Message from a healthcare policy expert

Dear Pharmacist friends,

Firstly, I must convey my deep appreciation for the important role you have been playing in the health & health care system. A few years ago, I had coined this quote;

Doctor is next to God
Nurse is next to the doctor
Only Pharmacist is closest to the patient

And this quote of mine sums up your role.

Health care systems across the world have failed to address the problems of access, quality and cost. And, the biggest challenge is outcomes on treatment (Quality). Besides, we are facing multiple challenges where pharmacist can, for sure, turn around the situation; like the management of chronic diseases, irrational and overuse of medications and self-medication etc.

To me, a pharmacist appears to be the most pivotal person in the entire continuum of the healthcare system. A few years ago, it was pointed to our top policy maker in the planning commission that, healthcare facilities might not exist in rural areas but pharmacies do exist and we must leverage this network for care delivery.

While I strongly feel that healthcare policy makers must take note of the role of pharmacists, but the missing link is the 'lack of proactive voice' from this community. Time has come when pharmacists have to rise to the occasion to get their rightful place in the healthcare of this country.

In 2009, the findings of 'Project Concern' were announced at the Indian Pharmacy Congress at Ahmadabad, and I am fortunate to have played a role in the ideation of this project. The findings of this project led to a clear demonstration that pharmacists have an influential role in management of chronic diseases.

Recently, I read the findings of the National Health Care survey 2013, wherein it was mentioned, that 14.4% of the population surveyed, preferred to go to a pharmacy when they fell ill; demonstrating that the pharmacist is a vital link in the health care delivery system, though it is an irony that the National Health Policy 2002 did not even have the word pharmacist! Now even the Government is recognizing the pivotal role of pharmacists in the healthcare delivery system and has included pharmacies in Revised National TB Control programme (RNTCP), but a lot more needs to be done.

The Government of India is working on the new health policy and the pharmacists of this country must rise up and shake the health ministry to give due weightage to the role of pharmacists, and a pharmacist representative must be appointed on the new healthcare regulatory body that the government is planning to put in place instead of multiple regulators in healthcare.

The time to act is now!

My best wishes,

Mr Rajendra Pratap Gupta (E-mail: office.rajendra@gmail.com)

Rajendra Pratap Gupta is the most influential healthcare policy expert, a former CEO of a pharmacy chain and a Presidential session speaker at IPC 2007 & 2009. He recently authored the BJPs Election Manifesto in 2014. Present views are personal.
Message from the Vice-President and Chairperson, IPA CPD

Dear Pharmacists,

In the last issue we proudly introduced you to the IPA Office Bearers’ team of 2014-16. This time we take pride introducing you to the IPA CPD Executive Committee (Page no 27), its advisors and invitees. Each member is trying to contribute enthusiastically to the professional goals of the IPA.

Let me also put on the record that we have so many more colleagues who are true friends of CPD and CPD team as such is growing very fast. We truly need it since there is so much to do in our country to uplift the status of community pharmacy practice.

In different parts of the world, pharmacy practice issues are so diverse. Here we struggle to ensure presence of pharmacists in the pharmacies, struggle to stop sale of prescription medicines without valid prescription, struggle to establish ourselves as health care professionals and be part of the national health policy. Pharmacists in Uruguay are facing a totally different problem. The Government has passed a new law which will lead to pharmacies selling cannabis for recreational use. Pharmacists are fighting against this law to prevent sale of non-medical marijuana from pharmacies. Please read FIP’s appeal regarding this on page 20. We at IPA CPD extend full support to the pharmacists in Uruguay in their fight against this law which will otherwise fully change the healthcare image of the pharmacy.

CARUM (Campaign for Awareness on Responsible Use of Medicines) poster translation in six languages is near completion and CPD is grateful to all the contributors for their voluntary efforts and commitment to this project. We are also pleased to announce that we are tying up with pharmacy institutes to conduct Continuing Professional Development programmes for community pharmacists. One of the first such collaboration is signed with PSG College of Pharmacy, Coimbatore. We request all interested institutes to come forward for collaboration.

At CPD, we are compiling issues faced by the Community Pharmacists, success stories of pharmacists’ interventions and the cases of medication errors. I sincerely request the readers for sending their write-ups to e-Times.

We are excited to announce two conventions of IPA CPD in near future. I appeal to all dear pharmacists to look for the announcements and join with us for a professionally satisfying experience. We are also eager to welcome all to IPA Convention, Bangalore which is happening on August 8th, 2014.

FIP Bangkok Congress is less than a month away and I am sure all participants are eagerly waiting for this stimulating and enriching global conference. We will bring you the Congress reports in next issue of e-Times. Till then, bye, but let us stay tuned.

Mrs Manjiri Gharat
Dear Pharmacy friends,

We all are excited and watching the improvements in the healthcare system of India. I am happy to know some of the motivating contributions around the country. We at e-Times have tried to incorporate the zeal and enthusiasm of a few dedicated professionals like before. Kindly read about familiarising with abbreviations written along with our regular features such as dosage form tips, drug and lab information, consumer dialogue, and patient instructions. For the international practice examples we have Swedish, Caribbean, and Australian reports this time. Indian practice example is of Department of Clinical Pharmacy from JSS College of Pharmacy, Mysore. Other interesting columns are “Market Watch” by Anil Khanna and the theme article for this issue is on the World Breastfeeding Week, kindly read an exclusive report on the theme on page 18. Don’t forget to go through couple of news items and the upcoming IPA CPD Conventions at Kerala and Goa. Happy reading!

Dr Dixon Thomas
Dosage Form Instructions: Topical Cream or Ointment

- The first time you take the cap off the cream or ointment you may find the end of the tube is sealed. You can pierce this seal by inverting the cap of the tube and pushing it into the end of the tube.
- Wash the affected area(s) of skin well and rinse away all traces of the cleanser, if any is used.
- Pat the skin dry rather than rubbing it.
- Apply the cream or ointment thinly and evenly to the affected area(s).
- Gently massage the cream or ointment into the skin until it has all disappeared.
- Replace the cap on the tube.
- Wash your hands after applying the cream or ointment.
- If you have other creams, ointments or lotions to use on the same area of skin you should try and leave about half an hour between applying each one so that they don’t mix on the skin.
- Only use on the affected areas of the skin.
- Do not over-use of any cream or ointment, especially for long periods on large areas of skin unless your doctor tells you to do so.
- If the product is accidentally taken by mouth, tell your doctor at once.
- If you get the cream or ointment in your eye, rinse it out immediately with warm water and consult your doctor if there is any on-going irritation.
- If you forget to apply your cream or ointment, apply the correct dose when you remember, and then carry on as before.
- Do not use your cream or ointment after the expiry date on the tube because it may be contaminated with germs or the medication may have lost its potency.
- Don’t give your medicines to anyone else to use, even if they have the same symptoms as you. They may be harmful to other people.
- Always keep medicines out of the reach of children.

How much should you use?
The table below gives you a rough guide of how much cream or ointment to use for an adult. You should use less than this for smaller adults and children.

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Fingertip Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both sides of one hand</td>
<td>One fingertip unit</td>
</tr>
<tr>
<td>One foot</td>
<td>Two fingertip units</td>
</tr>
<tr>
<td>One arm</td>
<td>Three fingertip units</td>
</tr>
<tr>
<td>One leg</td>
<td>Six fingertip units</td>
</tr>
<tr>
<td>Chest and abdomen</td>
<td>Seven fingertip units</td>
</tr>
<tr>
<td>Back and buttocks</td>
<td>Seven fingertip units</td>
</tr>
</tbody>
</table>

Don’t worry if you have to use slightly more or less than this - it is a rough guide based on average adult body size.
Reference: WHO Pharmacopoeia Library;
http://apps.who.int/phint/en/p/docf/.

Contributed by: Dr L. Britto Duraisingh, Clinical Pharmacist & Assistant Professor, PSG College of Pharmacy, Coimbatore, E-mail: brittopharmaco@gmail.com
Drug Information: Albendazole
For Healthcare Professionals Only

Common Brands: Zentel, Noworm, Bendex etc.
Pharmacological class: Benzimidazole

Indications: Single dose: Helminth infection [ascariasis, filariasis, toxocariasis, enterobiasis, trichinosis, trematode (fluke worm) infections, giardiasis]

Longer term use: Treatment of neurocysticercosis (cysts in the brain tissue), cystic hydatid disease (parasitic infestation by certain tapeworm).

<table>
<thead>
<tr>
<th>Route</th>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Unknown</td>
<td>2-4hr</td>
<td>Variable</td>
</tr>
</tbody>
</table>

Counselling the patient:

- Chew the tablet thoroughly to powder, swallow, and then drink a full glass of water.
- For single dose: Chew on an empty stomach for better effects.
- For long term use: Chew after food. Remember to take each dose at the same time every day.
- Bioavailability of drug is increased when taken with fatty food.
- Albendazole is sometimes given in a cycle of 4 weeks followed by 2 weeks of not taking the drug. This cycle is usually repeated until a total of 3 cycles have been given.
- Do not miss any dose. If dose is missed, 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.
- Albendazole can lower the blood cells that help your body fight infections, thereby increasing susceptibility of bleeding and infections. Do not miss any scheduled visits to your doctor.
- Women of childbearing age should use effective contraception during therapy.
- Albendazole may cause liver problems. Because drinking alcohol increases the risk of liver problems, limit alcoholic beverages while using this medication.

Auxiliary label:

Chew thoroughly to make powder, then swallow, follow with a glass of water.
Avoid alcohol intake during the therapy.

Reference: AHFS Drug Information 2013
For more details and comments, e-mail to ipacpdetimes@gmail.com
Lab Information: Thyroid Profile

The thyroid profile includes:

- **T4 or Free T4** (thyroxine) to test for hypothyroidism and hyperthyroidism.
- **T3 or Free T3** (triiodothyronine) to test for hyperthyroidism.

This test measures the amount of thyroid stimulating hormone (TSH) as well free T4 and free T3 in the blood serum.

The hormones of the thyroid, thyroxine (T4) and triiodothyronine (T3) influence the metabolism of each and every cell in the body. Because of this, thyroid helps determine how food is metabolized how energy is stored, etc.

### NORMAL LEVELS

- In adults, normal TSH levels are 0.4 to 4.5 mIU/L.
- In infants, normal levels are 3 to 18 mIU/L. (mIU/L stands for milli-international units per liter)
- Free T4: 0.7-1.9 ng/dl
- Free T3: 230-619 pg/d

High TSH levels may be caused by:

- An underactive thyroid (hypothyroidism). Hashimoto’s thyroiditis is the most common cause of primary hypothyroidism.
- A pituitary gland tumour that is making too much TSH. This is uncommon.
- Not taking enough thyroid hormone medicine for treatment of an underactive thyroid gland.

Low TSH levels may be caused by:

- An overactive thyroid gland (hyperthyroidism). Causes of hyperthyroidism include Graves’ disease, a type of goitre (toxic multinodular goitre), or a noncancerous (benign) tumour called a toxic nodule.
- Damage to the pituitary gland that prevents it from making TSH.

(a condition called secondary hypothyroidism).
- Taking too much thyroid medicine for treatment of an underactive thyroid gland.
- Pregnancy during the first trimester.

### Hypothyroidism

This condition is diagnosed when there is underproduction of thyroid hormones.

Common symptoms of low thyroid function include:

- Severe fatigue
- Weight gain
- Dry skin, brittle nails
- Brittle hair
- Itchy scalp
- Hair loss
- Sensitivity to cold
- Lower body temperature
- Low libido
- Puffiness in face and extremities

### Hyperthyroidism

This condition occurs when there is an overproduction of thyroid hormones.

The symptoms can vary from person to person. They may include:

- Being nervous or irritable
- Mood swings
- Fatigue or muscle weakness
- Heat intolerance
- Trouble sleeping
- Hand tremors
- Rapid and irregular heartbeat
- Frequent bowel movements or diarrhoea
- Weight loss
- Goitre, which is an enlarged thyroid that may cause the neck to look swollen

Consumer Dialogue: Measles

**Pharmacist:** Hello sir I’m xxx, a pharmacist working over here. How can I help you?

**Patient:** Can you please dispense me these medications?

**Pharmacist:** (checks prescription) may I know whose prescription this is?

**Patient:** It is for my son. My doctor explained to me that he has symptoms of measles. He was having fever, muscle pain, rash, redness and irritation of the eyes and runny nose for last two days. Doctor did a blood test too.

**Pharmacist:** Measles is a very contagious (easily spread) infection that causes a rash all over the body. It is also called rubeola (and not to be confused with rubella) or red measles. The measles vaccine protects against the illness.

**Patient:** Can you tell what the causes for measles are?

**Pharmacist:** Measles is caused by a virus (measles virus). The virus lives in the mucus of the nose and throat of people with this infection. Physical contact, coughing and sneezing can spread the infection. It is spread when an infected person coughs, sneezes, or shares food or drinks. The measles virus can travel through the air. This means that you can get measles if you are near someone who has the virus even if that person doesn’t cough or sneeze directly on you. The virus can spread to others from 4 days before the rash starts until 4 days after the rash appeared.

**Patient:** Oh, will this spread to my family? How can I identify the disease?

**Pharmacist:** As it spreads through air it may be transferred to others. The first symptoms of measles are like a bad cold—a high fever, a runny nose, sneezing, a sore throat, and a hacking cough. The lymph nodes in your neck may swell. Patient may feel very tired and have diarrhoea and red, sore eyes. As these symptoms start to go away, red spots appear inside mouth, followed by a rash all over the body. When adults get measles, they usually feel worse than children who get it. It usually takes 8 to 12 days to get symptoms after you have been around someone who has measles. This is called the incubation period.

**Patient:** What are the complications of measles disease?

**Pharmacist:** Most people get better within 2 weeks. But measles can sometimes lead to dangerous problems, such as lung infection (pneumonia) or brain swelling (encephalitis). In rare cases, it can even cause seizures or meningitis.

**Patient:** Is it cured easily with treatment?

**Pharmacist:** Measles usually gets better with home care. The treatment is mainly symptomatic with paracetamol or ibuprofen. Also, take enough rest and drink lots of fluids. Stay away from other people as much as to limit disease spread. Anyone who has measles should stay out of school, work, and public places until at least 4 days after the rash first appeared. Some children may need vitamin A supplements. Vitamin A reduces the risk of death and complications in children.

**Patient:** What sort of measures should I follow so as to protect my family members from measles?

**Pharmacist:** Routine immunization is highly effective for preventing measles. People who are not immunized, or who have not received the full immunization are at high risk for catching the disease.

Taking serum immune globulin (IG) 6 days after being exposed to the virus can reduce the risk of developing measles, or can make the disease less severe. Babies who are younger than 12 months, pregnant women, and people who have impaired immune systems that can't fight infection may need to get IG if they are exposed to measles.

**Patient:** Ok, thank you for providing me all the valuable information and I will contact you further if any other information is required.

**Pharmacist:** Thank you Sir for spending your valuable time. You are welcome to contact me for any related information.
Good Pharmacy Practice (GPP): Patient instructions - Case 5

On discussion, information was obtained from the patient that the infection was in the groin (Tinea cruris). Age of patient = 55 Years

<table>
<thead>
<tr>
<th>Rx</th>
<th>Name of patient: YYY</th>
<th>Age: 55 years</th>
<th>Sex: Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand 1:</td>
<td>Griseofulvin</td>
<td>250 mg</td>
<td>1 – 1 (90)</td>
</tr>
<tr>
<td>Brand 2:</td>
<td>Cetirizine</td>
<td>10 mg</td>
<td>0–0–1 (10)</td>
</tr>
<tr>
<td>Brand 3:</td>
<td>Miconazole cream</td>
<td></td>
<td>1 – x – 1</td>
</tr>
</tbody>
</table>

Preliminary observation of the prescription: Prescription is genuine. Prescribed by a general physician (MBBS). This appears to be prescribed for a fungal infection.

1. Griseofulvin tab:

Instructions to give to the patient:

- Griseofulvin is prescribed for a fungal infection
- Please complete the course of therapy (45 days). Do not stop in between even if you feel better.
- Take it on a full stomach (to reduce irritation, as well as because its absorption is increased in presence of food – especially fatty foods).
- Take one tablet every 12 hours (after breakfast and after dinner), preferably at the same time every day.
- Avoid taking alcohol while on therapy as it can increase the effect of alcohol (increase heart rate and flushing)
- Avoid exposure to intense indoor light or sunlight to reduce the risk of photosensitivity.
- Report any adverse drug reactions to your doctor.
- If by chance infection does not go away even after completing the course, please consult your doctor.
- (for female patients – if you are on oral contraceptives, they may not be effective, and additional contraceptive measures – e.g. condom may be needed during Griseofulvin therapy and 4 weeks afterwards).

Adverse drug reactions:
Griseofulvin is generally well tolerated.

- **Minor**
  - Nausea | Vomitting | Diarrhoea | Hearburn thirst | Headache | Fatigue | Dizziness
  - Impaired co-orination | Blurred vision | Systemic lupus erthematous.

- **Severe**
  - Photosensitivity | Hepatotoxicity
  - Erythema multiforme | Toxic epidermal necrolysis | GI bleeding
2. Miconazole cream:

Instructions to give to the patient:
- Wash, clean and dry the affected part.
- Apply a small quantity of the cream with a clean finger on the affected area and additional half inch around it. Massage area gently until cream disappears.
- Do not wash the affected area after application of the cream.
- Apply two times a day – after a morning bath and before going to sleep.
- Regular application is essential for successful treatment. To prevent relapse, continue treatment for at least 1 to 2 weeks after the disappearance of all signs of the infection.
- Maintain good personal hygiene, keep the part dry, use separate towel for infected area.

Adverse drug reactions:
Topical Miconazole is generally well tolerated.

3. Cetirizine tab:

Instructions to give to the patient:
- Take on tablet daily at night, as prescribed for 10 days.
- May affect performance of skilled tasks (e.g. driving) in some individuals.

Adverse drug reactions:
It is a non-sedating antihistamine, hence drowsiness is rare, but can cause drowsiness / sedation - in some individuals.
- CNS: somnolence, fatigue, dizziness
- EENT: Pharyngitis
- GI: dry mouth

References:
1. BNF 65: Mar-Sep 2013
2. Pharmacist's Drug Handbook

Researched and compiled by:
Ms Bhavna Raghuvanshi and Mr Raj Vaidya, Community Pharmacists, Hindu Pharmacy, Panaji- Goa, E-mail: rajvaidya@gmail.com
Know the Abbreviations!

From this issue onwards, we will publish some commonly used abbreviations/short forms with their expansion. We welcome pharmacists to send abbreviations/short forms to us to be published in future issues. Please find a list of abbreviations related to prescriptions and dosage forms:

<table>
<thead>
<tr>
<th>Abbreviation/short form</th>
<th>Interpretation/meaning</th>
<th>Additional information/comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD or q.d</td>
<td>“omni die”- or “quaquedie” (in Latin) - take once a day 1 OD – Take one, once a day 2 OD would mean take 2, once a day</td>
<td>To be taken once a day, at the same time every day. The doctor should specify at which time of the day.</td>
</tr>
<tr>
<td>b.d or b.i.d.</td>
<td>“Bis in die” (in Latin) 1 b.d. – Take one, 2 times a day 2 b.d. – Take two, 2 times a day</td>
<td>One to be taken two times a day (Ideally this would mean every 12 hours – morning and night)</td>
</tr>
<tr>
<td>t.i.d. or t.d.s.</td>
<td>“ter in die” or “ter dies sumendum” (in Latin) 1 t.d.s. – Take one, 3 times a day 2 t.d.s. – Take two, 3 times a day</td>
<td>This would mean every 8 hours. The gap between 2 doses should be minimum to maintain adequate blood levels.</td>
</tr>
<tr>
<td>q.i.d</td>
<td>“quatre in die” (in Latin) 1 q.i.d – Take one, 4 times in a day</td>
<td>This would mean every 6 hours</td>
</tr>
<tr>
<td>s.o.s.</td>
<td>“si opus sit” - as and when required / when necessary</td>
<td>To be taken whenever required. Ideally the doctor should specify the minimum time period before the next dose can be taken, and the maximum permitted daily dose.</td>
</tr>
<tr>
<td>p.r.n.</td>
<td>“pro re nata” - when needed (as situation arises)</td>
<td></td>
</tr>
<tr>
<td>hs</td>
<td>“hora somni” - at the time of sleeping (at bedtime), or after dinner</td>
<td></td>
</tr>
<tr>
<td>x-o-x or 1-0-1</td>
<td>1 in the morning, none in the afternoon, and 1 at night</td>
<td>These are the common ways in which doctors in India write the dosing schedule on the prescription, to simplify and make the patient understand when and how much of the dose has to be taken. However, this at times could be confusing as in some cases ‘x’ could mean ‘no dose’ and in some cases it could mean ‘take one’.</td>
</tr>
<tr>
<td>x-x-1 or 0-o-x</td>
<td>1 at night</td>
<td></td>
</tr>
<tr>
<td>o-x-o or 0-1-0</td>
<td>1 in the afternoon</td>
<td></td>
</tr>
<tr>
<td>1-1-1</td>
<td>1 in the morning, 1 in the afternoon and 1 at night</td>
<td></td>
</tr>
<tr>
<td>½ - ½ -1</td>
<td>Half in the morning, half in the afternoon and 1 at night</td>
<td>Unfortunately, it is not clear whether it is a teaspoonful or a tablespoonful. Depending on the preparation/drug, the pharmacist will have to instruct the patient whether it a teaspoonful (e.g. cough syrup) or tablespoonful (e.g. antacid).</td>
</tr>
<tr>
<td>- - -</td>
<td>Take one spoon, 2 times a day</td>
<td></td>
</tr>
<tr>
<td>- - -</td>
<td>Take one spoon, 3 times a day</td>
<td></td>
</tr>
<tr>
<td>- - -</td>
<td>Take two spoons, 3 times a day</td>
<td></td>
</tr>
</tbody>
</table>
Check My Medicines programme for elderly: Innovative Campaign in Sweden

Check My Medicines (Koll på Läkemedel) is a unique project worldwide. And it is about Pharmaceutical Care and Medicines Optimization. By empowering, educating, engaging and mobilizing elderly people about their medicines, and use these patients as ambassadors to spread awareness, create dialogue and debate, the project contributes to the empowerment of the elderly, and improves elderly medication and health. Check My Medicines is about a project that started in 2008. Apoteket AB in Sweden, The National Pensioners’ Organization (PRO) and The Swedish Association of Pensioners (SPF) had separately during a number of years promoted the issue of elderly and medicines, and tried to influence responsible actors - without any clear results.

The aim of the project is to:

• Create a long-term cooperation between the actors to improve the elderly medication and health.
• Spread knowledge, create dialogue and debate to make the necessary changes happen, in order to improve the medicines management process of the elderly.
• Improve the appropriate prescribing for elderly as well as the appropriate use of medicines among elderly.

Each elderly patient should have a doctor with overall responsibility for the medication. The project initially formed common requirements for improved drug use:

• A better understanding and documentation of medicines prescribed to elderly
• Regular Medicines Utilization Reviews should be offered to all elderly being treated for multiple diseases.

Long-term goals:

• The proportion of the population 80 + with drugs that should be avoided to elderly, according to quality indicators established by the National Board of Health and Welfare, should be reduced with 50%.
• The proportion of the population 80 + with more than 10 drugs should be reduced with 25% at national level.

A broad alliance was created in 2009, based on the case of Gulli - a case that shocked and engaged the whole nation, to demonstrate the shortcomings that exist within the health care system and the drug treatment of elderly. A shared agenda was established and has since then been the inception for all activities within the project.

Check My Medicines decided early not only to highlight the shortcomings of the elderly drug use, but also to develop simple and effective tools that can be used to create tangible benefits for the elderly and their families, as well as helping them to improve the elderly medication and health.

By inspiring and educating the elderly, giving them tools and encouraging them to ask the right questions to doctors, politicians and officials locally, regionally and nationally the drug treatment has been improved. The number of inappropriate medication for elderly was during 2012 reduced with 11% and with a further 3% during 2013.

More than 100,000 elderly have been trained in hundreds of workshops around the country. Media has been invited as well as representatives of the health care system, which has led to an intense debate and major impact of this important issue.

Check My Medicines has developed new and proprietary indicators as the basis for forming public opinion:

- Key figures by municipality and county all over Sweden
- The proportion of the population 80 + having ≥ 10 drugs
- The proportion of the population 80 + with inappropriate drugs for elderly

Tools:

A number of tools have been developed by the project, in order to empower the elderly patient, such as:

• The Unwise List – a complete list of all medications that are not appropriate – and should if possible be avoided – for the elderly patient.
• Wise Questions – a brochure with wise questions on why and how to take the medicines.
• Wise Advice – a brochure of wise advice for the elderly and their medication.
• Wise Rights – a brochure that summarizes three valuable documents for the patient - two of the documents are from the National
Board of Health and Welfare, “Indicators for good medical treatment among elderly” and “Regulations about medicines that should be avoided at treatment of the elderly”, strengthening the patient’s right to good medical treatment. These documents are now adapted to the patients.

After four years of advocacy, Check My Medicines in 2012 won support for their demands for better and improved drug use for elderly:

- The Government allocates 39.1 million Euros in stimulus funds to reduce the use of inappropriate drugs for elderly in the country’s municipalities.
- The National Board of Health and Welfare developed new regulations – Medicines Utilization Reviews (MUR) must be performed for all elderly 75+ with five or more medications.
- Check My Medicines has by the Government been awarded 120 000 Euro in order to carry on activities to continue empowering elderly, via locally study groups, starting in September 2013.

- A special “Elderly coordinator” has been appointed at the Department of Health.

The project was 2012 nominated for “the Golden Pill” – the most innovative medical innovation in Sweden, and was awarded the “Medal of Honour”. In 2012, the project was nominated as best campaign of Social-economic Interest. During 2012, prescriptions of inappropriate medicines for elderly were reduced on a national level by 11%. During 2013, the number of inappropriate prescriptions for elderly continued to decrease with another 3%. The project has developed a “people's movement” regarding elderly and their medicines.

Contributed by: Mr Lars-Åke Söderlund, Apoteket AB, Chairman for Check my medicines, ExCo-member of the Community Pharmacy Section of FIP.
E-mail: Lars-Ake.soderlund@apoteket.se
Community Pharmacy Practice in the Caribbean region

Accessibility, affordability, and rational use of drugs continues to be a major challenge despite the efforts made and the resources invested in most of the countries including the Caribbean region of the Americas. The factors that have affected the achievement of these objectives include the segmentation and fragmentation of drug supply systems in the delivery of health services, and the difficulties related to supply management, and to drug quality and inappropriate drug use by prescribers and patients. For several years, the World Health Organization (WHO) and the International Pharmaceutical Federation (FIP) have been jointly studying the role of the pharmacist in health systems and has recognized the need for a curriculum that meets professional needs to develop this role. Specifically, these organizations have recommended including not only knowledge but also attitudes and skills, which a group of experts summarized as seven attributes or “stars”: caregiver, decision-maker, communicator, manager, life-long-learner, teacher, and leader. An eighth star (researcher) was later added.

Like many other countries, pharmacy profession in the Caribbean countries is undergoing a dramatic change. The focus is shifting from product oriented to patient oriented pharmacy. The concept of pharmaceutical care has started gaining importance in pharmacy practice. The Pan American Health Organization (PAHO), WHO and FIP are keeping a close watch on these undergoing changes and providing a framework to improve the standard of practice of the profession in these countries. Currently, pharmacists play an important role in health management and are directly involved in patients' medications and other health care needs. To strengthen the pharmacy profession, in September 1976, the Caribbean Association of Pharmacists (CAP) was formed at a meeting involving representatives from all English speaking states including Guyana, Jamaica, St Kitts and Nevis, St Lucia, Trinidad and Tobago, The Bahamas, and Barbados. The objective of this organization is to provide pharmaceutical care to the people of this region through excellence in the provision of all aspects of pharmacy practice.

Education of pharmacy is also undergoing a revolutionary change with the change in role of pharmacists since the past two decades. Most of the States have started recognizing a minimum four years pharmacy education programme for registration as a pharmacist to practice the profession. The Pan American Conference on Pharmaceutical Education (CPEF), an initiative of the Pan American Health Organization (PAHO) in partnership with the schools of pharmacy of the Americas has helped in guiding pharmacy curricula in these Pan-American countries. The purpose is to have an updated competency-based basic plan for pharmacy studies, with a view to harmonizing the education of pharmacists in the Americas. Additionally, it is also helping pharmacy schools to promote educational innovation, provide the human and material resources needed to put innovation into practice. Though this requires academicians who have been trained in new educational methodologies; laboratories and clinical fields of practice of sufficient quality and quantity for all students; availability of information and communication technologies, etc. Moreover, it will also help to promote the development of values and prepare tools and indicators to evaluate the teaching-learning process with a view to their continuous improvement.

Presently, in the English speaking Caribbean, there are seven Universities offering four years BSc pharmacy education programme. The University of the West Indies, St. Augustine, Trinidad and Tobago, University of Guyana, The College of the Bahamas, and The University of Technology in Jamaica. The University of Technology is also offering a Pharm.D degree as well. The Community College of Barbados, The University of Belize and the T.A. Maryshaw Community College in Grenada currently offer the associate degree in Pharmacy. The University of the West Indies and the University
of Technology also offer online BSc pharmacy programmes for the pharmacists who are diploma, certificate and associate degree holders to upgrade their degree.

Pharmacy is one of the most lucrative professions in these countries. It is due to easy accessibility of pharmacists to the patients at the community level. In many instances, the community pharmacist is the first healthcare professional most patients would interact with. Given this, the status of the community pharmacist in the society is held in high regard. It should be also noted that pharmacies carry a wide range of products including healthcare and beauty products. This is very much in keeping with the United States of America model. Also within the sector there are both chain pharmacies and independently owned pharmacies. In the Republic of Trinidad and Tobago alone, private community pharmacies make up more than 70% of all pharmacies that provide medication to the population. The Ministry of Health of Trinidad and Tobago introduced a program called the Chronic Disease Assistance Program (CDAP) in February 2003. This was intended to assist all citizens of Trinidad and Tobago with free prescription drugs and other pharmaceutical items to treat several medical conditions such as asthma, hypertension, diabetes and other chronic diseases. In today’s community pharmacy practice, over 250 pharmacies participate in this program. The aim of this participation is to reduce the burden of cost of drugs to the chronically ill patients.

One of the major problems in Trinidad and Tobago with regards to pharmacy is the availability of prescription drugs over the counter. It is a common practice in this country for pharmacists to sell these items without a valid prescription like any other developing country. However, most community pharmacists carry out their profession responsibly and legally. Pharmacists in this part of the world are diligently doing their duties by serving people with individualized care plan.

Bibliography: Contact us or the authors for references.

Contributed by: Dr Sameer Dhingra
E-mail: Sameer.Dhingra@sta.uwi.edu &
Mr Sandeep Maharaj
E-mail: Sandeep.Maharaj@sta.uwi.edu of
The University of the West Indies (UWI),
Faculty of Medical Sciences, Mount Hope,
Trinidad & Tobago.
FIP Pharmabridge report on visit to Pharmacies in Sydney

It gives me great pleasure to inform that as a member of IPA–CPD, recently I had an opportunity to visit a few pharmacies in Sydney, Australia for two weeks on a study tour. This tour was possible through the International Pharmaceutical Federation, through the PHARMABRIDGE programme. I had an official invitation from the Pharmacy Guild of Australia, and in these two weeks I had the opportunity to have practical experience in working at Belrose Pharmacy situated at Belrose shopping complex, Priceline Pharmacy and Amcal Pharmacy situated at Maquerie Shopping Complex in Sydney.

It was a totally different experience for me to learn, as the operating system in India and in Australia is hugely different. There is a lot of documentation done in Australia before dispensing prescription drugs. While in India medicines are classified as Schedule H, Schedule H1, Schedule G, Schedule X etc., in Australia they are put into Pharmacy Medicines, Pharmacist Medicines and Prescription Medicines. In Australia, it is very difficult to get prescription medicines without a proper prescription in contrast to India where it is easily available (regulations not strictly implemented). In Australia, only a pharmacist can own a pharmacy, while in India, it is not so.

The Pharmacy Guild of Australia is the association of all pharmacies in Australia and plays a major role in professionalizing the pharmacy practice in Australia. It offers all the profession help in running a community pharmacy in Australia. All registered pharmacists must attend continuing education programmes to accumulate at least 40 points to get his/her registration renewed. In India, slowly system is improving to have regular continuing education programs.

Quality Care Pharmacy Program (QCPP) is an Accreditation process for pharmacies, which makes them upgrades themselves to higher standards to give much more professionalized services to the customer. Such an accreditation process is missing in India and this shunts the growth and professionalism of pharmacy practice. Medicines in Australia are highly priced but the government of Australia subsidizes the prices of the medicines through the Medicare System. The prices of medicines are regulated in India by government through the Drug Price Control Order, this is done pretty strictly.

Free SMS services are available to patients in Australia for receiving reminders, which is a simple and convenient way to keep up to date with their medication, keeps track of refill prescription needs and less waiting in store when picking up the medicines.

A home medication review involves pharmacists visiting patient's house and discussing any concerns or questions that he may have with the medication. A Pharmacist will tell the patient what his/her medications are for, when and how to take them and how to use any healthcare device they may have been prescribed. He may also identify interactions between medications.

Dose Medication Aid:
Dose Medication Aids are packs that contain individually sealed compartments that store the patient's medication divided into individual doses arranged according to the dose schedule throughout the day. Most of the Pharmacies in Australia are offering this facility and they charge 6 AUD per pack for the service provided.

In Australia, when a prescription is dispensed, on every drug dispensed, the pharmacy puts a special extra label that bears on it the brand name and generic of the drug, batch number & expiry, name of the patient and the prescribing doctor, instructions to the patients in 2/3 lines how to take the medication and the signature of the pharmacist along with the name and address of the pharmacy. A fee of 6 AUD is charged to the patient per prescription.
There are around 1800 community pharmacies in New South Wales which are either privately owned or run by chain pharmacies. To supply medicines to these pharmacies there are only 3 Wholesalers, which was surprising to me considering the highly fragmented Indian market. Drug substitution is allowed in Australia which makes the job of the pharmacy easier, to control the inventory whereas in India we have to stock all brands of medicines as prescribed by the doctor, as legally it is not allowable to substitute.

Prices of the Glucometer strips are being subsidized by the Australian government for the Diabetic Patients under National Diabetic Service Scheme. Used syringes and needles are exchanged free of cost in Australia to avoid contamination and misuse and are disposed safely with the help of government agency. I had an opportunity to see the methadone programme also.

I am thankful to IPA CPD and FIP Pharmabridge to arrange my training along with Pharmacy Guild of Australia and the pharmacies I visited. I hope those pharmacists who had no opportunity for such training shall be benefited by this short description of my training.

Contributed by: Mr Ratnadeep Kurtarkar, Community Pharmacist, Kurtarkar Medical Stores, Ponda, Goa, E-mail: kratnadeep@yahoo.com
Market Watch: Good days ahead for the Pharma Industry, again

While the recent budget may not have anything to cheer the pharma industry, the June month performance of the industry has something to cheer all!

The market in June grew by 10.4%. The growth was even better than in May when the growth was 8.1%. Market saw the double digit growth after a long time. Is this again the beginning of double digit growth period for the industry? Well, consistently increasing volume growth and stable price growth are signs of continued good days ahead. The graph below illustrates the point. With the first half of 2014 is over for MNC companies, it seems this year even they will also post good growth, which otherwise had a dismal 2013.

Source: AIOCD Pharma Data

Key highlights of previous month performance

The pharma market clocked Rs. 6636 crore in June 2014 and the total domestic branded formulations market size on MAT (Moving Average Total) basis for the trailing 12 months was Rs. 77529 crore.

The 10.4% growth in June was on account of 5.0% volume growth, 1.8% price growth, and 3.6% new product growth.

Non–NLEM market (drugs outside the price control) had a healthy growth of 13.1% for the month. Price controlled market (NLEM) continue to decline, in June it declined by -5.9%, indicating continued adverse impact of price control. The price controlled portfolio of Pfizer de-grew by 25.0%, of GSK de-grew by 13.8% and that of Ranbaxy de-grew by 14.2%.

Performance of the companies

Amongst the top 10 companies, Indian companies continued to do better and grow faster. Lupin had the fastest growth at 20.6%, followed by Sun Pharma at 16.1% & Mankind at 14.8%. But the fastest growing companies in the top 50 were Akumentis at 54.1% growth, followed by Ajanta Pharma at 45.0% & Biocon at 44.8%. Other companies doing well were Macleods with 29.5% growth, Intas at 26.6% and DRL at 17.4%

Indian companies continued to do well. They grew by 12.8% versus 2.8% for MNCs in June. Amongst the MNCs in top 50, Janssen grew at 12.3%, followed by Merck at 12.2% and MSD at 10.5%.

Therapies and brands performance

As expected chronic (lifestyle) therapies grew much faster. Anti-diabetic market grew by 21.6% and Cardiac at 11.8%. While acute therapies had a slower growth rate. Anti-infectives grew at 4.1%, Respiratory grew at 7.2%, Gastrointestinal market grew at 13.7%. Derma segment also continues to do well and it grew by 17.7%.

The largest selling combination in India was Amoxycillin + Clavulanic Acid, and it grew by 8.6%. Glimepiride + Metformin was the second largest combination and it grew at 37.7%. Other good performing molecules were Levocetirizine + Montelukast by 24.5%, Rosuvastatin by 30.5%, Levetiracetam by 26.0% and Telmisartan by 14.9%

Among the top 10 brands, Lantus and Dexorange had the fastest growth of 27.9%. Other good performing brands were Glycomet GP (22.7%), Lantus & Dexorange (27.9%), Galvus Met (46.2%), Skinline (26.9%), Liv 52 (20.4%), and Orofer XT (22.6).

So it seems that the domestic pharma market is getting back to its growth habit. Last four months of 2013 were quite challenging for the market. It’s important to mention that pharma market historically has 13% annual growth rate over a period of 10 years. Let’s hope and wish it continues to grow well and benefit all the stakeholders.

Contributed by: Mr Anil Khanna, Partner I Tai Pi Advisors LLP, Partner I Wisdomsmith Advisors LLP, E-mail: anil.khanna@taipi.in
World Breastfeeding Week 2014 (Aug 1st – 7th)

The slogan and theme for the WBW 2014 - Breastfeeding:

A Winning Goal – For Life!

The theme asserts the importance of increasing and sustaining the protection, promotion and supporting of breastfeeding – in the Millennium Development Goals (MDGs) countdown, and beyond.

Objectives of WBW 2014:

01. To provide information about the Millenium Development Goals (MDGs), and how they relate to breastfeeding and infant and young child feeding (IYCF).

02. To showcase the progress made so far and the key gaps in breastfeeding and IYCF.

03. To call attention to the importance of STEPPING UP actions to protect, promote and support breastfeeding as a key intervention in the MDGs and in the post 2015 era.

04. To stimulate interest among young people of both genders to see the relevance of breastfeeding in today’s changing world.
Rationale:
In 1990 eight global goals, the Millennium Development Goals (MDGs), were set by governments and the United Nations to fight poverty and promote healthy and sustainable development in a comprehensive way by 2015. There are “regular countdowns” to gauge progress in achieving the goals. This year’s WBW theme responds to the latest countdown by asserting the importance of increasing and sustaining the protection, promotion and support of breastfeeding in the post 2015 agenda, and engaging as many groups, and people of various ages as possible.

Wherever you are, progress can be made AND sustained. For this to happen you need to be prepared, set goals and targets. Join forces and ACT!

Protect, Promote and Support breastfeeding: It is a vital, life-saving goal!

Exclusive breastfeeding and adequate complementary feeding are key interventions for improving child survival, potentially saving about 20% of children under five. Let’s review how the UN’s Scientific Committee on Nutrition illustrated how breastfeeding is linked to each of the Millennium Development Goals:

1. **Eradicate extreme poverty and hunger**
   - Exclusive breastfeeding and continued breastfeeding for two years provide high quality energy and nutrients, and can help prevent hunger and malnutrition. Breastfeeding is a cost effective way of feeding babies and children. It is affordable for everyone and does not burden household budgets compared to artificial feeding.

2. **Achieve universal primary education**
   - Breastfeeding and adequate complementary feeding are fundamentals for readiness to learn. Breastfeeding and good quality complementary foods significantly reduce the risk of stunting, and so enhance mental development and thus promote learning.

3. **Promote gender equality and empower women**
   - Breastfeeding is the great equalizer, giving every child a fair start in life. Most differences in growth between sexes begin as complementary foods are added into the diet, and gender preference begins to act on feeding decisions. Breastfeeding is uniquely a right of women, and should be supported by society, for example via maternity protection laws.

4. **Reduce child mortality**
   - Infant mortality could be readily reduced by about 13% with improved breastfeeding practices alone, and 6% with improved complementary feeding. In addition, about 50-60% of under-5 mortality is secondary to malnutrition, largely caused by inadequate complementary feeding following on from poor breastfeeding practices.

5. **Improve maternal health**
   - Breastfeeding is associated with decreased maternal postpartum blood loss, decreased breast cancer, ovarian cancer, endometrial cancer, and osteoporosis. Breastfeeding also contributes to increasing birth intervals, reducing the risks of pregnancies too close together.

6. **Combat HIV/AIDS, malaria and other diseases**
   - Exclusive breastfeeding together with antiretroviral therapy for mothers and babies can reduce the transmission of HIV from mother to child to a very low level.

7. **Ensure environmental sustainability**
   - Breastfeeding is linked to less milk industry waste, pharmaceutical waste, plastic and aluminium waste, and reduced use of firewood and fossil fuels.

8. **Develop a global partnership for development**
   - The Global Strategy for Infant and Young Child Feeding fosters multi-sectoral collaboration, and can build upon various partnerships for support of development through breastfeeding and complementary feeding programs.

Baby friendly hospitals and State:
Hospitals and maternity units set a powerful example for new mothers. The Baby-Friendly Hospital Initiative (BFHI), launched in 1991, is an effort by UNICEF and the World Health Organization to ensure that all maternities, whether free standing or in a hospital, become centres of breastfeeding support.

Kerala was in 2002 declared the first ‘baby friendly state’ in the world. At a function in Kochi, Governor Sikander Bhakt read out the declaration in this regard in the presence of State Health Minister P. Sankaran and Dr Erma Manoncourt, Deputy Director, Programmes, UNICEF India.

In what way can practising pharmacists support breastfeeding?
- Gather knowledge and be equipped about the various aspects of breastfeeding
- Promote breastfeeding awareness through your pharmacy:
- Distribute IEC material on benefits of breastfeeding and disadvantages of bottle feeding/formula foods, correct practices, nutrition (and also show videos), especially to pregnant women and their family members.
- Offer to provide information to pregnant women about breastfeeding (advantages v/s disadvantages), and help them to mentally prepare for it. The best time to educate is when the women is 4-5 months pregnant and starts feeling the baby in the womb!
- The golden hour of breastfeeding is within the first half hour of birth! Encourage mothers to continue breastfeeding, and do exclusive breastfeeding for the first 6 months after birth (not even water is necessary), and continue breastfeeding along with homemade foods for up to 2 – 2.5 years

Be part/contribute in the WBW celebrations in your society.

Call for support on role of Pharmacists in Uruguay

The situation created by a new law in Uruguay, which will lead to pharmacies selling cannabis for recreational use, is explored in the latest issue of the International Pharmacy Journal (IPJ).

The new law means that pharmacists in Uruguay face an ethical dilemma. FIP has been supporting a campaign by Uruguay’s professional body for pharmacists (AQFU) to try to prevent sale of non-medical marijuana from pharmacies.

Will the image that pharmacy has within society be changed once this takes place? The AQFU has launched a petition, and is asking all pharmacists around the world, and others, to support it. Read the article here and decide for yourself

"Uruguay may be a relatively small country, but the entire world is watching closely how the implementation of this law will develop, and certainly other countries may want to follow the footsteps of Uruguay in this regard. Therefore the consequences of the decisions taken in Uruguay will have an impact well beyond [its] national borders," says FIP president Michel Buchmann

Source: www.fip.org
The Pharmacy Practice course was started at Jagadguru Sri Shivarathreshwara (JSS) College of Pharmacy, Mysore in 1995. The Department of Clinical Pharmacy was established at JSS Medical College Hospital, Mysore in April 1997. The objective was to impart patient-oriented pharmacy education and train the students in Clinical Pharmacy Practice on par with international standards and to provide Clinical Pharmacy services at JSS Medical College Hospital.

Department provides Clinical Pharmacy services to medicine, surgery, paediatric, nephrology, neurology, cardiology, pulmonology, psychiatry, HIV care, etc. The staff, postgraduate students of Pharmacy Practice and Pharm.D used to attend ward rounds and provide complete clinical pharmacy services to these departments. However, the drug information services, adverse drug reaction reporting and monitoring programme and patient referral services are offered to all the departments in the hospital.

The major goal of the department is to promote quality use of medicines and it achieves its goal through proving various activities that include,

- Ward round participation
- Drug therapy review
- Drug information services
- Poison information services
- Patient counselling
- Adverse drug reactions reporting and monitoring
- Adverse events following immunization reporting and monitoring
- Patient referral services
- Pharmacist intervention
- Dose division services

Department of Clinical Pharmacy has introduced innovative methods for teaching and learning of Clinical Pharmacy. Teaching methodology adopted includes self-study questions, problem based learning and learning through case presentations (apart from didactic teaching).

The department has extended its expert services to various hospitals in and around Mysore like Asha Kirana HIV Speciality Hospital, Vikram Cardiology Hospital, Sargur Memorial Hospital, and Bharat Cancer Hospital. The objective of implementation of these services is to promote quality use of medicines in these hospitals.

The department has been recognized as a teaching site for University of South Australia, School of Pharmacy and Medical Sciences. It has commenced the clinical bridging programme during July 2001 in collaboration with University of South Australia, Adelaide. The department staff assisted Faculty of Pharmacy, Khartoum College of Medical Sciences, Khartoum, Sudan in establishing Clinical Pharmacy teaching and practice programme. Also, Impacted World Health Organisation Sponsored Clinical Pharmacy Training Program to pharmacy teachers from six different universities of Sri Lanka.

Students from different International Universities like University of Nottingham, UK, Howard University, USA were posted to the department as part of their internship program and completed their international clinical rotations successfully.

Department staff held key positions in various national and international professional bodies including WHO Planning Group, Global Vaccine Safety, Asian Association of Schools of Pharmacy, BRICS Medicines Alliance, Hospital Pharmacy, Clinical Pharmacy and Community Pharmacy Division of Indian Pharmaceutical Association, and Local Branch of Indian Pharmaceutical Association.

Text Book of Clinical Pharmacy Practice, Essential Concepts and Skills was published in December 2003 with Dr G Parthasarathi, Professor, Department of Pharmacy Practice as lead editor of the text. The book aims to provide readers with comprehensive description of the concepts and skills that are foundation for current Clinical Pharmacy Practice.

Contributed by: Dr M. Ramesh, Professor & Head, Department of Clinical Pharmacy, JSS Hospital, Mahatma Gandhi Road, Mysore - 570004, Karnataka, India. E-mail: madhanramesh@hotmail.com
National Formulary of India

The first, second and third editions of National Formulary of India (NFI) were published in 1960, 1966 and 1979 respectively by the Ministry of Health, Govt. of India (MoH GoI). In the past 3 decades there has been vast expansion in the range of new drugs and their formulations. To address the need of publication of an updated version of NFI, MoHFW, GoI assigned this mandatory responsibility to the Indian Pharmacopoeia Commission (IPC), Ghaziabad and hence the NFI is being published by the IPC on behalf of the Govt. of India, Ministry of Health and Family Welfare.

NFI provides information for the rational use of medicines for Indian healthcare professionals. NFI is not a regulatory document. Inclusion/Exclusion of monographs in NFI is a dynamic process. The drugs contained in NFI have been chosen for rational and economic prescribing. NFI would serve as a guidance document to medical practitioners, pharmacists, nurses, medical and pharmacy students, and other healthcare professionals and stakeholders in healthcare system.

Features

- 431 drugs with concise product monographs
- Listed by Generic name and categories
- Quick access to monographs of Essential Medicines and many more
- Impartial, unbiased information on Diseases and Medicines edited by renowned experts
- 15 Appendices
  1. Antimicrobial Resistance
  2. Calculation of Electrolytes
  3. Common Laboratory Parameters
  4. Disposal of Unused/Expired Pharmaceutical Products
  5. Drugs and Poisons Information Centres in India
  6. Interactions
     a. Drug–Alcohol Interactions
     b. Drug–Contraceptive Interactions
     c. Drug–Drug Interactions
     d. Drug–Food Interactions
  7. Hepatic Impairment
     Lactation
     Pregnancy
     Renal Impairment
  8. National Health Programmes (NHPs)
  9. National Immunisation Schedule
  10. Pharmacogenetics
  11. Pharmacovigilance Programme of India
  12. Pictograms
  13. Principles of Dose Calculation in Special Conditions
  14. Storage of Drugs
  15. Therapeutic Drug Monitoring

NFI 2011 is also available as a mobile application that can be downloaded by healthcare professionals in India FREE from an android phone or tablet with an android platform version 2.2 or above.

Steps for Download

- Go to “PLAY STORE” on your mobile hand set or tablet
- In the Search box type- NFI 2011
- Click download and Install

Contributed by:
Mr Pradeep Mishra
IPA CPD Executive Committee Member
E-mail: pramish71@gmail.com
IPA-Pfizer conducts Training Programme for Pharmacists

On 11th July IPA CPD and Pfizer India conducted Pharmacists Training Programme, at Medanata Hospital, Gurgaon, Delhi (NCR) for 30 of their practicing pharmacists. CPD Exe Member and SEARPharm Forum Professional Secretary Mr Pradeep Mishra conducted a session on Good Pharmacy Practices, and Dr Bhawani Shankar Tripathi, Communication Expert delivered talk on Communication Skills for pharmacists.

DOTS TB Training for Pharmacists

On Friday 27th June 2014, IPA-CPD conducted a DOTS TB training session for community pharmacists at Panvel Gymkhana in Panvel, (near Navi Mumbai) in collaboration with the City TB Office. Dr Syed Imran, WHO TB Consultant, Dr Rajendra Iktare, Taluka Health Officer and IPA-CPD Chairperson Mrs. Manjiri Gharat conducted the training for a group of 30 pharmacists. Mr Santosh Ghodinde, CPD Exe Member did arrangements for the training. IPA SF students also helped for the arrangements. CPD Secretary and IPA–MSB Council Member Mr Satish Shah, FDA Officers Mr K G Gadewar, Mr J V Yadav and Mr V B Taskhedkar, President of Chemist & Distributors Association of Raigad District (CDARD) Mr Kirit Vithlani were present during the training.
News from Delhi Pharmaceutical Trust

Delhi Pharmaceutical Trust (DPT) which is the face behind the Initiative for Consumer Awareness on Safe Use of Medicines (iCASUM) has now embarked on its second phase on educating the users on medication usage and storage.

This is why DPT took on the onus to convert their earlier roll-up posters into calendars. It went on to print 1,000 calendars where each of the six sheets conveyed the message of the proper storage, purchase of medicines with a prescription and its method of intake which could be displayed at home. “Now if the large and medium pharma companies partner with DPT, we would be able to print these calendars in larger numbers to have a wider reach in the country”, said Dr. Narayana, Managing Trustee of DPT.

BrainTicklers 10 Choose the correct answer

1. The dose limiting toxicity of Doxorubicin is?
   a. Neurological toxicity
   b. Nephrotoxicity
   c. Cardiotoxicity
   d. Hepatotoxicity

2. Which of the following is a microvascular complication of diabetes?
   a. Coronary artery disease
   b. Retinopathy
   c. Peripheral artery disease
   d. Stroke

3. Which of the following crosses the blood brain barrier?
   a. GABA
   b. Propranolol
   c. Dopamine
   d. Edrophonium

4. Which of the following is correct with regard to GABA receptors and neurotransmission?
   a. GABA - A receptors are found all over the Body
   b. GABA - B is predominantly Post-synaptic receptor
   c. GABA is an excitatory neurotransmitter
   d. GABA is metabolized by GABA Transaminase.

5. Which Local anesthetic is also given intravenously to treat Arrhythmias?
   a. Tetracaine
   b. Mepivacaine
   c. Lignocaine
   d. Bupivacaine

Please find the correct answers on page 26
NSS Special Camp at Hasanparthy, Warangal

The National Service Scheme (NSS) unit of St. Peter’s Institute of Pharmaceutical Sciences, Hanamkonda and Indian Pharmaceutical Association Student Forum (IPA-SF), IPA Hanamkonda branch had organized a weeklong special camp at Hasanparthy Village near Warangal. The program included many welfare and awareness activities for the people in the rural area of Hasanparthy:

- TB awareness campaign
- Blood Group Identification program
- AIDS awareness campaign
- Awareness camp on Sanitation and Personal Hygiene
- Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) usage demonstration
- Camp for blood glucose levels / blood pressure measurements
- Ethical voting rights awareness rally

The above activities were conducted under the guidance of the Chairman Mr. T. Jayapal Reddy, Director, Dr. Rao Vadlamudi and Principal Dr. Suresh Bandari. NSS Program Officer Mr. N. Venumadhav and the faculty members, Dr. K. Venkateshwarlu and Mr. V. Sangram supervised these activities. The weeklong program was very well received by Hasanparthy residents, who appreciated the efforts of volunteers during these activities.

Competitions on TB awareness:

Earlier the institute held competitions on awareness of TB under the supervision of Ms Anusha Bompelli, National TB Coordinator, IPA-SF. The competitions were conducted on two levels in 20 schools in the district.

At the Grand Finale event, Dr. Rao Vadlamudi, Director, SPIPS gave a short talk on “Multidrug Resistant Tuberculosis and Preventive Measures”. The volunteers of IPA-SF, Mr. Anudeep, Ms. Laxmi Bhavani, Ms. Shyli and Mr. Harish Reddy looked after the arrangements for successful conduct of the program. The IPA-SF team received a lot of appreciation from the school managements regarding these social activities and even students in the schools took an oath to spread awareness regarding TB in their community.
Brain Ticklers - 10 Answers

1. c. Cardiotoxicity
Doxorubicin is believed to cause dose-dependent chronic cardiotoxicity (cardiomyopathy) through redox cycling and the generation of reactive oxygen species, direct DNA damage, reduction in density of myofibrillar bundles and other mechanisms.

2. b. Retinopathy
Retinopathy is a complication of diabetes that affects the eyes. It's caused by damage to the blood vessels of the light-sensitive tissue at the back of the eye (retina).

Diabetes dramatically increases the risk of various cardiovascular problems, including coronary artery disease with chest pain (angina), heart attack, stroke, narrowing of arteries (atherosclerosis) and high blood pressure.

3. b. Propanolol crosses Blood brain barrier
GABA does not cross BBB, but GABA pentin Crosses BBB Dopamine and Edrophonium does not cross BBB.

4. d. GABA is metabolised by GABA transaminase by transamination to succinic semialdehyde to succinate to TCA
GABA A receptors are found only in CNS
GABA B is both pre and Post synaptic receptor
GABA is a Inhibitory neurotransmitter

5. c. Lignocaine
Lignocaine is also the most important class 1B antiarrhythmic drug: it is used intravenously for the treatment of ventricular arrhythmias.
Indian Pharmaceutical Association
Community Pharmacy Division:
Executive Committee members Year 2014-2016

Chairperson
Mrs Manjiri Gharat
Ulhasnagar, MH
manjirigharat@ipapharma.org

Member/Immediate Past Chairman
Mr Raj Vadya
Panaji, Goa
rajvadya@gmail.com

Member/Vice-Chairman
Dr Guru Prasad Mohanta
Annamalainagar, TN
gpmohanta@hotmail.com

Member/Secretary
Mr Satish M. Shah
Navi Mumbai, MH
satishshah3669@gmail.com

Member / Treasurer
Mr Ratnadeep Kurtarkar
Ponda, Goa
kratnadeep@yahoo.com

Member/Editor e-Times
Dr Dixon Thomas
Ernakulam, KE
dixon.thomas@gmail.com

Member
Mr Pradeep Mishra
New Delhi
pramish71@gmail.com

Member
Mr Nitin Maniar
Mumbai, MH
nitinnmaniar@yahoo.co.in

Member
Mr Pravin G. Vekaria
Surat, GJ
pravin.pharmacist1971@gmail.com

Member
Mr Raghavan N.
Mysore, KA
Raghulal607@gmail.com

Member
Ms Anita Bhishikar
Nagpur, MH
anita_bhishikar@rediffmail.com

Member
Mr Sagar S. Kulkarni
Kalyan, MH
Yashashri.medical@gmail.com

Member
Mr Santosh Ghodinde
Panvel, MH
santoshghodinde@gmail.com

Member
Mr Satish V
dhara
satishvij1952@yahoo.in

IPA SF Nominee
Ms Gabriella Keerthana
Andhra Pradesh
Gabriella.keerthana@yahoo.com

IPA CPD Executive Committee Advisers & Invitees:
Dr Atmaram Pawar, Poona College of Pharmacy, Poona, Maharashtra (MH)
Dr Sameer Dhinegra, The University of the West Indies (UWI), Trinidad & Tobago
Dr Vijaya Ratna, Andhra University, AP
Dr L. Panayyapan, St. James College of Pharmaceutical Sciences, Thrissur, Kerala
Mr Manohar Kore, Community Pharmacist, Aurangabad, MH
Dr Madhusudan Joshi, Goa College of Pharmacy, Goa
**1. Use a measuring cup or measuring spoon**

**Oral Syrup, Solution, Elixir, Linctus**
- Measure the prescribed dose using the measuring cup or measuring spoon provided with the bottle
- Do not use the bottle cap or a kitchen spoon or directly drink from the bottle
- Do not dilute unless so instructed

**2. Shake well before use**

**Oral Emulsion and Suspension**
- Shake well before use so as to disperse the emulsion/suspension uniformly
- Measure the dose using the spoon or cup supplied with the bottle

**3. Reconstitution of Dry Powders Before Use**

- Some medicines are available as powders or granules and to be reconstituted into a suspension by the user by adding water
- Shake the bottle to loosen the powder. Open the cap or seal of the bottle. Slowly add previously boiled and cooled water exactly up to the mark given on the bottle. Shake the bottle vigorously till the powder is uniformly suspended. Then adjust the volume up to the mark on the bottle
- After reconstitution store it under the conditions mentioned on the label (generally in the refrigerator) and use it within the time as given on label (generally within 3-7 days.)
IPA CPD's Convention for Practicing Pharmacists

Upcoming Scientific Events

• IPA Convention, Bangalore, August 8, 2014.
  Visit: www.ipapharma.org
• 74th FIP World Congress of Pharmacy and Pharmaceutical Sciences 2014 Bangkok, August 31- September 4, 2014.
  Visit: www.fip.org
• IPA CPD Convention, Kerala, October 12, 2014.
  E-mail: dixon.thomas@gmail.com
• IPA CPD Convention, Panaji – Goa, November 23, 2014.
  Email: kratnadeep@yahoo.com

IPA CPD, in collaboration with IPA Kerala State Branch is organizing a One Day Convention for practicing community and hospital pharmacists. The aim of the Convention is to bring together Pharmacists and to educate/update them on various aspects of diseases/medicines as well as to discuss various issues related to pharmacy practice. Practicing community, hospital & clinical pharmacists, academicians, and students from all over India are most welcome for this Convention.

Date: Sunday, October 12, 2014.
Venue: St. James College of Pharmaceutical Sciences, Chalakudi, Thrissur, Kerala.
Theme: Towards 'Generation Next' Pharmacists

Registration Fees:
- IPA Members: Rs 100/
- Non-IPA members: Rs 200/
- Spot registration Rs. 500/

For more details: visit www.ipapharma.org
Or Contact: dixon.thomas@gmail.com

IPA CPD Editorial team
Editor: Dixon Thomas • Chairperson: Manjiri Gharat
• Immediate Past Chairman: Raj Vaidya • Advisor: Pradeep Mishra
Editorial Assistants: Kavita Gaonkar, Amruta Deshpande, Vidya Peter, Tinu Joshy

For private circulation to healthcare professionals only
Disclaimer: Drug information is for health care professionals only. We try our level best to gather updated healthcare information, but it is better advised to refer and consult other relevant resources before taking a practice decision. Views of the authors are not necessarily, the views of IPA CPD, and the association is not responsible for any damage caused due to information published in IPA CPD E-Times. Subject to Mumbai Jurisdiction only.

Published by:
Indian Pharmaceutical Association—Community Pharmacy Division, IPA Headquarter, Kalina, Santacruz (E), Mumbai - 400 098.

Creative Design: PMS Arts & Communications, www.pmsarts.com