PERMAI

Pharmacy Bulletin

HOSPITAL PERMAI JOHOR BAHRU

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Kami Sedia Membantu • KEMENTERIAN KESIHATAN MALAYSIA

WORLD PHARMACIST DAY - 25/09/2018

PHARMACISTS : YOUR MEDICINES EXPERTS

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HIGHLIGHT : HAND FOOT MOUTH DISEASE

By Siti Halimah

Hand foot and mouth disease (HFMD) is typically a benign and common illness among children and infants characterized by rapidly ulcerating vesicles in the mouth and lesions, usually vesicular, on the hands and feet. It is an endemic disease in Malaysia and has become an important public health disease due to its tendency to cause large outbreaks and deaths among children and infants.

Hand foot and mouth disease (HFMD) is caused by systemic infections with human enteroviruses that comprise one genus in the family Picornaviridae, which also contains the genera rhinovirus, cardiovirus and aphthovirus. HFMD caused by enterovirus 71 (EV71) can be more severe and may be complicated with meningitis, encephalitis and neurogenic pulmonary edema.

Hand foot and mouth disease (HFMD) is moderately contagious. Infection is spread from person to person by direct contact with nose and throat discharges, saliva, fluid from blisters, or the stool of infected persons. A person is most contagious during the first week of the illness.

CURRENT UPDATE

On December 3rd 2015, the China Food and Drug Administration (CFDA) approved the first inactivated Enterovirus 71 (EV71) whole virus vaccine for preventing severe hand, foot and mouth disease (HFMD). However, there are still a few challenges facing the worldwide use of EV71 vaccine, including the applicability against various EV71 pandemic strains in other countries, international requirements on vaccine production and quality control, standardization and harmonization on different pathogen monitoring and detecting methods, etc. In addition, the affordability of EV71 vaccine in other countries is a factor to be considered in HFMD prevention. Therefore, with EV71 vaccine commercially available, there is still a long way to go before reaching effective protection against severe HFMD after EV71 vaccines enter the

Management of Hand Foot Mouth Disease

Symptomatic Treatment

Mild HFMD cases only need symptomatic treatment. Treatment of fever and relief of symptoms, adequate hydration and rest are important.

Parents and care takers should be educated on hygiene and measures that they should take to prevent transmission to other children.

Criteria for Hospitalisation

⇒ When the child is unable to tolerate oral feeds and there is a need for intravenous hydration;
⇒ When the child is clinically very ill or toxic-looking
⇒ When some other more serious disease cannot be excluded
⇒ When there is persistent hyperpyrexia (e.g >38°C) for >48 hours;
⇒ When there is a suspicion of neurological complications, e.g increased lethargy, myoclonus, increased drowsiness, change in sensorium and/or seizures;
⇒ When there is a suspicion of cardiac complications (myocarditis), e.g low blood pressure, low pulse volume, heart rhythm abnormalities, murmurs, gallop rhythm, displaced apex beat;
⇒ When parents are unable to cope with child's illness; and
⇒ When there is inadequate family or social support in looking after the child at home.

Infection control

⇒ hand washing after contact with patient,
⇒ appropriate cleanliness during diaper changes
⇒ Personal items such as spoons, cups and utensils should not be shared and should be properly washed with detergent after use;
⇒ The use of gowns may act as a useful protection for health personnel looking after these patients;
⇒ Patients with HFMD should be isolated and the usual isolation procedures followed for infection control.

HFMD is usually a mild and self limiting. In general, most cases of HFMD do not require admission but can be managed as outpatients. Most fatal HFMD cases were due to enterovirus infection.

References :

- Ministry Of Health Hand Foot And Mouth Disease (HFMD) Guidelines 2007
- Qun-ying Mao, Yiping Wang, Lianlian Bian, Miao Xu & Zhenglun Liang (2016) EV71 vaccine, a new tool to control outbreaks of hand, foot and mouth disease (HFMD), Expert Review of Vaccines, 15:5, 599-606.

MEDICATION SAFETY : SHELF LIFE OF MEDICINE

By Siti Norjannah

Tablets/Capsules:

* In original packaging -refer to manufacturer's expiry date
* Repacked tablets/capsules-3months from repacking date

Note: For all unopened medicines, refer to manufacturer's expiry date

Syrup:

* In original packaging - 6 months from date of bottle opening for first time (refer to manufacturer's expiry date if unopened)
* In repacked bottles - 3 months from date of bottle opening for first time
* Antibiotics, refrigerated - 7 to 15 days from the first day of opening the bottle
* Without preservatives, refrigerated - 2 weeks from the first day of opening the bottle

⇒ **Cream:** In original packaging - 3 months from date of first opening and repacked cream - 1 month from date of first opening

⇒ **Lotion:** 6 months from date of first opening the container

⇒ **Ointment:** In original packaging - 6 months from date of first opening and repacked ointment - 3 months from date of first opening

Insulin:

- Unopened, refrigerated - refer to manufacturer's expiry date
- Opened, in room temperature - 28-30days/6weeks from first day of opening the vial/cartridge

Eye drop/Ear drop/Nasal drop:

- With/without preservatives - 28 days after first opening the container

Suppository:

Follow manufacturer's expiry date
Eg: Paracetamol - 36 months
Eg: Glycerol - 3 years

Note: Always Refer to Product Leaflet for Accurate Shelf Life

References:

1. NHS. 2017. Why do medicines have expiry date? https://www.nhs.uk

2. Lowe, R.A., & Shaw, R.J.S. 2001. Storage, stability and in use shelf life guidelines for non-sterile medicines. http://www.darman.umsu.ac.ir

Pharmaceutical Society of Australia. 2013. Australian Medicines Handbook.

KNOW YOUR MEDICINE : OLANZAPINE ORODISPERSIBLE

By Puteri Noor Amyrah

Indication

Atypical antipsychotic for:

- Treatment schizophrenia
- Short-term treatment of acute manic episode associated with Bipolar I Disorder
- Preventing recurrence of manic, mixed or depressive episodes in Bipolar I Disorder

Dosage

Adults:

- Schizophrenia: Starting dose is 10 mg/day
- Manic episode: Starting dose is 15 mg (as single daily dose in mono-therapy) & 10 mg/day (combination therapy)
- Preventing recurrence in bipolar disorder: Starting dose is 10 mg/day
- For treatment for schizophrenia, manic episode & recurrence prevention in bipolar disorder, Max: 20 mg/day. Recommended range: 5-20 mg/day

Elderly:

- 65 years old & above: Starting dose 5mg/day

Renal/hepatic impairment:

- Starting dose: 5 mg/day
- Moderate hepatic insufficiency (cirrhosis, Child-Pugh class A or B, starting dose is 5 mg & only increased with caution.

Paediatric population:

- Not recommended for children & adolescents < 18 years due to greater magnitude of weight gain, lipid & prolaction alterations than of adult patients.

Side Effects

- Weight gain, increase appetite, somnolence, constipation, dizziness, EPS (uncontrolled muscle spasm, tremor, motor restlessness)

Contraindications

- Hypersensitivity to Olanzapine or any of the excipients. Patients with known risk for narrow-angle glaucoma.

Strength Available

5 mg 10 mg

Precaution

Dementia-related psychosis, and/or behavioral disturbances, Parkinson's disease, Neuroleptic Malignant Syndrome, Hyperglycemia & diabetes mellitus, lipid alterations, seizures, tardive dyskinesia.

Pharmacokinetics

Absorption

Reach peak plasma concentration within 5-8 hours. Absorption not affected by food & is bioequivalent to olanzapine tablets, with a similar rate & extent of absorption.

Metabolism & Elimination

Metabolized in the liver by conjugative & oxidative pathways. The mean terminal elimination half-life of olanzapine in healthy subjects varied on the basis of age & gender. The plasma clearance of olanzapine is lower in elderly versus young subjects, in females versus males and in non-smokers versus smokers.

Storage Conditions

Store below 30°C, protected from light & moisture.

Instructions to open

Mode of Administration

- Placed in the mouth, the tablet will rapidly disperse in the saliva. The orodispersible tablet is fragile, must be taken immediately on opening the blister.
- May be dispersed in a full glass of water / orange juice, apple juice, milk, coffee immediately before administration.

References: Product Leaflet of Olanzapine Orodispersible Tablet

ADVERSE DRUG REACTION: COLCHICINE TOXICITY

By Sarah Asyiqin

- Colchicine is a neutral lipophilic alkaloid with weak antiinflammatory activity. It is extracted from two plants: *Colchicum autumnale* (autumn crocus, meadow saffron) and *Gloriosa superba* (glory lily).
- The use of colchicine is limited by its toxicity. Even when being used in recommended doses, gastrointestinal side effects can occur before the relief of acute gouty pain.
- At excessive doses, colchicine can cause serious systemic toxicity. **Acute colchicine poisoning is uncommon, but is associated with a high mortality rate.**

CLINICAL STAGES OF COLCHICINE POISONING

- **Acute overdose (within 24 hours of oral ingestion)**
  ⇒ Gastrointestinal symptoms (nausea, vomiting, diarrhea)
- **24 hours-7 days after oral ingestion**
  ⇒ Multi organ failure (renal failure, circulatory collapse, marrow failure, muscle weakness, rhabdomyolysis, and respiratory failure)
- **7-21 days after oral ingestion**
  ⇒ Either resolution of symptoms or worsening organ dysfunction and death

THERAPEUTIC DOSES AD TOXIC DOSES

Therapeutic doses	Toxic doses
• acute gout : 1.2 mg followed by a single dose of 0.6 mg at the first sign of flare	• High fatality rate was reported after acute ingestions exceeding 0.5 mg/kg.
• Gout prophylaxis : 0.5mg 1-3 times daily	• The lowest reported lethal doses of oral colchicine are 7–26 mg .

*** Dosage Form Available in HPJB: Tab. Colchicine 0.5mg**

MECHANISM OF TOXICITY

Colchicine's toxicity is an extension of its mechanism of action

Binding to tubulin and disrupting the microtubular network
Affected cells experience:-

↓

- impaired protein assembly
- decreased endocytosis and exocytosis
- altered cell morphology
- decreased cellular motility
- arrest of mitosis
- interrupted cardiac conduction and contractility

↓

multi-organ dysfunction and failure

TOXICOKINETICS

Colchicine is readily absorbed after oral administration;

- undergoes extensive first-pass metabolism
- widely distributed and binds to intracellular elements
- primarily metabolized by the liver
- undergoes significant enterohepatic re-circulation
- excreted by the kidneys

Drug-drug Interactions

⇒ CYP 3A4 and P-glycoprotein inhibitors, such as clarithromycin, erythromycin, ketoconazole, ciclosporin, and natural grapefruit juice can increase colchicine concentrations.

⇒ Co-administration with statins may increase the risk of myopathy.

MANAGEMENT OF TOXICITY

The mainstays of treatment consist of prompt recognition of colchicine poisoning, with, if possible, determination of the dose ingested or administered, early gastrointestinal decontamination, and aggressive supportive care.
Management may be difficult if multi-organ failure develops.

- Timely gastrointestinal decontamination should be considered with activated charcoal. (ADULT: Acute Poisoning = 50-100g charcoal in suspension, Severe Poisoning = 50-100g as an initial dose followed by 20g every 4-6 hours. CHILDREN: 1g/kg/dose)
- Very large, recent (<60 min) ingestions may need gastric lavage.
- A specific experimental treatment (Fab fragment antibodies) for colchicine poisoning has been used, but it is not commercially available.

References

1. Drug Formulary, Ministry of Health Malaysia.
2. Finkelstein Y. Colchicine. In: Erickson TB, Ahrens WR, Aks SE, Baum CR, Ling LJ, eds. Pediatric Toxicology: Diagnosis and Management of the Poisoned Child. Toronto: McGraw-Hill; 2005:253–257.
3. Richette, P., Doherty, M., Pascual, E., Barskova, V., Becce, F., Castaneda-Sanabria, J., ... & Lioté, F. (2016). 2016 updated EULAR evidence-based recommendations for the management of gout. *Annals of the rheumatic diseases*, annrheumdis-2016.
4. Yaron Finkelstein, Steven E. Aks, Janine R. Hutson, David N. Juurlink, Patricia Nguyen, Gal Dubnov-Raz, Uri Pollak, Gideon Koren & Yedidia Bentur (2010) Colchicine poisoning: the dark side of an ancient drug, Clinical Toxicology, 48:5, 407-414,DOI: 10.3109/15563650.2010.495348

COUNSELING POINTS: HOW TO USE NASAL SPRAY

By Nur Ashikin

Image adapted from: http://www.safemedication.com/safemed/docs/Nasal-Sprays-Flyers.pdf

Available Nasal Sprays in FUKKM:

- Beclomethasone dipropionate 50mcg/dose nasal spray
- Budesonide 64mcg Nasal spray
- Desmopressin 100mcg/ml Nasal Spray
- Fluticasone furoate 27.5mcg/dose nasal spray
- Mometasone Furoate 50mcg Aqueous Nasal Spray
- Oxymetazoline 0.025% Nasal Spray
- Oxymetazoline 0.05% Nasal Spray

EXTRA POINTS

- Do not share inhaler with other people
- Discard nasal spray three months after opening (unless otherwise stated by manufacturer). Record the date of opening of nasal spray.
- Preparations that have not been opened may be kept and used up to their expiration date.
- Nasal spray should generally be kept in a cool (<25 degrees Celcius) , dry place away from sunlight (unless stated otherwise by manufacturer)
- If there is more than one spray per nostril, wait for 30 seconds between each spray.

References

1. Drug Formulary, Ministry of Health Malaysia.
2. http://www.oxfordshireccg.nhs.uk/professional-resources/documents/guidance-for-care-homes/OCCG-Good-practice-guidance-Q-Guidance-on-the-expiry-dates-and-storage-of-medicines-in-care-homes-v2.pdf
3. https://www.healthline.com/health/general-use/how-to-use-nasal-spray#instructions

PHARMACY SERVICES: METHADONE REPLACEMENT THERAPY

By Benita Joy

Methadone Replacement Therapy (MRT) is one of the "Harm Reduction" program established for opioid abusers.

⇒ The main objective of this program is to prevent blood-borne viral infection such as HIV, Hepatitis B and Hepatitis C.

⇒ In Malaysia, a nationwide government financed methadone replacement therapy (MRT) was introduced in year 2005.

⇒ Hospital Permai is one of the earliest facilities that started the service in October 2005.

⇒ Currently there are a total of 485 facilities nationwide that offer MRT service.

WHAT ARE OUR SERVICES?

- Methadone is dispensed according to the prescribed dose in Cure & Care 1 Malaysia Clinic
- For patients from Cure & Care Clinic who has appointment with doctor in Hospital Permai, methadone will be dispensed in out-patient pharmacy Hospital Permai
- Methadone is dispensed for warded patients who are prescribed with methadone.
- Take-Home methadone doses at outpatient pharmacy for patients who are eligible (Patients who are stable after 6 weeks of MRT. After careful evaluation by doctors and pharmacist on patient's stability and potential misuse of methadone).

WHO CAN JOIN THIS PROGRAM?

◊ Patients who are addicted to opioid and prescribed with Methadone by a Medical Officer to replace opioid

◊ The consumption will be supervised by a Pharmacist

◊ Methadone is safe for pregnant and breastfeeding women who are prescribed with methadone. However, it is not safe in HIV positive women who are pregnant or breastfeeding.

OPERATION HOURS

⇒ Sunday to Thursday: 8 am to 11 am

⇒ Friday, Saturday and public holidays: 8 am to 10 am

WHAT IS METHADONE?

Methadone is a synthetic drug that gives similar effect as heroin or morphine. However, there is no euphoria effect caused by methadone. It is given to replace other opioids such as heroin and morphine in order to reduce the cravings and withdrawal symptoms experienced by patients. Methadone is taken orally (by mouth), unlike other commonly abused opioids. Hence no harmful injections required for the doses.

HOW TO TAKE METHADONE?

- Methadone syrup is taken once daily via oral route
- It is better to take it in the morning to monitor signs and symptoms of adverse effects
- Inform healthcare providers if missed more than two doses of methadone.

SELF CARE FOR PATIENTS ON METHADONE

⇒ Do not give or share methadone syrup with others

⇒ Do not inject methadone syrup into the body

⇒ Dental check-up at least twice a year

⇒ Drink at least 2 liters of water everyday

⇒ Exercise regularly

⇒ Eat healthy and balanced diet

⇒ Take care of self-hygiene

References

1. Direktori Perkhidmatan Methadone, Kementerian Kesihatan Malaysia, 2018
2. Methadone Counseling Guideline, Kementerian Kesihatan Malaysia, 2013
3. Ministry Of Health, Pharmaceutical Services Division, 2013

AKTIVITI UNIT FARMASI - *WORLD MENTAL HEALTH DAY*

Pameran Kenali Ubat Anda @ Program Pelancaran Sambutan Bersama Hari Kesihatan Mental, Hari Penyakit Alzheimer dan Hari Warga Emas Peringkat Negeri Johor Tahun 2018 di Hospital Permai Johor Bahru pada 29/09/2018

Pameran Kenali Ubat Anda @ Minggu Sambutan Bersama Hari Kesihatan Mental, Hari Penyakit Alzheimer dan Hari Warga Emas Peringkat Negeri Johor Tahun 2018 di Hospital Permai Johor Bahru dari 29/9/18 - 6/10/2018

Pameran Kenali Ubat Anda @ Majlis Penutupan Sambutan Bersama Hari Kesihatan Mental, Hari Penyakit Alzheimer dan Hari Warga Emas Peringkat Negeri Johor Tahun 2018 di Hospital Permai Johor Bahru pada 6/10/2018

Run: Healthy Mind, Healthy Life @ Majlis Penutupan Sambutan Bersama Hari Kesihatan Mental, Hari Penyakit Alzheimer dan Hari Warga Emas Peringkat Negeri Johor Tahun 2018 di Dataran Bandaraya Johor Bahru pada 6/10/2018 yang turut disertai oleh staff Hospital Permai

AKTIVITI UNIT FARMASI - *WORLD PHARMACIST DAY*

AKTIVITI WORLD PHARMACIST DAY - ANJURAN UNIT FARMASI HOSPITAL PERMAI JOHOR BAHRU

Ceramah Duta Kenali Ubat Anda @ Sambutan Hari Farmasi Sedunia Tahun 2018 Peringkat Hospital di Hospital Permai Johor Bahru pada 25/09/2018

Fun Walk @ Sambutan Hari Farmasi Sedunia Tahun 2018 Peringkat Hospital di Hospital Permai Johor Bahru pada 25/09/2018

AKTIVITI WORLD PHARMACIST DAY
ANJURAN BAHAGIAN PERKHIDMATAN FARMASI JOHOR & MALAYSIAN PHARMACEUTICAL SOCIETY

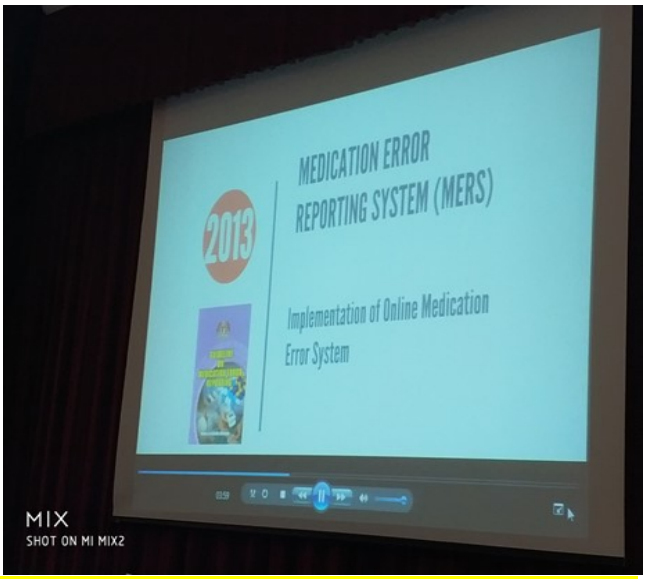
Sambutan Hari Farmasi Sedunia Peringkat Negeri Johor Tahun 2018 di AEON Mall Tebrau City Johor pada 29/09/2018— Staff Unit Farmasi Hospital Permai turut terlibat bagi menjayakan Program

AKTIVITI UNIT FARMASI - *MEDICATION SAFETY*

Kursus Medication Safety Bil 1/2018 di Bilik Seminar OPD, Hospital Permai pada 10 Julai 2018 Jumlah Peserta : 54 Staff Hospital Permai

Pameran Poster bertajuk *Medication No Harm* di ruang menunggu Farmasi Klinik Pesakit Luar Hospital Permai pada 7 Ogos 2018

CME bertajuk Medication Error Reporting di Bilik Seminar 1 & 2 , Hospital Permai pada 20 Ogos 2018 Jumlah Peserta : 12 Staff Hospital Permai



Tayangan Video bertajuk Keselamatan Pengubatan semasa Perhimpunan Bulanan Hospital Permai di Auditorium Ixora pada 20 Ogos 2018

AKTIVITI UNIT FARMASI - SUKAN

Pertandingan Badminton Farmasi Negeri Johor 2018
Anjuran Unit Farmasi Hospital Permai pada 22/09/2018

Program Kecergasan Sihat Farmasi Kebangsaan di Kampus Kesihatan Universiti Sains Malaysia, Kubang Kerian, Kelantan pada 12-14 Oktober 2018

JOHAN

Acara Badminton Lelaki Beregu

Nama Peserta: Jason Yoong, Pegawai Farmasi Hospital Permai

Tempat Ke-3

Acara Bola Tampar Lelaki & Perempuan

Wakil Peserta Lelaki: Hisham Bin Dol, Penolong Pegawai Farmasi , Hospital Permai

Wakil Peserta Perempuan: Siti Norjannah Bt Ahmad, Pegawai Farmasi, Hospital Permai