knowledge between development and manufacturing, and within or between manufacturing sites to achieve product realization.

As per this agreement, several products of different therapeutic category o f Square Pharmaceuticals are developed Research and development lab of TIME Pharmaceuticals based on the technology developed by Square Pharmaceuticals and are stabilized as per the norms of National GMP. These products will be manufactured and marketed b y TIME Pharmaceuticals after the maket authorization certificate by the end of April 2019.

#### **1st Phase Products:**

Time Pharmaceuticals and Square Pharmaceuticals have mutually agreed to manufacture the following products under the technical transfer agreement in the premises of TIME Pharmaceuticals in the first phase:

- Tolterodine Tartrate 2 mg Tablets
- 2. Adapalene 0.1% w/w Cream
- 3. Calcium Carbonate 500mg +Vitamin D3 200 IU Tablets
- 4. Trimetazidine 35 mg Modified Release Tablets
- 5. Duloxetine 30 mg Delayed Release Capsules
- 6. Duloxetine 60 mg Delayed Release Capsules
- 7. Tiemonium Methylsulphate 50mg Tablets.
- 8. Risedronate Sodium 35mg Tablets
- 9. Roflumilast 0.5mg Tablets

## Couching Lives, Delivering Promises



# **URODINE**

Tolterodine 2mg Tablets

# OROSIS-D

Calcium Carbonate 500mg + Vit D3 200 IU Tablets

# DAPLIN

Adapalene 0.1% w/w Cream

Dr. Ganesh Kumar Shrestha MBBS, MD General Practice and Emergency Medicine



रगतमा चिनीको (glucose) मात्रा चाहिने भन्दा बढी हुने रोगलाई मधुमेह भनिन्छ । ईन्सुलिन, शरीरको प्यान्क्रियाजले बनाउने हर्मीन हो, जसको उत्पादन नहुँदा वा राम्रो संग काम नगरेमा मधुमेह (Diabetes) हुन्छ ।

International Diabetes Federation अनुसार विश्वमा ४२ करोड ५० लाख मानिसमा मधुमेह भएको छ । दक्षिण पूर्वी एशियामा ८ करोड २० लाख मानिसमा मधुमेहको प्रकोप छ र यो संख्या सन् २०४५ सम्ममा १५ करोड नाघ्ने अनुमान छ । सन् २०१७ सम्ममा नेपालमा मधुमेह रोगिको संख्या ६,५७,२०० रहेको छ । यो संख्या दिनानूदिन बढ़दो छ ।

#### Nepal (2017)

Total adult Population: 1,65,42,000 Prevalence of Diabetes in Adults: 4.0% Total cases of Diabetes in Adults: 6,57,200

#### मधुमेहको प्रकार :

- 9) Type-I Diabetes Mellitus : यो शरीरमा ईन्सुलिनको उत्पादन नै नभएर हुने मधुमेह हो । यो बच्चा अवस्था देखि सुरू हुन्छ ।
- २) Type-II Diabetes Mellitus : यो शरीरमा ईन्सुलिन उत्पादन हुने तर राम्रो संग काम नगर्ने (Insulin Resistence) मधुमेह हो । यो ३५ वर्ष नाघेका व्यक्तिहरूमा देखिन्छ ।
- 3) Gestational Diabetes : यो गर्भावस्थामा देखा पर्ने मधुमेह हो ।
- 4) Others type

#### मधुमेहका प्रमुख कारणहरु :

- वंशाणुगत : आमा बुबालाई मधुमेह भएको छोरा छोरीलाई मधुमेह लाग्ने सम्भावना बढी हुन्छ ।
- शारीरिक मोटोपन
- हिड्डुल तथा शारीरिक कसरतको कमी
- अस्वस्थ आहार
- उच्च रक्तचाप, उच्च कोलेस्ट्रोल
- गर्भावस्था
- संऋमण
- मदिराको अत्याधिक सेवन

#### मधुमेहका लक्षणहरु :

- बढी भोक लाग्न
- बढी तिर्खा लाग्नु
- बढी पिसाब लाग्नु
- शरीरको तौल घट्नु
- आलस्य वा थकान महशूस हुनु
- मुख सुख्खा हुनु
- आँखाको दृष्टि धमिलो हुनु
- घाउ निको हुन लामो समय लाग्नु

#### मध्मेह रगतको जाँच :

9) खाली पेटमा सुगर (Fasting at least 8 hrs) :126 mg/dl वा बढी

- २) खाना खाएको २ घण्टा पछिको सुगर (Post Prandial) : 200 mg/dl वा बढी
- 3) HbA1c: 6.5 % वा बढी
- ४) जुनसुकै बेलाको सुगर (Random Blood Suger) : 200 mg/dl वा बढी र लक्षणहरू

#### मधमेहको प्रकोप :

समयमा उपचार नगराएमा वा सुगर र रक्तचापको राम्रो नियन्त्रण नभएमा निम्तिने रोगहरू :

- १) आँखा : मोतिबिन्दु, दृष्टि धमिलो तथा अन्धोपन
- मुदु : हृदयघात (heart attack) २)
- 3) मृगौलाको काममा कमी (renal failure)
- ४) मस्तिष्कघात (stroke)
- नशा सम्बन्धी समस्या (peripheral neuropathy)
- खुट्टामा घाउ (Diabetic foot)
- ७) यौन समस्या

#### मधुमेहको नियन्त्रण :

#### खानपानको व्यवस्थापन

- तोकिएको समयमा उचित परिमाणमा खाना खाने ।
- शरीरको तौल ठिक राख्ने ।
- व्रत बरने, छाक छोड्ने, खाली पेट बरने बानी हटाउने ।
- हरियो सागसञ्जी, अनाज (दाल, गेडागुडी) फलफूल, शुद्ध र प्रशस्त पानी पिउने।
- चिनी मिसाएको वा गुलियो खानेकुरा, गुलियो फलफूल (आँप, अंगुर, केरा) घिउ वा तेलमा तारेको खानेकुरा, छाला र बोसो भएको मासु नखाने ।
- मधुमेहको बिरामीलाई उच्च रक्तचाप हुने सम्भावना बढी हुन्छ त्यसैले नुनको उपयोग कम गर्ने ।
- सूर्तीजन्य पदार्थ, मदिरा (जाँड, रक्सी), पेय पदार्थ (कोक, फयान्टा, फ्रूटी) नखाने ।

#### नियमित व्यायाम

दैनिक कम्तिमा आधा घण्टा साधारण कसरत, व्यायाम गर्ने, हिड्डुल गर्ने (कम्तिमा १५० मिनेट/हप्ता, सातामा कम्तीमा ३ दिन) यसले मधुमेहको नियन्त्रणको साथै मुदुरोग, उच्च रक्तचाप र शरीरको तौल नियन्त्रणमा लाभदायक

#### औषधी उपचार

- 9) Oral Hypoglycemic Drugs (खाने चक्की): Metformin, Glimepiride
- २) Insulin Therapy (ईन्सुलिन ईन्जेक्सन): यो Type 1 Diabetes Mellitus, खाने औषधी, खानपान र व्यायामले सुगरको नियन्त्रण नभएमा Type 2 Diabetes Mellitus र Gestational Diabetes मा प्रयोग गरिन्छ ।

ईन्सुलिनको सुई खाना खानु भन्दा केही मिनेट अगांडि पेट वा तीघ्राको छालामुनि (Subcutaneous) दिईन्छ ।

#### नियमित स्वास्थ्य जाँच तथा स्याहार

- तनावबाट मृक्त
- उचित आराम गर्ने, राती राम्ररी निदाउने
- चिन्ता र पिर नलिने ।

#### खटटाको स्याहार

- नियमित दैनिक खुटटाको परिक्षण गर्ने, पैताला र औलाको बीच भागमा चोटपटक छ छैन जाँच गर्ने ।
- दैनिक खुट्टा धुने, बढी सुख्खा भएमा Moisturiser, Vaseline लगाउने ।
- नियमित नङ्ग काट्ने ।
- खाली खुट्टा नहिड्ने ।
- दैनिक सफा मोजा र उचित साईजको जत्ता लगाउने ।
- सामान्य चोटपटक वा घाउ भए समयमै Sterile Dressing र औषधी उपचार गर्ने । अन्यथा यसले खतरनाक रूप लिने र खुट्टा वा औला काट्नु पर्ने पनि हुनसक्छ ।
- मधुमेहको बिरामीलाई संक्रमण हुने सम्भावना धेरै हुन्छ ।

#### मधुमेहमा गर्नुपर्ने नियमित जांचहरु :

- रगतमा चिनीको मात्रा र रक्तचाप नियमित
- HbA1c हरेक ३ देखि ६ महिनामा
- कोलेस्ट्रोल, मृगौला परीक्षण (Creatinine) र आँखाको जाँच हरेक ६ महिनामा
- खुट्टाको परिक्षण नियमित
- मृट्को परिक्षण (ECG) : बार्षिक

#### Hypoglycemia:

रगतमा सुगरको मात्रा निकै कम भयो भने विभिन्न लक्षणहरू देखापर्न सक्छ, जस्तै : चिट चिट पसिना आउने, भोक लाग्ने, तिर्खा लाग्ने, मुख सुक्ने, मुटुको धड्कन बढ्ने, हात काँप्ने, टाउको दुख्ने, रिगाटा लाग्ने, बेहोस हुने ।

यो ईमरजेन्सी अवस्था हो ।

यस्तो अवस्थामा तुरून्तै गुलियो खानेकुरा (चिनी, ग्लुकोज, चकलेट) खानुपर्छ ।

बेहोस भएको बिरामीलाई मुखबाट खानेकुरा दिनुहुदैन, उसलाई तुरून्त नजिकको अस्पताल लगि सुईको माध्यमबाट ग्लुकोज सिधा रगतमा दिनुपर्छ ।

Hypoglycemia भएको बिरामीलाई सुगर दिने बित्तीकै होसमा आउँछ ।



# Laboratory Diagnosis for Identification and Assesment of Complications of Diabetes Mellitus

Dr. Saguna Laxmi Tandukar Shrestha Consultant Endocrinologist Gosaikunda Diabetes Thyroid & Kidney Home Pvt. Ltd. Khichapokhari



#### Who should be monitored & tested for DM?

#### A. Symptomatic patients with

- i) Excessive thirst
- ii) Weight loss
- iii) Excessive eating or desire for eating
- iv) Excessive urination

#### B. Asymptomatic patients with

- i) Family history of diabetes
- ii) Obesity (BMI > 27 in men &> 25 in women)
- iii) Central obesity (waist hip ratio> 0.9 for men, > 0.8 for women)
- iv) Hyperlipidemia
- v) Pulmonary tuberculosis (PTB) or atypical sites
- vi) Non healing wounds &ulcers
- vii) Recurrent infections
- viii) Women with bad obstetrical history
- ix) Persons taking diabetogenic drugs
- x) Persons over the age of 40 years.

#### **Lab Diagnosis**

#### A. Role of sugar in urine

- Urinary sugar shouldn't be used as confirmatory test to diagnose DM.
- ii) Rural communities (community Hospitals) still using strips as per it is specific and convenient but it has disadvantage in the form of colour change being difficult to distinguish & inhibition of colours by ketones.

Apart from these, hyperglycaemia can occur without glucose in urine. However negative test doesn't distingush hypoglycemia, euglycaemia or hyperglycaemia. Therefore, urine glucose monitoring and periodic blood glucose monitoring should go side by side for proper assessement.

#### **B.** Blood glucose estimation

For blood glucose, normally carried out tests are fasting blood glucose (FBG) Post prandial blood glucose (PPG) and random blood glucose (RBG). These tests only indicate the level of control of blood glucose at times of measurement but these are not accurate tests for assessment of diabetic state.

Factors influencing glucose level in blood include age, sex, physical activity, fracture, stress, pregnancy and drugs. Beside these, techincal factors responsible for alteration include time of the day, sampling site, type of blood samples, preservation of samples and methods of analysis.

#### C. Glucose measurement by strips (dextrostix, glucostix)

These strips use principles of glucose oxidase method. Results are 10-20% higher than venous blood glucose. Timing, good compliance are essential for these to avoid errors.

#### D. Glucose tolerance test (G.T.T.)

Patients with impaired G.T.T. develop DM and other complications such as hypertension (HTN), hyperlipidemias and obesity.

#### Normal glycaemic levels as per

|                            | <ul><li>Diabetes</li></ul> | _ | Diabetes    |  |
|----------------------------|----------------------------|---|-------------|--|
| Normal fasting             | ≥ <b>126</b> mg/dl         |   | ≥ 6.5%      |  |
| Impaired fasting           | < 126 mg/dl                |   | < 6.5%      |  |
|                            | PREDIABETES                |   | PREDIABETES |  |
| Impaired glucose tolerance | ≥ 100 mg/dl                |   | ≥ 5.7%      |  |
| Diabetes                   | < 100 mg/dl                |   | < 5.7%      |  |
|                            | NORMAL                     |   | NORMAL      |  |
|                            | FPG                        |   | A1C         |  |

#### E. Self monitoring of blood gluose (SMBG)

Though SMBG is indicated in widely fluctuating DM and though it is convenient and rapid yet this process is handicapped by its cost and erroneous results.

#### Parameters used to judge long term control of DM

#### 1. Glycated haemoglobin (HbA1c)

Glycated haemoglobin gives idea about glucose control over period of 8-12 weeks.

#### 2. Serum Fructosamine

It gives idea of blood glucose control over period of 2 weeks

However, both gives false positive results in fructose rich diet, hyperlipidemia, uremia, raised temperature and raised pH.

#### **Assessement of Control & Complications of DM**

#### For type II DM

Fasting blood sugar and post prandial level assessment should be done at regular intervals with proper monitoring of BMI and glycated haemoglobin at least twice a year with periodic testing of blood urea and creatinine.

#### For type I

Fasting, PP, HbA1c at least thrice a year with monitoring of blood glucose at home. Regular eye check up including renal assessment is mandatory.

Rough maintenance of blood glucose

| FBS   | PP    | Results |
|-------|-------|---------|
| < 100 | < 140 | Good    |
| 110   | 160   | Fair    |
| >110  | > 160 | Poor    |

#### Clinical assessment of complications include

- 1. Metabolic
- 2. Renal
- 3. Cardiac
- 4. Autonomic
- 5. Visual

These five complications need to be assessed to give global care to patient. Treatment of diabetes is not only controlling blood sugar but it should go beyond hyperglycaemia.





# हर्गोनल कन्ट्रासेप्टिभ्स र सामाजिक फोविया

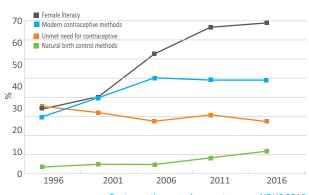
डा. मानबहादुर के सी स्त्री रोग विशेषज्ञ कान्तिपुर हस्पीतल, सल्यान



आमजनसमुदयमा विशेष गरेर ग्रामिण ईलाकामा कुनै शारीरीक समस्या भएमा कतै त्यसबाट क्यान्सर हुन्छ की भन्ने डर हुन्छ । घाउ खटिरा, चोटपटक, हड्डीभाचिएको, कुनै दाद, खतआदी जेसुकै को उपचार गर्न आउने बिरामीको प्रमुख जिझ्यासा भनेको यसबाट क्यान्सर हुन्छ की हुन्न भन्ने हुन्छ । प्रायःजसो बिरामी अस्पतालमा आउनुको कारण भनेको अहिलेको समस्याले कतै क्यान्सर त हुदैन भन्ने हुन्छ ।

गर्भिनिरोधक साधनहरू डिपो, इम्प्लान्ट वा ओ.सी.पी प्रयोग गर्दा महिनावारीमा गडबडी वा महिनावारी ढिला वा केहि समयको लागि महिनावारी रोकिन सक्छ । विशेष गरी डिपो र पाखुरामा राख्ने इम्प्लान्ट प्रयोग गर्दा यो समस्या बढि हुन सक्छ । यसरी महिनावारी रोकिदा अधिकाश ग्रामिण भेगका महिला दिदीबहिनीहरूको मनमा मेरो पाठेघरमा रगत जम्यो, यसले गर्दा पिछ गएर क्यान्सर हुन्छ भन्ने डर पलाएको हुन्छ । यो समस्याले कतै क्यान्सर त हुदैन भनेर चेक जाँच गराउनेको संख्या अधिक हुन्छ । यसरी हेर्दा समाजमा क्यान्सर फोविया ब्यापक भएको देखिन्छ । जुन दुरदराज र ग्रामिण ईलाकामा प्राक्टिस गर्ने चिक्तिसकले अनुभव गरेको समस्या हो ।





Contraceptive prevalence rate as per NDHS 2016

#### गील्य

पील्स अर्थात ओरल (Combined Pills) कम्बाइन्ड पील्सलाई गर्भ निरोधक खाने चक्की भनेर चिनिन्छ । पील्स सरकारी स्वास्थ्य संस्थाहरूबाट निःशुल्क पाइन्छ । यो गर्भनिरोधक साधनहरू मध्य सबै भन्दा बढी प्रभावकारी साधन हो जुन ९९.९% प्रभाबकारी छ ।

पील्स प्याकेटमा २८ ट्याबलेट हुन्छन । जसमा २१ वटा पील्स र अन्तिम सात वटा अइरन ट्याबलेट हुन्छन् । पील्स र Iron ट्याबलेटका रंग फरक हुन्छन् । Iron ट्याबलेट खैरो रंगको हुन्छ । यसलाई महिनावारीको पहिलो दिन देखि सुरू गर्नु पर्छ र २१ दिनसम्म पील्स ट्याबलेट खानुपर्छ र ७ दिन आइरन ट्याबलेट खानुपर्छ । यसरी १ प्याकेट २८ दिनसम्म खान मिल्छ । पिल्स खाने समय सधै एउटै हुनुपर्छ र साँभ सुल्नु भन्दा अगाडी प्रयोग गर्नुपर्छ ।

#### पील्सका फाईदाहरू

१. धेरै प्रभाबकारी

२. प्रयोगमा सहज

#### गर्भनिरोध बाहेक अन्य फाईदाहरू

- १. महिनावारीमा नियमितता
- २. महिनावारीको दुखाईमा कमी
- ३. रक्तअल्पतामा कमी
- ४. पेल्भीक डिजिजमा कमी
- ५. ईक्टोपीक प्रेग्नेन्सीमा कमी

- ६. आरथ्राइटीस र अन्य रोग बाट बचाउँछ
- ७. पाठेघर, डिम्बासए र आन्द्राको क्यान्सर हुने संम्भावना घट्छ ।

#### नकारात्मक असरहरू

- १. वाकवाकी लाग्नु
- ३. तौल बढन
- ५. उच्च रक्तचाप हुनु
- २. स्तनमा दुखाई
- ४. अनुहारमा कालो धब्बा हुनु
- ६. रगत बाक्लो बन्नु

#### प्रयोग गर्न नमिल्ने अवस्था

- रगत नलिका रोगी
- ३. मुटुका भल्भका बिरामी
- ५. माइग्रेन
- ७. गर्भवती
- ९. शल्यक्रीयाका बिरामी
- ९१. योनीबाट रगतबग्दा
- २. उच्च रक्तचापका बिरामी
- ४. मधुमेह
- ६. कलेजोका बिरामी
- ८. दूध चुसाउने आमा
- १०. स्तन क्यान्सर
- १२. ह्दयघात र पक्षघात भएका व्यक्तिले

#### डिपो

3 महिने संगीनी सुई एउटा धेरैले रूचाइएको र धेरै प्रभावकारी गर्भनिरोधक साधनमध्यको एक हो । यो प्रत्यक तीन महिनामा पाखुरामा लगाइन्छ । पहिलो सुई महिनावारी भएको ५ दिनभित्रमा लगाउनु पर्छ र त्यस पिछ प्रत्यक तीन महिना लगाउनु पर्छ । महिनावारीमा गडबडी, महिनावारी रोकिनु, धेरै रगत बग्नु र तौल बढ्नु डिपो सुईका धेरै जसो देखिने असर हुन् । अध्यन अनुसार डिपो सुईका कारणले मुटु वा रक्तनशाको रोग र कुनै किसिमको क्यान्सरको जोखिम नभएको पाईन्छ ।

#### इम्प्लान्ट

इम्प्लान्ट पाखुरामा राख्ने अस्थाई गर्भनिरोधक साधन हो । यो एक पटक पाखुरामा राखिसके पिछ ५ बर्षसम्म काम गर्छ र त्यस पिछ निकाल्नु पर्छ । डिपोमा जस्तै यसमा पिन महिनावारी केहि समयका लागि रोकिने वा तौल बढने हुन सक्छ । यसका कारण कुनै क्यान्सरको जोखिम नबढ्ने अध्ययनहरूले पुष्टी गरिसकेका छन् ।

यसरी प्रयोग भईरहेका हर्मोनल गर्भनिरोधक साधनहरूले क्यान्सरको जोखिमलाई बढाउदैनन् । गर्भनिरोधकको अलाबा महिलाका अन्य स्वास्थ्य समस्याहरूलाई कम गरेर स्वस्थ जीवन यापनमा सहयोग गरेका छन ।

जनमानसले सोचि रहेका क्यान्सरका कारणहरू जस्तै घाऊ, चोट पटक, हड्डी भाँचिएको, निलडाम वा परिवार नियोजनका साधनहरू वास्तविक क्यान्सरका कारणहरू होइनन् । निम्नकुराहरू क्यान्सरका प्रमुख कारकतत्व भएको पाइएको छ जसको रोकथाम सम्भब छ ।

- ♦ मोटोपन
- ◆ खानपान बजारिया खानेकुरा, रेसा रहित खानेकुरा,
- धूम्रपान, मध्यपान
- वातावरिय पोलुसन
- ♦ इन्फेक्सन
- ♦ कसरत रहित जीवन यापन

# Enrich Life with Iron Supplement

Polymax

Iron Hydroxide Polymaltose Complex 100mg and Folic acid 1mg Tablets





# **MOXICARE**

Brand Name: MOXICARE Generic Name: Moxifloxacin Strength: 0.5% Eye Drops

Therapeutic Category: Quinolones (4th

Generation)

#### Pharmacology

#### **Mechanism of Action**

Moxifloxacin inhibits DNA gyrase (topoisomerase II) and topoisomerase IV, essential enzymes that are involved in bacterial DNA replication, transcription, repair and recombination.

#### **Pharmacokinetics**

Moxifloxacin was absorbed into the systemic circulation following bilateral topical ocular administration of moxifloxacin 0.5% ophthalmic solution three times daily for 4 days in 21 subjects. Moxifloxacin has an estimated plasma half-life of 13 hrs.

The pyrrolo-pyridine base of moxifloxacin makes it more lipophilic than other fluoroquinolones, potentially explaining its good penetration into ocular tissues. Indeed, topical ocular administration of moxifloxacin 0.5% ophthalmic solution achieved good conjunctival penetration in healthy volunteers.

Moxifloxacin had a mean residence time in conjunctival tissue of 3.0 hours following administration of a single dose of moxifloxacin 0.5%

#### **Indication**

- Conjunctivitis
- Keratitis
- Prophylaxis in Ocular Surgery

#### Dosage

One drop instilled in the affected eye(s) three times daily for 7 days

Missed Dose: If a dose is missed, the missed dose should be administered as soon as possible. Treatment should then be continued with the next dose as planned

Overdose: No information is available on overdose of moxifloxacin ophthalmic solution in humans. A topical overdose of may be flushed from the eye(s) with warm tap water.

#### Side effect

The most frequently reported treatment-related adverse drug reactions were transient eye irritation

(burning and/or stinging) and eye pruritus, tearing occurring in approximately 1-6% of patients

#### Contraindication

Hypersensitivity to moxifloxacin or to any ingredient in the formulation or component of the container and Hypersensitivity to other quinolones.

#### Drug Interaction

Specific drug-drug pharmacokinetic interaction studies were not conducted with moxifloxacin ophthalmic solution. Given the low systemic exposure observed for moxifloxacin after topical ocular administration of moxifloxacin ophthalmic solution, clinically relevant drug-drug interactions through protein binding, renal elimination or hepatic metabolism are unlikely.





#### Congratulations! Dr. Jeevan Khanal DM Cardiology, LMC, Tansen **Dr. Nirmal Lamichhane** Psychiatric, GMC, PKR hnner of MEDITIME 28<sup>th</sup> Issue Cross Word Dr. Milan Khadka IM, Sumeru Hospital, KTM Dr. Dev Raj Neupane Dental Surgeon, BZH, NPJ Dr. Sudarshan Subedi IM, PKR Dr. Dinesh Bhandari Orthopedist, KTM Dr. Deepa Yadav MD Gynae, Rajbiraj Dr. Utsav Sharma Dermatologist, KTM



# फोक्सोको क्यान्सर एक जानकारी

नरहरी पनेरू नरहरी पोलिक्लिनिक एण्ड डाईग्नोष्टिक सेन्टर प्रा.लि. पोखरा-१०, रामबजार



#### परिचय

फोक्सो सजिव प्राणीको श्वासप्रस्वास प्रणालीको प्रमुख आन्तरिक अङ्ग हो । मानवको शरीरमा दुईवटा फोक्सो हुन्छ, एउटा मुटुकोदाँया तर्फ हुन्छ भने अर्को बायाँतर्फ हुन्छ । हाम्रो मुटु हल्का बायाँतर्फ हुने हुनाले बायाँतर्फको फोक्सो दायाँ तर्फको फोक्सो भन्दा सानो हुन्छ । फोक्सोको तौल दुवै मिलाएर लगभग १.३ के.जी हुन्छ । श्वासप्रश्वास प्रणालीको तल्लो भागको साथै श्वास नली र यसको भित्तामा विकसित हुने धातक ट्यूमरलाई फोक्सोको क्यान्सर भनिन्छ ।

मानवमा ९०% क्यान्सरका समस्याहरू धुम्रमान, मद्यपान सेवनको कारणले हने गर्दछन । यो बाहेक ५० वर्ष वा सो भन्दा बढी उमेर भएको, सानै उमेरबाट धुम्रपान शुरू गरेको इतिहास भएका र धुम्रपानकर्ताको सम्पर्कमा दिर्घकालिन रूपमा संगै रहने गरेको व्यक्तिहरूलाई पनि फोक्सोको कयान्सर हुने जोखिम बढि हुन्छ ।

- लगातार खोकी लागिरहने.
- \*\* सास फेर्दा घरघरावट हुने,
- \* थुक तथा खकारमा रगत देखा पर्ने,
- \* खोक्दा वा गहिरो श्वास फेर्दा दुखाई वा पिडादायक महशुस हुने,
- घाँटी, अनुहार र हातगोडा सुनिने,
- पेट दुख्ने, टाउको दुख्ने,
- आंशिक पक्षघात हुने ।

फोक्सोको क्यान्सरको निदानात्मक परीक्षणहरूमा छातीको एक्सरे, थुकका कोषहरूको परिक्षण, ब्रोङ्कोस्कोपी र सिटीस्क्यान पर्दछन् ।

फोक्सोको कयान्सरको उपचारमा शल्यऋिया, रेडियोथेरापी, केमोथेरापी र यसका कारणको गम्भिरतालाई कम गर्ने अन्य सहायक मापनहरू

# **Lung Cancer Symptoms**





Persistent Cough



Coughing up Blood



Persistent Breathlessness



Unexplained **Tiredness** 



Ache or Pain Chest



Weight Loss

फोक्सोको क्यान्सर लागेर मृत्यु जति सजिलो हुन्छ, त्यसको समयमानै रोकथाम गर्न त्यतिनै सजिलो छ । यदि तपाई धुम्रपान गर्नुहुन्छ भने अहिलेनै सेवन छाड्नुहोस् । अत्याधिक खाना पकाउने तेलको ग्याँसहरूबाट टाढा रहन वाष्पीकरण, उमाल्ने र कम आगोमा पकाउने जस्ता विधिको छनोट गरी खाना पकाउनुहोस्, प्लाष्टिक र प्लाष्टिकजन्य भाडाँमा राखिएका र बारबिक्यु (पोलेर) गरिएका खानेकुरा नखानुहोस्, जीवनयापनका क्रममा सुगन्धहरूको प्रयोग र प्लाष्टिक जलाउने कार्य नगर्नुहोस् जसबाट तपाई आफ़नो फोक्सोको क्यान्सर हनबाट बच्न सक्नुह्नेछ ।

#### लक्ष्यणहरू :

फोक्सोको क्यान्सर लागेमा निम्न लक्ष्यणहरू देखा पर्दछन् ।

- लामोसमयसम्म थकाई लाग्ने,
- भोजन इच्छामा कमी आउने,
- तौल घटने,





जस्तै : लेजर आन्तरिक रेडिएसन थेरापी र औषधीसेवन हुन् । विरामीको सामान्य स्वास्थ्य स्थितिको आधारमा एकल वा मिश्रित उपचार मोडलहरूको प्रयोग गर्ने सिकन्छ ।

फोक्सोको क्यान्सरका शंकास्पद विरामीहरूको नियमित जाँचहरू गर्नुपर्दछ । दैनिक जीवनशैली र खानपानमा ध्यान दिनुपर्दछ । जस्तै धुम्रपान बन्द गर्ने, धरमा भेन्टिलेसन राख्ने, फोक्सोको कार्यलाई सुधार गर्ने, नियमित व्यायाम गर्ने, श्वासप्रश्वास सम्बन्धी संक्रमणबाट बच्न भीड र दुर्गन्धित हावा भएका स्थानहरूबाट टाढा रहने र भिटामिन 'ए' र 'बि' भएका खानेकुरा जस्तै : गाँजर, अंगुर र नाशपाती आदि धेरै खाने र आराम गर्ने जस्ता कुरालाई ध्यान दिनुपर्दछ ।

#### **RISK FACTORS**



**SMOKING CIGARETTES** 



**ENVIRONMENTAL TOBACCO EXPOSURE** 



**PRIOR RADIATION** in the chest area



**ASBESTOS** a toxic chemical



**OTHER LUNG DISEASES** 



**RADON** a radinactive gas found in soil



**GENETICS** 

in a first-degree relative

# NEPAL PHARMA & HEALTH EXPO 2019



Participation in rally



Participation in rally



With Health Minister



With Industry & commerce minister & Mayor of Bharatpur Metropoliton City



**EXPO Moments** 



**EXPO Moments** 



**EXPO Moments** 



**EXPO Moments** 

## Varicose Veins & Ways to Avoid It

Dr. Sandeep Raj Pandey MBBS, MS, FVES, EVES, FACE Endovascular Specialist Annapurna/Norvic Hospital



Do you have unsightly veins that make you feel embarrassed Newer Options: to wear shorts? It might be Varicose veins which should not be ignored. They usually occurs because one or more of the valves inside the vein, whose job is to direct blood toward the heart, have failed. As a result, the veins swell & become uncomfortable. Varicose veins can cause swelling, aching, burning, itching, throbbing & restless legs. It can also leads to ulceration. It also predispose to phlebitis (where superficial veins become inflamed, red & painful) &, in some cases, even blood clots. Potential causes are pregnancy, menopause, age over 50, standing for long periods of time, obesity, family history of varicose veins, etc. Gold standard diagnosis is done by duplex ultrasound.









#### Treatment

- Lifestyle changes: Avoid standing for extended periods of time, or maintain a healthy weight. Exercise to improve your circulation, Use compression socks or stockings
- **Surgery:** Vein ligation and stripping is a surgical treatment. They are less commonly performed because newer, less invasive options are available.

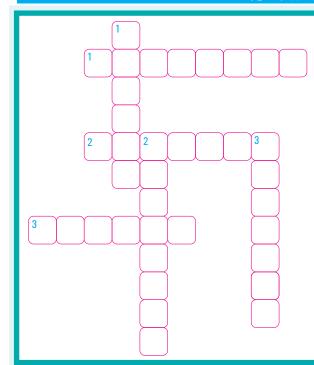
- Sclerotherapy, using a liquid or foam chemical injection to block off a larger vein.
- Microsclero therapy, using a liquid chemical injection to block off smaller veins.
- Laser surgery, using light energy to block off a vein.
- Endovenous ablation therapy, using heat and radiofrequency waves to block off a vein.
- ❖ MOCA: Mechanic-o-chemical ablation.











#### MEDITIME CROSS-WORD

#### **Across**

- 1. A disorder where the body does not produce insulin or does not use it efficiently
- 2. Highly potent Antiemetic
- 3. Folic acid Tablet

#### Down

- 1. Cadiofriendly statin
- Newly launched quinolone eye drop
- 3. One of the leading cause of lung cancer



Lucky winner will Get Surprise Gift From **TIME Pharmaceuticals** 

# Winner Pictures



Dr. A.D. Bhatta



Dr. Manoj Krishna Shrestha



Dr. Mo. Annudhin Baghbhan



Dr. Chabila Thapa



Dr. Prashant Bhatta



Dr. Sandeep Shrestha



Dr. Umesh Thapa



Dr. Yogesh Bhatta



Dr. Shree Krishna Shrestha



Dr. R.P. Mandal



Dr. Pramod Jha

TIME Pharmaceuticals (P.) Ltd. welcomes your comments/suggestions/inputs for coming issue of this bulletin.

Last date of "Cross Word" answers Submission : 15<sup>th</sup> Ashad 2076 (1<sup>st</sup> July 2019)

# ESPONSE

| Name :      |  |
|-------------|--|
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| openium, v  |  |

Contact No.:

Birthday: \_\_\_\_\_ Anniversary Day: \_\_\_\_\_

Clinical Address : \_\_\_\_

Email Address :

Please send this form to:

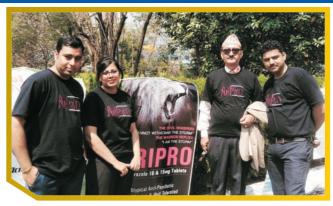
### **TIME PHARMACEUTICALS**

Office: Bakhundole 03, Lalitpur, Nepal | Phone: 01-5526905 E-mail: marketing@timepharma.com, Website: www.timepharma.com

## MOMENTS IN TIME



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Corporate Office: Gaindakot-04, Nawalpur, Ph.: +977-78-502004, Fax.: +977-78-503131, Email: info@timepharma.com Factory: Gaindakot-10, Nawalpur, Ph.: +977-78-402004, Email: factory@timepharma.com Marketing: Bakhundole-03, Lalitpur, Ph.: +977-1-5526905, Email: marketing@timepharma.com







