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PHARMACY  
DEPARTMENT

## PHARMACY BULLETIN

HOSPITAL CANCELEDOR TUANKU MUHRIZ, PPUKM

## PHARMACY DEPARTMENT'S COUNSELING WEEK 2016

BY MS NURJANNAH AZMAN

Pharmacy Department of UKM Medical Centre recently conducted its Counseling Week held from 20th till 22nd September 2016. The event which made its inaugural debut in 2000 has come to its sixteenth year this year; with this year's theme **"Care for your Health: CURE"**. This year's main objectives were **to create awareness of early health screening** for young adults and adults alike emphasizing that prevention is better than cure. Furthermore, this event also aim to provide accurate and updated information on how to optimize common medications used in disease management, traditional and complementary medicines, promotion of healthy lifestyle to prevent lifestyle diseases such as cardiovascular diseases, diabetes, hyperlipidaemia and obesity as well as to create awareness on pharmacists role as patient's healthcare provider.

This event was a great avenue for public health promotion and education. Like previous years, free health screening such as body mass index (n=545), blood pressure (n=601), blood glucose (n=533) and cholesterol (n=321) level tests were conducted for patients in order to encourage periodic health screening to population as a measure of disease prevention. Posters on various diseases were also displayed at the lobby area; covering topics from cardiovascular diseases to childhood vaccinations.

A total of 1,060 counseling sessions were performed through out the three days event, with Pharmacist Booth the most visited booth with 648 counseling sessions. Topics covered were Diabetes Mellitus, cardiovascular diseases (hypertension, ischemic heart disease, hyperlipidemia), obesity, smoking cessation, drug related issues, supplements, OTC products and childhood vaccination. Booths from other discipline such as Dietetic booth was set up with the aim to provide dietary counseling especially for diabetic patients. The booth drew a big crowd as they were attracted to the graphics displayed on the sugar content of various foods. Physiotherapy booth on the other hand provided hands-on assistance on appropriate exercises for different groups of patients such as for weight loss or post-injury exercises. Cheras Rehabilitation Hospital also opened a booth for the first time on the 1st day with The National 'Know Your Medicine' information campaign.

The event kicked off the with a graduation ceremony celebrating all successful Smoking Cessation Programme participants which was held at PPUKM Main Lobby along with the grand opening of Counseling Week 2016 officiated by Deputy Dean (Undergraduates and Alumni) of PPUKM, Prof Dr Roslina Abdul Manap. Public talks were also held with topics such as *"Senaman di Tempat Kerja"* by PPUKM Physiotherapist Pn Nurhidayu Ramli and *"Kenali Ubat-ubatan Tradisional & Komplementari di Hospital"* by National Cancer Institute of Malaysia, Pharmacist Pn Wan Najbah Wan Nabil respectively.

In conclusion, the Counseling Week 2016 event ran smoothly achieving all the objectives. A small client's satisfaction survey was done and the public felt that the services given were excellent, informative and beneficial to them. Encouraging participations were observed in health screening, public talks, poster quiz, and exhibition booths. It is hoped that the public will be able to continue spreading the awareness of this year's theme **"Care for your Health: CURE"**.



## Mercury Poisoning Cases in Malaysia by PRP Puvanah & Ms Izyan

Lately, there has been incidence of mercury exposure in Malaysia. The first case occurred in SMK Guar Perahu, Bukit Mertajam where 50mL of mercury were found spilled on the classroom's floor. Fifty-six (56) students were quarantined and 6 were sent to hospital for close monitoring. The second incident which also occurred in Penang in a residential area where 16 residents of Kampung Baru, Butterworth were rushed to the hospital for suspected mercury poisoning. The mercury was brought in by the children of the occupants who found it near their homes. The third case occurred at Kuala Lawas Health Clinic, Kuching where the spill was caused by a small leak to a blood pressure reading device set. The latest incident occurred on 14th October 2016 at Seberang Perai Polytechnic, Penang where blood pressure testing equipment broke in the lecture room. These sequence of unfortunate events proved that exposure to mercury poisoning can occur anywhere at anytime.

### Acute Exposure

Mercury can be easily found in food, drugs and natural resources. It exists in 3 forms, namely elemental mercury ('quicksilver'), organic mercury (methylmercury) and inorganic (mercury II chloride). The differences lies in its absorption (ingestion, inhalation, skin or trans-placental), toxicity patterns and treatment modalities. Organic mercury is the most toxic form and has a latency of 1 month or longer after acute exposure. Elemental and organic mercury are central nervous system (CNS) toxins while inorganic mercury is corrosive and causes cell membrane damage. Inhalation of a concentrated **elemental mercury** (found in thermometers, barometers and light bulbs) will affect the nerves system and cause tremors, insomnia, memory loss, neuromuscular changes, headaches, slow sensory and motor nervous function as well as reduction in cognitive function. **Inorganic mercury** consumption (found in batteries) on the other hand will cause metallic taste in the mouth, nausea, vomiting and severe abdominal pain whereas **organic mercury** (found in industrial fungicides or fishes in polluted water) will affect the central nervous system, which can lead to blindness, deafness and deteriorate one's conscious level significantly.

### Chronic Exposure

A safe **daily intake of mercury is 0.1mcg/kg/day** to avoid toxicity. Toxic mercury levels are considered to be above 10 mcg/L (whole blood) and 20 mcg/L for urine which is commonly seen in chronic exposures. In chronic cases **elemental mercury** will affect the central nerve system which will result in erythrmism and gingivitis. In children, it may affect kidney and lead to Acrodynia which are presented as leg cramps, paresthesia, painful pink fingers and peeling skins of hands, feet and nose. **Inorganic mercury** may cause mercury-induced autoimmune glomerulonephritis while **organic mercury** attacks the central nervous system which will cause blurred vision and malaise. In severe cases due to higher concentration, it may cause deafness, speech difficulties and constriction of the visual field.

### Treatment

Decontamination via gastric lavage may be performed if the mercury is ingested within 1 hour orally followed by charcoal to reduce its absorption in the blood. Chelation should be performed in patients who are **symptomatic** after chronic exposure with severe symptoms. Asymptomatic patients with elevated urinary mercury concentrations do not need chelation. Enhancement of elimination via dialysis is not recommended as it is found to be ineffective. Other treatments include :

No	Type of mercury	Antidote/Chelating agent
1	Elemental	Oral succimer* 10mg/kg q8H for 5 days, followed by 10mg/kg q12H for 2 weeks.
2	Organic	Oral succimer* 10mg/kg q8H for 5 days, followed by 10mg/kg q12H for 2 weeks.
3	Inorganic	IM dimercaprol (BAL) 5mg/kg, followed by 2.5mg/kg q12H for 10 days. Best to give within the first 2 hours to prevent renal toxicity. Do NOT administer as IV. Dimercaprol is not recommended in elemental and organic mercury poisoning as it may cause redistribution of mercury to the brain which is the primary target organ in these poisonings.

\*not available in PPUKM

In a nutshell, unlike other toxidromes that produce adverse effects immediately, mercury silently remains in the body and accumulates over the years. Hence, it is essential to phase out the use of mercury globally by substituting it with safer alternatives. In the case where mercury spillage is suspected, public are encouraged to call 999, where a team from the Fire and Rescue Department **HAZardous MATerial (HAZMAT)** will be deployed to contain the spillage and clean up the area.



Fire & Rescue Dept Hazardous Material (HAZMAT) cleaning up the mercury spillage.

**We are on the web!**  
<http://www.ppukm.ukm.my/>

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