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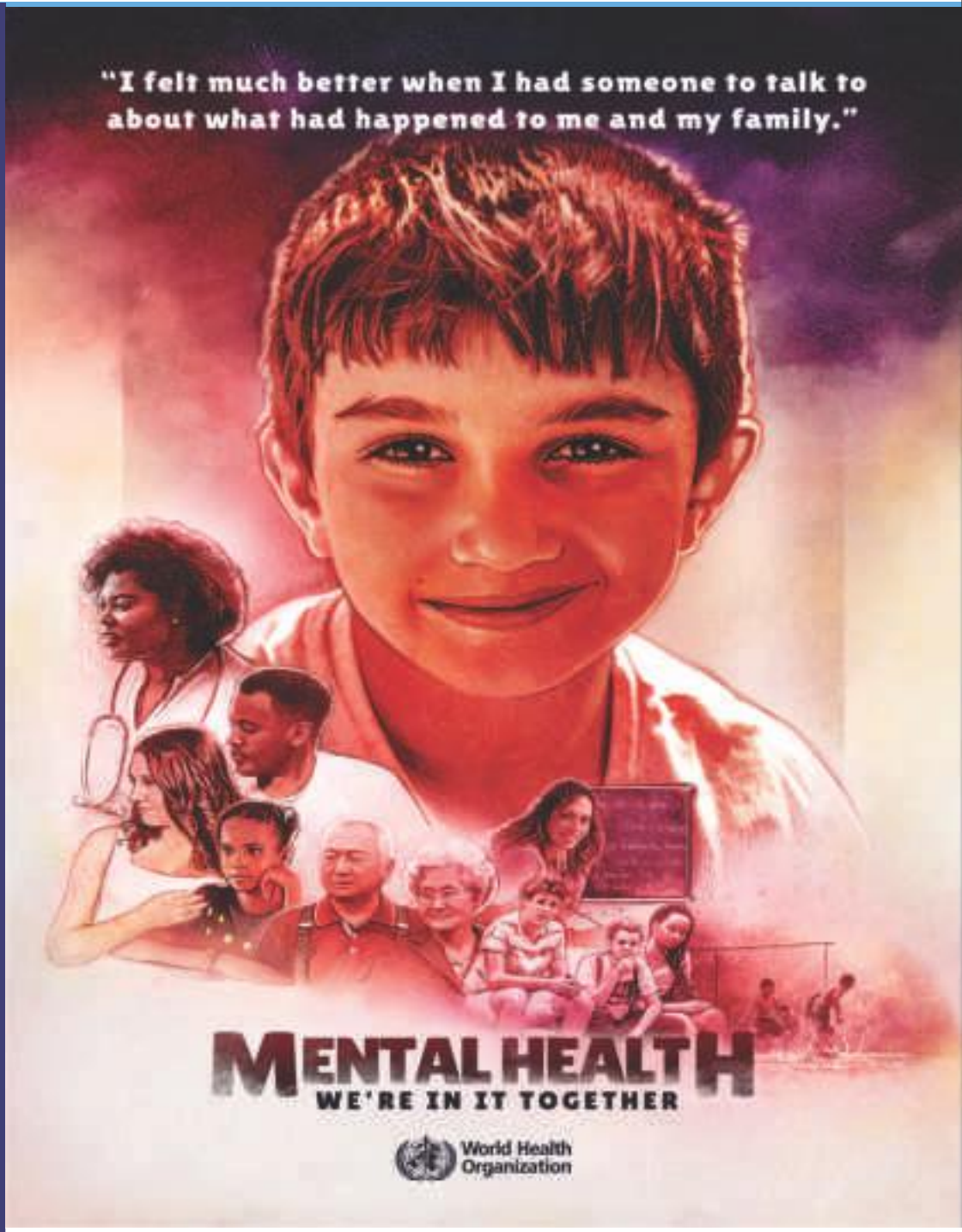
Indian Pharmaceutical Association-Community Pharmacy Division (IPA-CPD)

In this Issue:



World Mental Health Day

http://www.who.int/mental_health/world-mental-health-day/MHD_middle_east_EN_web.jpg?ua=1

CHAIRPERSON'S MESSAGE

To draw the attention of all stakeholders towards role of pharmacists, "Pharmacists for a Healthy India" is the theme of the 57th National Pharmacy Week by IPA and we hope to make the best of this opportunity.

Dear Pharmacists,

At the onset, belated wishes for the World Pharmacist Day. It was celebrated with lots of enthusiasm in India by pharmacists and pharmacy students. At IPA, we had conducted a case study competition for practicing pharmacists on the occasion of WPD. Such type of activity is still a new concept, though the trend has not been firmly set for it. But I am delighted to say that we got good response from hospital/ clinical pharmacists and community pharmacists from all across India. Quality of cases submitted indicated enhanced knowledge and understanding by the pharmacists for patient care. It was wonderful to see that pharmacists who have done Pharm.D. or those who have undergone continuing professional development programmes are utilising their knowledge and are making positive interventions to avoid medication errors, reduce ADRs, avoid drug interactions, improve adherence and are counselling patients for responsible use of medicines. I congratulate all the winners and participants as well for their enthusiastic participation and truly appreciate their good work for the patients. I thank Dr Guruprasad Mohanta and Dr Karthik Rakam for their timely evaluation of the competition entries.

The FIP Congress at Glasgow was an enriching and joyful experience as always. Hearty Congratulations to Dominique Jordan for being elected as FIP President and to Paul Sinclair for being elected as Chairman of Board of Pharmacy Practices (BPP) of FIP. Both have been past presidents of Community Pharmacy section of FIP, great leaders and wonderful human beings and mentors to me since my entry in CPS. It is great to see a Community Pharmacist leading FIP as its President. I congratulate Dr Carmen Pena for her successful term as FIP President. She has been a wonderful leader and a very warm person where one can experience true fellowship and friendship.

By year 2030, 72 % of total global pharmacy workforce will be women says the new FIP report “Pharmacy Workforce Intelligence : Global Trends Report”. It maps the global pharmacy workforce capacity and growth. This interesting report which is the hard work of data collection from 75 countries over a period of 10 years is a landmark publication on the pharmacy workforce. WHO predicts a shortage of 18 million health workers in Low and Middle Income Countries. In India, pharmacists need to be utilised to their highest extent to improve the capacity and capabilities of the health system. A lot needs to be done on various fronts such as policies, law implementation, education and consumer sensitisation to achieve this in India. To draw the attention of all stakeholders towards role of pharmacists, "Pharmacists for a Healthy India" is the theme of the 57th National Pharmacy Week by IPA and we hope to make the best of this opportunity. Recently we also wrote a request letter to Hon'ble Prime Minister Mr. Narendra Modi to talk about pharmacists in his popular dialogue with the nation known as"MannkiBaat".

September has been a restless month for community pharmacists in India with plenty of happenings including confusion over banning of FDCs and a nationwide strike against Online sale of medicines. There have been many intricate commercial issues which have been demotivating the pharmacists. Hoping that things will improve in near future.

That's all for now. Hope you enjoy reading this issue of eTimes.Please do write to us your comments and suggestions.

Mrs Manjiri Gharat

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EDITORIAL

Considering the huge list, and that FDCs containing 2, 3, 4 or even 5 drugs were in the list, it was really frustrating to hunt down the brands.

The last month has been abuzz in the pharma circles in India.First it was when the Ministry of Health, bolstered by the Supreme Court, banned the production and sale of 328 irrational Fixed Dose Combinations (FDCs) with immediate effect vide notification in early September. This brought with it the usual chaos. Drug control departments across the country directed the chemists to stop sale immediately and lift the stocks off their shelves and return the same to the stockists. In India we have around 1.5 Lakh brands, and which of these brands of FDCs were now banned was a grand confusion. The drug dept only gave the list of FDCs (they have no track or clue as to which all brands were covered under this). So the task to find which brands were affected was left to the chemists to hunt and pull out of their shelves. It was a complicated, time consuming and difficult task, hunting through the minimum 2000 brands each chemist normally stocks (and some of them stock may be 10K brands). Considering the huge list, and that FDCs containing 2, 3, 4 or even 5 drugs were in the list, it was really frustrating to hunt down the brands. The media reported that the ban applied to some 6000 brands, but nobody in the country has given even half the list (and a correct one too) till date.

As expected, many of the manufacturers rushed to court to get the stay orders to continue to sell till stocks lasted in the market. Their plea was granted, so they rushed letters to their stockists that they could continue to sell. So even after it took 2 years of courts, a couple of expert committees, to prove once again that what was bad because it was irrational or harmful, was permitted to be sold. On the other hand, some companies dutifully sent letters to stop sale and remove their products coming under the ban, and clarifications that some of their products were not affected by the ban.

Whatsapp helped to widely circulate all the above news across the chemists in the country, and also created mass confusion. Whether to remove immediately from the shelves as per directions of the drug department or trust the letters circulated by the companies was a dilemma. At the same time, different lists started getting circulated. Some of the lists of brands were those of the 344 FDCs which were banned in 2016, (and later the ban was completely revoked). But, by now, the formula of many of the earlier products (which were coming under the ban) were modified by the companies over the last 2 years, and so were now not covered under the current list of FDCs banned. Chaos reigned supreme, mobile inboxes were pinging like anything as everyone forwarded the whatsapp messages to their colleagues, many of them asking which of the various information being bombarded was truly correct and which not. And, the drug control departments issued no further clarifications, nor did they compile and issue a list of brands to be withdrawn. A very pathetic situation indeed.

The second major abuzz was the all-India “bandh” /strike called by the All India Chemists & Druggists Association (AIOCD) on September 28th. In opposition to the move of the Govt. to legalize e-pharmacies, all the 8.5 Lakh retail chemists and medicine wholesalers shut shop in protest that day. The run-up to the bandh kept the whole chemist fraternity abuzz and united, with whatsapp announcements, requests, posters, slogans, videos, newspaper cuttings from across the country, copies of representations and appeals, to send protest mails to authorities as well as file objections with the health authorities against the draconian e-pharmacies draft bill.

It is indeed a tragedy that the Govt. has been turning a blind eye for the past 3 years to the e-pharmacies blatantly advertising and doing business without even the compulsion of being registered with the drug control department, and no rules in place. As per their website, the vision of the nation's drug control dept is “To promote and protect public health in India”, and its mission is “To safeguard and enhance the public health by assuring the safety, efficacy and quality of drugs, cosmetics and medical devices”. The way e-pharmacies are allowed to function today, selling prescription medicines against mere uploading of a prescription by the patient, no inspections, absolutely no controls, no checks over the mechanisms of operation, or on the authenticity or quality of medicines dispatched through courier boys, etc., it is very evident that contrary to their vision and mission, our drug control department has thrown all caution to the wind, and put public health in grave danger.

The silver lining in September was attending the prestigious FIP Congress in Glasgow, and a one-month visit by 4 Pharm.D. students of St. Louis College of Pharmacy, St. Louis, U.S.A., on a student-exchange programme in Goa.

Raj Vaidya
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Heartiest Congratulations Mr Dominique Jordan for being President of FIP

Swiss pharmacist Dominique Jordan was elected as president of the International Pharmaceutical Federation (FIP) in an election on 2nd September 2018 in FIP Council Meeting at FIP Congress in Glasgow,UK. Mr Jordan, a community pharmacy owner and former chief executive officer of the Swiss Association of Pharmacists (pharmaSuisse), has served FIP for over a decade including as chair of the federation's Board of Pharmaceutical Practice since 2014 and as President of Community Pharmacy Section of FIP from 2010-2014. In his election statement, Mr Jordan said: “Around the globe, health systems face changes due to new trends and demographic, political and economic challenges. It is time for FIP to rethink its role and its benefits for members, partners and society.”

As a president of pharmaSuisse for 12 years, Mr Jordan led advances in the pharmacy profession in Switzerland, which included the introduction of a postgraduate title for hospital and community pharmacists that is recognised by the federal government, the introduction of a number of remunerated new pharmacy services and the implementation of an International Organization for Standardization compatible quality management system, allowing the evaluation of pharmacies.

“Taking into account the work of past presidents, I will give new impulses to grow and use the unique potential that our federation has, gathering science, practice and education under one roof. It will be my priority to steer the evolution of FIP regarding its structures, its governance, its procedures and its missions to be in phase with the needs of our members and partners,” he said.

Mr Jordan took charge of office on 7 September. The FIP presidency is a four-year term. Outgoing president Dr Carmen Peña will continue to serve FIP as immediate past president.

DRUG INFORMATION

ETHAMBUTOL

Strengths available: 200mg, 400mg, 600mg, 800mg
Prescription only Medicine

Common Brands: Combutol, etc.

Pharmacological class: Anti-tubercular

Indication: Treatment of tuberculosis

Route	Onset	Peak	Duration
Oral	Unknown	2-4 hr	Unknown

Contraindications:

- Patients with optic neuritis or hypersensitivity to the drug
- Use cautiously in patients with impaired renal function, cataracts, recurrent eye inflammations, gout and diabetic retinopathy.
- Pregnancy: Risk Category Not Recommended.
- Lactation: Excreted in breast milk. Use cautiously in breastfeeding women
- Children: Not recommended for use in children under age 13yr.

Contraindications:

- Ethambutol can be taken with or without food with a glass full of water. Taking Ethambutol with food may decrease stomach upset.
- If you are also taking antacids that contain aluminum, take Ethambutol at least 4 hours before or after the antacid.
- Ethambutol work best when the amount of medicine in your body is kept at a constant level. Therefore, take this medicine at evenly spaced intervals, at the same time.
- Do not miss any dose. If you miss, take the medicine as soon as you remember, but if it is already time for the next dose, skip the missed dose and go back to the original dosing schedule. Do not double the dose.
- Continue to take Ethambutol until the full prescribed amount is finished, even if symptoms disappear after a few days. Stopping the medication too early may allow bacteria to continue to grow, which may result in a return of the infection (development of resistance).
- Alcohol may increase the risk of liver disease. Avoid alcohol.
- Inform the patient about the potential for hypersensitivity and other ADRs and emphasize the need to report these reactions. Urge patients to report any unusual effects, especially blurred vision, red-green color blindness or changes in urine elimination.
- Assure patients that visual alterations will disappear within several weeks or months after drug is discontinued.
- Sexually active female should avoid becoming pregnant while taking Ethambutol; contact your doctor if you become pregnant or if you plan to become pregnant or if you are breastfeeding.
- Diabetics and other patients should inform the doctor if they have any eye problems, cataract, and retinopathy before taking ethambutol.
- Inform your doctor if you are taking any prescriptionor non prescription medicines.
- Ethambutol only works against bacteria; it does not treat viral infections (e.g., the common cold).
- Long-term or repeated use of ethambutol may cause a second infection. Tell your doctor if signs of a second infection occur. Your medicine may need to be changed to treat this.

ADRs :

Headache, malaise, dizziness, mental confusion, possible hallucinations, peripheral neuritis (numbness and tingling of extremities), optic neuritis, fever, anorexia, nausea, vomiting, abdominal pain, GI upset, abnormal liver function tests, elevated uric acid level, joint pain, precipitation of acute gout, bloody sputum, difficulty in breathing, sore throat, easy bleeding/bruising. Rash, itching, fever, swelling of face tongue and throat. anaphylactoid reactions.

DOSE :

Adults and children above 13 yrs:

Initial treatment of patients who haven't received previous anti-tubercular therapy: 15mg/kg daily single dose.

Retreatment: 25mg/kg daily single dose for 60 days with at least one other anti-tubercular drug; later decreased to 15mg/kg daily single dose.

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DRUG WATCH

Drug Watch: Drug-Induced QT Prolongation and Torsades de Pointes

Background

In 1966, Francois Dessertenne described a specific electrocardiographic abnormality, termed “torsades de pointes” (TdP). It is defined as a polymorphic ventricular tachycardia with a twisting QRS complex morphology which occurs due to prolongation of ventricular repolarization. Prolonged TdP can lead to ventricular fibrillation and sudden cardiac death.

Risk factors

Risk factors include, age older than 65 years, bradycardia, congenital long QT syndrome or genetic polymorphisms, electrolyte abnormalities (i.e., hypokalemia, hypomagnesemia, hypocalcaemia), female gender and heart disease (MI, heart failure, valvular heart disease) etc.

Pathogenesis

The proposed cellular mechanism of drug-induced prolonged QT interval involves inhibition of the rapid component of the delayed rectifier potassium current (IKr).Blocking IKr leads to prolongation of the ventricular action potential duration, leading to an excess sodium influx or a decreased potassium efflux. This excess of positively charged ions leads to an extended repolarization phase, resulting in a prolonged QT interval and causing arrhythmias such as TdP.

Clinical presentation

Signs and symptoms include chest pain; dizziness; hypotension, light-headedness; syncope; palpitations; seizure; shortness of breath and tachycardia. A QTc greater than 500 milliseconds (ms) has been associated with a twofold to threefold higher risk for TdP.

Prevention and Management

Any modifiable risk factors should be corrected, the offending agent should be identified and discontinued, and the patient's chart should be assessed for any potential drug interactions and rectified. If these measures fail to prevent TdP, direct current cardioversion (DCCV) should be administered using an external defibrillator.

Role of Pharmacist

Pharmacist should be aware of risk factors and drugs known to cause TdP (Disopyramide, Procainamide, Quinidine, Sotalol, Azithromycin, Clarithromycin, Erythromycin, Ciprofloxacin, Levofloxacin, Moxifloxacin, Fluconazole, Ketoconazole, Pentamidine, Voriconazole, Haloperidol, Thioridazine, Ziprasidone, Citalopram, Escitalopram, Dolasetron, Droperidol, Granisetron, Ondansetron, Methadone, Cilostazol, and Donepezil). Whenever he dispenses any drug from the above list he should excise caution and educate the patient regarding the risk of TdP.

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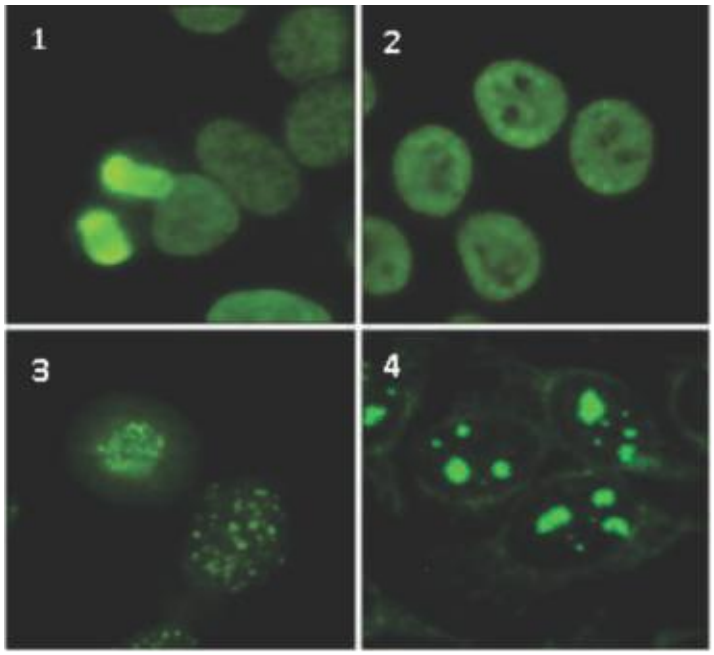
INTERPRETAION OF RESULT:

FANA test results are reported in titers and the patterns that the autoantibodies make, e.g., homogeneous, speckled, centromere, etc.

Normal Findings: Negative at 1:20 dilution

Fig.ANA staining patterns

1. In the homogeneous pattern, the entire nucleus and the chromosomes are diffusely stained.
2. In the speckled pattern, very small, uniform, fluorescent dots are seen throughout the nucleus.
3. The centromere pattern is characterized by the presence of 30 to 60 dots distributed throughout the nucleus in resting cells. The dots localize to chromosomes at the metaphase plate in dividing cells.
4. The nucleolar staining pattern is shown.



NOTE

A positive ANA test does not automatically translate into a diagnosis of lupus or any autoimmune or connective tissue disease.

Some medications cause a positive ANA. The doctor should be informed of all prescription, over-the-counter, and street drugs that the patient is taking.

ANA testing can produce a positive result without any actual disease process. This typically signals the presence of antinuclear antibodies in a healthy individual.

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Laboratory Information

ANTINUCLEAR ANTIBODY TEST

Also Known As: ANA; Fluorescent Antinuclear Antibody: FANA; Antinuclear Antibody Screen;

DESCRIPTION :
This test is a fluorescent procedure that assists in differentiating among various connective tissue diseases. Antinuclear antibodies are produced and act against the body's own DNA and nuclear material that causes tissue damage. The sensitivity and simplicity of an ANA test makes it an extremely popular initial test to evaluate for lupus in particular. About 11 - 13% of persons with a positive ANA test have lupus and up to 15% of completely healthy people have a positive ANA test. A negative ANA test can be helpful in excluding the diagnosis.

Body Systems and Functions involved: Immunological system

Type of Test: Blood

TECHNIQUES TO DETECT ANA:
- **Indirect immunofluorescence test for ANA**
  - ANA staining patterns
  - ANA titer
- **Solid phase assays**

TEST PROCEDURE: (ANA titre)
This test involves viewing fluorescent-labelled antibodies on a glass side under the microscope and determining the pattern and intensity of the fluorescence.

Equipments needed: Red-top tube or serum separator tube; needle and syringe or vacutainer; alcohol swab.

1. Label the specimen tube. Obtain a 2-mL blood sample.
2. Do not agitate the tube. Agitation may cause RBC hemolysis.
3. 1 part blood is mixed with 40 parts saline to create a 1:40 dilution.
4. The dilution then is taken through a series of additional steps, creating tubes of 1:80, 1:160, 1:320, and 1:640 dilutions, respectively.
5. Titer reading is determined by adding saline (salt water) to the liquid portion of a person's blood.

Test Results Time Frame: Within 24 hr

Note: Labs vary in their standards for “positive,” e.g., some labs will report any titer above 1:160 as positive. The physician will interpret the ANA results based on the clinical history.

CLINICAL SIGNIFICANCE AND INDICATIONS:
Elevated levels are found with SLE, hepatitis, myasthenia gravis, pulmonary fibrosis, Raynaud's syndrome, and rheumatoid arthritis.

DRUG-TEST INTERACTIONS:
Medications that alter results are aminosalicylic acid, carbidopa, chlorpromazine, corticosteroids, gold salts, isoniazid, mephenytoin, methyldopa, oral contraceptives, phenytoin, primidone, quinidine gluconate, tetracyclines, and trimethadione.

BRAIN TICKLERS

1) Uric acid is a product of which metabolism?
   A. Catabolism
   B. Purine
   C. Anabolism
   D. Pyrimidine

2) Which of the following is the first choice of drug in the treatment of chronic gout?
   A. Colchicine
   B. Corticosteroids
   C. Allopurinol
   D. NSAIDs

3) Which NSAIDs inhibit the chemotactic migration of leucocytes into the inflamed joint?
A. Indomethacin and Naproxen
B. Naproxen and Etoricoxib
C. Indomethacin and Diclofenac
D. Naproxen and Piroxicam

4) Which of these can be used as a substitute to Allopurinol if it develops side effects?
A. Febuxostat
B. Probenecid
D. All of the above

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ABBREVIATIONS

Abbreviations that cannot be always be disambiguated are particularly dangerous and are a potential source of medical errors. Here are some examples:-

Abbreviations/Acronym	Full form
ABG	Aortic Bifurcation Graft/Aorta Bifemoral Graft
AHA	Acquired Hemolytic Anemia/Autoimmune Hemolytic Anemia
ASCVD	Arteriosclerotic Cardiovascular Disease/Arteriosclerotic cerebrovascular disease
CHD	Congenital heart disease/ congestive heart disease/
	coronary heart disease
HZO	Herpes zoster ophthalmicus/herpes zoster oticus
IBD	Inflammatory bowel disease/Irritable bowel disease
LLL	Left lower lobe/left lower lung
MCGN	Mesangiocapillary glomerulonephritis/minimal change glomerulonephritis
MVR	Mitral valve regurgitation/mitral valve replacement
NKDA	No known drug allergies/nonketotic diabetic acidosis
PE	Pulmonary effusion/pulmonary edema/pulmonary embolism
SK	Seborrheic keratosis/solar keratosis
UVF	Ureterovaginal fistula/urethrovaginal fistula

TRACKING BRAND NAMES-I

What does 'XL' in a brand/trade name of a medicine stand for?

The term 'XL' in the brand name of any pharmaceutical preparation generally indicates that it is an extended release preparation. .

We tracked the brand/trade names of medicines having the term 'XL' in them and observed the following:-

- ABCD XL25 mg- Metoprolol Succinate prolonged release tablets IP.
- EFGH XL50 mg- Metoprolol extended release tablets IP.
- IJKLXL 150 mg- Bupropion Hydrochloride modified release tablets.

However, we noticed that XL may not always exactly be Extended Release:

1. **MNOP-XL 200 suspension -** It is an oral suspension of Azithromycin for paediatric use.

   MNOP-XL 200susp and **MNOP 200**susp have the same strength of active ingredient per 5ml but different packed contents/quantities.

MNOP-XL 200 susp	**MNOP-XL 200 susp**
(30 ml bottle)	(15 ml bottle)
Azithromycin oral suspension IP 200 mg/5 ml	Azithromycin oral suspension IP 200 mg/5 ml

2. **QRST XL 200 Suspension-** It is an oral suspension of Azithromycin. QRST XL 200 Suspension and **QRST 200 Suspension** have same strength of active ingredient but different bottle sizes.

QRSTXL 200 Suspension	**QRST 200 Suspensions**
(30 ml bottle)	(15 ml bottle)
Each 5 ml contains :	Each 5 ml contains:
·Azithromycin IP 200 mg as (Azithromycin dihydrate)	·Azithromycin IP 200 mg as (Azithromycin dihydrate)

3. **UVWX XL Cream-** It is a cream of Luliconazole. **UVWX XL cream** and **UVWXcream** have the same strength of active ingredient but different tube sizes (packed content)..

UVWX XL Cream	**UVWX XL Cream**
(50 g tube)	(30 g tube)
Composition:	Composition:
·Luliconazole 1% w/v	·Luliconazole 1% w/v

Conclusion: We have to be very careful while dispensing brands. The term “XL” may mean different things in different brands. Care has to be taken to avoid dispensing errors.

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Psychiatric Pharmacy - XI

Alcohol use disorder impacts, classifications, and clinical manifestations

Alcohol use affects different spheres of life. The initial signs of alcohol misuse can occur in any of a range of different spheres: mental health, physical health, family life, work or social functioning. However, as the severity of the drinking problem increases, it starts affecting more and more of these spheres, and gradually people start to show problems in all of them. The various ways in which heavy alcohol use can affect one's life are as follows:

- Physical health e.g. liver cirrhosis, gastritis, stomach ulcers etc.
- Mental health e.g. depression, anxiety, suicidality, loss ofmemory etc.
- Social and family life e.g. arguments and fights, debts and other financial problems, neglect of parental responsibilities, legal problems etc.
- Functioning at worke.g. frequent absenteeism, frequent job changes, lack of efficiency, fights and arguments, and accidents and injuries.
- Intoxication symptoms e.g. mood changes, a loss of social inhibitions, slurred speech, loss of balance, aggression, vandalism, fights, domestic violence, drunken driving, and alcohol-related accidents.
- Withdrawal symptoms: When someone with dependent drinking patterns suddenly reduces or stops their drinking they often experience symptoms such as disturbed sleep, excessive sweating, palpitations, raised blood pressure, restlessness, headaches, weakness, tremulousness, vomiting, hallucinations, and seizures.

When an individual starts drinking in a way that negatively affects him/herself or his/her life (such as affecting health, job, relationships) then this pattern of use is considered to be problem drinking. Depending on severity, there are primarily three different types of alcohol use disorders (AUDs) as follows:

- When a person drinks in a manner which increases their risk of developing some physical, mental, or social harm in the future, it is called Hazardous Drinking.
- When a person drinks in a manner which leads to physical (e.g. liver damage), mental (e.g. depression), or social harm (e.g. arguments with family or friends), it is called Harmful Drinking.
- Dependent Drinkingis the most severe drinking problem and usually involves daily drinking. It includes a combination of harmful behaviours, clear physical signs and symptoms (e.g. tremulousness).

Clinical Alcohol Use Disorder Classifications

As highlighted in the previous article in this series, the World Health Organization recognies three distinct classifications of AUDs: hazardous drinking, harmful drinking, and dependent drinking (Reid, Fiellin, & O'Connor, 1999).

While the two main disease/disorder classification manuals, the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) and the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10), recognise and categorise AUDs, they differ slightly in regard to diagnoses and diagnostic criteria.

The DSM-5 defines substance-use disorders as a problematic pattern of using alcohol or another substance that results in impairment in daily life or noticeable distress (American Psychiatric Association, 2013). While the DSM-4 defined alcohol abuse and alcohol dependence as distinct diagnoses, the DSM-5 combines the two diagnoses into a single AUD diagnosis with three subcategories: mild, moderate, and severe (National Institute on Alcohol and Alcoholism (NIAAA), 2016). Clinical manifestations of the three subcategories strongly overlap with the hazardous, harmful, and dependent drinking categories recognised by the WHO.

Similar to the DSM-4, the ICD-10 classifies alcohol abuse and alcohol dependence as distinct disorders. Alcohol abuse is defined as a pattern of substance use that is damaging to mental or physical health in the absence of dependence (NIAAA, 1995). However, it is important to note that that the presence of acute intoxication and/or negative societal opinions regarding alcohol use are not sufficient criteria to yield an alcohol abuse diagnosis. The ICD-10 defines alcohol dependence as the presence of several psychological, physiological, and behavioural indicators (NIAAA, 1995). The DSM-5 mild AUD classification falls within the alcohol abuse category, while moderate and severe DSM-5 AUD classifications fall under the alcohol dependence category (World Health Organization (WHO), 2005).

Diagnostics and Manifestations

The DSM-5 provides 11 screening criteria relating to abuse and dependence (Table 1). The experience of any two of the criteria in the previous 12 months is sufficient for AUD diagnosis. Mild AUD is defined as the presence of 2-3 of the criteria, moderate AUD as 4-5 criteria, and severe AUD as more than six of the criteria (NIAAA, 2016).

Table 1. *DSM-5 Alcohol Use Disorder Screening Criteria*

Hazardous use	Repeated attempts to quit/control use
Social/interpersonal problems related to use	Much time spent using
Neglected major roles to use	Physical/psychological problems related to use
Withdrawal	Activities given up to use
Tolerance Used in larger amounts/longer	Cravings

Note. Adapted from "DSM-5 Criteria for Substance Use Disorders: Recommendations and Rationale," by D. S. Hasin et al., 2013, Am J Psychiatry, 170(8), 834-851.

Similar to the DSM-5, the ICD-10 relies on six screening criteria for establishing diagnosis (Table 2). The presence of any three criteria in the past 12 months is sufficient for an alcohol dependence diagnosis (World Health Organization, 2005).

Table 2. *ICD-10 Alcohol Use Disorder Screening Criteria*

Desire/compulsion to use	Tolerance
Difficulty controlling use	Neglect of interests
Withdrawal	Continued use despite harm

Note. Adapted from "Diagnostic Criteria for Alcohol Abuse and Dependence," 1995, National Institute on Alcohol Abuse and Alcoholism.

In addition to the screening criteria provided by the DSM-5 and ICD-10, several additional assessment tools have been developed and widely adopted. One of the most widely used, the Alcohol Use Disorders Identification Test (AUDIT) was developed by the WHO and is a 10-question clinician- or self-administered screening tool. The questions comprise three categories: consumption, dependence, and alcohol-related problems. Questions are weighted, and the maximum score is 40, with higher scores indicative of more risk and increased AUD severity. Score ranges and their associated interpretations and recommended diagnoses are provided in Table 3.

Table 3. *AUDIT Score Interpretations*

Score	Risk	Recommended Intervention
0-7	Low-risk	Alcohol education
8-15	Risky or hazardous	Simple advice
16-19	High-risk or harmful	Simple advice plus brief counselling and continued monitoring
≥ 20	High-risk, likely dependent	Specialist referral and further assessment

Note. Adapted from "AUDIT : the Alcohol Use Disorders Identification Test : guidelines for use in primary health care," by T.F. Barbor et al., 2001, World Health Organization.

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OTC CORNER

BISACODYL

STRENGTHS: 5mg, 5mg, 10mg

COMMON BRAND NAMES:

DOSAGE FORMS: Tablets, Tablets; enteric coated, Suppositories

MODE OF ACTION: It works by stimulating enteric nerves to cause colonic contractions. It is also a contact laxative; it increases fluid and salt secretion. Bisacodyl acts directly on the intestines, irritating the digestive tract lining and stimulating intestinal activity.

INDICATIONS:

- For short-term treatment of constipation.
- To clean out the bowel before bowel examinations or bowel surgery.
- Evacuation of colon for rectal and bowel evaluations.

CONTRAINDICATIONS:

- Do not use in the patients with abdominal pain, abdominal surgery, allergy to any ingredient of these products, appendicitis symptoms (Nausea, vomiting, abdominal pain), intestinal obstruction, stool impaction and ulcerative lesions of colon.
- Frequent use of laxatives and inadequate fluid can cause an imbalance in fluid and electrolyte levels. Symptoms may include muscle cramps, muscle weakness or dizziness.
- Rectal bleeding or failure of the laxative to produce a bowel movement can indicate a more serious condition which requires medical attention.
- Tartrazine- Some of these products may contain the dye tartrazine (FD&C Yellow No.5) which can cause allergic reactions in certain individuals. Check package label when available or consult your doctor or pharmacist.
- Pregnancy- Adequate studies have not been done in pregnant women, or animal studies may have shown a risk to the foetus. Use only if clearly needed and potential benefits outweigh the possible hazards to the fetus.
- Improper use of these products can cause a dangerous electrolyte imbalance. Use of a bulk or stool-softening laxative is preferred.
- Breastfeeding- It appears in breastmilk. Use can result in diarrhea in the infant. Consult your doctor before you begin breastfeeding.
- Children-Do not use bisacodyl in children under 10 years of age.
- **ADVERSE EFFECTS:**
- CNS- Muscle weakness with excessive use, dizziness, faintness.
- GI- Nausea, Vomiting, stomach pain, abdominal cramps, diarrhea, bloating, gas, on high dose burning sensation in rectum (with suppositories), laxative dependence with long term use, perianal irritation, proctitis, inflammation.
- Metabolic- Alkalosis, hypokalemia, tetany, protein-losing enteropathy in excessive use, fluid and electrolyte imbalance.
- Other- Irritation of the rectal area, sweating, pounding of the chest (palpitations).

DURATION OF ACTION:

Absorption: Minimal.

Distribution: Distributed locally.

Metabolism: Absorbed minimally, metabolized in the liver.

Excretion: Excreted primarily in feces, some in urine.

Onset: P.O -6-12hrs

P.R -15-60mins

DRUG INTERACTIONS:

Drug-drug: - Antacids and drugs that increase gastric pH levels may cause premature dissolution of the enteric coating, resulting in intestinal or gastric irritation or cramping. Avoid use together.

Drug-food: - Milk, may cause premature dissolution of the enteric coating, resulting in intestinal or gastric irritation or cramping. Avoid use together.

ADMINISTRATION AND DOSAGE:

- **For constipation:-**

✓ By mouth

➢ Child: 4-17years; 5-20mg once daily, adjusted according to response, dose to be taken at night.

➢ Adult: 5-10mg once daily. Increased if necessary up to 20mg once daily, dose to be taken at night.

✓ By rectum

➢ Child: 2-17years; 5-10mg once daily, adjusted according to response.

➢ Adult: 10mg once daily, dose to be taken in the morning.

- Bowel clearance before radiological procedures and surgery:-

✓ Initially by mouth

➢ Adult: 10mg twice daily, dose to be taken in the morning and evening on the day before procedure and (by rectum) 10mg, to be administered 1-2hours before procedure the following day.

PATIENT INFORMATION:

1. Instruct patient not to take medicine within 1 hour of milk, cimetidine or antacid consumption.
2. Tell patient to take only as directed to avoid laxative dependence.
3. Direct attention to proper dietary fiber intake, adequate fluids, and regular exercise.
4. Use exactly as prescribed.
5. Laxative use is only a temporary measure. Do not

use longer than one week. Stop use of these products when normal bowel habits return. Prolonged, frequent or excessive use may result in dependence or electrolyte imbalance.

6. Take with a full glass of water or juice.
7. Bisacodyl-Swallow tablets whole (do not crush or chew).
8. Suspensions and emulsions- Shake well before use.
9. Do not use if abdominal pain, nausea or vomiting occurs.
10. Contact your doctor if unrelieved constipation, rectal bleeding, muscle cramps or pain, weakness or dizziness occurs.
11. Bisacodyl suppositories may cause proctitis and inflammation. Do not take these for long-term use.
12. Prevention of constipation includes: Adequate fluid intake (4-6 glasses of water daily), proper dietary habits including sufficient bulk or roughage, responding to the urge to defecate and daily exercise.
13. Effects usually occur in 6-10 hours with most of these products, except castor oil (2-4hours) and bisacodyl suppositories (15-60mins). Plan accordingly.
14. Administer tablet at bedtime or before breakfast.
15. Moisten suppository with lukewarm water. Insert high into rectum and instruct patient to retain suppository in rectum for as long as possible until urge to defecate is felt.
16. Store tablets and suppositories in tightly closed container in cool location.

REFERENCE:

- Nonprescription Drug Therapy: Guiding Patient Self-Care.
- Pharmacist's Drug Handbook.
- A To Z Drug Facts
- Patient Drug Facts
- BNF 71

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Community Pharmacy Practice Around The World

Community Private Pharmacy in Costa Rica

Costa Rica health system

Costa Rica is a country of 5 million people located in Central America. It is an upper middle country with a life expectancy of approximately 80 years old (1, 2). Costa Rica's health services consist of two main sectors: public and private, both stewarded by the Ministry of Health. But there are also some other stakeholders involved with the country's health system. For example the National Insurance Institute, Costa Rican Institute of Aqueducts and Sewers, local governments and universities (3). In relation to pharmaceutical services, there are public and private community pharmacies.

The provision of health services in public sector is quite strong and it is administered by the Caja Costarricense de Seguro Social (CCSS, acronym in Spanish), the Costa Rican Social Security, administered as an autonomous institution which covers around 94% of the population (4). This institution is in charge of financing, purchasing and delivering all the services provided - including the provision of medications through pharmacies at different levels of care. Furthermore, it operates three differentiated pension systems: maternity and illness insurance, disability, old age and death insurance and non-contributive insurance. Even though the CCSS has its own facilities, it contracts private services according to the needs of the population (5). All public community pharmacies dispense medications, but they can offer other services that depend on the pharmacy like: health and medicines information, pharmacist home visits, medication reviews and Adverse Drug Reactions spontaneous notifications, for example. The medications dispensed in CCSS are covered by the social security.

The private sector is composed of a wide range of services, with different levels of complexity, from ambulatory to hospital care. These services are financed through private insurances and out of pocket (5). Community pharmacies are part of this sector and supplies with services to almost all of the country. By 2018, there were an estimatedmore than 1000 community private pharmacies, distributed mainly in urban areas (6). According to current regulations, there are no restrictions for the opening of a new establishment related to the distance between establishments or population covered. So, it is possible to open a pharmacy if it complies with all the legal and technical requirements (7).

These requirements include a pharmacist in charge for all the time that the pharmacy remains open, an office for the pharmacist, and a separate area for the administration of injectables. Also, the pharmacist must accomplish all the responsibilities granted by law (8).

Community Pharmacy Services

The pharmacists are highly accessible to patients and offer different professional pharmacy services. All community pharmacies dispense medication in accordance with current regulations and the patient must submit a prescription to the pharmacist in order to be dispensed. All pharmacies, public and private, have to offer medication label in Braille for blind patients according to a national legislation (9).

Pharmacists must safeguard controlled medicines and send a periodic report of these to Ministry of Health (10). Further, they have to ensure the temperature control of the pharmacy and guarantee the cold chain of medicines that require it (11, 12).

Depending on the private community pharmacy they can offer other professional services like: medication therapy management, pharmaceutical indication of medication (minor ailment services), pharmacy consultation about medicines and/or health information, intramuscular medicines administration, blood pressure measurement, application and registration of immunizations and adverse drug reactions notification (13).

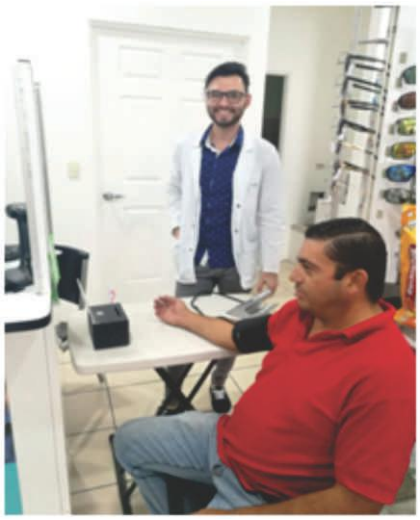
In 2009, Arias et al published a the results of a national research about the professional services offered to the population, and the authors found the following: 100% of the pharmacies offered dispensing services and pharmaceutical medication indication, 85.6% has a written drug information to give to the patients and 68.9% had the medications labeled. On the other hand, at that moment only 10% made pharmacists home visits, 3.3% offered therapeutic follow up, 2.2% made pharmaceutical compounding and pharmacovigilance activities (14).

Figure 1. Blood pressure measurement service. Dr Daniel Padilla with a patient Farmacia Zhen. 2018 (photo with the authorization of patient and pharmacist)

Most recently, in a survey conducted by pharmacy students with their preceptors in 2014, the pharmacists said that the most frequent inquiries made by the patients were about drug information, pharmacist's medication indication and administration

of injectable drugs. In order to resolve these inquiries, the primary pharmaceutical interventions were recommendation of a drug, referral to other healthprofessionals and recommendation of non-pharmacological measures, including hygienic-dietary advices (15).

In some cases, the patient requests for a pharmaceutical indication and the pharmacist dispenses the medication recommended. This medication could be an OTC and/or prescription drug for minor ailments service. For example, the musculoskeletal system, alimentary tract and metabolism and respiratory system according to ATC Classification System (16).



The most important minor ailments were: diseases of the respiratory system (acute upper respiratory infections, influenza), diseases of the digestive system (diarrhea, dyspepsia), diseases of the musculoskeletal system and connective tissue (acute low back pain) and diseases of the skin and subcutaneous tissue (dermatitis), according to International Statistical Classification of Diseases and Related Health Problems 10th Revision (16).

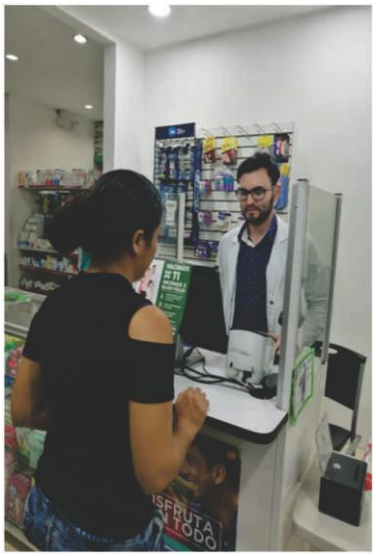
Most services are free, except for the cost of purchasing medications or intramuscular medication administration and blood pressure measurement, in some community pharmacies (13).

In 2006, the National Survey on Health Expenditure (ENGAS, acronym in Spanish) demonstrated the population private expenditure in health were primarily in medicines (27%), consultation with a dentist (23%) and physician consult (20%) (17).

According to the above, it is evident that community pharmacies in Costa Rica are conceived as a primary health care center, where patients seek for the professional to solve their doubts regarding their medications, and obtaining services that go beyond the information of medications by the pharmacist. So, it is important to continue strengthening all the professional pharmaceutical services that are offereFigure 2. Minor ailments service. Dr Daniel Padilla with a patient Farmacia Zhen. 2018 (photo with the authorization of patient and pharmacist).

Figure 3. Dispensing medication service. Dr Ilse Alfaro with a patient

Farmacia Clínica San Miguel. 2018. (photo with the authorization of patient and pharmacist)



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ANSWERS TO BRAIN TICKLERS:
Answer 1:- B) Purine
Answer 2:- C) Allopurinol
Answer 3:- D) Naproxen and Piroxicam
Answer 4:- A)Febuxostat

WPD (World Pharmacists Day) CASE STUDY COMPETITION WINNER ENTRIES

Case Report

Patient's Name – XYZ
Age – 21 years
Sex – Male

Patient's health problem / medication details : The patient was diagnosed to have Hansen's Disease (Multi bacillary) by a hospital and was advised to take MDT-MB (Adult) medicines (Cap Rifampicin, Cap Clofazimine and Tab Dapsone, a sulfadrug). The patient started taking the medicines as advised in that hospital. After a few days the patient started feeling uneasy and complained of dyspnoea, abdominal pain, dark urine and fever. The patient approached that hospital but was advised to continue the medicines. When the problems worsened, he had to get admitted in a local nursing home, got treatment and his G6PD level was found to be 2.5 units/gram of Hb (given reference range 4.6 – 13.5 units/gram) and then he was asked to consult the doctors of the previous hospital.

The patient opted to come to our hospital and consulted with the doctor in the OPD. The doctor advised him to continue the same medicines and asked him to report to the Pharmacy dept for taking further strip (Blister Calendar Pack) for another month. The patient came to me with the prescription. When taking case details and explaining about possible untoward effects, do's and don'ts, he told me the above mentioned problems. I went to the doctor with the blood test report, told him that he should not take Tab Dapsone as he had G6PD Deficiency. I told him what he experienced few days back. The doctor reiterated that he noted that the patient had G6PD Deficiency but he should continue MDT-MB(A) as his G6PD level was not zero. I requested him to rethink. Then he consulted his professor over cell phone and finally advised not to take Tab Dapsone but all other MDT-MB(A) medicines, i. e. Rifampicin and Clofazimine.

The patient continued the treatment without Dapsone as explained by me and completed his treatment with no untoward effects anymore and got “RFT” (Released from Treatment) in due course of time. I advised him not to eat any kind of beans, soya products, strawberry and to avoid naphthalene and camphor and gave him a small card having written in red ink “I have G6PD Deficiency” and asked him to show it to doctors whenever he would have to visit a doctor. I also advised him not to take Aspirin and Antimalarials or Sulfadrugs. And if it becomes unavoidable to take these medicines, he should not take these without under constant medical supervision.

Case Report

Name of the Patient – XYZ
Age – 27 Years
Sex – Female
Patient's Health Problems / Medication Details – The patient was married for four years and was living a normal married life. She had no other problems except infertility. All her other relevant pathological parameters were normal. Her hysterosalpingography report revealed that both her fallopian tubes had got blocked. Meanwhile her husband was diagnosed to have oligospermia. She underwent four hydrotubation sessions to open the block and her menstrual blood was sent to a genetic analysis laboratory for detection of any tubercular infection by mRNA Reverse Transcriptase PCR method. The report showed that she was suffering from genital tuberculosis which caused the blockage of her fallopian tubes. Her sputum for AFB test was negative and her chest X-ray was also normal. So it was a case of extra pulmonary tuberculosis. Her husband was given some treatment but his sperm count did not raise any more.

The woman was advised to start tuberculosis treatment and was told to be prepared for IVF.Her husband got confused and came to me for some advice as he was known to me.

I took her to OPD and got arranged to start anti tuberculosis treatment under RNTCP DOTs as Category I (the then regimen of Cat I, II and III). After few months, though she was advised to be prepared for IVF, I strongly told her that her menstrual blood should again be sent for the test to ascertain that she was free from tuberculosis after completion of the Cat I course of six months. But her menstrual blood again tested positive for tuberculosis after completion of Cat I regimen. I myself was her DOTs provider.

Though all of us were in despair, I told them that at least we had averted worse situations if she had tried with IVF as advised by her gynaecologist.

According to the then guidelines, she was started on Cat II DOTs of RNTCP from my health institution and I was the DOTs provider again. According to the advice of a non-medical non-technical person, we decided that her husband's semen should be tested to exclude tuberculosis. Her husband's semen was tested to be positive for tuberculosis through mRNA Reverse Transcriptase PCR in the same genetic analysis lab. I took him to my health institution and he was advised Cat I DOTs of RNTCP and I was the DOTs provider for him also. Though I repeatedly advised them not to try for baby till the test report comes, she got pregnant almost at the end of treatment tenure. She is now a happy mother of twin daughters who are about 13 years of age.ecomes unavoidable to take these medicines, he should not take these without under constant medical supervision.

Name of the Pharmacist :
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NEWS AND TRAINING

78th FIP Congress,Glasgow,Scotland,UK

The 78th FIP's World Congress of Pharmacy and Pharmaceutical Sciences, hosted by the Royal Pharmaceutical Society of Great Britain, was held in the beautiful city of Glasgow – Scotland (U.K.) from 2nd to 6th September, 2018. The self-contained venue had wonderful facilities for such a prestigious international gathering of pharmacy professionals. The theme of the congress was : **Pharmacy: Transforming Outcomes.**

Jeane Freeman, Scottish Cabinet Secretary for Health and Sport

The Congress, was attended by 3,014 pharmacists from 108 countries. The Indian contingent had around 20 pharmacists from different parts of the country mainly from the teaching, regulatory, industrial and community pharmacy fraternity.

The inaugural function was addressed by the Scottish Health Secretary, Jeane Freeman. Some of the excerpts from her speech :

"the demand for pharmaceutical care will increase and playing to the strengths of the pharmacy team is crucial to achieving excellence.However, the pharmacy team must have the resilience to be able to respond and adapt to the pressures that face our modern health and social care system. The Scottish Government has identified three "key enablers" as priorities for action: developing the pharmacy workforce, improving access to and use of digital information and technologies, and planning for a sustainable, flexible and resilient approach to the delivery of NHS pharmaceutical care across Scotland.The clinical leadership of our pharmacists and pharmacy technicians remains absolutely critical if we are to realise the ambitions we have for health care in Scotland, not only now, but in the years ahead,"

Various awards were presented for various pharmacists from different parts of the world in recognition of their outstanding contribution of the profession of pharmacy:

- The Andre' Bedat Award
- FIP's Distinguished Science Award
- FIP Fellows (FFIP)
- 2018 Health Promotion Campaign Award
- 2018 Pharmacy Practice Improvement Programme Award
- FIP Foundation for Education and Research presentation
- Ton Hoek Scholarship for Global Leadership
- awards were awarded to 13 pharmacists from
- different parts of the world for.

IPA President Dr. T.V. Narayana with newly elected FIP President Mr Dominique Jordan

Followed by an Entertainment by Scottish Bagpipers

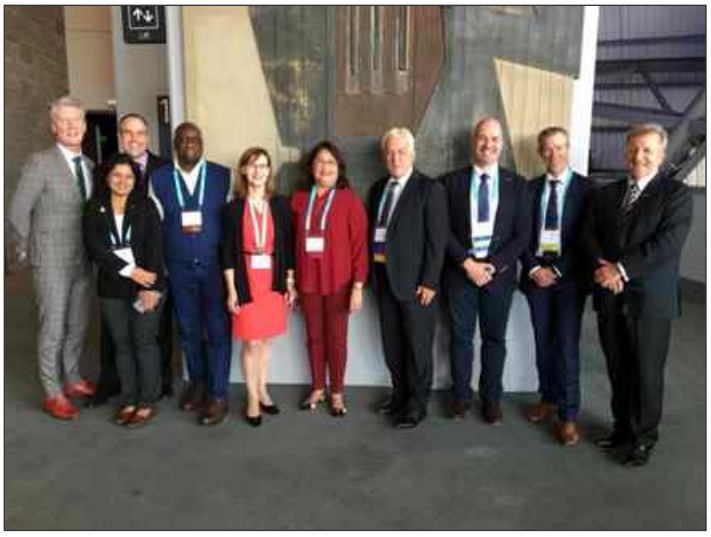
FIP congress was packed with the other usual activities happening at various levels, in various locations at the venue, and some social occasions away from the venue:

- Meetings of various Sections, Boards, Forums,
- Committees, and the FIP Council, First Timers Meeting, etc.
- Scientific Sessions included : Lectures/Presentations by experts from across the world, Poster Sessions (total 722 posters)
- Social events : Welcome Reception, FIP Fun Run, Young Pharmacists' Group Evening, Section Dinners, Closing Dinner, Academic sessions, Meetings.
- Exhibition

IPA President Dr. T.V. Narayana,
Mrs.ManjiriGharatand Dr.S. Suresh Madhavan
(West Virginia University, USA)

Indian Delegates with Mr Ash Soni,President,
Royal Pharmaceutical Society

Dr. Carmen Pena, outgoing President, FIP,
giving her welcome address at the opening ceremony



FIP Community Pharmacy Section
Executive Committee

Mr Raj Vaidya in front of the Congress Venue

WORLD PHARMACIST DAY CELEBRATIONS 2018

Theme: Pharmacists: Your Medicines Experts

Rally at Prin.K M Kundnani Pharmacy Polytechnic, Ulhasnagar,MAH

Pharmacist Day at Navi Mumbai

Rally at RIPER, Anantpur, AP

Pharmacist Day at Rahul DharkarKokanDyanpeeth College, Karjat,MAH

Pharmacist day at Kurtarkar Medical,Ponda,Goa

Results of Pharmacists Day Competition 2018 for Practicing Hospital and Community Pharmacists

Pharmacists: Your medicines experts

IPA had organized a **"Case Study Competition"** on the occasion of WPD and it got an excellent response.

Each case showed the proactive and caring approach of the pharmacist and the intervention made a positive difference in the life of a patient indicating how true the WPD theme "Pharmacists: Your Medicine Experts" is. Congratulations to each and every pharmacist for the participation and it was a tough job for the Judges to select few entries as winners. The cases were judged based on the type of intervention, its impact on patient's life, skill and proactiveness of pharmacist, correctness of intervention and presentation of the case. We received more than 50 cases for this competition.

Winners

Bidhan Chandra Jana (Hospital Pharmacist), Hooghly, WB
Lidhu Daniel (Clinical Pharmacist), Coimbatore, TN
Premal Mehta (Community Pharmacist), Mumbai, Maharashtra

Special Appreciation Prize

Naresh Sah, Shweta Adiraj Patil, Gayathiri G R, Yellapu Haritha Sri, Anju Thomas

We profusely thank the judges
Prof. Guru Prasad Mohanta, Department of Pharmacy Practice, Annamalai University,
Dr. Karthik Rakam, Tychee Innovations, Hyderabad Branch, Telangana
for their valuable help in judging this competition.

All participants will soon receive a participation e-certificate. One winner entry will be published each time in eTimes starting with this issue.

Indian Pharmaceutical Association
www.ipapharma.org

57 National Pharmacy Week (NPW)-2018

Dear Members,

The Indian Pharmaceutical Association has been celebrating the National Pharmacy Week every year during the third week of November. The major focus of NPW celebrations is to create awareness amongst the public, other healthcare providers and the authorities, about the NPW theme in specific and about the pharmacy profession and role of the pharmacist in general.

The 57 National Pharmacy Week (NPW) will be celebrated from 18 to 24 November, 2018

The theme selected for this year is:

"Pharmacists for a healthy India"

We look forward to receiving your innovative ideas about how NPW should be celebrated this year as well as about the educational material to be developed to make it most effective and meaningful. Your active participation is most welcome.

Please write your suggestions to ipacentre@ipapharma.org / ipacpdetimes@gmail.com

Keep checking www.ipapharma.org for more updates.

World Health Days

September 21
International Alzheimer's Day
September 25
World Pharmacist Day
September 28
World Rabies Day
September 29
World Heart Day
October
Breast Cancer Awareness Month
October 10
World Mental Health Day
October 12
World Arthritis Day
October 20
World Osteoporosis Day
October 21
Global Iodine Deficiency Disorders Prevention Day
October 24
World Polio Day
November
Lung Cancer Awareness Month
November 12
World Pneumonia Day
November 14
World Diabetes Day
November 15
World COPD Day
December 1
World AIDS Day
December 3
International Day of Persons With Disabilities

FORTHCOMING EVENTS AND MEETING

October 24- 27 2018

27th FAPA Congress, Manila, Philippines http://fapa.asia/fapa2018/

November 3-4 2018

IPA Convention, Bhubaneshwar, Odisha http://www.ipapharma.org

December 21 -23 2018

70th Indian Pharmaceutical Congress, Delhi www.70ipc.in

JOIN

Indian Pharmaceutical Association and select Community Pharmacy Division (IPA CPD)
www.ipapharma.org, ipacpdetimes@gmail.com
Provide your feedback to this issue of the CPD E-Times; pass it to more pharmacists and also send in your thoughts/issues/ problems faced by you in pharmacy practice.

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