

# ANNAMALAI UNIVERSITY (ACCREDITED WITH "A" GRADE BY NAAC) DEPARTMENT OF PHARMACY



# MEDICINE INFORMATION NEW SLETTER

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# Editors' Desk

The community pharmacies are under severe threat from online pharmacies. Though illegal, they continue their operations despite DCGI's directive and some proactive approaches by the few state governments. They have been offering even the prescription medicines listed in schedule H1 with irresistible discounts. If the existing pharmacies do not wake up to tackle this threat, the sustainability of many would be difficult. At the age of Information Technology, advantage IT, the Government of India is unlikely to put a blanket ban of online pharmacies, but to regulate them. This is likely to adversely affect the functioning of the existing pharmacies including their revenue.

Statins for Lipid Lowering- 2

Community pharmacies in our country have been immensely contributing to the welfare of the people through ensuring availability of safe and effective medicines at their neighborhood. The community pharmacists, being the most accessible healthcare professional, extend their helping hand to the ailing community to manage their minor ailments. The participation of community pharmacies

in country's DOTS strategy has been widely acclaimed by the patients as well as by Central TB Division. In spite of all these services, the image of pharmacies in society are simply the retail sale units. There are many issues but two important ones are: non-visibility of pharmacists and unrestricted sale of medicines in most of the pharmacies, both violating the regulations of the country.

The improved services along with initiative of educating the common man on use of medicines and dangers of buying from online pharmacies would perhaps help. The community pharmacies may take up small research work to know the need and expectations of the customers so that they can initiate suitable measures to retain them as loyal customers.

The current issue has all our regular features and hope you would find them interesting to read. Kindly continue offering your feedback to improve the quality and contents of the newsletter.

Wishing you all happy, healthy and prosperous 2017.

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## Quote

The worst thing about medicine is that one kind makes another necessary.

Elbert Hubbard

# Courses

Introduction to Procurement and Supply Chain Management [PSM] - Free online Certificate Course by UNDP:

The introduction to Procurement and Supply Chain Management course is an introductory level course jointly developed by UNDP and Empower School of Health. Effective supply chains not only help ensure commodity security, they also help determine the success or failure of any public health program. This online course provides a platform for beginners to understand the basics by laying the foundation for Procurement and Supply Chain Management. The course focuses on PSM in general, and PSM issues related to public health programs for HIV/AIDS, tuberculosis and malaria programme funded by The Global Fund in particular. More details regarding registration and log in for the course are available at:

http://www.undp-psmtraining.com/ login/index.php

**Statins for Lipid Lowering**Statins (HMG – CoA reductase inhibitors) have been known as lipid lowering medicines. They block the rate limiting step in cholesterol synthesis. They do also decrease very low density lipoprotein cholesterol (VLDC-C) and triglyceride levels and modestly increase high density lipoprotein cholesterol

The use of statin along with diet control, increased exercise and smoking cessation reduces the risk of first cardiovascular events and death (primary prevention) in patients who are at high risk for atherosclerotic cardiovascular disease. High intensity statin therapy (lowering LDL-C by  $\geq$  50%) decreases the incidences of cardiac events, stroke, and coronary death (secondary prevention) significantly more than the less intensive regimen. Statin in combination with ezetimibe may reduce the incidence of cardiovascular events more than the statin alone.

Name of Statin	Dose	Average reduction in LDL-C
Atorvastatin	10 – 20 mg once daily	35 – 40 %
	80 mg once daily [Maximum Dose]	50 - 60 %
Fluvastatin	20 mg twice daily	20 – 25 %
	40 mg twice daily [Maximum Dose]	30 – 35 %
Lovastatin	20 mg once daily	25 – 30 %
	80 mg once daily [Maximum Dose]	35 – 40 %
Pravastatin	40 mg once daily	30 – 35 %
	80 mg once daily [Maximum Dose]	35 – 40 %
Rosuvastatin	10 – 20 mg daily [Initial dose of 5 mg is recommended for Asian patients]	45 – 50 %
	40 mg daily [Maximum Dose]	50 - 60 %
Simvastatin	10 – 20 mg daily	35 – 40 %
	40 mg daily [Maximum Dose]	45 – 50 %

In its new guideline, the United States Preventive Services Task Force (USPSTF) recommends the periodic screening of all persons 40-75 years old for cardiovascular risk factors. It recommends low to moderate statin therapy in adults of 40-75 years old without cardiovascular disease (CVD) but have one or more CVD factors (dyslipidemia, diabetes, hypertension or smoking) and a calculated 10 year CVD event risk of > 10%. In similar patients with 10 year CVD risk of 7.5 – 10%, it recommends the same treatment but selectively.

Though the statins are well tolerated, the common adverse effects include myalgia, myositis, transaminase elevations, hepatic dysfunction and increased risk of diabetes mellitus. More serious but rare adverse effects such

# Conferences

1st JOPPP Conference Pharmaceutical Policy and Practice Research: The Journal of Pharmaceutical Policy and Practice conference will be held at the University of Reading, Malaysia Campus, Johor, Malaysia, during July 2017. The event intends to showcase global pharmaceutical policy research and to highlight research leading to policy development. Further details can be obtained from: z.babar@auckland.ac.uk or zbabar249@gmail.com

MONASH University **Pharmacy Education Symposium:** The symposium is scheduled between 9th and 12th July 2017 at Prato, Italy. The symposium is held every two years and the 2017 symposium intends to provide opportunity for educators to discuss how best to educate the students for today's global workplace. The theme is: Pharmacy education and collaboration for global practice. More details can be accessed at http://www.monash. edu/pharm/about/events/educationsymposium.

# Website of Interest



#### National Health Portal of India:

The National Health Portal of India is hosted by the Ministry of Health and Family Welfare and it contains information on health, diseases, lifestyle, careers, laws, protocols, policies and programs and is the first point of access for any information on health. Currently it is also available in Hindi: http://hi.nhp.gov.in/ and four regional languages: Bangla: http://bn.nhp.gov.in/, Tamil: http://ta.nhp.gov.in/, Gujarati: http://gu.nhp.gov.in/, and Punjabi: http://pa.nhp.gov.in/

as rhabdomyolysis and hemorrhagic stroke are also reported. Statins (pregnancy category) are contraindicated for use during pregnancy and lactation. reduction in cardiovascular events associated with the statin use is related to the magnitude of LDL -C lowering. Statins are continued to be the preferred choice for lipid lowering compared to fibrates, bile acid sequestrants, niacin and fish oil.



**Dextromethorphan:** Do not Use in Children

Dextromethorphan, an opioid, has been used as an antitussive but has been reported to be associated with several adverse drug reactions in children. The international data base on pharmacovigilance contains reports of neurological disorders in children under 6 years of age: ataxia, coma, convulsions and dyskinesia. In the light of this it is preferable to use caution while using this medicine in children.

**Domperidone:** associated with sudden cardiac deaths

Domperidone is widely used to treat nausea and vomiting (approved indications). In addition, it is also found to be in use in conditions in which the efficacy is still unproven: bloating, gastric acidity, and other gastric problems in adults; gastroesophageal reflux and gastroenteritis in children; and to stimulate lactation in breast feeding women. As many sudden deaths in France are reported to have association with the use of Domperidone, it is advisable to use this for approved indications only.

#### Fluoroquinolones

The USFDA warns that systemic use of Fluoroquinolones is associated with the risks of serious adverse effects including tendinitis, peripheral neuropathy, and CNS effects. The risk of adverse effects generally outweighs their benefits for the treatment of acute sinusitis, acute exacerbation of chronic bronchitis, and uncomplicated urinary tract infections. They should be reserved for patients who have no other options.

# Medicines to Avoid

Rev. Prescrire, an independent medicine information resource, identified some drugs are more dangerous than beneficial.

#### Mequitazine:

A sedating antihistamine with anti-muscarinic properties, is in use in allergy, has only modest efficacy but carries a higher risk of cardiac arrhythmias than other antihistamines. It causes QT prolongation in patients who are slow cytochrome isoenzyme p450 CYP2D metabolizers and during co-administration of drugs that inhibit this isoenzyme. A non-

sedating antihistamine without anti-muscarinic activity such as loratidine or cetirizine is a better option.

#### Omalizumab:

Used in chronic spontaneous urticaria, causes disproportionate adverse effects: infections, hypersensitivity reactions and cardiac disorders. Corticosteroid therapy at the lowest effective dose is better option.

#### **Injectable Promethazine:**

An antihistamine used to treat severe urticarial, can cause thrombosis, skin necrosis, and gangrene following extravasation or in advertent injection into an artery. Injectable dexchlorpheniramine is a better choice.

#### **Topical tacrolimus:**

An immunosuppressant used in atopic eczema, can cause skin cancer and lymphoma, but its efficacy is barely different from that of topical corticosteroid. Judicious use of topical corticosteroid is a better option.

[Source: Medicines to Avoid (Prescrire: 1 February 2016)]

# Guidance

## Swallow Pills / Capsules with plenty of water, not with juices or milk

Orange, Apple and Grape juices are reported to have effect on absorption of some medicines and adversely affecting the performance of these medicines. Orange and apple juices are found to reduce the absorption of some medicines and thereby compromising the effects. Grape juices are known to increase the absorption with a possibility of toxic dosing. Milk too affect absorption. It is best to swallow them with plenty of drinking water.

#### **After or Before Food**



Some medicines are required to be taken after food and some are before food. When in confusion, talk to your doctor or pharmacist. A rule of thumb: Before food means to take medicine at least half an hour (preferably one hour) before food, or at least two hours after food; After food means to take medicines while eating or within half an hour of food.



# **NEWS**

Antibacterial Soaps - No Better than the Ordinary Soap!

The United States Food and Drugs Administration (USFDA) has recently confirmed that antibacterial soaps and liquid washes are no better than ordinary soap and water. It cautioned "long term use of these products are harmful too". Many of these antibacterial agents in our daily usable products are not only contributing to development of resistance but also harming us physiologically. Washing with plain soap

and running water remains one of the most important steps to avoid getting sick and to prevent spreading germs to others. Washing hands physically removes germs by friction. While regular washing with soap and running water is adequate for individual at home, hand washing with antibacterial agents are essential in hospitals. Don't just believe the misleading advertisement promoting these antibacterial soaps to prevent sickness.

# Resources

National Treatment Guidelines for Antimicrobial Use in Infectious Diseases (2016): The National Centre for Disease Control, Government of India, has brought out this publication in an attempt to promote rational use of antimicrobials in the health facilities which would go in a long way to combat the development of antimicrobial resistance. The guideline is available at: http://ncdc.gov.in/writereaddata/linkimages/AMR\_guideline7001495889.pdf

INDEX-TB Guidelines - Guidelines on extra-pulmonary tuberculosis for India (2016): Central TB Division of Government of India in association with WHO Country Office for India and others developed this guideline. The guideline is available at: http://southasia.cochrane.org/sites/southasia.cochrane.org/files/uploads/Index-TB%20Guidelines%20-%20 green%20colour%202594164.pdf

WHO Guidelines for the Treatment of Neisseria gonorrhoeae (2016) – This is an update treatment recommendations for gonococcal infections to respond to changing antimicrobial resistance pattern. There are reports of treatment failure or decreased susceptibility to earlier recommended quinolones and third-generation cephalosporins. The guideline can be downloaded from http://www.ncbi.nlm.nih.gov/books/NBK379221/pdf/Bookshelf\_NBK379221.pdf

International Maternal & Child Health Care Textbook: A practical manual for hospitals worldwide (2014): The Maternal & Child health Advocacy International (MCAI) published this manual covering all aspects of hospital care for pregnant women and girls, new born infants and children and addresses the full range of possible illnesses and injuries and includes complications of pregnancy and delivery. This can be downloaded from:

http://books.mcai.org.uk/International%20Maternal%20and%20Child%20Healthcare%20Textbook/International%20Maternal%20Child%20Hospital%20care%20Textbook%202015%20MCAI.pdf

**Pocket book of hospital care for neonates and infants (2015):** The Maternal & Child health Advocacy International (MCAI) published this pocket book to provide accessible information on the structured approach to managing emergencies in the new born and older infant. This can be downloaded from:

 $http://books.mcai.org.uk/Books\%20 international\%20 maternal\%20 child\%20 healthcare/MCAI\_Pocketbook\_of\_hospital\_care\_for\_neonates\_and\_infants\_2015.pdf$ 

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