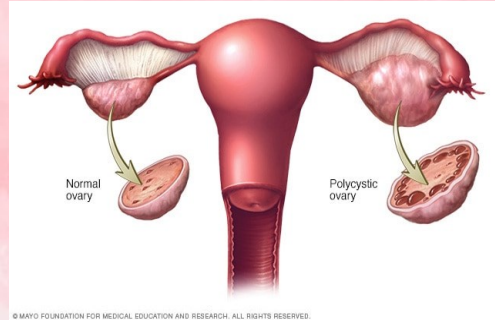


# PHARMACY BULLETIN



## PCOS



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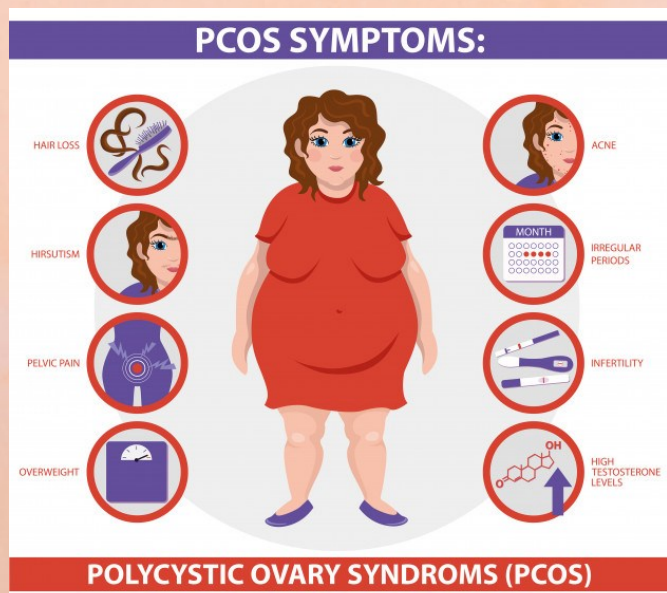
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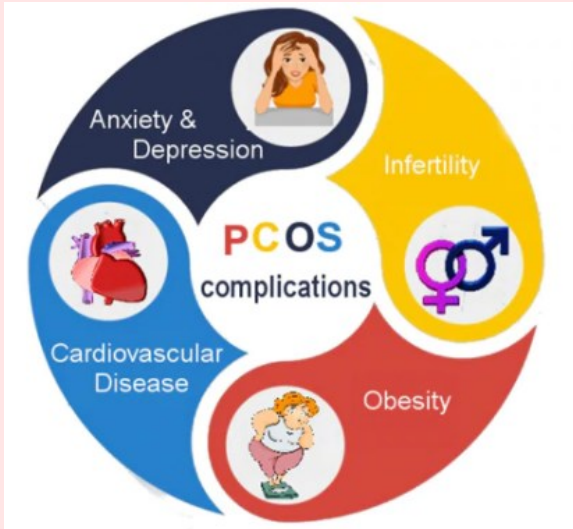
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### What is PCOS?

Polycystic ovary syndrome (PCOS) is a hormonal disorder common among women of reproductive age. Women with PCOS may have infrequent or prolonged menstrual periods or excess male hormone (androgen) levels. The ovaries may develop numerous small collections of fluid (follicles) and fail to regularly release eggs. The exact cause of PCOS is unknown. Early diagnosis and treatment along with weight loss may reduce the risk of long-term complications such as type 2 diabetes and heart disease.

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## NON-PHARMACOLOGICAL TREATMENT



Maintain a healthy weight



Limit Carbohydrates



Be Active

## PHARMACOLOGICAL TREATMENT

### To regulate your menstrual cycle:

- \* **Combination birth control pills.** Pills that contain estrogen and progestin decrease androgen production and regulate estrogen. Regulating your hormones can lower your risk of endometrial cancer and correct abnormal bleeding, excess hair growth and acne.
- \* **Progestin therapy.** Taking progestin for 10 to 14 days every one to two months can regulate your periods and protect against endometrial cancer. The progestin-only minipill or progestin-containing intrauterine device is a better choice if you also wish to avoid pregnancy.

### To reduce excessive hair growth:

- ◆ **Birth control pills.** Birth control pills help by decreased androgen production.
- ◆ **Spirolactone.** It blocks the effects of androgen on the skin.

### To help you ovulate:

- \* **Clomiphene (Clomid).** This oral anti-estrogen medication is taken during the first part of your menstrual cycle. Clomiphene help start ovulation in women with PCOS.
- \* **Metformin (Glucophage, Fortamet, others).** This oral medication for type 2 diabetes improves insulin resistance and lowers insulin levels. If you don't become pregnant using clomiphene, your doctor might recommend adding metformin. If you have prediabetes, metformin can also slow the progression to type 2 diabetes and help with weight loss.

### References:

1. Medical News Today. (31 January 2017). What is Amenorrhea? Available at: <https://www.medicalnewstoday.com/articles/215776.php> (Accessed: 23 December 2019).
2. MIMS Malaysia– Management of PCOS

# **BENZODIAZEPINES OVERDOSE & ANTIDOTE**

## **Introduction**

Benzodiazepines (BZDs) are the most commonly prescribed medications for anxiety, sedation, and sleep. Overdose can be intentional in suicidal patients; accidental in combination with other central nervous system (CNS) depressants, such as alcohol and opioids, and in older people; and occasionally by medication error. Older people, who commonly have diminished drug clearance and polypharmacy, are at especially high risk of overdose.<sup>1</sup>

## **Classic sign & symptoms:<sup>2</sup>**

- CNS depression with normal or near-normal vital signs.
- Slurred speech
- Ataxia
- Altered mental status
- Coma

## **Patient disposition**

- i. Patients may be discharged if they remain asymptomatic at least 6 hours post ingestion.
- ii. Patients with mild toxicity may be observed in the emergency department until they recover.
- iii. Patients with intentional overdoses require psychiatric evaluation before discharge.
- iv. Admit patients with hemodynamic instability, coma, or respiratory depression to the intensive care unit (ICU). Respiratory depression may be treated with assisted ventilation.

## **Acute Management**

### **1. Resuscitation**

- Supportive care – airway, breathing & circulation
- If respiratory depression, a concomitant opioid overdose may be present and it is reasonable to administer appropriate doses of parenteral naloxone

### **2. Decontamination**

- Gastrointestinal decontamination with activated charcoal is contraindicated because of the increased risk of aspiration
- Enhancement of benzodiazepine elimination is not effective and is not recommended
- Activated charcoal may be beneficial if dangerous co-ingestants were consumed & patient is intubated or can protect their airway

### **3. Antidote**

#### **Flumazenil**

**MOA:** An imidazobenzodiazepine derivative, competitively inhibits the activity at the benzodiazepine recognition site on the GABA/benzodiazepine receptor complex.<sup>4</sup>

**Onset:** 1-2 min.<sup>4</sup>

**Duration:** Approximately 1 hr.<sup>4</sup>

**Dose:**

Benzodiazepine overdose; Adult: Initially, 200 mcg via IV inj. over 30 seconds, may give additional 300 mcg after 30 seconds, followed by 500 mcg at 60-second intervals if required. Max: 3,000 mcg or 5,000 mcg. Alternatively, may be given via IV infusion at a rate of 100-500 mcg/hr, adjusted according to response. If symptoms of intoxication recur, may repeat doses at 20-minute intervals but doses should not exceed 1,000 mcg/dose (given as 500 mcg/min) and 3,000 mcg/hr.

**Monitoring:** Recurrence of sedation, resp. depression and other residual effects of benzodiazepines for at least 2 hr, until patient is stable.

**Pregnancy Category:** C



Strength available in Hospital Segamat: Flumazenil 0.1mg/ml (5ml)

#### **References**

- 1) Paul M. Gahlinger (2019). *Benzodiazepine Overdose*. BMJ Publishing Group Publishers. Available from: <https://bestpractice.bmj.com/topics/en-us/343>
- 2) Kang M, Galuska MA, Ghassemzadeh S (2020). *Benzodiazepine Toxicity*. StatPearls Publishing. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK482238/>
- 3) MIMS Gateway Flumazenil.
- 4) Chip Gresham, MD, FACEM (2020). *Benzodiazepine Toxicity Treatment & Management*. Medscape Publisher. Available from: <https://emedicine.medscape.com/article/813255-treatment>



## **DOMPERIDONE: RISK OF SERIOUS AND POTENTIALLY LIFE-THREATENING CARDIOVASCULAR ADVERSE EFFECTS**

Domperidone is a dopamine antagonist indicated for the relief of the symptoms of nausea and vomiting. Studies have shown that oral domperidone increases lower oesophageal pressure, improves intraduodenal motility and accelerates gastric emptying.

In 2014, the European Medicines Agency (EMA) reviewed the safety of domperidone-containing products due to its association with the risk of serious and potentially life-threatening cardiovascular adverse effects such as ventricular arrhythmias and sudden cardiac death. At that time, there were limited data to support the efficacy of newly recommended dose of domperidone (0.25 mg/kg three times a day or up to 30 mg/day) for the relief of symptoms of nausea and vomiting in children.

In 2019, results from a randomised controlled study showed that the use of domperidone in children below 12 years of age with acute gastroenteritis (in combination with oral rehydration therapy) showed no difference in efficacy when compared to placebo. Based on this study, the product registration holder of domperidone has updated the product package insert and removed the use of domperidone in children below 12 years of age with body weight less than 35 kg.<sup>3\*</sup>

### **Advice for Healthcare Professionals**

- Domperidone **should not be used** in infants and children **less than 12 years of age who weighs less than 35 kg.**
- Domperidone is **contraindicated** in :
  - Patients with known existing prolongation of cardiac conduction intervals;
  - Patients with significant electrolyte disturbances or underlying cardiac diseases;
  - Patients concomitantly taking QT-prolonging drugs or potent CYP3A4 inhibitors.
- Domperidone should be taken at the lowest effective dose for the shortest duration possible. The usual **maximum treatment period should not exceed one (1) week.**



## **METOCLOPRAMIDE: ASSOCIATED WITH SERIOUS NEUROLOGICAL ADVERSE EVENTS, MAINLY OCULOGYRIC CRISIS**

Metoclopramide is generally indicated for the prevention of nausea and vomiting associated with chemotherapy or radiotherapy and symptomatic treatment of nausea and vomiting in adults.

In children above one (1) year old, metoclopramide is only indicated as second line therapy for the prevention of delayed chemotherapy-induced and post-operative nausea and vomiting.

Metoclopramide crosses the blood-brain barrier and is associated with serious neurological adverse events, mainly oculogyric crisis and other related symptoms which are of particular concern in children.

### **Adverse Drug Reaction Reports**

NPRA has received **897 reports** with **1,591 adverse events** suspected to be related to metoclopramide. The total number of neurologic adverse events reported is 361, with the most reported being **oculogyric crisis (241, 66.7%)**. There was one (1) report of oculogyric crisis received involving a six (6) months old infant.

### **Advice for Healthcare Professionals**

- Metoclopramide (oral and injection) is **contraindicated** in children aged < 1 year old, while metoclopramide suppository is **contraindicated** in children aged < 18 years old.
- For children, treatment duration **should not exceed five (5) days** for the prevention of post-chemotherapy nausea and vomiting, and **should not exceed 48 hours** for the prevention of post-operative nausea and vomiting.
- Be alert on the risk of oculogyric crisis when prescribing metoclopramide especially in pediatric patients.

(Adapted from NPRA Safety Alerts, 23 June 2020)



## INSULIN : RISK OF CUTANEOUS AMYLOIDOSIS

Cutaneous amyloidosis is a clump of abnormal amyloid proteins buildup in wave-like projections (dermal papillae) between the dermis and the epidermis.<sup>1</sup> It may be associated with the use of insulin injection and could be a class effect for all insulins.<sup>2</sup>

Comparing to lipohypertrophy, amyloid lumps are firmer and more solid, and take a longer time to regress once insulin is no longer injected to the area.<sup>2</sup> As both are local site reactions occurring in patients on subcutaneous insulin therapy, there is a possibility that amyloid lumps are misdiagnosed as lipohypertrophy, and cases of cutaneous amyloidosis associated with insulin injection may have been underreported.<sup>3</sup>

When insulin is injected at the amyloid lump, the absorption of insulin into the bloodstream may be reduced or delayed, leading to poor glycaemic control.<sup>4</sup> Unknowingly, to compensate for the high blood glucose levels, the dose of the insulin administered may be increased. This is clinically important as there have been reports where patients developed severe hypoglycaemia when there is a sudden change in the injection site to an unaffected area.

### **Adverse Drug Reaction Reports**

NPRA has received 1,477 reports with 3,053 adverse events suspected to be related to insulin. Among these, 37 cases were injection site swelling. However, **no event regarding cutaneous amyloidosis or skin hypertrophy/ lipohypertrophy has been reported.**

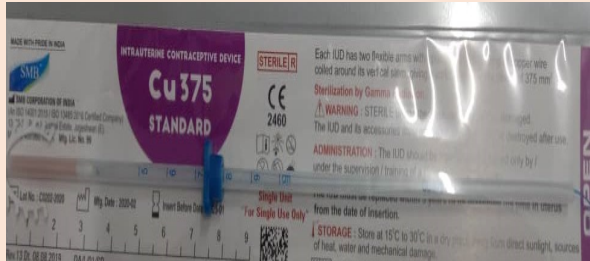
### **Advice for Healthcare Professionals**

- Advise patients to routinely check for any dermatologic changes and to continuously rotate the injection site to reduce or prevent the development of amyloidosis.
- Counsel patients to:
  - Avoid injecting into the affected area.
  - Monitor their blood glucose levels particularly after there is a change in the injection site, and to consider adjusting the dose accordingly.

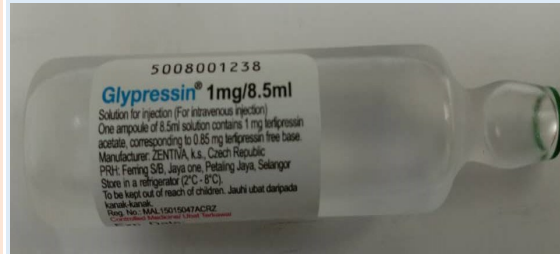
(Adapted from NPRA Safety Alerts, 6 August 2020).

# NEW MEDICATIONS IN HOSPITAL SEGAMAT

## Copper 375 mm Intrauterine Device



## Terlipressin 1 mg Injection



## Lignocaine 2% with Chlorhexidine 0.05% gel



## MEDICATION DELIST FROM HOSPITAL SEGAMAT DRUG FORMULARY (MESYUARAT JKUT BIL 2/2020)

- ♦ Nystatin 100,00 units/g Cream
- ♦ Triprolidine HCl 1.25 mg & Pseudoephedrine HCl 30 mg/5 ml Syrup
- ♦ Mometasone Furoate 0.1% Cream
- ♦ Ampicillin Sodium & Sulbactam Sodium 250 mg/5ml Suspension
- ♦ Sucralfate 1g Tablet
- ♦ Inj. Benzylpenicillin 1MU (600 mg)



# PRODUCT BRAND CHANGES APRIL – JUNE 2020

## CELECOXIB 200 MG TABLET



**CELEBREX (PFIZER)**



**CELEBIB (SYNERRV SDN BHD)**

## FINASTERIDE 5 MG TABLET



**FINCAR (CIPLA MALAYSIA SDN BHD)**



**FINAGEN (UNIMED SDN BHD)**

## MYCOPHENOLATE MOFETIL 250 MG CAPSULE



**CELLCEPT (ROCHE SDN. BHD)**



**MYCOFIT (JETPHARMA SDN. BHD)**

## NAPROXEN 275 MG TABLET



**SUNPROX (SUNWARD PHARMACEUTICAL SDN. BHD)**



**DYNAFLEX (DYNAPHARM (M) SDN BHD)**

# PRODUCT BRAND CHANGES APRIL – JUNE 2020

## DICLOFENAC 1% GEL



**DICLORAN GEL (UNIMED SDN BHD)**



**VOREN GEL (Y.S.P. INDUSTRIES (M) SDN BHD)**

## METOCLOPRAMIDE HCL 5MG/ML INJECTION



**PLAZILIN (UNIMED SDN BHD)**



**H-PERAN (HEALOL PHARMACEUTICALS SDN. BHD)**

## ATROPINE SULPHATE 1% EYE DROPS



**ISOPTO ATROPINE (ALCON LABORATORIES SDN. BHD).**



**MYOPINE (XEPA-SOUL PATTINSON SDN BHD)**

# PRODUCT BRAND CHANGES APRIL – JUNE 2020

## DORZOLAMIDE HCL 2% OPHTHALMIC SOLUTION



**TRUSOPT (SANTEN PHARMA MALAYSIA SDN. BHD)**

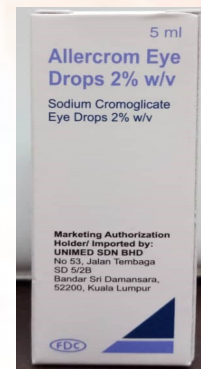


**OCUDOR (UNIMED SDN BHD)**

## SODIUM CHROMOGLYCATE 2% EYE DROPS



**ALLERGOCROM (PHARMAFORTE (MALAYSIA) SDN. BHD)**



**ALLERCROM (UNIMED SDN BHD)**

## TIMOLOL MALEATE 0.5% EYE DROPS



**TIMOLAST (ALCON LABORATORIES)**



**TIMOPTOL XE (SANTEN PHARMA MALAYSIA SDN. BHD)**

**Majlis Sambutan Hari Raya Peringkat Jabatan Farmasi**

**(15 Jun 2020)**



**Hospital CME: Medication Safety & Medication Error**

**Reporting (MER)**

**(23 Ogos 2020)**



**Majlis Perpisahan Puan Hasidah Sarju, Farha Adila Yazid, Rabiatul Nur Khaliesa Ibrahim & Yow Kai Xin  
(15 Jun 2020 & 24 Jun 2020)**



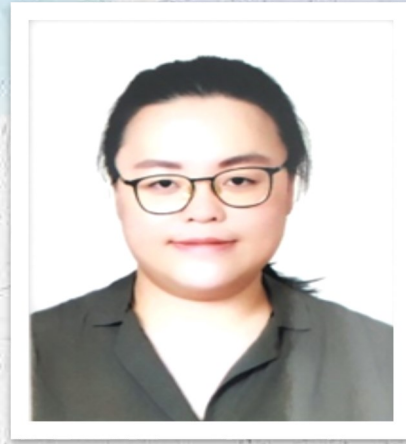
**Majlis Perpisahan Puan Ayuni Ahmad, Meera Kalaiselvan, Nureana Afiqah & Tan Yi Wen  
(6 Ogos 2020)**



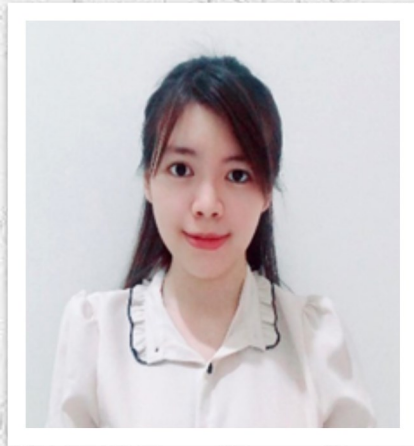
# WELCOME TO HOSPITAL SEGAMAT!



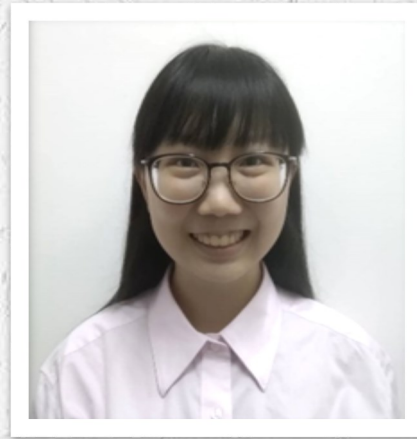
**Cik Tan Chieh Hsing**  
Pegawai Farmasi UF41  
(Kontrak)



**Cik Lim Tze Vin**  
Pegawai Farmasi UF41  
(Kontrak)



**Cik Low Siao Yi**  
Pegawai Farmasi UF41  
(Kontrak)



**Cik Liew Wei Chi**  
Pegawai Farmasi UF41  
(Kontrak)



**Puan Husna Hazwani  
Sahaimi**  
Pegawai Farmasi UF41