Hospital Seri Manjung

Pharmacy Bulletin Bil 2/2020

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Topic outline m/s

URINARY TRACT INFECTION IN PREGNANCY

By: Cik Anissolehah binti Shaari

INTRODUCTION[1]

Urinary tract infection (UTI) is a common clinical problem which involve urethra, bladder and kidney. Women are more susceptible compared to men due to short urethra and pregnancy. The physiological changes of pregnancy cause the ureters begin to dilate (hydronephrosis of pregnancy) and up to 70% pregnant women develop glycosuria which encourages bacterial growth in urine. Major aetiological agent in UTI is *Escherichia coli (E. coli)* which take up to 90% of the cases. Other less common causative bacteria are *Proteus mirabilis, Klebsiella pneumoniae, Gardnerella vaginalis, Ureaplasma ureolyticum* and *Group B streptococcus (Staphylococcus saprophyticus, Staphylococcus haemolyticus.*

TYPES OF URINARY TRACT INFECTIONS IN PREGNANCY[2]

1. Asymptomatic bacteriuria

Asymptomatic bacteriuria defined as finding of more than 10^5 colony-forming units per mL of urine in a clinically asymptomatic person. The prevalence of asymptomatic bacteriuria in pregnancy is about 10%. Neonatal complications which are associated with asymptomatic bacteriuria include intrauterine growth restriction, low birth weight and pre-term premature rupture of membrane. Maternal complications which are associated with asymptomatic bacteriuria are hypertension, pre-eclampsia and maternal anaemia.

2. Acute cystitis

This type relates to infection of the urinary bladder and commonly the urethra is also infected. The symptoms are the presence of dysuria, urgency and frequency. Usually the patient remains afebrile. Most mothers may not be aware that they are having the infection because urgency and frequency are common symptoms in a normal pregnancy.

3. Acute pyelonephritis

Acute pyelonephritis is infection of the kidney and the pelvic ureter. This complication is characterised by high-grade fever, chills and rigors, headache, nausea, vomiting, lumbar pain and in serious cases, reduced urine output. Without treatment it can cause preterm labour and maternal septicaemia. Recurrent pyelonephritis has been implicated as a cause of intra uterine growth restriction and fetal death.

SCREENING[2]

The gold standard for detecting bacteriuria in pregnancy is urine culture. For asymptomatic bacteriuria, some methods used are urinalysis to look for protein, white blood cells, red blood cells, and urine dipstick for nitrites and leukocyte esterase.

TREATMENT[3]

Table 1: Treatment of urinary tract infection related to pregnant women in National Antibiotic Guidelines 2019

Infection/Condition	**Suggested treatment**		**Comments**
	Preferred	**Alternative**	
Asymptomatic Bacteriuria (ABU) Urine bacterial growth≥ 10^5 cfu/ml in 2 serial samples in woman	Screening for, and treating asymptomatic bacteriuria is not recommended except; -in pregnant woman **OR** -prior to urological procedures (surgical prophylaxis) Whenever indicated, treatment should be guided by urine culture and sensitivity result.		Duration of treatment for pregnant women: 5-7 days.
Cystitis in Pregnancy	*Nitrofurantoin 50-100mg PO q6h (macrocrystals) or 100mg PO q12h	Cefuroxime 250mg PO q12h **OR**	Obtain urine culture before starting treatment and repeat 1-2 weeks after completion of

	(monohydrate/macrocrystals) **OR** Cephalexin 500mg PO q12h	#Amoxicillin/clavulanate 625mg PO q8h **OR** Ampicillin/sulbactam 375-750mg PO q12h **OR** **Fosfomycin 3gm POx 1 dose	antibiotics to ensure eradication Duration: 5-7 days Treat for 7 days if recurrent *Avoid Nitrofurantoin at third trimester if another option available due to small risk of haemolyticanaemia in newborn. #Amoxicillin/clavulanate is generally safe in pregnancy (Category B), but there may be an increased risk of necrotising enterocolitis associated with use in preterm, premature rupture of membranes. **Consider Fosfomycin for patients suspected to have MDR Gram-negative Infection.

Pyelonephritis in other category (eg: Pregnancy)	Treat as In-patient treatment for Uncomplicated Pyelonephritis: Amoxicillin /clavulanate 1.2gm IV q8h OR Cefuroxime 750mg IV q8h OR Ampicillin/sulbactam 1.5-3gm IV q8h	Ceftriaxone 1gm IV q24h	Obtain urine culture before starting treatment. May step down to oral antibiotic guided by culture and sensitvity result once can tolerare orally and afebrile≥48hours

Symptomatic treatment such as urinary alkalinizer such as Ural/Utix fall under Category C in pregnancy which means it should be used with caution if benefits outweigh risk as no studies have been done regarding its use in pregnant women[4]. It is also recommended to drink 8 glasses of water a day, take vitamin C and zinc to help fight infection, urinate completely as soon as the need is felt, avoid wearing tight-fitting pants and change underwear at least twice a day.

Conclusion

Untreated UTI will lead to pre-term premature rupture of membrane, maternal chorioamnionitis, intrauterine growth retardation and low birth weight baby. Therefore, early treatment with antibiotics has significantly reduced these complications. Other than taking prescribed antibiotics, it is also important to practice good personal hygiene, increase daily water intake and to maintain healthy lifestyle and diet.

References:

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3. National Antibiotic Guidelines [Internet]. 2019. Available from: https://www.pharmacy.gov.my/v2/sites/default/files/document-upload/national-antimicrobial-guideline-2019-full-version-3rd-edition_0.pdf
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Topical Treatment for Acne Vulgaris

Cik Ng Phui Qi

Topical therapy is the mainstay of treatment for mild acne. It also useful for moderate acne where comedone are predominant. It plays an important role in induction of remission and maintenance phases of the treatment.

1. Benzoyl Peroxide 5%; 10% [1]

Mode of Action	• Antibacterial activity against *Propionibacteria Acnes* • It decomposes to release free oxygen radicals, which have potent bactericidal activity in the sebaceous follicles and anti-inflammatory action
Side Effects	Dryness, skin irritation, bleaching or discoloration of fabrics (e.g. clothing, bed linen, towels)
Counselling Points	• Apply on the acne spot after washing skin. May apply twice/ thrice a day if needed. • Start on night for a week, if no irritation, then can apply twice a day. • Stop if skin irritation occurs.

2. Retinoids (e.g Tretinoin, Adapalene*, Isotretinoin*) [1]

Mode of Action	• Normalisation or differentiation of follicular epithelial cells resulting in decreased micromedone formation • Reducing inflammatory components of acne (papules and pustules)
Side Effects	Erythema, scaling, dryness, pruritus, burning, photosensitivity
Counselling Points	• Apply thin layer to the entire face or other affected area at night after washing. • Wash well in the morning.

	• Protect face from direct sunlight. • Avoid facial scrub and concomitant use of topical keratolytic agents • Pregnancy should be avoided during treatment & at least 4 weeks after stopping treatment for Tretinoin cream/gel.

3. Antibiotic* (e.g Clindamycin, Erythromycin) [2]

Mode of Action	Exert antibacterial effect by inhibit the colonisation of pilosebaceous glands by Propionibacterium acnes and have limited anti-comedogenic effect
Side Effects	Erythema, scaling, stinging, burning, itching
Counselling Points	• Apply a thin film on acne-affected area twice daily and gently rub into skin • Do not apply to broken, sunburnt or sensitive area and take care to avoid getting it on your eyelids • It may take up to 8 to 12 weeks before full improvement is seen

4. Salicylic Acid 1.5%; 2 % [2]

Mode of Action	Exfoliate skin by removing the dead cells and debris that clog pores
Side Effects	Irritation, dry skin, scaling, stinging
Counselling Points	• Apply thinly to the affected area 1 to 3 times daily • Reduce to once daily or every other day if dryness or peeling occur • Avoid prolonged use in high concentrations and over large areas of the body

5. Dapsone* [2]

Mode of Action	• Exert antibacterial effect by inhibit synthesis of folic acid in susceptible bacteria, e.g *Propionibacteria Acnes.* • Exert anti-inflammatory effect by inhibits myeloperoxidase and eosinophil-peroxidase,

	enzymes found within neutrophils and oesinophils espectively.
Side Effects	Dryness, erythema, rash, photosensitivity, burning, pruritus
Counselling Points	• Apply thin layer to the affected area after washing skin and rubbed in gently and completely • Apply pea-sized amount once (7.5% gel) daily or twice (5% gel) daily • It may take up to 12 weeks before improvement is seen

6. Azelaic Acid*[1]

Mode of Action	Inhibit the growth of susceptible organism (*Propionibacterial acnes*) on the skin surface and inhibits follicular keratinisation. This restricts the development of comedone.
Side Effects	Hypopigmentation, skin irritation, erythema, scaling, burning, itching, photosensitivity
Counselling Points	• Apply a thin layer onto the affected area on the face once daily in the evening for 1 week, then apply twice daily thereafter • Improvement may be detectable within 4 weeks. Duration of treatment may up to 6 months

* Not available in HSM

References:

1. MOH Topical Preparations Counselling Guide for Pharmacist 1st Edi. 2018

2. CPG Management of Acne 2012

Djenkolic acid - rare culprit of AKI

Cik Siti Aishah binti Ahmad Suhaimi

Introduction:

Djenkol bean known as "jering" are normally eaten raw and prepared in many ways like frying, boiling and roasting. Tremendously, well known as the traditional healers. Djenkol has a strong smell and even with one ingestion causes the pungent sulphurous odour of breath and urine. [4] Despite the strong smell, it is usually taken with many delicious foods like "nasi uduk" in some areas in Indonesia.

Djenkolism is considered as one of the vital causes of acute kidney injury in Asian natives. The clinical presentation may range from a very mild to a severe symptom. Some reports reveal that the toxicity not necessarily happen immediately, some will occur after 36 hours of consumption.[1] Besides, a history of acute djenkolism will not cause any hypersensitivity or production of immunity to the subsequent consumption.

Case report:

1. 28 years old healthy man referred to hospital due to difficulty in passing urine, dysuria, hematuria, vomiting, post-voiding dribbing, suprapubic and bilateral loin pain after consumption of 20 pieces of "jering".

2. Upon admission, serum creatinine shows 274 µmol/L, urea 6.5 mmol/L, sodium 137 mmol/L and potassium 4.1 mmol/L. Urinalysis confirmed the presence of protein 30.0 g/L. Ultrasound and CT urography shows bilateral hydronephrosis, proximal hydroureter and presence of tiny calculi in both kidneys.

3. He was managed by sodium bicarbonate in normal saline and Ural sachet.

4. After 7 days, the patient's symptoms resolved. Upon discharge, the serum creatinine dropped to 77 µmol/L, urea 3.4 mmol/L, sodium 138 mmol/L and potassium 3.8 mmol/L.

From the case report, the patient had AKI due to the intake of djenkol and the symptom resolved after treatment was given.

Common sign and symptom:

The common symptoms of djenkolism include flank pain, difficulty in urinating, nausea, vomiting, and gross hematuria.[1,4] Some patient may develop severe suprapubic pain and clinically develops to oligoanuric acute renal failure. [3]

Pathogenesis:

There are a few proposed mechanisms on how djenkol can cause nephrotoxicity. Most studies agreed on the development of acute tubular necrosis (ATN) following the intake of djenkol due to the formation of djenkolic acid crystals in the renal tubules. [1 4 3 2] Djenkol bean contains a high amount of djenkolic acid whereby most of the acid exists in a free state which is about 0.3-1.3g/100 g wet weight [1] The urinary pH plays a quite important role in the removal of djenkolic acid from the body since djenkolic acid is cleared through urine. As the normal urine pH is around 6.5-7 which is quite acidic thus leads to the formation of crystals and irritates the urinary tract. [2]

The clinical features of flank pain, vomiting, nausea and gross hematuria most probably due to the obstruction of the urethra and ureter by djenkolic acid crystals. This crystal may irritate the urinary tract tissue and cause bleeding and to some extend obstruction which requires surgical intervention.[1]

Management:

Most of the management is pain control and proper hydration. The researchers came out with two approaches on djenkolism conservative treatment which subdivided into mild and severe djenkolism. For mild djenkolism, it only requires supportive care like pain control and proper hydration with normal saline. In severe djenkolism, the management includes aggressive hydration, alkalinization of the urine with sodium bicarbonate as the urine alkalinizer to increase the solubility of djenkolic acid. [4] However, some of the severe djenkolism requires surgical intervention when the drug therapy is insufficient. [3]

Conclusion:

In conclusion, djengkol or Malaysian known as "jering" is one of the significant causes of acute kidney injury. It is very important as the healthcare providers to provide concise advice and knowledge on the potential hazard of djenkol ingestion as it is one of the well-known natural healers among the elderly.

References:

1. Bunawan, N. C., Rastegar, A., White, K. P., & Wang, N. E. (2014). Djenkolism: case report and literature review. *International medical case reports journal*, *7*, 79–84. https://doi.org/10.2147/IMCRJ.S58379
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Methadone saves lives

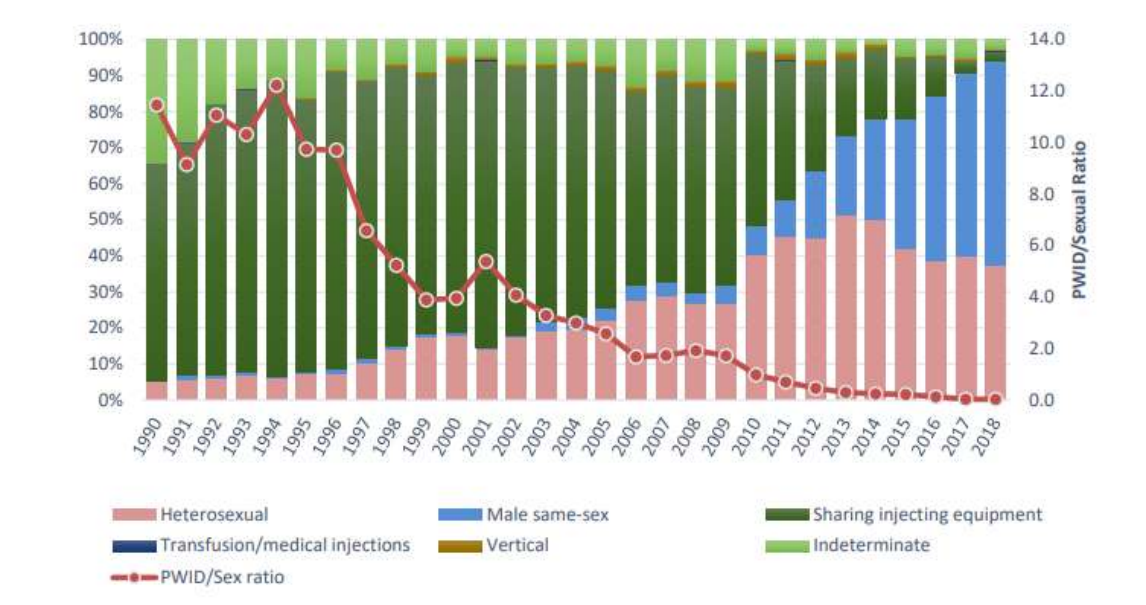
Cik Tay Siok Ling

What is methadone?[1]

Methadone, an opiate synthetic is taken as a replacement for heroin and other opioids as treatment for dependence on these drugs. Methadone acts on the same opioid receptors in brain as morphine and heroin to elicit a range of responses in the body including feelings of pain relief, pleasure, relaxation and contentment.

Pharmacokinectic of methadone[2,6]	
Onset time	30 minutes
Half life	24 hours
Peak effect	3 hours
Fat soluble and binds to a range of body tissues including lungs, kidney, liver and spleen. Concentration in these organ is much higher.	
Broken down in liver via cytochrome P450 enzyme.	
10% eliminated unchanged.	

In 2005, Malaysia was one of the south-eastern Asia's most explosive epidemics of human immunodeficiency virus (HIV) infection. The epidemic was mostly caused by population between the ages of 15 to 64 years who inject opioids. In order to reduce HIV infection, Malaysia introduced methadone maintenance treatment (MMT) programmes or Rawatan Terapi Gantian(RTG) in 2005[3]. The trend of HIV transmission mode in people who inject drugs (PWID) in Malaysia has declining from 3.95 in 2000 to 0.03 in 2018.[4]



PWID = People who inject drugs

Figure 1: Trend of HIV transmission in Malaysia

Objective: To replace opioids like heroin and morphine in order to reduce the cravings and withdrawal symptoms experienced by patients.[5]

Start by medical officer and dispensed by pharmacist.

Advantages:

-Prevent blood-borne viral infections (HIV, Hepatitis C, Hepatitis B) due to needles sharing.

- Doses are required only once a day, sometimes even less often, because methadone's effects are long lasting.

Antidote: IV Naloxone 0.4-2mg. A second dose can be repeated every 2-3 minutes as the onset of action of naloxone is 1-2 minutes.[7]

Rawatan Terapi Gantian(RTG)

How to take[2]:

-Starting dose: 15-30mg (not>40mg/day)

-Maintenance dose: 60-80mg

-Take in morning so that side effects can be monitored

-Directly Observed Therapy (DOT)

Dose titration[6]:

-Do not increase dose for at least the first three days of treatment unless there are clear signs of withdrawal at the time of peak effect.

-Consider dose increments of 5-10mg every 3 days subject to assessment.

-Total weekly increase not exceed 20mg.

Missed dose[2]	
One day	No change in dose
Two days	If no evidence of intoxication administer normal dose
Three days	Administer half of the dose in discussion with the prescriber
Four days and above	Refer the patient to the prescriber

If patient vomit after taking methadone:[2]

Within 15 minutes: Replace with full dose

15-30 minutes after taking: Replace with 50% of the dose

More than 30 minutes: No dose replacement

Management in pregnancy[6]:

It may be necessary to divide the daily dose and possibly to increase the daily dose in the third trimester of pregnancy due to increase in plasma proteins which bind methadone and placental metabolism of methadone.

Drugs which increase methadone level[2]:

Benzodiazepine

Cimetidine

Ciprofloxacin

Fluoxetine

Fluvoxamine

Sodium bicarbonate

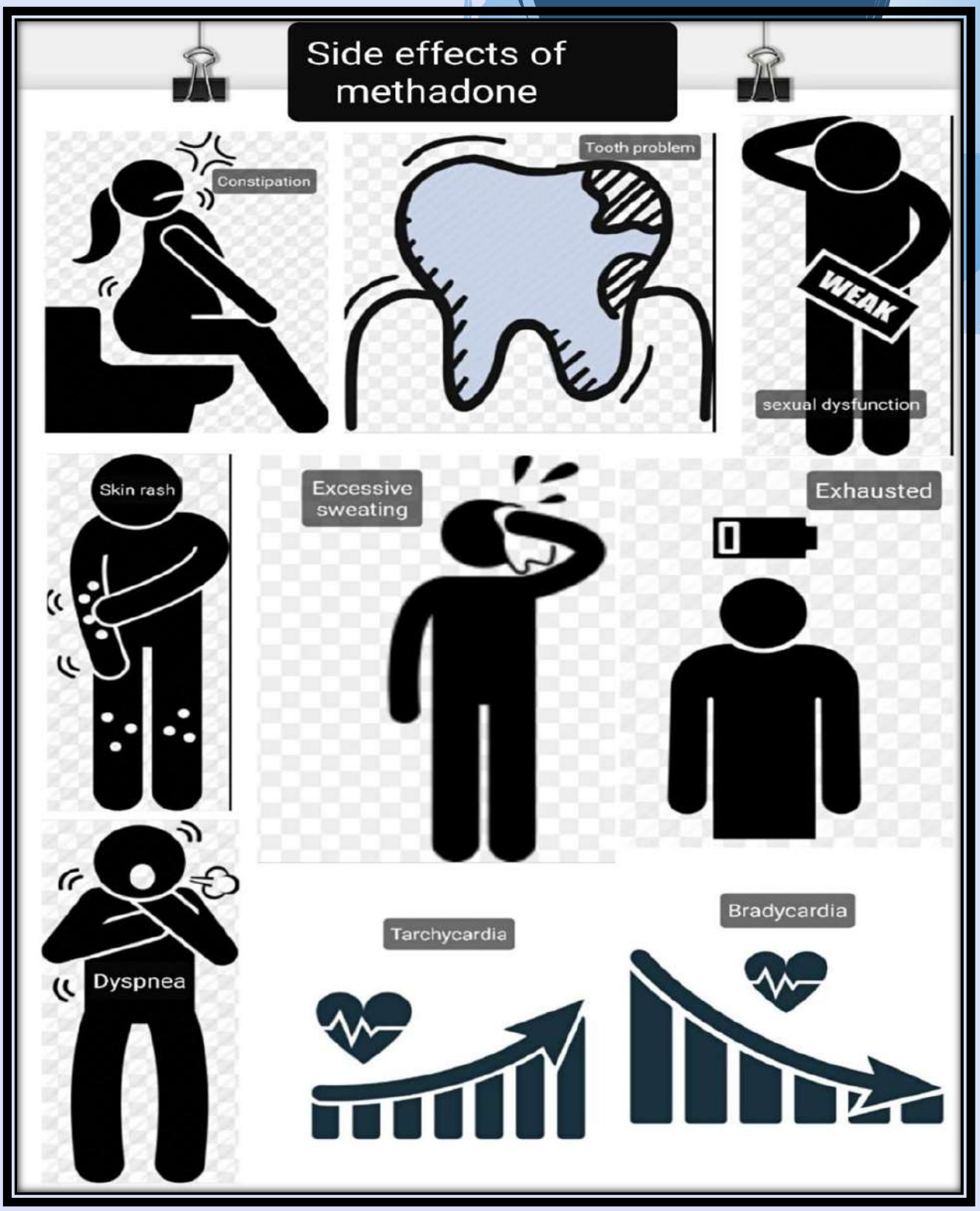
Drugs which decrease methadone level[2]:

Phenytoin

Efavirenz

Rifampicin

Ascorbic acid


Side effects of methadone
Constipation
Tooth problem
WEAK
sexual dysfunction
Skin rash
Excessive sweating
Exhausted
Dyspnea
Tarchycardia
Bradycardia


Insomnia
Vomiting
Muscle aches
Running nose
Withdrawal effects of methadone
Watery eyes
Pupillary dilation
Diarrhea
Fever

References:

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3. Jeffrey A Wickersham. Implementing methadone maintenance treatment in prisons in Malaysia. Bulletin of the World Health Organization. Volume 91: 201. 2nd February 2013
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MEDICATION ERRORS

-Pn. Chuah Bee Leng

-Cik Ling Shiau Hui

-Cik Noor Azrina binti Sanik

Medication error is defined as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in control of the healthcare professional, patient or consumer. It may be related to professional practice, healthcare products, procedures and systems including; prescribing, order communication, product labelling, packaging, compounding, dispensing, distribution, administration, monitoring and use.

Medication errors can be committed (or contributed to) by anyone who handles medicine which are physicians/doctors, dentists, pharmacists, other healthcare providers, patients, caregivers, others.

Types of Medication Error[1]

Type		Definition
1	Prescribing Error	Incorrect drug product selection (based on indications, contraindications, known allergies, existing drug therapy, and other factors), dose, dosage form, quantity, route of administration, concentration, rate of administration, or instructions for use of a drug product ordered or authorized by physician (or other legitimate prescriber); illegible prescriptions or medication orders that lead to errors.
2	Omission error	The failure to administer an ordered dose to a patient before the next scheduled dose or failure to prescribe a drug product that is indicated for the patient. The failure to administer an ordered dose excludes patient's refusal and clinical decision or other valid reason not to administer.

3	Wrong time error	Administration of medication outside a predefined time interval from its scheduled administration time (this interval should be established by each individual healthcare facility).
4	Unauthorised drug error	Dispensing or administration to the patient of medication not authorised by a legitimate prescriber.
5	Dose error	Dispensing or administration to the patient of a dose that is greater than or less than the amount ordered by the prescriber or administration of multiple doses to the patient, i.e. one or more dosage units in addition to those that were ordered.
6	Dosage form error	Dispensing or administration to the patient of a drug product in a different dosage form than that ordered by the prescriber.
7	Drug preparation error	Drug product incorrectly formulated or manipulated before dispensing or administration.
8	Route of administration error	Wrong route of administration of the correct drug.
9	Administration technique error	Inappropriate procedure or improper technique in the administration of a drug other than wrong route.
10	Deteriorated drug error	Dispensing or administration of a drug that has expired or for which the physical or chemical dosage-form integrity has been compromised
11	Monitoring error	Failure to review a prescribed regimen for appropriateness and detection of problems, or failure to use appropriate clinical or laboratory data for adequate assessment of patient response to prescribed therapy
12	Compliance error	Inappropriate patient behaviour regarding adherence to a prescribed medication regimen.

13	Other medication error	Any medication error that does not fall into one of the above predefined types.

Classification of Medication Error Severity[1]

No Harm	
Category A	Potential error, circumstances/events that have the potential to cause incident.

Error , No Harm	
Category B	An error occurred but the error did not reach the patient (an 'error of omission' does reach the patient).
Category C	An error occurred that reached the patient but did not cause patient harm.
Category D	An error occurred that reached the patient and required monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm.

Error, Harm	
Category E	An error occurred that may have contributed to or resulted in temporary harm to the patient and required intervention.
Category F	An error occurred that may have contributed to or resulted in temporary harm to the patient and required initial or prolonged hospitalisation.
Category G	An error occurred that may have contributed to or resulted in permanent patient harm.

Category H	An error occurred that required intervention necessary to sustain life.

Error, Death	
Category I	An error occurred that may have contributed to or resulted in the patient's death.

IMPROVING MEDICATION SAFETY: SUGGESTION ON HOW TO PREVENT MEDICATION ERRORS[2]

Medication errors in health care workplace are preventable. These are some suggestion during prescribing, administering and dispensing to ensure it does not happen:

1. **Learn and practice collecting complete medication histories before prescribing**

- Include name, dose, route, frequency, duration of every drug
- Ask about recently ceased medications
- Ask about over-the-counter medications, dietary supplements and complementary medicines
- Make sure what patient actually takes matches your list
- Consider drug interactions, medications that can be ceased and medications that may be causing side-effects
- Always include allergy history

2. **Develop checking habits during prescribing, dispensing or administering. Check that the prescription entry is correct**.

- Remember to check for allergies & other related information, Check the Right Drug, Right Dose, Right Route, Right Time & Right Patient
- Consistently verify patient identity.
- Computerized systems still require checking
- Never prescribe, dispense or administer medication unless you are 100% sure you know what it is.

- It is useful to have information about the patient, such as**:** Allergies, Co-morbidities (especially liver and renal impairment), Other medication, Pregnancy and breastfeeding & Size of patient.
- Be careful with zeros and abbreviations (Misplaced zeros, decimal points, and faulty units are common causes of medication errors)
- Counter-checked or verification should be done by other person.
- Always check and it will become a habit! Practice makes permanent, perfect practice makes perfect

3. Clarify any unclear information, ensure the prescription is correct and complete.

- Whenever in question, it is important to call the prescriber to clarify any uncertainties or doubts regarding the prescription.
- Clarification obtained from the physician should be promptly documented.
- All verbal prescriptions should be immediately transcribed to a blank prescription pad and read back to the caller to ensure that the prescription has been transcribed correctly.

4. Be very familiar with the medications you prescribe, dispense or administer.

- Do some homework on every medication you encounter
- Suggested framework; Pharmacology, Indications, Contraindications, Side-effects, Special precautions, Dose and administration & Regimen
- Beware of look-alike, sound-alike drugs

5. Know which medications are high risks and take precautions

- Narrow therapeutic window
- Multiple interactions with other medications
- Potent medications
- Complex dosage and monitoring schedules

- Examples: Oral anticoagulants, Insulin, Chemotherapeutic agents, Neuromuscular blocking agents, Aminoglycoside antibiotics, Intravenous potassium & Emergency medications (potent and used in high pressure situations)

6. **Organize the workplace, work environment, and workflow.**

- Proper lighting, adequate counter space, and comfortable temperature and humidity to facilitate a smooth flow from one task to the next
- Developing a routine for entering, filling, and checking prescriptions.
- Prevent mix-ups by working with one drug product at a time and affixing the label to the patient's prescription container before working on the next prescriptions.
- It is also important not to leave any drug containers unlabeled.

7. **Encourage patients to be actively involved in the process**

- To provide patient with the following information when prescribing a new medication:

✓ Name, purpose and action of the medication

✓ Dose, route and administration schedule

✓ Special instructions, directions and precautions

✓ Common side-effects and interactions

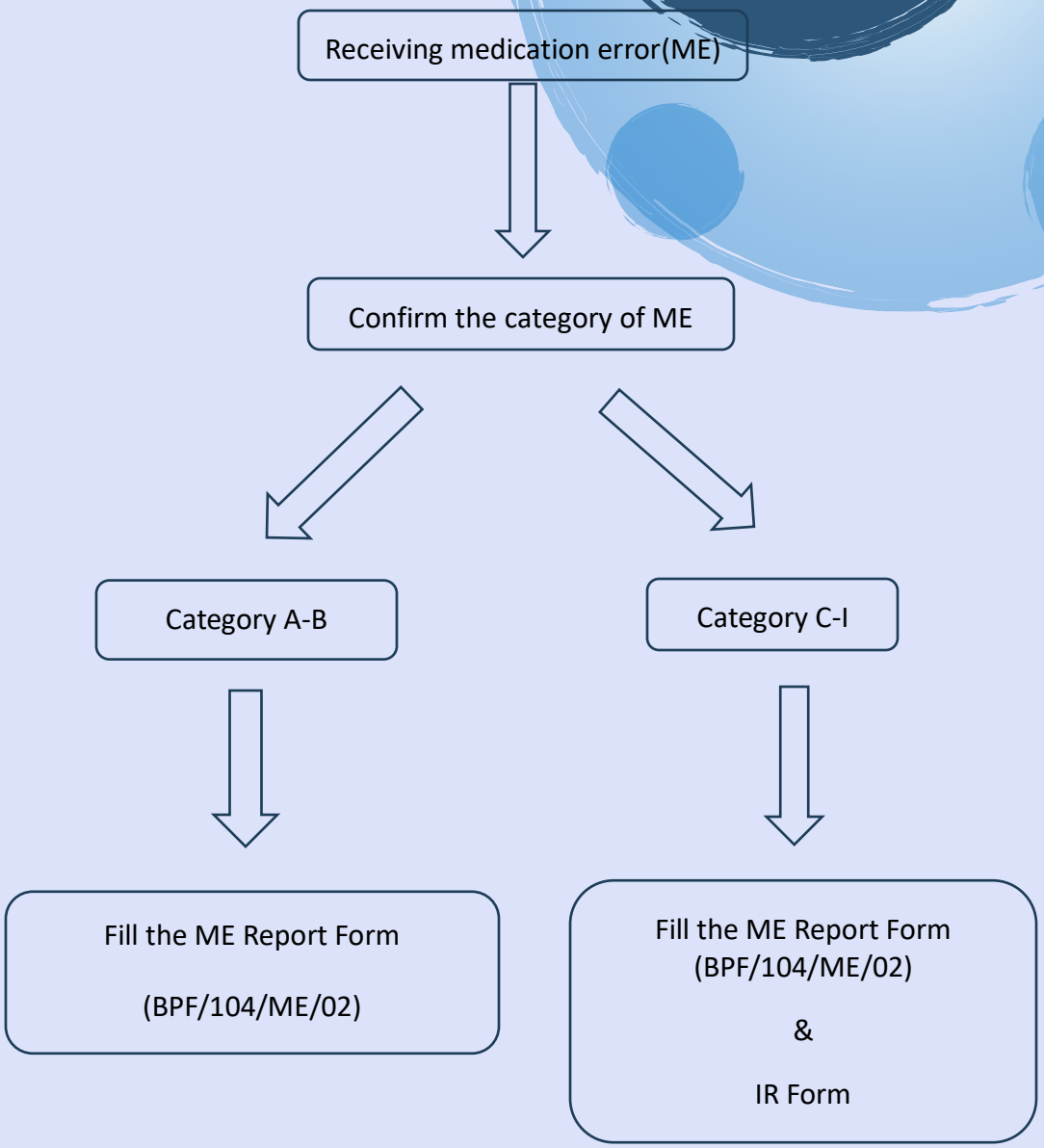
✓ How the medication will be monitored

- Encourage patients to keep a written record of their medications and allergies
- Encourage patients to present this information whenever they consult a doctor

8. **Provide patient counseling**.

- Informing patients on how to properly take the medication rather than just handing the bag directly to them
- Offering opportunities for patients to ask questions.
- Showing the patients the contents of medication can prevents errors, as patients can raise an alert if the medication looks different from what they usually take.

Medication errors categories



Medication Error (ME) Report Form

MEDICATION ERROR (ME) REPORT FORM

BPF/104/ME/02

For PSD, MOH use

Reporters do not necessarily have to provide any individual identifiable health information, including names of practitioners, names of patients, names of healthcare facilities, or dates of birth (age is acceptable)

1 **Date of event:** ☐☐☐☐☐☐ dd/mm/yy

2 **Time of event:** ☐☐☐☐ hh/mm (24 hr)

3 **Type of Facility:** *MOH/ Other Government Facility/ Private
☐ Hospital ☐ Clinic ☐ Pharmacy
☐ Others: _____

4 **Location of event:**
☐ Ward (Please specify: Medical/Pead/Ortho/.....)
☐ Clinic (Please specify: Outpatient/Specialist/Dental/.....)
☐ Pharmacy (Please specify: Inpatient/Outpatient/Satellite/A&E/.....)
☐ A&E
☐ Others (Please specify:.....)

5 Please describe the error. Include description/ sequence of events and work environment (e.g. change of shift, short staffing, during peak hours). If more space is needed, please attach a separate page.

6 In which process did the error occur?
☐ Prescribing
☐ Dispensing (includes filling)
☐ Administration
☐ Others (Please specify) :
_____

7 Did the error reach the patient?
☐ YES ☐ NO

8 Was the incorrect medication, dose or dosage form administered to or taken by the patient?
☐ YES ☐ NO

9 Describe the direct result on the patient (e.g. death, type of harm, additional patient monitoring e.g. BP, HR, glucose level etc.).

10 Please tick the appropriate Error Outcome Category (Select one)

NO ERROR
☐ A Potential error, circumstances/ events have potential to cause incident

ERROR, NO HARM
☐ B Actual Error - did not reach patient
☐ C Actual Error - caused no harm
☐ D Additional monitoring required - caused no harm

ERROR, HARM
☐ E Treatment/ intervention required - caused temporary harm
☐ F Initial/ prolonged hospitalization - caused temporary harm
☐ G Caused permanent harm
☐ H Near death event

ERROR, DEATH
☐ I Death

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11 Indicate the possible error cause(s) and contributing factor(s)

☐ **Staff factors**
- ☐ Inexperienced personnel
- ☐ Inadequate knowledge
- ☐ Distraction

☐ **Medication related**
- ☐ Sound alike medication
- ☐ Look alike medication
- ☐ Look alike packaging

☐ **Task and technology**
- ☐ Failure to adhere to work procedure
- ☐ Use of abbreviations
- ☐ Illegible prescriptions
- ☐ Patient information/ record unavailable/ inaccurate
- ☐ Wrong labeling/ instruction on dispensing envelope or bottle/ container
- ☐ Incorrect computer entry

☐ **Work and environment**
- ☐ Heavy workload
- ☐ Peak hour
- ☐ Stock arrangements/ storage problem

☐ **Others (please specify):**
.....
.....

For question 12-14, please fill each box with one of the following option.

a. Specialist
b. Medical Officer (MO)
c. Houseman Medical Officer (HMO)
d. Pharmacist
e. Provisional Registered Pharmacist (PRP)
f. Nurse
g. Nurse (Trainee)
h. Assistant Medical Officer (AMO)
i. Assistant Medical Officer (AMO Trainee)
j. Pharmacist Assistant
k. Pharmacist Assistant (Trainee)
l. Patient/ Caregiver
m. Dentist
n. Others (Please specify in the box)

12 Which category made the initial error? ☐ (If "n. others", please specify:.....)

13 Other category also involved in the error? ☐ (If "n. others", please specify:.....)

14 Which category discovered the error or recognised the potential error? ☐ (If "n. others", please specify:.....)

15 If available, please provide patient's particulars (Do not provide any patient identifiers).
Age: ☐☐ *years/ months/ days **Gender:** ☐ Male ☐ Female **Diagnosis:** _____

16 **Product Details:** Please complete the following for the product(s) involved. Kindly attach a separate page for additional products.

Product Description	Product # 1 (intended)	Product # 1(error)
16.1 Generic Name (Active Ingredient)		
16.2 Brand / Product Name		
16.3 Dosage Form		
16.4 Dose, frequency, duration, route		

Please fill in 16.5-16.7 if error involved similar product packaging:

Product Description	Product # 1 (intended)	Product # 1(error)
16.5 Manufacturer		
16.6 Strength / Concentration		
16.7 Type and Size of Container		

* Please delete where not applicable

17 Reports are most useful when relevant materials such as product label, copy of prescription/order, etc., can be reviewed. Can these materials be provided?

☐ No

☐ Yes, Please specify

_____

_____

18 Suggest any recommendations, or describe policies or procedures you instituted or plan to institute to prevent future similar errors. If available, kindly attach investigational report e.g. Root Cause Analysis (RCA).

Reporter's Details

Name :	
Profession :	
Facility and Address :	Postcode : ☐☐☐☐☐
E-mail :	
Telephone number :	Fax Number :

For official use :

Date report received :

☐☐☐☐☐☐ dd/mm/yy

ME Type ☐

ME Category ☐

(Fold here)

Medication Safety
Is Everyone's Responsibility

www.pharmacy.gov.my
E-mail: mers@moh.gov.my

(Fold here)

NO STAMP REQUIRED

SETEM POS TIDAK DIPERLUKAN

REPLY PAID / JAWAPAN BERBAYAR
MALAYSIA
No. Lesen : BRS 0915 SEL

Medication Safety Centre (MedSC),
Pharmaceutical Services Division,
Ministry Of Health Malaysia,
P.O. Box 924, Jalan Sultan,
46790 Petaling Jaya, Selangor.

SULIT

MINISTRY OF HEALTH MALAYSIA
PATIENT SAFETY INCIDENT REPORTING FORM

IR 2.0/2017

DATE OF REPORTING: ____/____/ _____

Borang boleh diisi dalam* ***Bahasa Malaysia*

SECTION A: TO BE COMPLETED BY THE REPORTER OF THE INCIDENT

INCIDENT DESCRIPTION (Please fill in the blanks)

1.	**NAME OF FACILITY/ INSTITUTION**		**PATIENT'S NAME**	
2.	**DATE OF INCIDENT**	☐☐ / ☐☐ / ☐☐☐☐	**IF UNCERTAIN** APPROXIMATE DATE: ____/____/____	
3.	**TIME OF INCIDENT**	☐☐ : ☐☐ AM/ PM	**IF UNCERTAIN** APPROXIMATE TIME: ____:____AM /PM	
4.	**PATIENT'S RN/ OTHER INDENTIFICATION NUMBER** : _____ **AGE**: _____ **ETHNIC**: _____ **GENDER** : MALE / FEMALE / UNKNOWN (please circle) **STATUS** : ALIVE / DECEASED **LANGUAGE BARRIER**: YES / NO **DIAGNOSIS** : _____			

5. **TYPE OF PATIENT** (please tick one)

☐	INPATIENT	☐	DAY CARE
☐	OUTPATIENT	☐	OTHERS: SPECIFY
☐	A&E	☐	----------

LOCATION/ WARD / CLINIC : _____

DEPARTMENT(S) INVOLVED (please tick)

☐	MEDICAL	☐	O&G	☐	ONCOLOGY
☐	SURGICAL	☐	PHARMACY	☐	GERIATRIC
☐	ORTHOPAEDIC	☐	RADIOLOGY & IMAGING	☐	REHABILITATION
☐	PAEDIATRIC	☐	A&E	☐	ICU/ CCU
☐	LABORATORY	☐	PSYCHIATRY		
☐	OTHERS: SPECIFY _____				

6. **TYPE OF INCIDENT** (please tick one) ☐ **Actual** ☐ **Near Miss**

Examples of incidents that need to be reported: (Note that this list is not exhaustive)

☐	i.	Wrong surgery/procedure –wrong site, side or patient
☐	ii.	Unintended retained foreign body in patient after an operation/procedure
☐	iii.	Error in transfusion of blood/blood products
☐	vi.	Medication error (please fill in MERS form as well)
☐	v.	Patient fall in the facility
☐	vi.	Obstetric related incidents
☐	vii.	Adverse outcome of clinical procedure
☐	viii.	Pre-hospital care and ambulance service related incident
☐	ix.	Radiotherapy related incident
☐	x.	Patient suicide / attempted suicide
☐	xi.	Patient discharged to wrong family members / next-of -kin
☐	xii.	Assault/ battery of patient
☐	xiii.	Unanticipated Fire – Fire, flame, or unanticipated smoke, heat, or flashes occurring in the facility
☐	xiv.	**Others type of incident** : _____

7. **BRIEF DESCRIPTION OF WHAT HAPPENED** (Please fill in the blanks)
The description should explain what happen prior and during the incident and how it occurred. Do include any additional information which you think may lead to the incident.

PATIENT OUTCOME (please tick one) **& IMMEDIATE ACTION – ONLY FOR ACTUAL INCIDENT**

8. **OUTCOME OF INCIDENT**		NONE
		MILD
		MODERATE
		SEVERE
		DEATH
		CURRENTLY CANNOT BE DETERMINED

9. **IMMEDIATE ACTION FOLLOWING INCIDENT**	

REPORTED BY

10. **DESIGNATION:** (please tick one)

	NURSE		SPECIALIST
	HOUSE OFFICER		PHARMACIST
	MEDICAL OFFICER		OTHERS:

SIGNATURE OF REPORTER:

NAME:
DATE:

Note: As part of good leadership and clinical governance, please inform the incident to your Head of Department(s) immediately.

SECTION B : TO BE COMPLETED BY THE RISK MANAGER/ QUALITY MANAGER OF HOSPITAL

1. **ACTION TAKEN:** *Mandatory Root Cause Analysis:* *1) Incident with Severe or Death outcome* *2) Other incident/near miss based on the Risk Manager/ Quality Manager assessment* *3) Directive from State Health Department / Ministry.*	(Please tick) "PRESCRIPTION SLIP" MONITOR THE TREND FIRST RCA MIRCA (Multi-incident Root Cause Analysis) Additional comments :
2. **e-IR SUBMITTED?** Please submit to e-IR **within 5 days** from the date of the incident.	Date of Submission:_____-_____-_____
3. **RISK MANAGER/ QUALITY MANAGER OF HOSPITAL**	(please fill in the blanks) NAME: SIGNATURE: DESIGNATION: DATE:

References:

1.Guideline on medication error reporting, ministry of health 2009

2.WHO Patient Safety Curriculum Guide. Multi-professional Edition. Medication Error: the importance of an accurate drug history. FitzGerald RJ. J Clin Pharmacol. 2009 Jun: 67(6): 671-675.

PHARMACY STAFF MOVEMENT

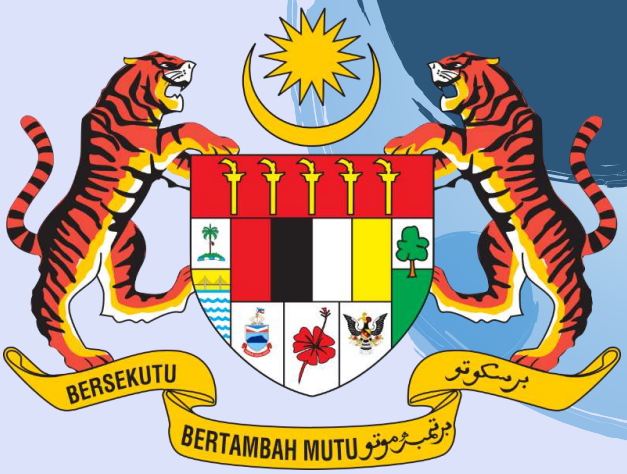
(April- July 2020)

Transferred In:

1. Pn. Lydia Pang Kai Tsan	PHARMACIST UF 44
2. Cik Laila Suraya binti Azman	PHARMACIST UF 44
3. Cik Nurliyana binti Dali	PHARMACIST UF 41

Transferred Out:

1. Cik Loh Li Vien	PHARMACIST UF 41
2. Cik Teoh Hui Min	PHARMACIST UF 41
3. Cik Fouzia Hanim binti Abdul Halim	PHARMACIST UF 41
4. Cik Kua Joey	PHARMACIST UF 41
5. Cik Maisarah binti Sulaiman	PHARMACIST UF 41
6. Cik Maryam Syafiqah binti Abdul Latif	PHARMACIST UF 41
7. Cik Nurul Syuhada binti Sahak	PHARMACIST UF 41
8. En. Muhammad Nur Adzam bin Mohamed Sapri	PHARMACIST UF 41
9. Pn. Nurfatin Syahirah binti Mohd Hanafiah	PHARMACIST UF 41
10. Pn. Noor Hamiza binti Abdullah	PHARMACIST UF 41



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