

Pharmacy Bulletin

June 2015

Volume 1/2015

Highlight | Herbal/Traditional Medicine

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By: Lee Yee Kee

What are Herbal Supplements?

Herbal supplements are traditional medicines containing part of a plant and is claimed to have medicinal properties. Herbal supplements are not just edible supplements and include vitamins and also cosmetics.

It is important to remember that these natural herbal supplements may also bring about side effects and may also interact with the medicines and food that we are taking. These interactions will either increase or decrease the effectiveness of the medicines we are currently taking, both of which are not desirable.

If you will be undergoing an operation soon, it is advised to inform your doctor about which herbal medications, if any, that you are taking during that time.

As with all medicines, herbal supplements should be kept out of reach of children.



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Herbal/Traditional Medicine (cont.)

Advice for Consumers who wish to buy Herbal Supplements

Before buying a herbal product, it is advised that to make sure that that particular herbal product is registered with the Ministry of Health. Licensed herbal supplements should have a license number beginning with 'MAL'. For example, MAL 04070450T. The letter 'T' signifies that it is registered as a herbal product.

This makes sure that the supplements that you are taking have been approved by the National Pharmaceutical Control Bureau (BPFK), MOH; making it safe to be taken provided it does not interact with any other medications that you are taking.

Do not be attracted by advertisements on the internet and it is best to avoid buying herbal supplements through the internet as product advice given might be incomplete and it is difficult to control quality and safety of the product.

Avoid purchasing herbal products that have these labels:

- This herbal supplement is '100% safe'
- This herbal product is 'safe as it is from natural sources'
- This herbal product 'does not have any side effects'
- This herbal product 'does not interact with any other medication'
- 'Side effects from this medication can be avoided by taking this medication 1 hour before or after other medication'

Please ensure that any herbal products are registered with the MOH before taking them. Registration can be checked at the website: <http://portal.bpfk.gov.my/index.cfm>

The safest way is to always discuss with your doctor before you take any herbal medications.

It is important to remember that not all herbal medications are safe even if they may be from natural sources.

High Risk Groups who are advised to Avoid Taking Herbal Medicines:

- ◇ Pregnant women
- ◇ Breastfeeding women
- ◇ Children
- ◇ Elderly
- ◇ Patients who have chronic illnesses (eg. heart disease, liver failure, kidney failure etc.)
- ◇ Patients who are taking warfarin as a blood thinner
- ◇ People who have undergone an organ transplant
- ◇ People who are allergic to one of the ingredients making up the herbal supplement



If you feel you have suffered an adverse effect from a herbal medication, please bring the medication to your nearest hospital and pass it to the pharmacist. The pharmacist will report the incident to BPFK for further investigation.

References and pictures are from:

- ◆ WHO
- ◆ www.medicinesauthority.gov.mt
- ◆ www.mhra.gov.uk
- ◆ thewatchers.adorraeli.com
- ◆ herbalmagic.info
- ◆ www.bbc.co.uk
- ◆ health.howstuffworks.com

Medication Safety | Medication for Children Under 2 Years Old

By: Raudhah Khairiah binti Muhamad

Extra care and caution are required when giving any types of medication to an infant. This is because the way their body react towards a medication is different as compared from an adult. For example, their size of intestine and gastric emptying time may influence the amount of medication that is absorbed by the body. Their metabolic rate may affect how much gets metabolised and how much is removed from the body. These will affect the amount of drug that is exposed to the infant. Therefore, the parents or guardians must first consult with a physician before giving any medications to an infant.

Dosing regimen for infant is calculated using their body weight. This is another reason parents have to consult with a physician before giving any medication to an infant. The dose has to be calculated accurately and should not be estimated from an adult or children dosing. This is to prevent over-dosing and prevent any adverse drug reactions from happening. For example, in giving paracetamol (medication to treat fever and pain), the dose is calculated using the infant's body weight and should not be given more than five doses in 24 hours. Furthermore, the body weight used is the ideal body weight. Therefore, dosing an overweight should be done carefully too.

Administering medications to infants may not be an easy task for some parents. Some medications come in syrup form and various flavours to help palatability for the infants. Usually, an oral syringe is also included to give the correct amount of medication. It is advisable that parents avoid from the use of spoon as this might not be accurate. In other cases, there are suppositories too (medications in form to be inserted into the rectum). This is especially important if fast delivery of the medication is required and the infant refuses oral medication. There are also extra device that help infants to obtain the medication easier such as in the case of asthma medications where coordination is required for the use of the device but they have not developed it yet.

The important notes to remember when giving any medication to your infants:

- ◆ Have I discussed with a physician regarding my concern for the health of the infant?
- ◆ Does the infant really need the medication? What is it for?
- ◆ How much medication should I give? It is a safe dose?
- ◆ Does he have any other health problem? Is he on any other medication? Does he have any allergy?

If there are any uncertainties regarding any of the above mentioned questions, It is best to first consult with health professionals before giving any medications to your infants. Remember to place the medication at the safest place i.e. closed cabinet out of reach of children and infant.



“It is best to first consult with health professionals before giving any medications to your infants”

Your Medicine | Topiramate - A Multipurpose Drug

By: Gan Su Ling

Epilepsy

Topiramate is an anticonvulsant agent which is first approved in 1996 by FDA for epilepsy. It can be used as monotherapy or adjunctive therapy in patients ≥ 2 years of age with partial or generalized tonic-clonic seizure. It is also labeled for adjunctive treatment for Lennox-Gastaut syndrome in patients ≥ 2 years of age. The initial dose of topiramate for epilepsy is 25-50mg/day and should be slowly titrated with the increment doses of 25-50mg. The recommended maintenance dose is 400mg in 2 divided doses for adult, while for children the dose should be based on weight.

Migraine

Besides epilepsy, topiramate is approved by FDA in 2004 for its use in migraine prevention for adults and is approved recently in this year for migraine prophylaxis in adolescents ages 12 until 17. This is the first FDA approval of a drug for such indication in this age group. In a clinical trial which enrolled 103 participants, 72% reduction in frequency of migraine was reported in participants who took Topiramate 100mg as compared to 44% in those who took placebo. The initial dose is 25mg/day nightly for the first week and slowly increased with increment of 25mg weekly. The recommended therapeutic migraine prevention dose is 100mg in divided doses. Its effectiveness in treating acute migraine has not been studied.

Obesity/ overweight

Apart from that, Qsymia which consists of phentermine and topiramate in extended-release formulation is labeled for chronic weight management. The indicated population is adult of BMI ≥ 30 or adult with BMI ≥ 27 who have at least one weight-related condition such as hypertension, diabetes, and dyslipidaemia. The recommended daily dose of Qsymia contains 7.5 milligrams of phentermine and 46 mg of topiramate extended-release. Higher dose of 15 mg phentermine and 92 mg of topiramate extended-release is available for certain patients. Results from two clinical trials show that after one year of

treatment with the recommended and highest daily dose of Qsymia, patients had approximately weight loss of 6.7% and 8.9%, respectively, over treatment with placebo. However, if patients do not lose at least 3% of body weight by week 12 of treatment using recommended dose, Qsymia might be discontinued or increase to the higher dose.

Psychotic disorder

Unlike some of the other antiepileptic agents (valproate, carbamazepine and lamotrigine), topiramate is not registered for psychiatric indications. There are growing evidence, based on controlled studies, supports the use of topiramate in bulimia nervosa, borderline personality disorder, alcohol dependence and possibly in bipolar disorders in depressive phase. However, more and larger trials are necessary before clear evidence-based recommendations can be made. Weight-losing effect of topiramate might be useful in patients who have weight gain secondary to antipsychotic. However, there is no clear guideline for its use in this condition.

Dose Adjustment

Renal impairment (creatinine clearance less than 70 mL/min/1.73 m²): one-half of the adult dose is recommended.

Hemodialysis: Topiramate is cleared by hemodialysis. Dosage adjustment is necessary to avoid rapid drops in topiramate plasma concentration during hemodialysis

Hepatic Impairment: Clearance of topiramate decreases in moderate to severe hepatic impairment.

“Weight-losing effect of topiramate might be useful in patients who have weight gain secondary to antipsychotic”

Topiramate - A Multipurpose Drug (cont.)

Warnings

There are certain warnings and precautions which require additional attention while using topiramate. These include acute myopia, secondary angle closure glaucoma, visual field defects, metabolic acidosis, kidney stone, hyperammonemia and encephalopathy which may lead to discontinuation of Topamax. Similar to other antiepileptic drugs, topiramate will also increase risk of suicidal ideation and fetal toxicity (cleft lips/palate). Topiramate may also cause cognitive dysfunction.

Adverse Effects

The most common adverse reactions ($\geq 10\%$) at recommended dosing in adult and pediatric in *epilepsy* trials were paresthesia, anorexia, weight loss, speech disorder related speech problem, fatigue, dizziness, somnolence, nervousness, psychomotor slowing, abnormal vision, and fever.

The most common adverse reactions ($\geq 5\%$) at recommended dosing in *migraine* clinical trials were paresthesia, anorexia, weight decrease, difficulty with memory, taste perversion, upper respiratory tract infection, abdominal pain, diarrhea, hypoesthesia, and nausea.

Drug Interactions

1. Oral contraceptives

Reduce contraceptive's efficacy and increased breakthrough bleeding, especially at dose $>200\text{mg/day}$

2. Metformin

Contraindication with metabolic acidosis, which is an effect of topiramate

3. Lithium

Lithium's level should be monitored during co-administration

4. Other carbonic anhydrase inhibitors

Monitor the patient for the appearance or worsening of metabolic acidosis

AED	AED concentration	Topiramate concentration
Phenytoin	NC/ increase	48% Decrease
Carbamazepine	NC	40% Decrease
Valproate	Decrease	14% Decrease
Lamotrigine	NC	13% Decrease

NC = Less than 10% change in plasma

References

1. United State. Food and Drug Administration. **FDA approves weight-management drug Qsymia. News release. 2012 July 12.**
2. United State. Food and Drug Administration. FDA approves Topamax for migraine prevention in adolescents. News release. 2014 March 28.
3. Joubert PM. *Psychiatric uses of topiramate: What is the current evidence?* Volume 14 No. 2 June 2008 – SAJP
4. Jassen Pharmaceutical. Topamax. Full prescribing information. 2009.

TOPAMAX[®]
(topiramate) Tablets

Adverse Drug Reaction | Tinnitus Following Use of Metformin



The Drug Safety Monitoring Centre, National Pharmaceutical Control Bureau (NPCB) would like to highlight this suspected adverse event to all healthcare professionals. This is to encourage active surveillance of all patients taking metformin and allow appropriate clinical intervention to be made if the ADR is identified.

Case report

A 45-year-old woman developed ringing in both ears after taking metformin for the first time. She was diagnosed with diabetes mellitus in November 2013 and started on metformin 500 mg twice daily. Her concomitant medications were simvastatin and perindopril, which she had been taking since May 2013.

Within two to three hours of taking the first dose of metformin, she complained of tinnitus. Upon stopping the medication, the adverse reaction resolved. Her concomitant medications were continued. This report was given the Malaysian Adverse Drug Reaction Advisory Committee (MADRAC) causality **C2** (i.e. the ADR is **probably related** to the drug).

Local Data

The Malaysian Adverse Drug Reaction (ADR) database contains **six (6) other reports** of tinnitus suspected to be related to metformin-use, making up 0.5% of the total local reports for this active ingredient. The affected patients were aged between 51 to 68 years. The reports involved several different brands and one combination product, with reported **time to onset** of tinnitus generally ranging from one hour to one day. Three (3) cases reported a **dose-related** reaction, with tinnitus resolving when the dose of metformin was decreased. In two cases, the patients were taking concomitant medication. All the reports were assigned causality **C2 or C3** (possibly-related) by MADRAC.

International Data

A search of the WHO ADR database revealed 51 reports of tinnitus linked to metformin since the year 1997 (excluding Malaysian reports). Most of the cases (43%) involved patients aged between 45 to 64 years, affecting both genders equally.

Service in Pharmacy | MTAC Clozapine

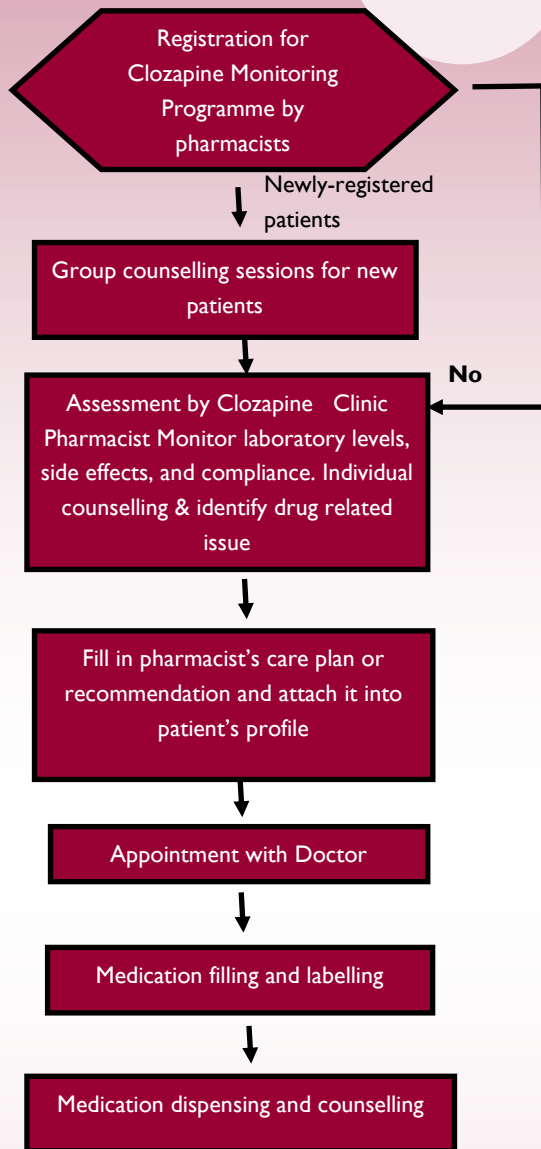


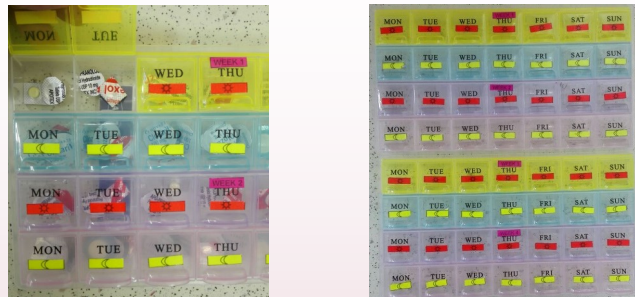
Figure: Clozapine Clinic Workflow

Clozapine Clinic is a new service provided at Hospital Permai under the multi-disciplinary team including Pharmacy Unit. The service was started since July 2014. Pharmacy unit provides Medication Therapy Adherence Clinic (MTAC) to all patients attending Clozapine Clinic.

The objectives of the MTAC are to improve adherence, to identify drug related problems and assist Doctor in managing patient in Clozapine Clinic such as monitoring side effects.

The patients who are recruited into MTAC Clozapine and their caregivers are more exposed to information regarding clozapine through the group counselling sessions where presentation about clozapine will be given by pharmacist. These patients will also benefit in term of the management of the side effects of their medications where pharmacists will assess the presence and severity of the side effects that patient experienced during each follow-up. During the assessment sessions, pharmacist will be more focusing on individual problem and counselling will be given to manage the side effects or any drug-related problems.

Besides, the patients enrolled in this program will receive benefits from the 'Kad Temujanji' system in which their subsequent supply of medications will be prepared before the TCA date therefore patients will not have to wait for a long time when they come to get their medication at the outpatient department. Moreover, the patients will receive their medications in a **pillbox** which will help them to adhere to their medications.



Picture: Example of pillbox supplied to patients to Clozapine Clinic



Picture: Group counselling session given to new patients



Picture: Individual assessment and counselling session

Counselling | Aerochamber



Picture: Aerochamber with mouthpiece

Incorrect technique of using a metered-dose inhaler (MDI) may prevent patient from receiving the optimal benefit from their medication. This will lead to poorly controlled asthma and reduced quality of life as a result from more frequent and longer stay at the hospital.

One of the methods to improve medication delivery is the use of a spacer together with the MDI.

Spacer

- A device attached to the MDI to aid the delivery of inhaled medications
- Usually used in **children** and **elderly** patients with **poor coordination** to MDI technique
- Advantages:
 - ◆ Eliminates the problem of hand-breath coordination
 - ◆ Improves delivery of medication and allows more medications to reach the lungs rather than on the tongue or on the back of the throat
 - ◆ Reduces throat irritation and/or fungal growth in the upper airways (in cases where patients experience unwanted side effects such as: candidiasis, hoarseness and also bad taste)

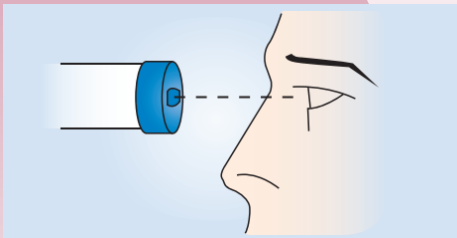
Types of spacer

- ◆ Spacer with **mask**—the mask comes in different size to suit the patient: infant, child or adult
- ◆ Spacer with **mouthpiece**—usually for child older than 5 years old until adult

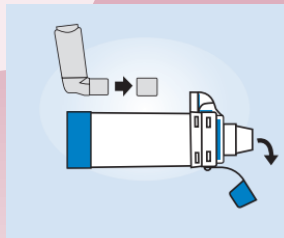


Picture: Different types of aerochamber

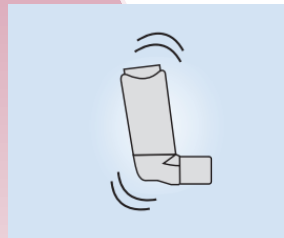
Instructions for use



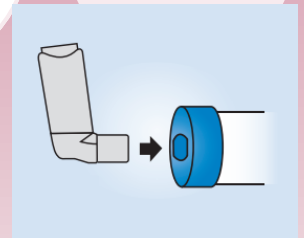
Step 1—Carefully examine the spacer for any damage or foreign object parts prior to use



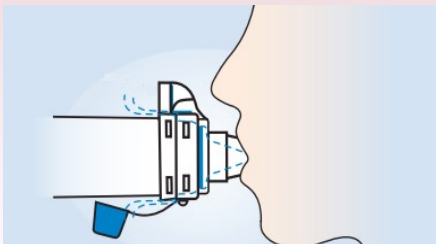
Step 2—Remove the mouthpiece cover from the MDI and the spacer



Step 3—Shake the MDI for 5 times in an up-down motion

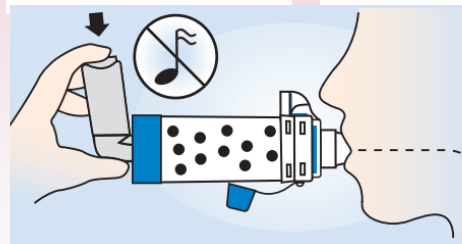


Step 4—Insert the MDI into the adaptor of the chamber

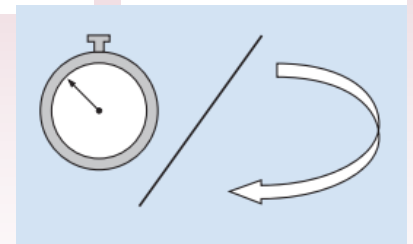


Step 5—Put mouthpiece into mouth and close lips around it to ensure tight seal

Breathe out gently and press MDI at the beginning of a slow and deep inhalation, until a full breath has been taken. Hold breath for 5-10 seconds, if possible.



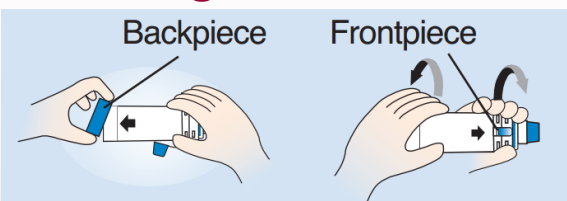
Step 6—Slow down inhalation if the whistle sound is heard. It means the inhalation was too quick



Step 7—Wait for 30 to 60 seconds before repeating steps 3 until 6 if subsequent dose is required

(Alternative for step 5), with the mouthpiece kept tightly sealed in the mouth, slowly inhale through the mouth and exhale through the nose for 5 times after pressing the MDI

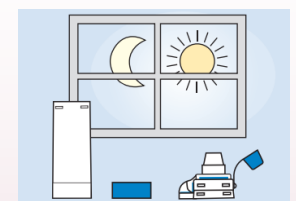
Cleaning Instructions



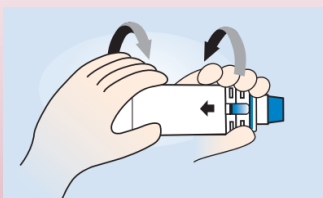
Step 1—Remove the Backpiece and twist chambers to detach the Frontpiece. Remove mouthpiece cap.



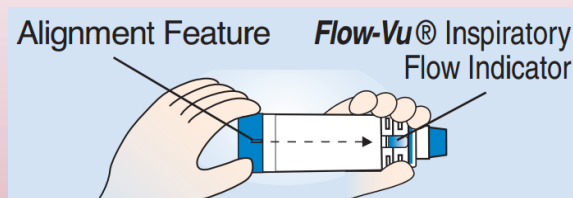
Step 2—Soak the parts for 15 minutes in a mild solution of liquid dish detergent and lukewarm water. Agitate gently. Then, rinse parts in clean water.



Step 3—Shake out excess water from the parts and allow to air dry in vertical position.



Step 4—Fit the Frontpiece on the end of the chamber & twist firmly until securely locked into position.



Step 5—Centre the Alignment Feature on the Backpiece with the Flow-Vu® Inspiratory Flow Indicator. Press firmly to attach the backpiece.

Note: The cleaning method depends on different variant of the Aerochamber®. Please refer to each individual product information leaflet.

Kursus Pengurusan Ubat Di Wad & Sub Stor 1/2015

Tarikh: 30 Mac 2015 (Isnin)

Masa: 8.00pagi– 5.00petang

Tempat: Bilik Seminar 1 & 2

Anjuran: Unit Farmasi Hospital Permai

Peserta: 47 orang (Penolong Pegawai

Farmasi, Jururawat, Penolong Pegawai

Perubatan dan Juruteknologi Makmal)



Pertandingan Bola Jaring, Karnival Sukan Farmasi BPF, JKNJ

Tarikh: 25 April 2015 (Sabtu)

Tempat: Gelanggang Bola Jaring, SK Foon Yew 3, Johor Bahru

Dirasmikan Oleh: Puan Rosidah binti Md Din (Timbalan Pengarah Kesihatan Negeri (Farmasi) Johor

Anjuran: Unit Farmasi Hospital Permai Johor Bahru

Johan: Hospital Sultanah Aminah Johor Bahru

Naib Johan: Hospital Permai Johor Bahru

Ketiga: Bahagian Perkhidmatan Farmasi Johor

