Basic Medication Safety Module (Part I)

Pharmacy Services Program, MOH

Disclaimer: Only for learning purpose for MOH healthcare staff

Basic Medication Safety for Pharmacist

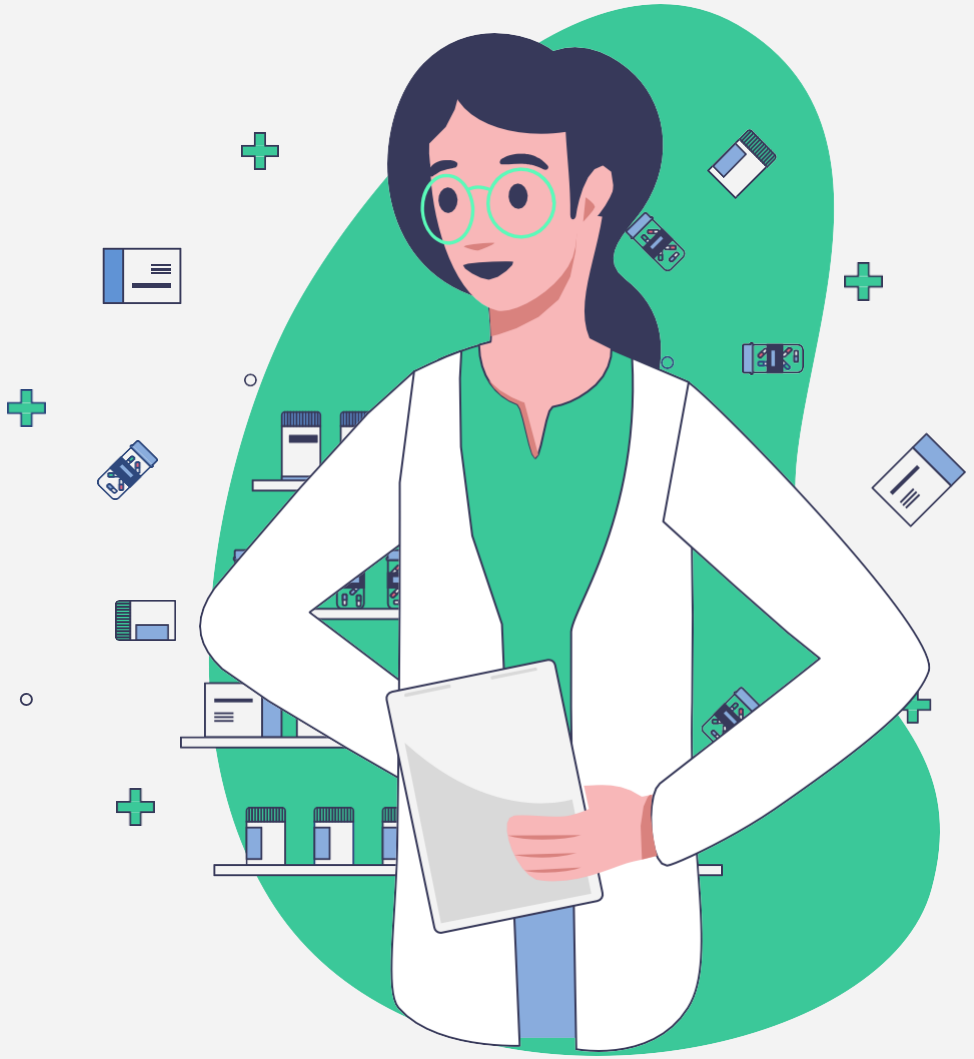
1. Introduction to Medication Safety Program in Malaysia
2. Type of Errors
3. Governments Initiatives to Improve Quality of Medication Safety

Learning Objectives

1. Better understanding on safe practices in handling medications.
2. Increase awareness on the importance of safe medication practice.
3. Increase awareness on the importance of medication error reporting.

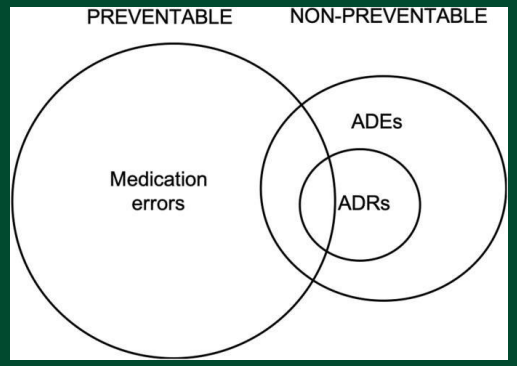
01.

Introduction to Medication Safety Program in Malaysia



Definition

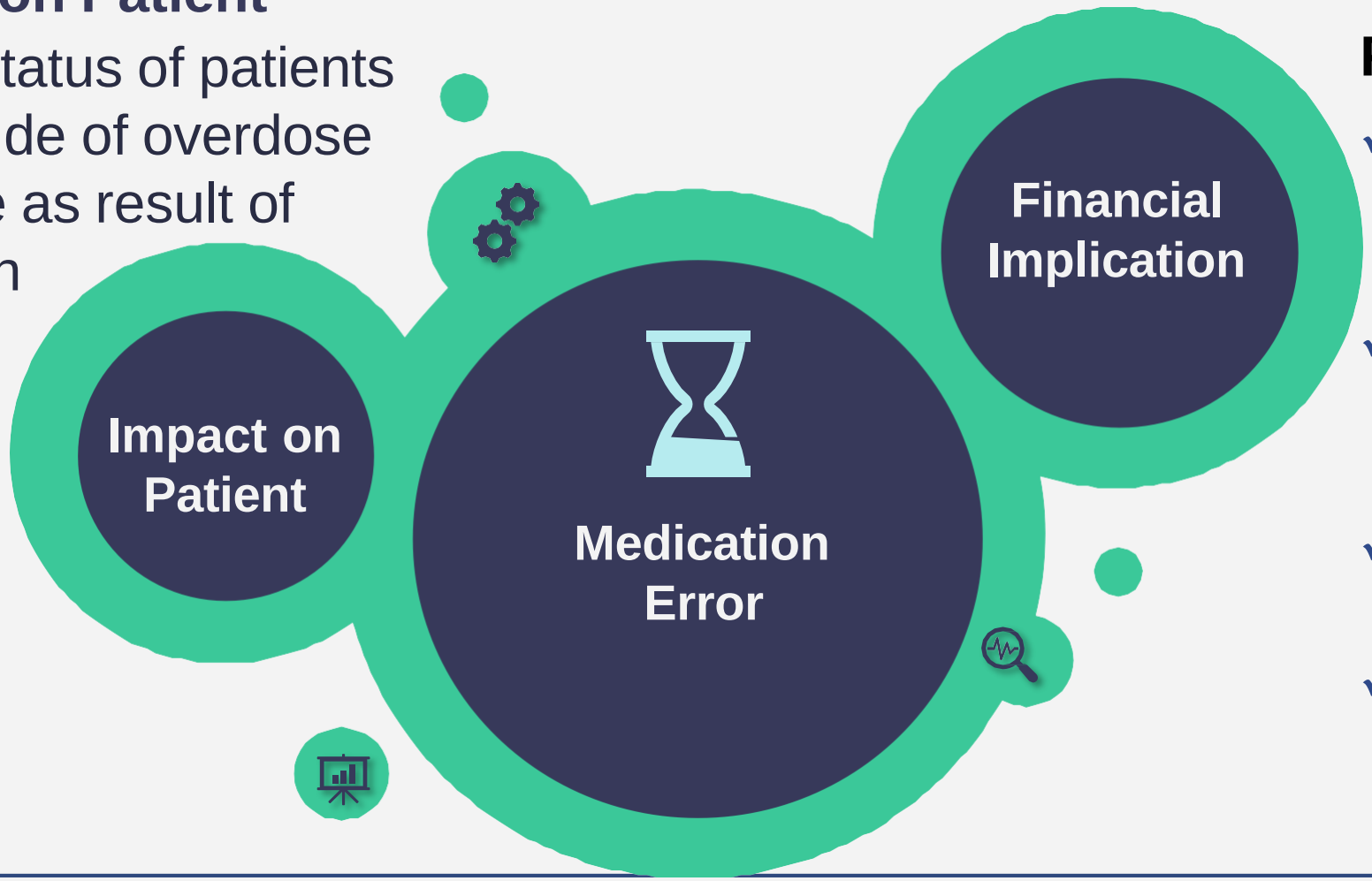
Any **preventable** **event** that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient or consumer.



Impact of Medication Error

Impact on Patient

- ✓health status of patients
- ✓magnitude of overdose
- ✓damage as result of omission



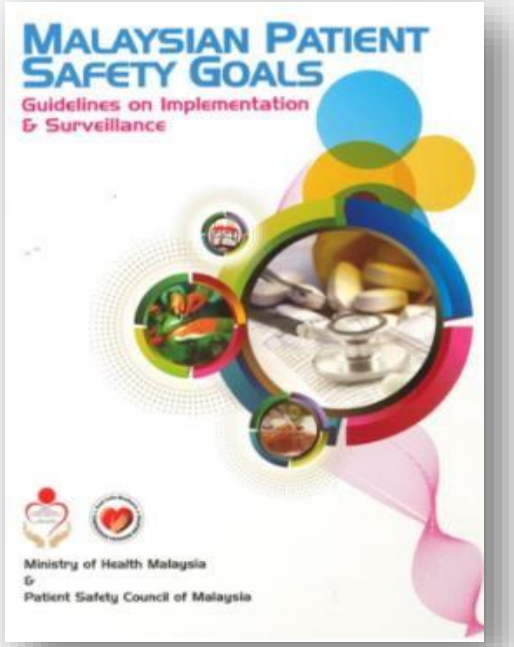
Financial Implication

- ✓prolong hospital stays & increase health care expenses
- ✓estimated to cost billions of dollars annually
- ✓additional medical management
- ✓legal fees & out-of-court settlements

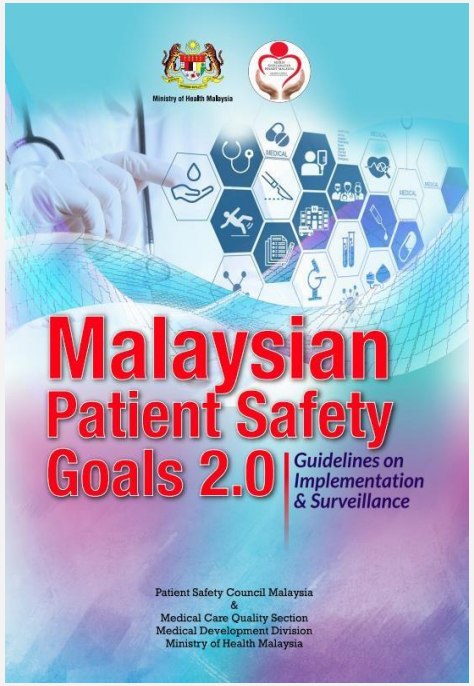
What is Patient Safety?

- A discipline in the health care sector that applies safety science methods toward the goal of achieving a trustworthy system of health care delivery.
- Aims to **prevent** and **reduce risks**, errors and harm that occur to patients during provision of health care A fundamental component of quality essential health services.
- clear policies, leadership capacity, data to drive safety improvements, skilled health care professionals and effective involvement of patients in their care are all needed to ensure successful implementation.

Malaysia Patient Safety Goals (MPSG)



13 Goals



7 Goals

Goal No. 3 : Medication Safety "Medication Without Harm"

Number of Medication Error Related To Severe Harm Or Death ,Target : Zero cases (Hospital & Clinic)

Additional data collection :

- Total Number of Medication Error
- Total Number of Near Miss Medication Error
- Total No. of Admission and/or Clinic Visit

Goal No. 6 : Correct Patient Identification

Number of Incidents Caused by Wrong Patient Identification (detected by incident investigation) (Hospital)

Zero Cases

Goals In Malaysian Patient Safety Goals 2.0

GOAL 1 — INFECTION PREVENTION AND CONTROL

KPI 1 : Hand Hygiene Compliance Rate

Target : ≥75%

6 monthly audit

KPI 2 : Rate of Catheter Associated Blood Stream Infection

Target : ≤0.5 per 100 admissions

Once / year (point prevalence survey)

GOAL 2 — SAFE SURGERY SAVES LIVES

KPI 3 : No. of "Wrong Surgery Performed"

Target : Zero Cases

KPI 4 : No. Of "Unintended retained surgical item" (URSI)

Target : Zero Cases of Category 2 & 3

GOAL 3 — MEDICATION SAFETY

KPI 5 : Number of Medication Error Leading To Severe Harm Or Death

Target : Zero Cases

Monthly data collection

GOAL 4 — TRANSFUSION SAFETY

KPI 6 : Number of Incorrect Blood Component Transfused (IBCT)

Target : Zero Cases

Monthly data collection

GOAL 5 — FALL PREVENTION

KPI 7 : Rate of Patient Fall

Target :
Inpatient : ≤ 5 per 1000 patient-days
Outpatient & Primary Healthcare Facilities : ≤ 5 %

Monthly data collection

GOAL 6 — PATIENT IDENTIFICATION

KPI 8 : Number of Patient Safety Incidents Caused by Wrong Patient Identification (Detected by incident reporting & investigation)

Target : Zero Cases

Monthly data collection

GOAL 7 — INCIDENT REPORT AND LEARNING SYSTEM

KPI 9 : Implementation of Patient Safety Incident Report and Learning System

Target : System Implemented

Compiled monthly (No. of reports for additional information)

Malaysian Patient Safety Council	**MOH**
Malaysian Patient Safety Goals (MPSG) Steering Committee	**MOH**
Medication Safety Technical Working Group (TWG)	**MOH**
Patient Safety Committee/ Medication Safety Committee	**MOH**
Patient Safety Committee/ Medication Safety Committee	**State/ Health Facilities**

Medication Safety Technical Working Group (TWG)

- **Chairman:** Director of Pharmacy Practice and Development Division
- **Members:** Doctors, pharmacists, pharmacy assistants, nursing & medical assistants from various division
- **Roles & Responsibilities:**
  - To closely monitor the performance of medication safety.
  - To plan strategies and facilitate remedial actions to improve performance.
  - To effectively and efficiently promote and disseminate information on medication safety.
  - To make recommendations regarding amendments to specific goal, indicator and target .

02.

Type of errors

Medication Use Process

Error can happen in any of the steps

Prescribing → **Dispensing** → **Administering** → **Monitoring** → **Outcome**

- *Data Entry*
- *Filling*
- *Labelling*
- *Counterchecking*
- *Dispensing*

Prescribing

- Wrong dose
- Wrong drug
- Wrong route/form
- Allergy
- Interaction

Dispensing

- Wrong dose
- Wrong drug
- Wrong route
- Wrong time
- Wrong patient
- Incorrect labelling

Administering

- Wrong dose
- Wrong drug
- Wrong route
- Wrong time/omitted
- Wrong patient
- Incorrect labelling

Monitoring

- Wrong time/Omission
- Wrong patient

Types of Error

TYPES	DEFINITION
1) Prescribing Error	Incorrect drug product selection (based on indication, contraindication, known allergies, existing drug therapy, and other factor), dose, dosage form, quantity, route, concentration, rate of administration, or instruction for use of a drug product ordered or authorized by physician (or other legitimate prescriber); illegible prescription or medication orders that lead to errors that reach the patient.
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.

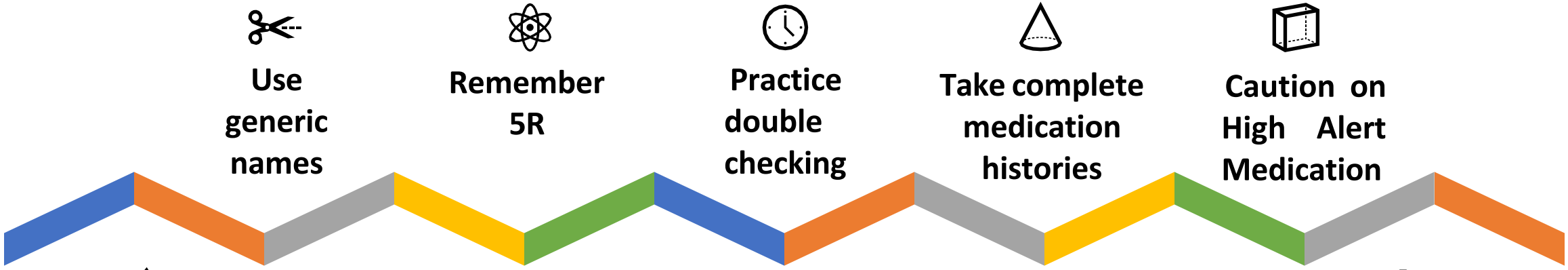
TYPES	DEFINITION
3) Wrong Time Error	Administration of medication outside a predefined time interval from its scheduled administration time.(this interval should be established by each individual healthcare facility)
4) Unauthorised Error	Dispensing or administration to the patient of medication **not 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 duplicate doses to the patient.
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 administration.

TYPES	DEFINITION
8) Administration-technique error.	Inappropriate procedure or improper technique in the administration of a drug other that wrong route.
9) Route of administration error	Use of wrong route of administration of the correct drug.
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.

TYPES	DEFINITION
12) Compliance error	Inappropriate patient behaviour regarding adherence to a prescribed education regimen.
13) Other medication error	Any medication error that does not fall into one of the above predefined categories.

How To Reduce The Risk Of Medication Error?

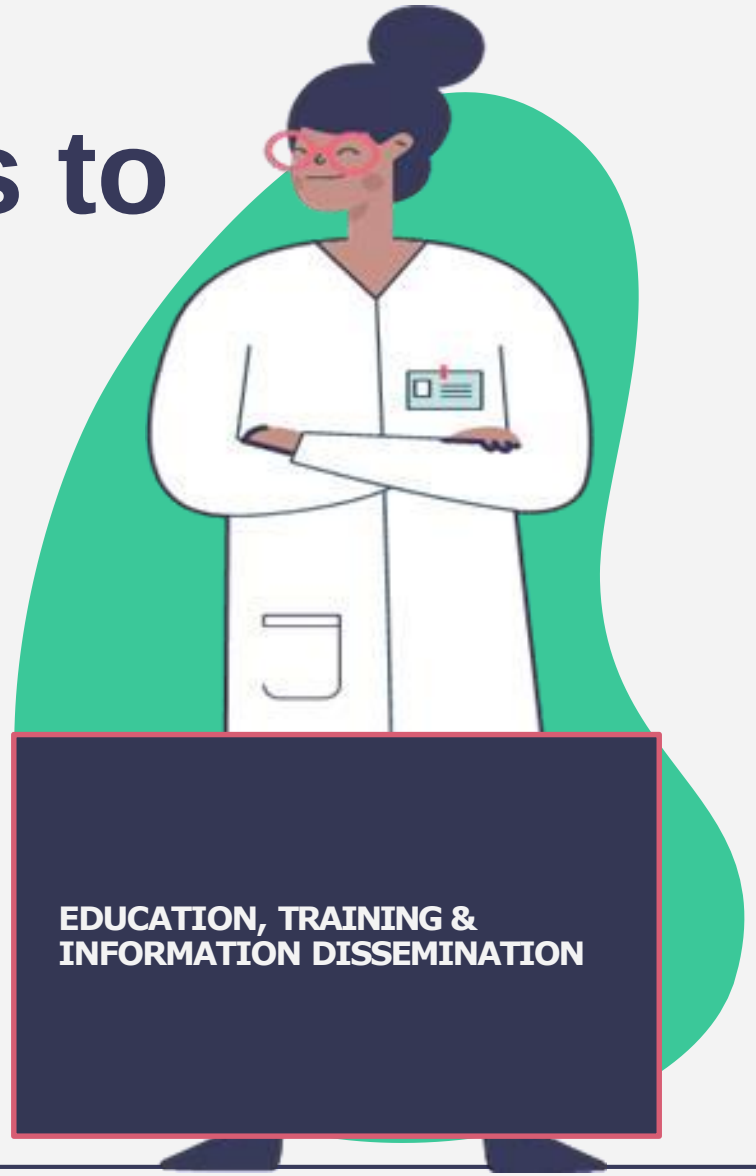
YOUR ROLE AS HEALTHCARE PRACTITIONER



- Use generic names
- Remember 5R
- Practice double checking
- Take complete medication histories
- Caution on High Alert Medication
- Tailor prescribing for individual patients
- Use memory aids
- Be familiar with the medications you prescribe
- Encourage patients to be actively involved
- Communicate clearly
- Report and learn from errors

03.

Government Initiatives to Improve Quality of Medication Safety



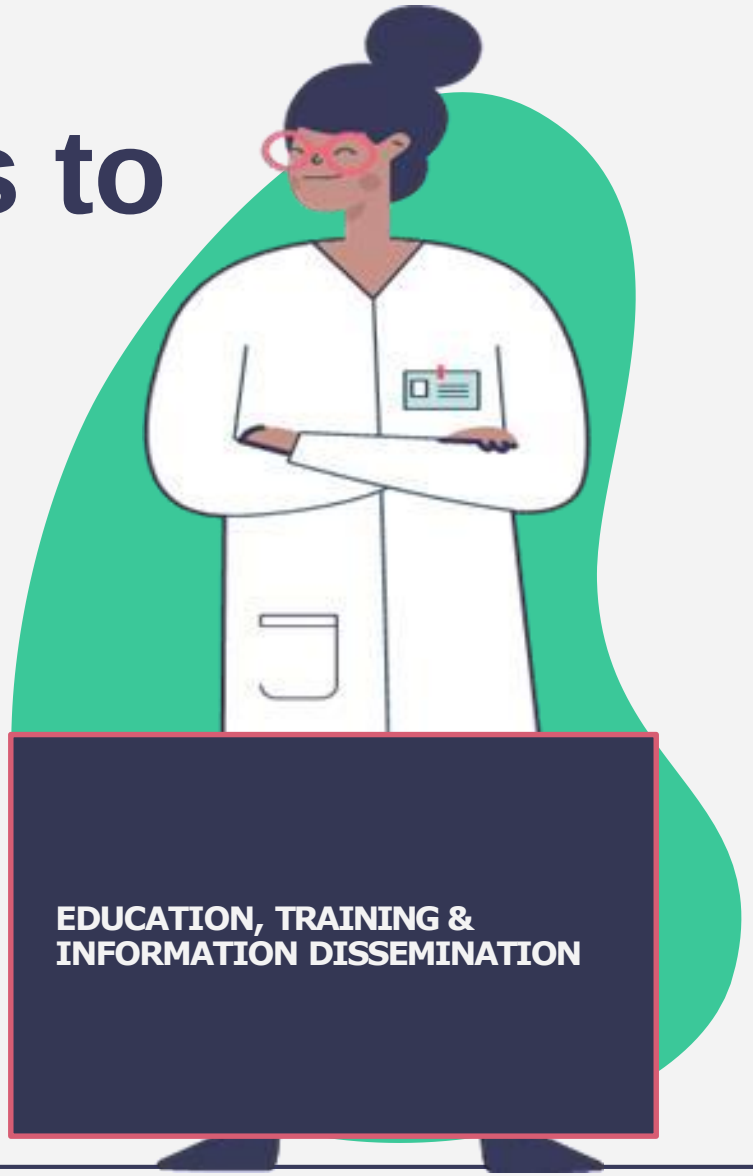
REPORTING & LEARNING

POLICY & GUIDELINES DEVELOPEMENT

EDUCATION, TRAINING & INFORMATION DISSEMINATION

03.

Government Initiatives to Improve Quality of Medication Safety



REPORTING & LEARNING

Strengthening MERS And Managing A Database Of Medication Error Reports Received From Healthcare Facilities Nationwide

POLICY & GUIDELINES DEVELOPEMENT

EDUCATION, TRAINING & INFORMATION DISSEMINATION

MERS Objective

To obtain information on the occurrence of ME

To learn and share experience on ME

To improve **PATIENT SAFETY**

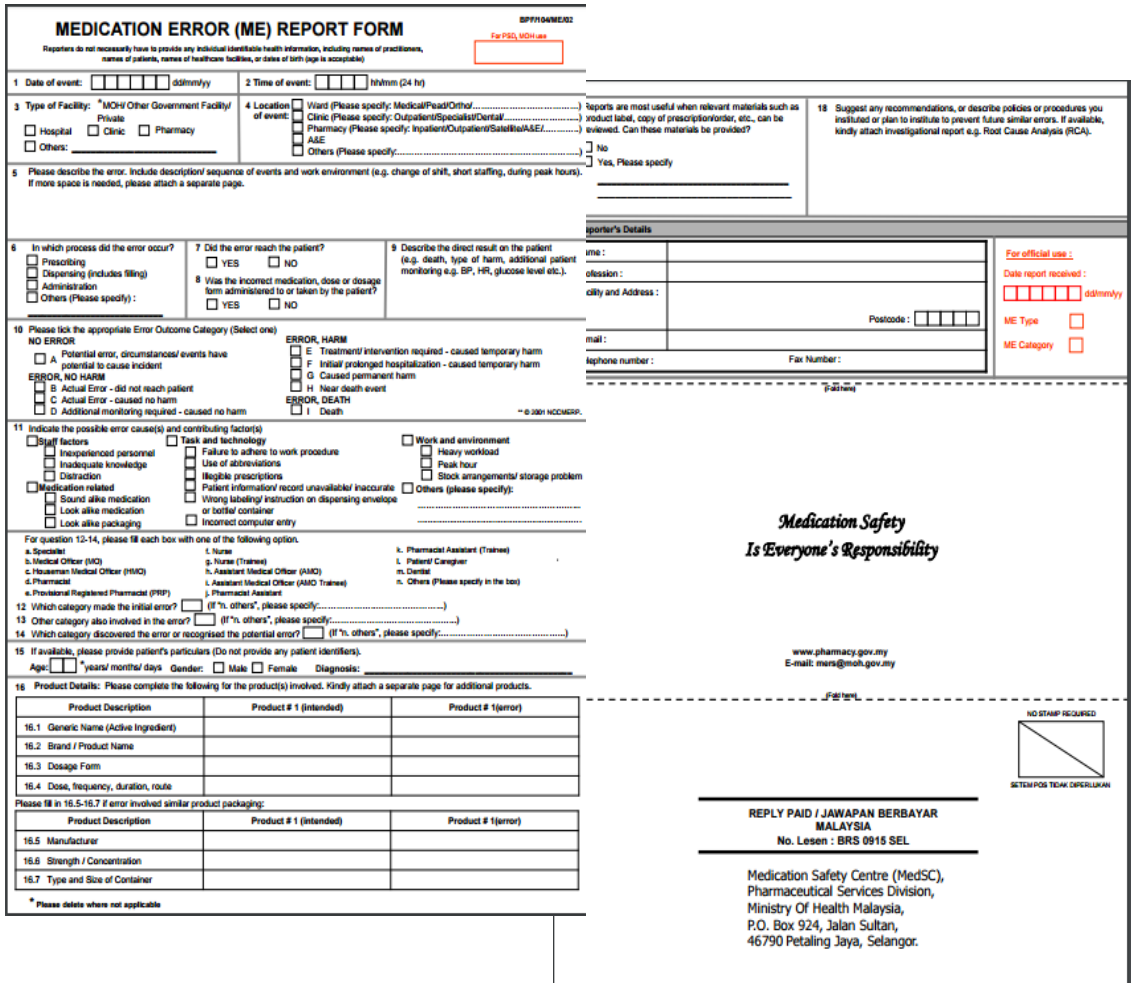
To analyse the ME report

To minimize the reoccurrence of such errors.

Outcome analysis from MERS

- Medication error related harm
- Near miss
- Actual error
- Case review
- Drug-related problem (HAM, LASA, Polypharmacy)
- Recommendation of key priorities areas

Medication Error Reporting System (MERS)



MEDICATION ERROR (ME) REPORT FORM

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)

For PSD, MOH use

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

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: Email: 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.

All healthcare professional either in government or private sectors

MERS Online

https://sites.google.com/moh.gov.my/mers-bapfkkm?usp=sharing

2025 MEDICATION ERROR REPORTING SYSTEM

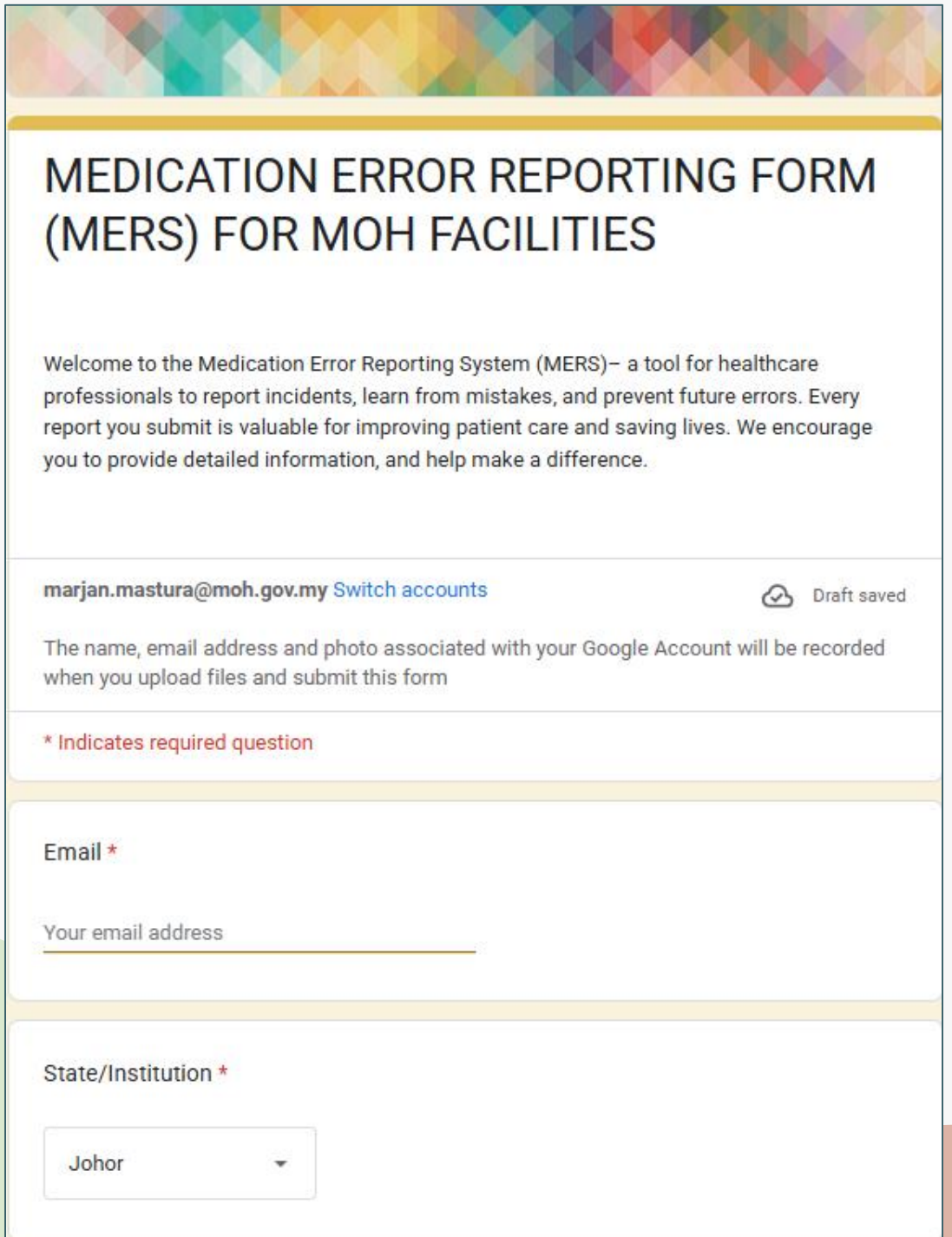
Program Perkhidmatan Farmasi, Kementerian Kesihatan Malaysia

REPORT MEDICATION ERROR HERE:

MOH FACILITIES ← Click here to report

NON MOH FACILITIES

REPORTING IS STRICTLY BY HEALTHCARE PROFESSIONALS ONLY. ANY MEDICATION ERROR ENCOUTERED BY PUBLIC MUST BE EVALUATED AND REPORTED BY A HEALTHCARE PROFESSIONALS.



MEDICATION ERROR REPORTING FORM (MERS) FOR MOH FACILITIES

Welcome to the Medication Error Reporting System (MERS)– a tool for healthcare professionals to report incidents, learn from mistakes, and prevent future errors. Every report you submit is valuable for improving patient care and saving lives. We encourage you to provide detailed information, and help make a difference.

marjan.mastura@moh.gov.my Switch accounts

Draft saved

The name, email address and photo associated with your Google Account will be recorded when you upload files and submit this form

* Indicates required question

Email *

Your email address

State/Institution *

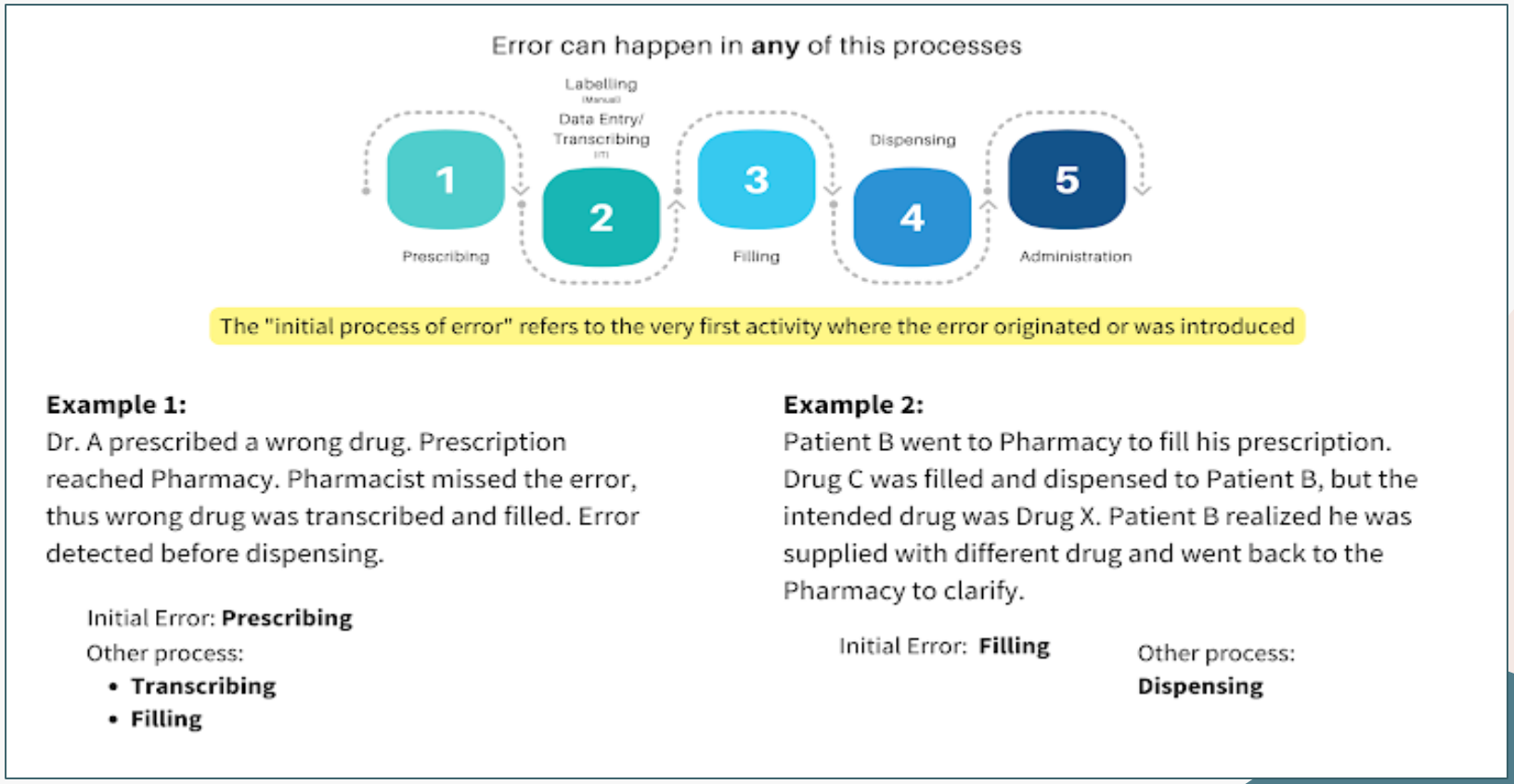
Johor

Isi maklumat:

- Email
- State/Institution > Johor
- Nama fasiliti Johor

Isi maklumat:

1. Date of Event
2. Time of Event (24 Hour)
3. Type of Healthcare Facility
4. Setting of Event
5. Please describe the error. Include description/ sequence of events and work environment (e.g. change of shift, short staffing, during peak hours).
6. Please choose ONE initial process at which ME was initiated.
    - Example↓



Isi maklumat:

7. Other processes involved in ME (can choose more than one, DO NOT REPEAT PROCESS IN NO.6)
8. Did the error reach the patient?
9. Type of error
   - Reference↓

Type of Error refers to the specific category or nature of the mistake that occurred during the medication use process.

01 **Omission Error**
Failure to administer an ordered dose before the next scheduled dose or failure to prescribe or dispense a drug product that is indicated for the patient. This excludes cases where the patient refuses and clinical decisions are made, or other valid reasons exist for not administering the medication

02 **Wrong Time Error**
Prescribing, dispensing (inc. transcribing) or administration of a medication outside a predefined time interval from its scheduled frequency

03 **Wrong Drug Error**
Prescribing, dispensing (inc. filling, transcribing) or administration of a drug that is not intended for the patient

04 **Dose Error**
Prescribing, dispensing (inc. filling, transcribing), or administering a dose of a drug that is incorrect for the patient, whether it is higher or lower than the intended dose

05 **Dosage Form Error**
Prescribing, dispensing (inc. filling, transcribing), or administration of a drug product in a dosage form different from what was intended

06 **Drug Preparation Error**
Drug product incorrectly formulated or manipulated before administration
E.g. TPN, CDR, Extemporaneous preparation

07 **Route of Administration Error**
Use of wrong route of administration of the correct drug

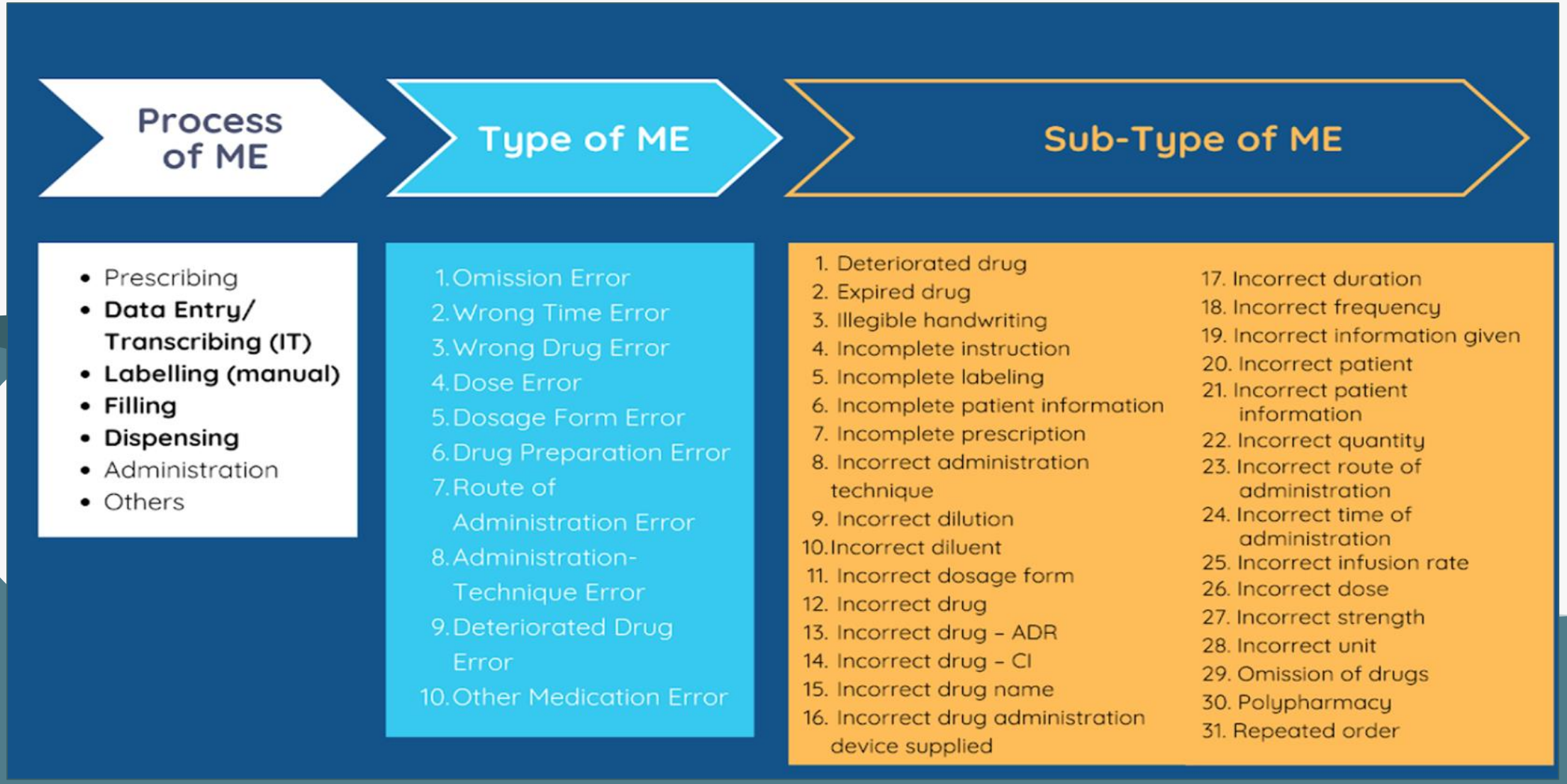
08 **Administration Technique Error**
Inappropriate procedure or improper technique in the administration of a drug other than wrong route

09 **Deteriorated Drug Error**
Dispensing (inc. filling) or administration of a drug that has expired or for which the physical or chemical dosage-form integrity has been compromised

10 **Other Medication Error**
Any medication error that does not fall into one of the above predefined categories, i.e. Wrong patient

Isi maklumat:

10. Sub-Type of Error
    - Reference↓



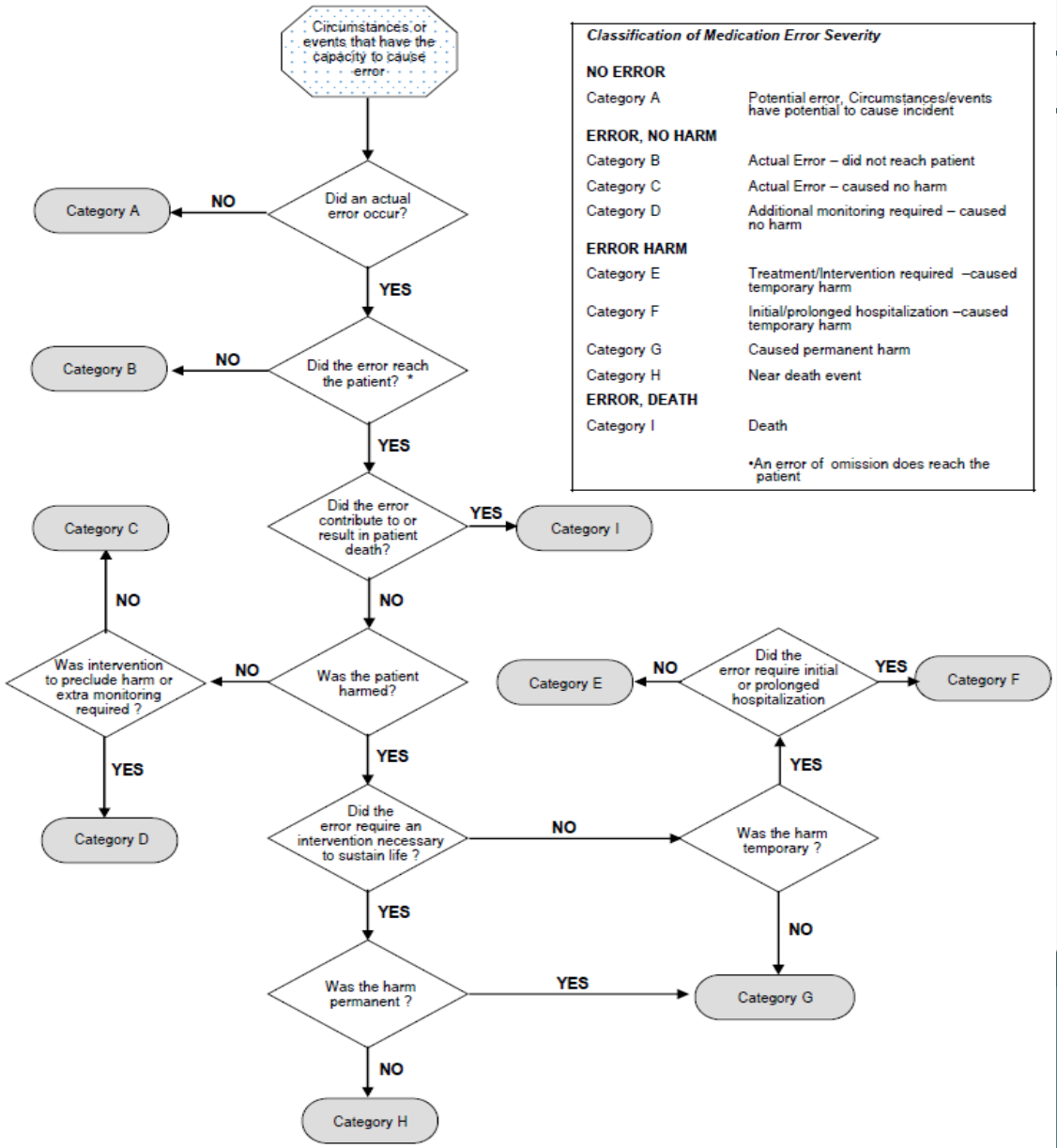
Isi maklumat:

11. Please tick the appropriate Error Outcome Category (Select one)
    - Reference↓

Classification of Medication Error Severity

NO ERROR	
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" dose 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 premanent patient harm.
Category H	An error occurred that required intervention necessary to sustain life.
ERROR, DEATH	
Category I	An error occurred that may contributed to or resulted in the patient's death.

Guide For Categorizing Medication Errors



Isi maklumat:

12. Describe the direct result on the patient (e.g. death, type of harm, additional patient monitoring e.g. BP, HR, glucose level etc.)
13. Indicate the most possible error cause and contributing factor
14. Which category made the initial error?
15. Other category also involved in the error?
16. Which category discovered the error or recognized the potential error?
17. Patient's age (years/ months/ days)
18. Patient's Gender
19. Name of **INTENDED** Product

If the product is a non-FUKKM item, please select 'Others'.
(List of products are extracted from FUKKM as of 31st Dec 2024)

20. Name of **INTENDED** product (if not listed above)
21. Dosage Form **INTENDED** Product:

eg: solution for inhalation

22. Details of **INTENDED** Product:

Dose, Strength, frequency, duration, route
eg: 20MG ON, 2 Months, Oral

23. Name of **ERROR** Product:

If the product is a non-FUKKM item, please select 'Others'.
(List of products are extracted from FUKKM as of 31st Dec 2024)

24. Name of **ERROR** product (if not listed above)
25. Dosage Form **ERROR** Product:

eg: inhaler (dry powder, MDI, capsule, solution)

26. Details of **ERROR** Product:

Dose, Strength, frequency, duration, route
eg: 20MG ON, 2 Months, Oral

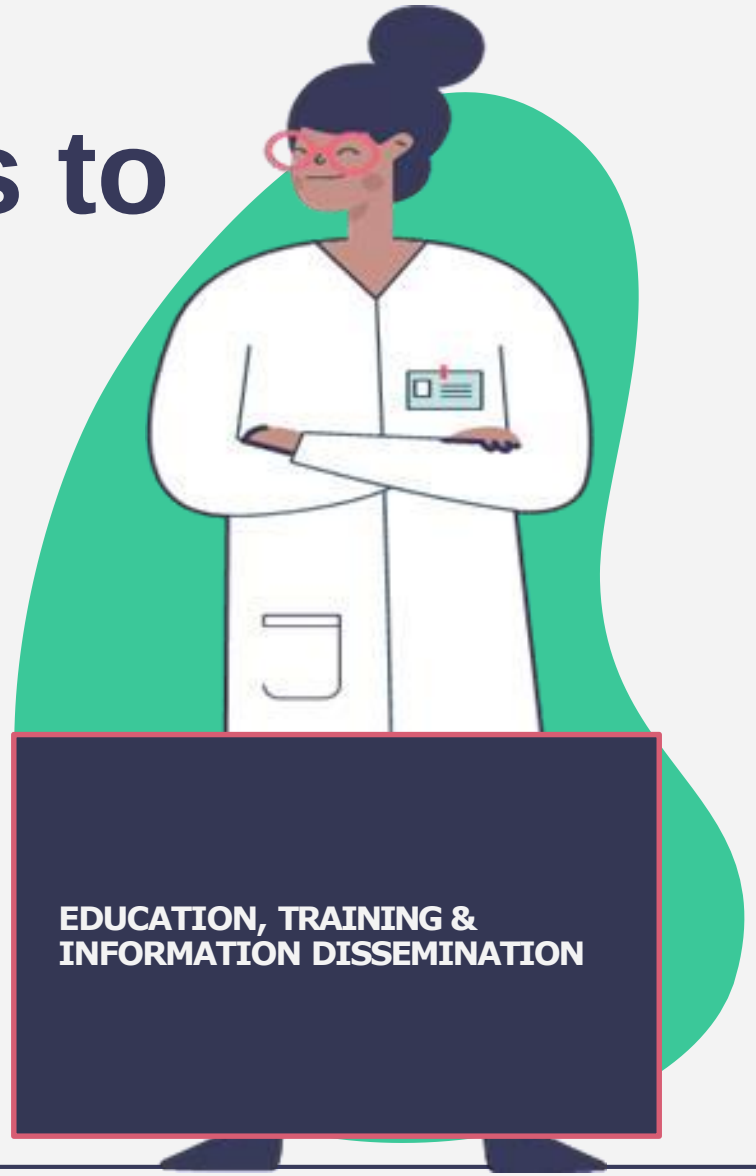
27. Was the error caused by similar product packaging?
28. If yes, please state the manufacturer and brand.
29. Attach relevant material and RCA report.

RCA required for ME category F-I.

30. Reporter's Name
31. Reporter's Facility
32. Reporter's Contact No

03.

Government Initiatives to Improve Quality of Medication Safety



REPORTING & LEARNING

POLICY & GUIDELINES DEVELOPMENT

Planning Strategies, Initiatives, Prioritize Action And Develop Policy For System Improvements To Encourage Safe Medication Practices.

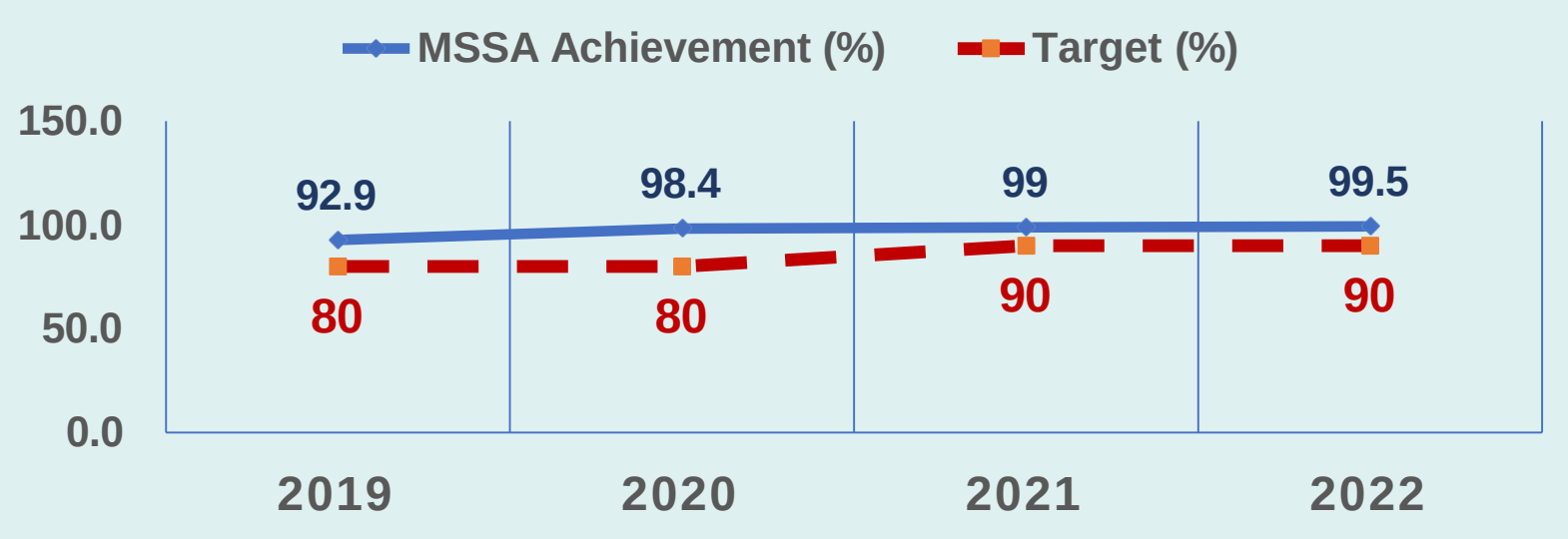
EDUCATION, TRAINING & INFORMATION DISSEMINATION

Policy Implementation

- **PhIS (Pharmacy Information System)**
  - ❑ A **complete and comprehensive system** that integrates pharmacy related services with the objectives to gear toward pharmacy excellent care.
  - ❑ **Enhance patient safety measure** by increasing access to patient medication records, improved pharmacy workflow and substantially reduce the risk of medication errors.
  - ❑ The decision support system (MIMs gateway) helps to **improve the quality of checking** along the medication management process.
- **Medication Safety Self-Assessment (MSSA)**
  - ❑ Criteria checklist for medication safety evaluation has been establish to guide the healthcare facilities on **the improvement of medication safe practice**.

Policy Implementation

- KPI (Key Performance Indicator)
  - ❑ **KPI** for Director of Pharmacy Practice & Development Division.
  - ❑ All MOH health facilities must **ACHIEVED full compliance ≥80% in medication safety self-assessment criteria (MSSA)**

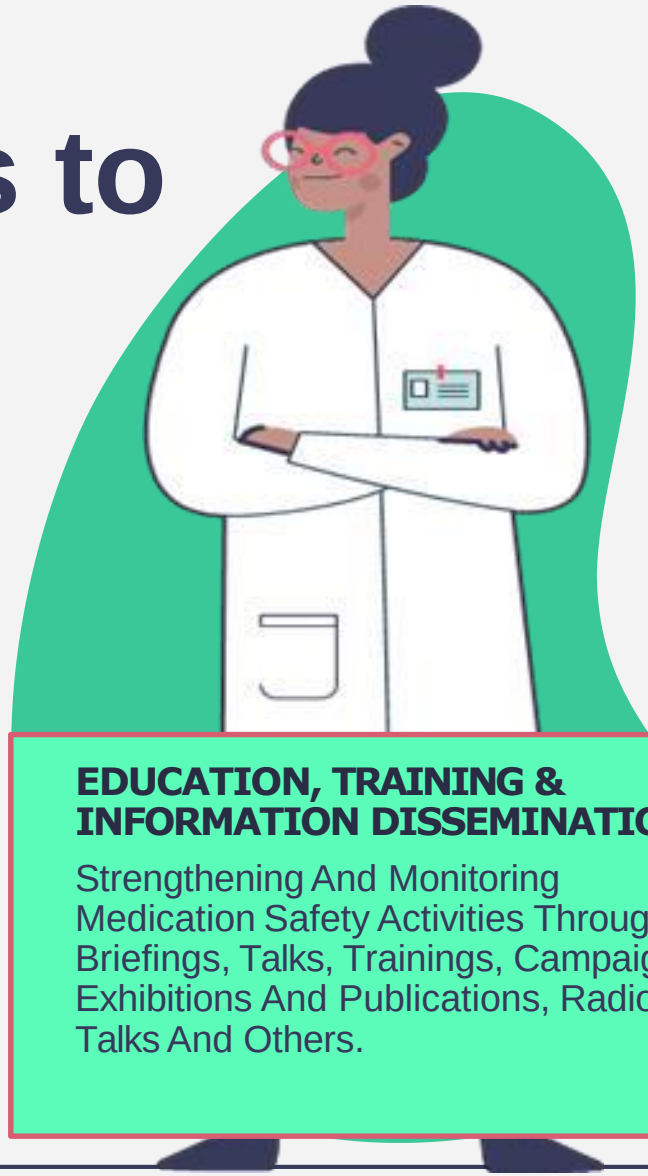


KPI = Number of health facilities achieving full compliance ≥80% for MSSA out of the total number of facilities that have been identified to carry out MSSA.

9 Medication Safety Practice Guidelines

03.

Government Initiatives to Improve Quality of Medication Safety



REPORTING & LEARNING

POLICY & GUIDELINES DEVELOPEMENT

EDUCATION, TRAINING & INFORMATION DISSEMINATION

Strengthening And Monitoring Medication Safety Activities Through Briefings, Talks, Trainings, Campaigns, Exhibitions And Publications, Radio Talks And Others.

Education, Training & Information Dissemination

18 Newsletters

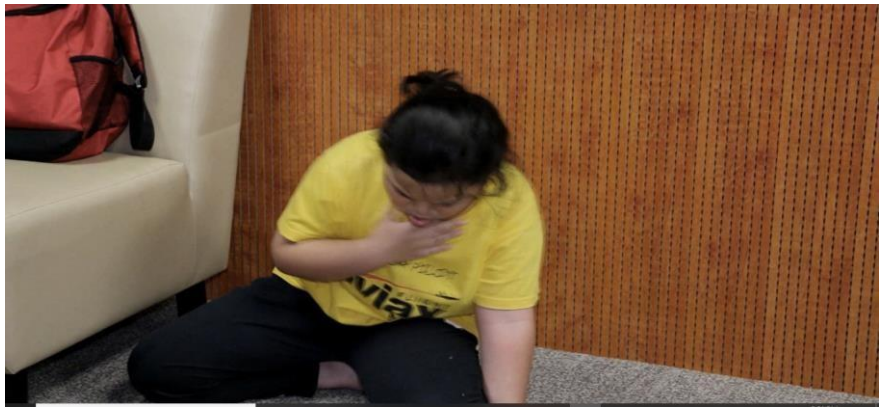
8 Medication Safety Alerts

5 Training Modules

4 Education Videos

Videos


MEDICATION SAFETY IS EVERYONE'S RESPONSIBILITY
We are committed to deliver
SAFE & EFFECTIVE
treatments to our patients.
Earn your patients' TRUST.
Keep them SAFE.

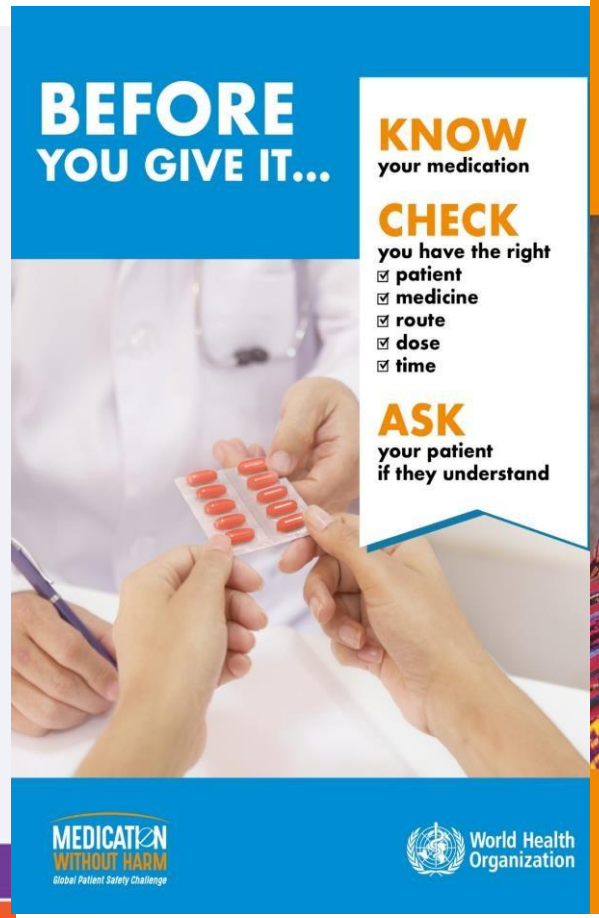


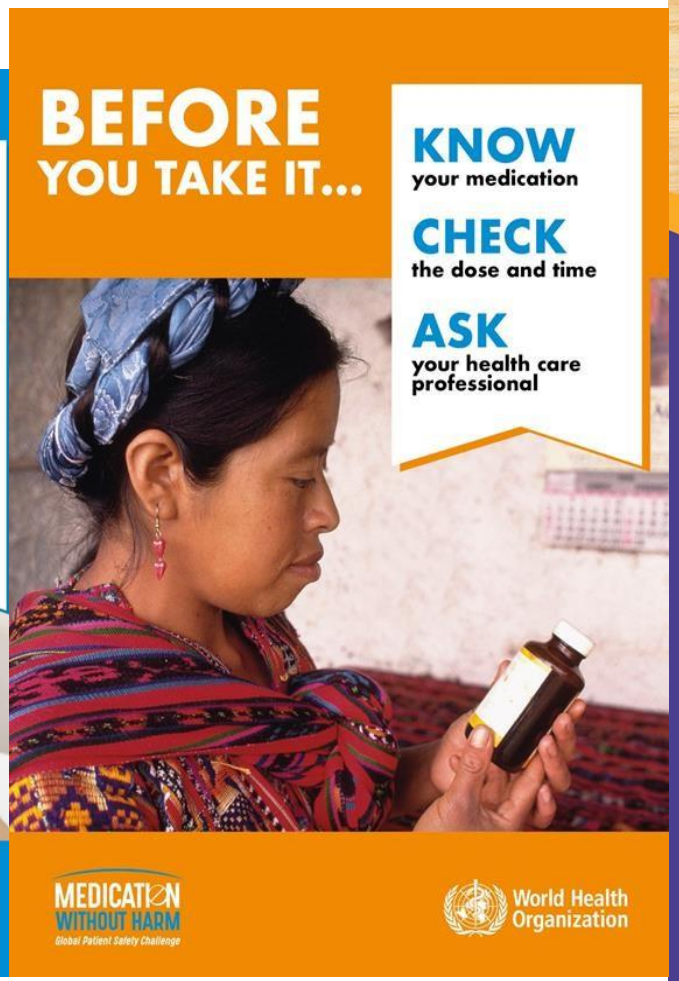

Mari Kita Fahami
5 DETIK PENTING
Pengambilan Ubat yang Selamat


Let's get to know the
5 MOMENTS
for Medication Safety

Posters


TANGGUNGJAWAB ANDA SEBAGAI PESAKIT
Sila maklumkan:
FARMASI
Nama penuh pesakit
Alahan ubat (jika ada)
KERJASAMA ANDA AMAT DIHARGAI
SEKIRANYA TERDAPAT SEBARANG PERTANYAAN MENGENAI UBAT-UBATAN, SILA RUJUK KEPADA PEGAWAI FARMASI ANDA.
BAHAGIAN PERKHIDMATAN FARMASI, KEMENTERIAN KESIHATAN MALAYSIA
Beg Berkunci 924, Pejabat Pos Jalan Sultan, 46790 Petaling Jaya, Selangor.


BEFORE YOU GIVE IT...
KNOW your medication
CHECK you have the right
patient
medicine
route
dose
time
ASK your patient if they understand
MEDICATION WITHOUT HARM
Global Patient Safety Challenge
World Health Organization


BEFORE YOU TAKE IT...
KNOW your medication
CHECK the dose and time
ASK your health care professional
MEDICATION WITHOUT HARM
Global Patient Safety Challenge
World Health Organization


MAKE OUR HEALTHCARE SAFER!
REPORT
MEDICATION ERROR
https://mers.pharmacy.gov.my
Why report medication errors?
1 To learn and share experiences on medication errors
2 To formulate risk reduction strategies and prevent reoccurrences
3 To disseminate information on medication safety
4 To improve quality and safety of medication use
5 To improve PATIENT SAFETY
Why to report?
All Actual Error and Near Misses
Who can report?
All healthcare providers, both in public and private sectors
How to report?
Online reporting system
https://mers.pharmacy.gov.my
Download ME report from
www.pharmacy.gov.my
"Medication Safety is Everyone's Responsibility"
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA

A4 Infografik

Posters

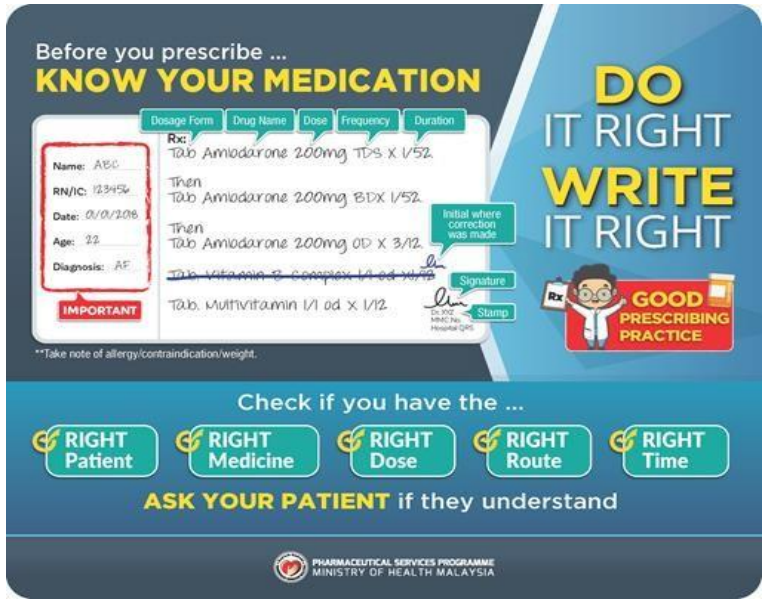

5 Detik Penting
Pengambilan Ubat yang Selamat
1 MULA rawatan
Apakah nama dan kegunaan ubat ini?
Apakah risiko dan kesan sampingan yang saya mungkin alami semasa mengambil ubat ini?
2 AMBIL ubat
Bilakah saya perlu mengambil ubat?
Berapa banyak ubat yang perlu saya ambil?
Apakah yang perlu saya lakukan sekiranya mengalami kesan sampingan?
3 TAMBAH ubat
Adakah perlu untuk saya mengambil ubat-ubatan yang lain?
Adakah ubat ini boleh bertindak balas dengan ubat-ubatan saya yang lain?
4 NILAI kesesuaian ubat
Berapa lama saya perlu mengambil setiap ubat?
Adakah saya mengambil mana-mana ubat yang tidak saya perlu?
5 HENTI ambil ubat
Bilakah saya perlu berhenti mengambil ubat?
Sekiranya saya mengalami kesan yang tidak diingini dan terpaksa berhenti mengambil ubat, di mana saya perlu melaporkannya?
Keselamatan Pengubatan Tanggungjawab Semua
Program Perkhidmatan Farmasi
Kementerian Kesihatan Malaysia
www.pharmacy.gov.my


5 Moments
for Medication Safety
1 STARTING a medication
What is the name of this medication and what is it for?
What are the risks and possible side effects?
2 TAKING my medication
When should I take this medication and how much should I take each time?
What should I do if I have side effects?
3 ADDING a medication
Do I really need any other medication?
Can this medication interact with my other medications?
4 REVIEWING my medication
How long should I take each medication?
Am I taking any medications I no longer need?
5 STOPPING my medication
When should I stop each medication?
If I have to stop my medication due to an unwanted effect, where should I report this?
Medication Safety is Everyone's Responsibility
Pharmaceutical Services Programme
Ministry of Health, Malaysia
www.pharmacy.gov.my


3 Langkah Bijak Sebelum
Memberi Ubat Kepada Pesakit
1 KENALI
Fahami ubat yang akan diberikan.
2 SEMAK
Pastikan 5 perkara ini betul:
Pesakit
Ubat
Dos
Cara pengambilan
Masa
3 TANYA
Pastikan pesakit faham tentang pengambilan ubat.
HOSPITAL
Keselamatan Pengubatan Tanggungjawab Semua
PROGRAM PERKHIDMATAN FARMASI, KEMENTERIAN KESIHATAN MALAYSIA


3 Langkah Bijak Semasa
Mengambil Ubat Di Kaunter Farmasi
1 KENALI
Ambil tahu ubat yang diterima
2 SEMAK
Pastikan 5 perkara ini betul:
Nama pada label adalah nama anda.
Ubat adalah untuk penyakit yang dihidapi.
Dos yang diberikan adalah betul.
Cara pengambilan adalah difahami.
Masa pengambilan adalah betul.
3 TANYA
Jika terdapat PERTANYAAN berkaitan ubat, sila berbincang dengan doktor atau pegawai farmasi.
Keselamatan Pengubatan Tanggungjawab Semua
PROGRAM PERKHIDMATAN FARMASI, KEMENTERIAN KESIHATAN MALAYSIA

Mouse Pad


Before you prescribe ...
KNOW YOUR MEDICATION
DO IT RIGHT
WRITE IT RIGHT
Dosage Form
Drug Name
Dose
Frequency
Duration
Rx:
Tab Amiodarone 200mg TDS X 1/52
Then
Tab Amiodarone 200mg BDX 1/52
Then
Tab Amiodarone 200mg OD X 3/12
Tab. Multivitamin 1/1 od X 1/12
Initial where correction was made
Signature
Stamp
IMPORTANT
**Take note of allergy/contraindication/weight.
GOOD PRESCRIBING PRACTICE
Check if you have the ...
RIGHT Patient
RIGHT Medicine
RIGHT Dose
RIGHT Route
RIGHT Time
ASK YOUR PATIENT if they understand
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA


HELLO
is it 15mg or 50mg?
LISTEN CAREFULLY
Verbal medication orders can be misheard or misunderstood
1 Pay attention
2 Avoid distraction
3 Document the order immediately
4 Read back to confirm the order
5 Use words to verify numbers
Example: one-five for 15, five-zero for 50
6 Clarify any ambiguous order
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA

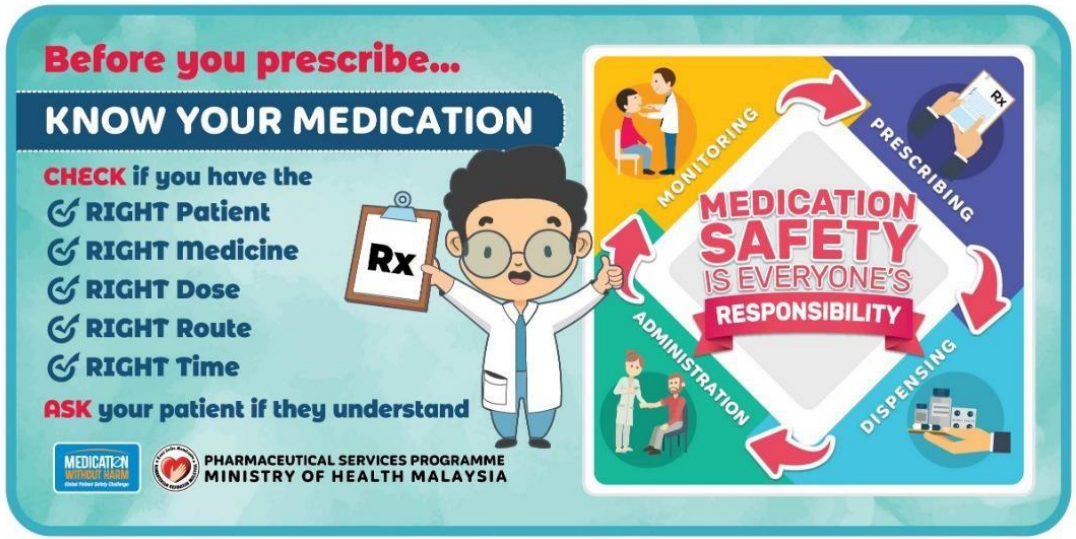

BEFORE YOU GIVE IT...
KNOW YOUR MEDICATION
CHECK
YOU HAVE THE RIGHT
PATIENT MEDICINE
DOSE ROUTE
TIME
ASK
YOUR PATIENT IF THEY UNDERSTAND
MEDICATION WITHOUT HARM
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA

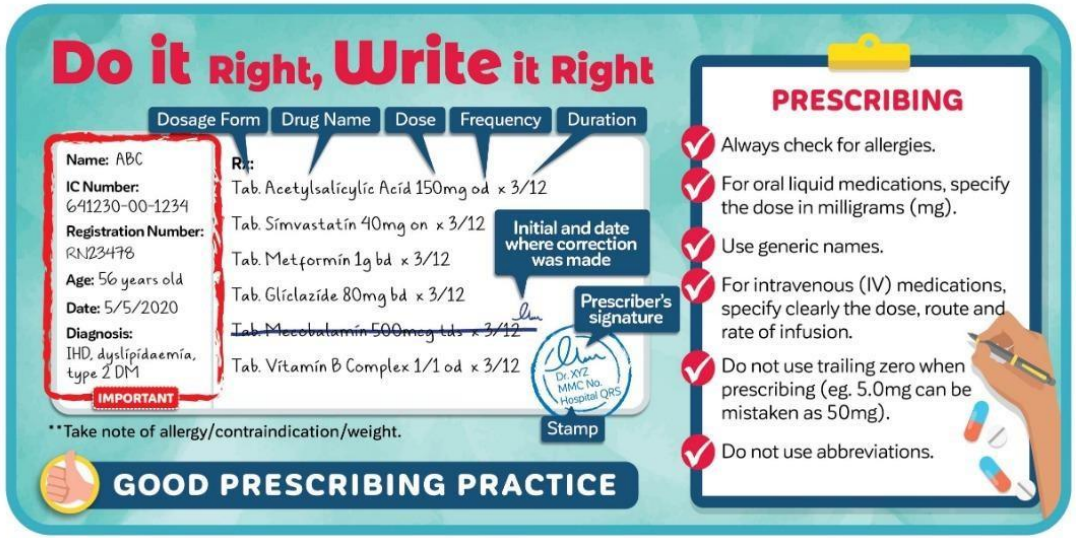

BE SURE, BE SAFE
READ THE LABEL
* PATIENT NAME
* DRUG NAME
* DOSE/STRENGTH
* FREQUENCY
* DURATION
* ROUTE OF ADMINISTRATION
DON'T RELY ON:
COLOUR
SHAPE & SIZE
PACKAGING
STORAGE
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA

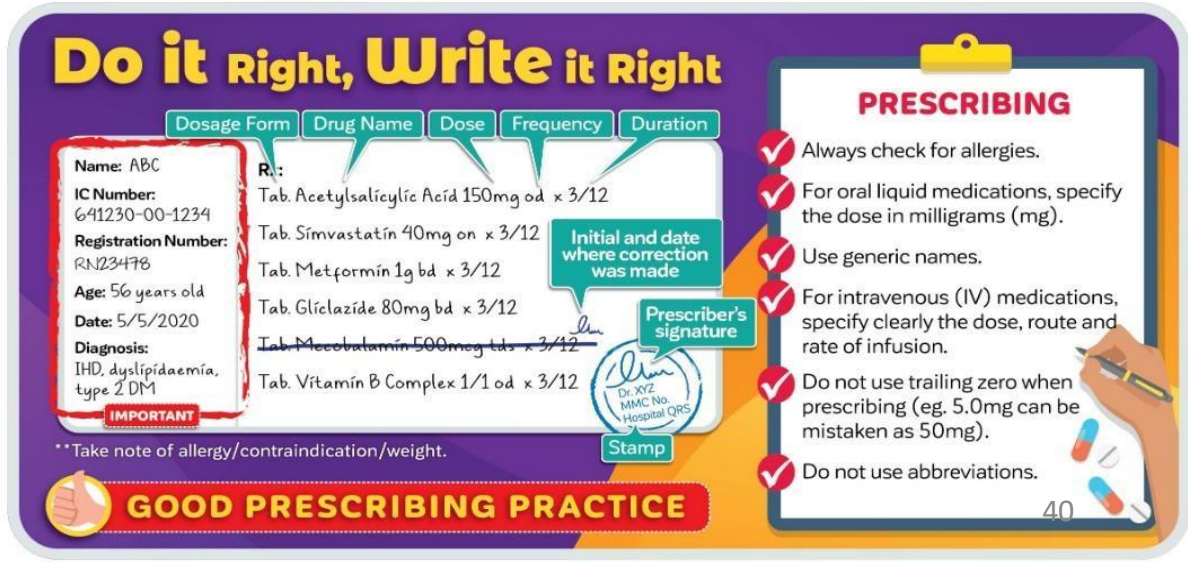

Look Alike Sound Alike
BIG DIFFERENCE
Warfarin Sodium Tablets USP 1 mg
Warfarin Sodium Tablets USP 5 mg
1 Use Tall Man Lettering
2 Use Warning Labels
3 Keep LASA medications separately from their LASA pairs
4 Review & update list of LASA medications
5 Disseminate information on LASA to all healthcare providers
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA


SAFE MEDICATION ADMINISTRATION
PATIENT, JOHN DOE
1 Make sure the medications is given to the RIGHT PATIENT.
2 COUNTERCHECK medications with the medication order before administration.
3 PROPER DOCUMENTATION.
PHARMACEUTICAL SERVICES PROGRAMME
MINISTRY OF HEALTH MALAYSIA

Prescribing Notes







Fridge Magnet

Exhibition


SUDUT BACAAN
KONSEP 5S
WAKTU PENGAMBILAN


KESELAMATAN PENGUBATAN
(MEDICATION SAFETY)
KESILAPAN UBAT BUKAN SATU MAINAN IA BOLEH MERAGUT NYAWA
9 PRAKTIS BAIK MENULIS PRESKRIPSI UBAT
KESELAMATAN PESAKIT SATU KEUTAMAAN

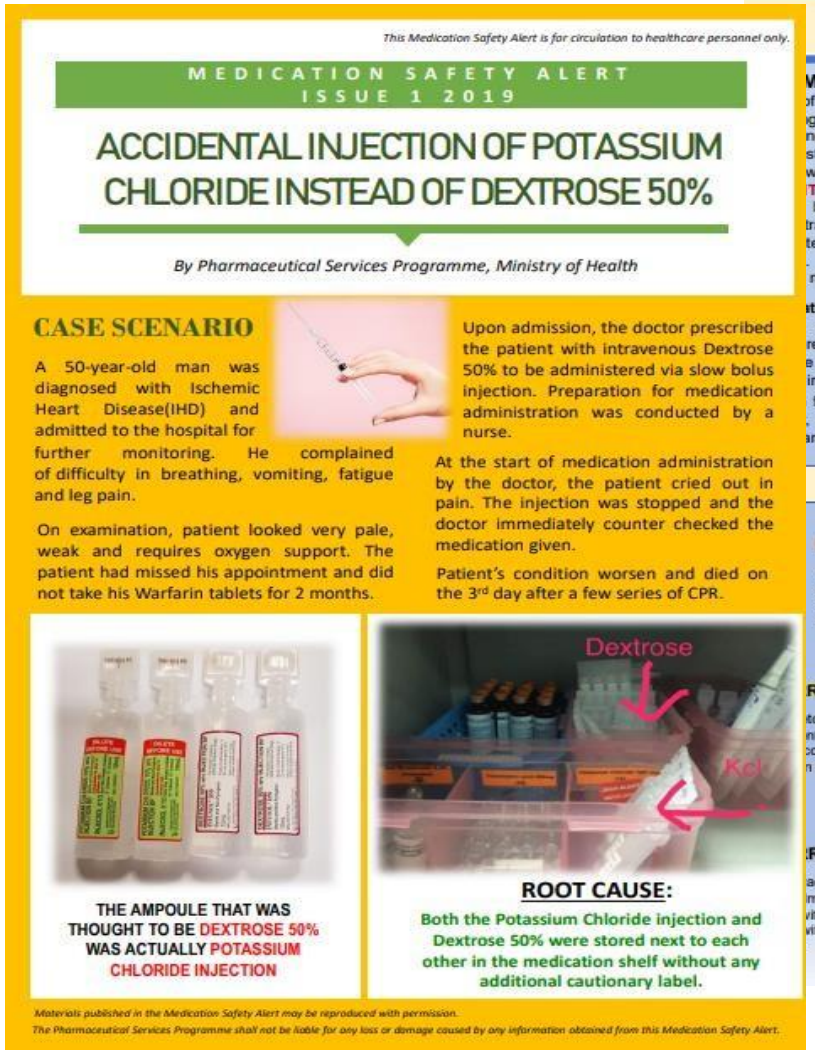

KESELAMATAN PENGUBATAN
(MEDICATION SAFETY)
KESILAPAN UBAT BUKAN SATU JENAKA IA BOLEH MEMBUNUH
4 AMALAN KESELAMATAN SEMASA MENGENDALIKAN UBAT-UBATAN
KESELAMATAN PESAKIT SATU KEUTAMAAN


BEFORE YOU GIVE IT...
KNOW YOUR MEDICATION
CHECK YOU HAVE THE RIGHT
PATIENT
MEDICINE
DOSE
ROUTE
TIME
ASK your patient if they understand


medication safety is in YOUR hands
HELLO
LISTEN CAREFULLY
PRACTICE SAFE USE

Seminars

Newsletter – Medication Safety Alert



This Medication Safety Alert is for circulation to healthcare personnel only.

MEDICATION SAFETY ALERT
ISSUE 1 2019

ACCIDENTAL INJECTION OF POTASSIUM CHLORIDE INSTEAD OF DEXTROSE 50%

By Pharmaceutical Services Programme, Ministry of Health

CASE SCENARIO

A 50-year-old man was diagnosed with Ischemic Heart Disease(IHD) and admitted to the hospital for further monitoring. He complained of difficulty in breathing, vomiting, fatigue and leg pain.

On examination, patient looked very pale, weak and requires oxygen support. The patient had missed his appointment and did not take his Warfarin tablets for 2 months.

Upon admission, the doctor prescribed the patient with intravenous Dextrose 50% to be administered via slow bolus injection. Preparation for medication administration was conducted by a nurse.

At the start of medication administration by the doctor, the patient cried out in pain. The injection was stopped and the doctor immediately counter checked the medication given.

Patient's condition worsen and died on the 3rd day after a few series of CPR.

THE AMPOULE THAT WAS THOUGHT TO BE DEXTROSE 50% WAS ACTUALLY POTASSIUM CHLORIDE INJECTION

ROOT CAUSE:

Both the Potassium Chloride injection and Dextrose 50% were stored next to each other in the medication shelf without any additional cautionary label.

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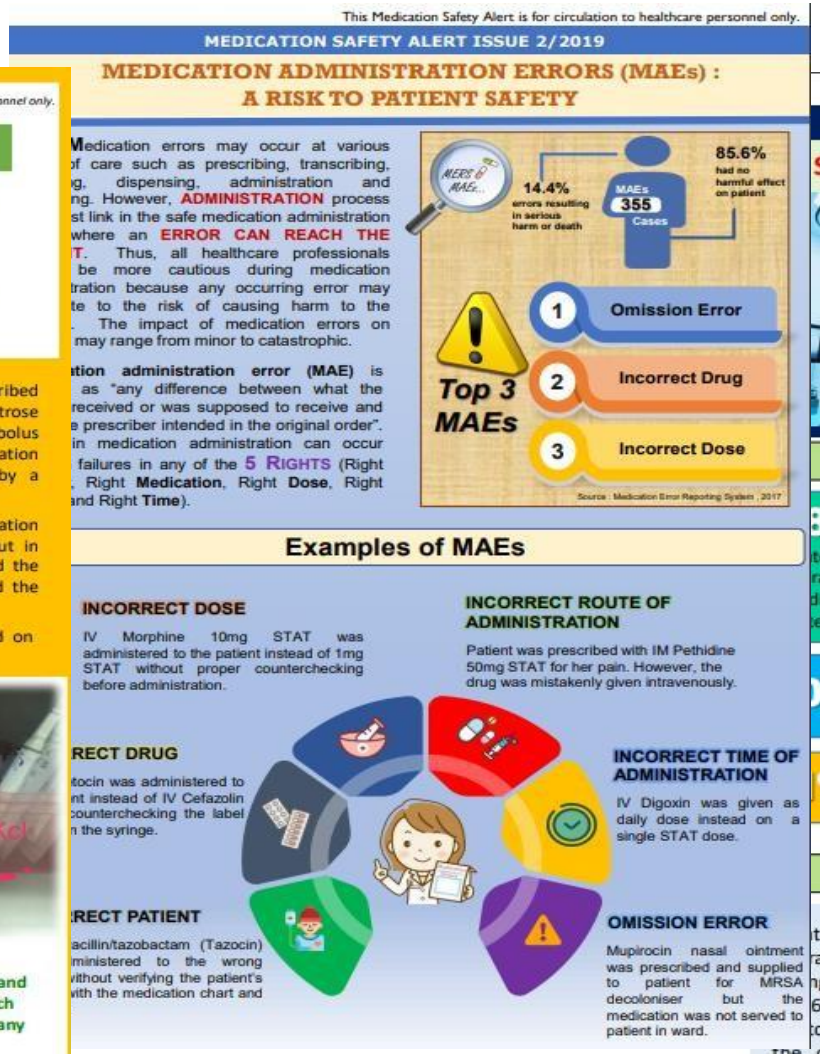


This Medication Safety Alert is for circulation to healthcare personnel only.

MEDICATION SAFETY ALERT ISSUE 2/2019

MEDICATION ADMINISTRATION ERRORS (MAEs) : A RISK TO PATIENT SAFETY

Medication errors may occur at various of care such as prescribing, transcribing, g, dispensing, administration and ng. However, **ADMINISTRATION** process st link in the safe medication administration where an **ERROR CAN REACH THE T.** Thus, all healthcare professionals be more cautious during medication tration because any occurring error may te to the risk of causing harm to the . The impact of medication errors on may range from minor to catastrophic.

tion **administration error (MAE)** is as "any difference between what the received or was supposed to receive and e prescriber intended in the original order". in medication administration can occur failures in any of the **5 RIGHTS** (Right , Right **Medication**, Right **Dose**, Right nd Right **Time**).

Examples of MAEs

INCORRECT DOSE

IV Morphine 10mg STAT was administered to the patient instead of 1mg STAT without proper counterchecking before administration.

INCORRECT ROUTE OF ADMINISTRATION

Patient was prescribed with IM Pethidine 50mg STAT for her pain. However, the drug was mistakenly given intravenously.

RECT DRUG

tocin was administered to nt instead of IV Cefazolin counterchecking the label n the syringe.

INCORRECT TIME OF ADMINISTRATION

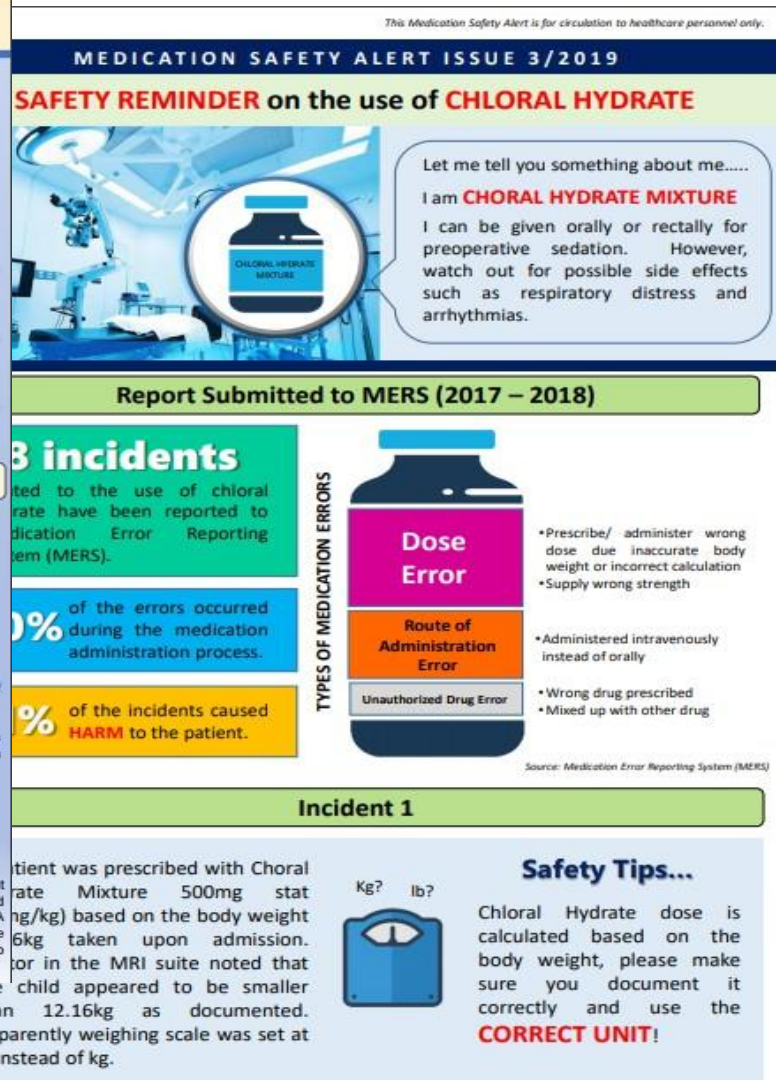
IV Digoxin was given as daily dose instead on a single STAT dose.

RECT PATIENT

acillin/tazobactam (Tazocin) ministered to the wrong ithout verifying the patient's ith the medication chart and

OMISSION ERROR

Mupirocin nasal ointment was prescribed and supplied to patient for MRSA decoloniser but the medication was not served to patient in ward.



This Medication Safety Alert is for circulation to healthcare personnel only.

MEDICATION SAFETY ALERT ISSUE 3/2019

SAFETY REMINDER on the use of CHLORAL HYDRATE

Let me tell you something about me.....

I am **CHORAL HYDRATE MIXTURE**

I can be given orally or rectally for preoperative sedation. However, watch out for possible side effects such as respiratory distress and arrhythmias.

Report Submitted to MERS (2017 – 2018)

3 incidents

ted to the use of chloral rate have been reported to dication Error Reporting em (MERS).

0% of the errors occurred during the medication administration process.

% of the incidents caused **HARM** to the patient.

TYPES OF MEDICATION ERRORS

- Prescribe/ administer wrong dose due inaccurate body weight or incorrect calculation
- Supply wrong strength
- Administered intravenously instead of orally
- Wrong drug prescribed
- Mixed up with other drug

Source: Medication Error Reporting System (MERS)

Incident 1

tient was prescribed with Choral rate Mixture 500mg stat ng/kg) based on the body weight 6kg taken upon admission. or in the MRI suite noted that the child appeared to be smaller than 12.16kg as documented. Apparently weighing scale was set at lb instead of kg.

Safety Tips...

Chloral Hydrate dose is calculated based on the body weight, please make sure you document it correctly and use the **CORRECT UNIT!**

MEDICATION SAFETY ALERT ISSUE 1/2020

BENZATHINE penicillin or BENZYLpenicillin?

Preventing Harm Through Safe Use

DID YOU KNOW? BENZATHINE penicillin is vulnerable to medication error because of its sound-alike name with BENZYLpenicillin.

BENZATHINE penicillin is a β-lactam antibiotic, commonly used for rheumatic fever prophylaxis and the treatment of streptococcal meningitis and syphilis. BENZATHINE penicillin is slowly released after intramuscular (IM) administration through hydrolysis resulting in the maintenance of blood levels that are much lower than the rapid acting BENZYLpenicillin and a prolonged duration of action.

Do not confuse long-acting **BENZATHINE penicillin (IM INJECTION)** with rapid acting **BENZYLpenicillin (IV ROUTE)**

There have been reports of inadvertent intravenous administration of benzathine penicillin which has been associated with cardiorespiratory arrest and death. Other cases may require additional monitoring to preclude harm.

BENZYLpenicillin
- 1 MU & 5 MU
- IV, IM

BENZATHINE penicillin
- 2.4 MU
- Administer by **INTRAMUSCULAR (IM) ONLY**
- Special precautions should be taken to avoid intravascular injection because this could cause neurovascular damage
- Apply distinctive **WARNING LABELS** to these products to warn that they are intended for **"IM use only".**

Lesson Learnt 1

A newborn infant diagnosed with congenital syphilis died after receiving an IV injection of **BENZATHINE** penicillin, an insoluble suspension meant strictly for IM use. Multiple factors contribute to the error. Communication between the parents and health care team was difficult to verify treatment of the disease because the infant's parents spoke only Spanish. The neonatologist also did not document the recommendation properly. The pharmacist misread the order for "**BENZATHINE** penicillin 150,000 U IM" and prepared a 10-fold overdose. Label on the dispensed medication indicated that 2.5 milliliters (ml) of medication was to be administered IM (intramuscularly) to equal a dose of 1,500,000 units. It is believed the pharmacist may have mistaken the abbreviation "U" for an extra zero. She also did not know that no more than 0.5 mL per IM injection could be administered to an infant because a baby's muscles are so tiny, a maximum of 0.5 ml per injection is allowed in infants. The nurse practitioner, not wanting to cause pain to the infant with the large IM injection dose, made the decision to administer the drug intravenously. While preparing for drug administration, neither of the nurses noticed the 10-fold over dose or the manufacturer's label on the syringe "IM use only." They had no idea that IV administration would be lethal because the drug is insoluble and obstructs blood flow in the lungs required for the transfer of oxygen from the baby's airways. The infant became unresponsive after receiving 1.8 mL of the preparation and could not be

Lesson Learnt 2

An infant was prescribed with IV **BENZYL**penicillin 240,000unit STAT then BD (100,000unit/kg) for 5 days. However, **BENZATHINE** penicillin was wrongly dispensed by pharmacy. Staff nurse who prepared the medication also wrongly reconstituted and diluted **BENZATHINE** penicillin. The medication was administered by IV infusion. During preparation of the medication, both pharmacist and nurse were not aware of the cautionary label "For IM Use only". Besides, counterchecking was not performed to verify the medication before dispensing and administering. The patient had been administered IV **BENZATHINE** penicillin 240,000 IU STAT instead of IV **BENZYL**penicillin. Patient developed cardiac arrest.

BLACK BOX WARNING
BENZATHINE penicillin
Intramuscular (Suspension)
NOT FOR INTRAVENOUS USE.
Do not inject intravenously or admix with other intravenous solutions.

Lesson Learnt 3

A 29-year-old man was prescribed IM **BENZATHINE** penicillin. On day 3, an administration error was detected whereby the patient was incorrectly administered benzathine penicillin 1.2 million IU, four times daily for six doses (total 4.8 million IU/day) through the IV route instead of **BENZATHINE** penicillin 2 million IU (single dose) IM. However, the patient did not experience any harm as a result of the incorrect medication. On observation, patient did not exhibit any visible clinical symptoms and vital signs were normal. Lack of understanding among the nurses, poor awareness of LASA are some of identified contributing factors which led to this error.

MEDICATION SAFETY ALERT ISSUE 2/2020

Identifying The "RIGHT PATIENT": A Vital Step

Patient identification is an essential step that must be performed routinely in all health care settings to ensure the **correct treatment** is given to the **correct patient**. The accuracy of patient identification remains a primary focus of any healthcare organization. The importance of patient identification is featured as the **5th goal** (to improve the accuracy of patient identification) in **Malaysian Patient Safety Goals.**

Correct patient identification is particularly important during **transitions of care, especially upon admission**, where there is an increased risk of information being miscommunicated or lost, particularly when a patient is transferred to another hospital, clinic or any other health care setting. During this time, information about a person's identity is critical to safeguard patient care.

Patient identification can be defined as: "First a reliable identification of the individual as the person for whom the service or treatment is intended; Second to match the service or treatment to that individual".

Examples: Wrong details on patient medic records or identification bands, abse identification bands, selection of the incorre patient on electronic systems or the incorre labelling of specimens. These mistakes often ha two or more patients.

Hence, identifying the right patient is crucial assure that the right procedure is carried out the right patient at the right time, and eventua the consequences of these errors can prevented.

Contributing Factors

- Same medication
- Confusion with discharged patient
- Similar patient nar
- Interruptio

Misidentification of patient can happen at any stage!

Registration

The staff at the registration counter gave the wrong medical card to a patient due to similar patient names.

Dispensing

A dispensing error occurred in th pharmacy where patient A's full nam was called out by the pharmacist b patient B came instead. The pharmac did not verify patient B's identity and th wrong medicines were dispensed.

Prescribing

The doctor wrongly prescribed an incorrect medicine to Patient A, of which actually belongs to Patient B, due to wrong data entry.

Administration

The staff nurse mistakenly administered IV Vancomycin to a patient in bed 28 instead of the correct patient in bed 27. The staff nurse did not verify the patient's identity prior to the administration of medicine

MEDICATION SAFETY ALERT ISSUE 3/2020

CHECK, CHECK & RECHECK THE DATA YOU ENTER

TRANSCRIBING involves orders that are **manually transcribed** into written records (paper records) and those that are **electronically transcribed** into the electronic health records (digital file).

TRANSCRIBING ERRORS are defined as **any deviation during the transfer of information** from an order sheet to documentation forms or medication administration records. Transcribing error is a specific type of medication errors and is due to data entry error that is commonly made by the human operators.

MEDICATION TRANSCRIBING ERRORS are particularly importance because the different phases of prescription, transcribing, dispensing, and administration occur in chain and, therefore, it is likely that **if a medication was transcribed incorrectly**, this error would go without interception and would most **probably reach the patient and cause harm.**

ENSURING ACCURACY of medication information data in the electronic computerized system is **CRITICAL** to ensure the **PATIENT SAFETY.**

TOP 3 ERRORS IN TRANSCRIBING STAGE

1st DOSE ERROR
Examples of Common Errors
- Wrong dose
- Wrong frequency

2nd UNAUTHORIZED DRUG ERROR
Examples of Common Errors
- Wrong patient
- Wrong drug name

3rd DOSAGE FORM ERROR
Examples of Common Errors
- Wrong dosage form
- Wrong route of administration

MEDICATION SAFETY ALERT ISSUE 1/2021

HEPARIN

Risk of Dosage Errors

Heparin is an **ANTICOAGULANT** (blood thinner) that is indicated for:

- Prophylaxis and treatment of venous thrombosis and pulmonary embolism.
- Treatment of myocardial infarction and arterial embolism.
- Prevention of clotting in arterial and heart surgery and for prevention of cerebral thrombosis

Dosing errors associated with heparin are the most commonly reported errors in Medication Error Reporting System (MERS). Errors may occur at every stage of the medication use process. Any slight mistakes with heparin used may lead to the potential risk of bleeding and patient harm. The risk factors that may contribute to heparin dosing errors are the complexity of dosing regimen and monitoring, weight-based dosing and the availability of multiple strengths.

Currently, there are two (2) available strengths of unfractionated heparin (UFH) injections in the Ministry of Health (MOH) health facilities; which are:

- **HEPARINOL 1000 IU/ml**
- **HEPARINOL 5000 IU/ml**

✓ **DOUBLE CHECK**
✓ **READ THE LABEL**
Confusing **1000U with 10,000** can easily lead to a **10-fold overdose.**

Considering that heparin is a **High Alert Medication (HAM)**, it is important to increase the awareness among health care professionals of the risks and safety measures throughout the medication use system within the entire healthcare organization.

ANTIDOTE

For Heparin

Protamine sulfate is used to REVERSE the anticoagulant effect of unfractionated heparin (UFH). Immediate reversal requires **1 mg of protamine for every 100 units of UFH administered within the last 2–3 hours.** The maximum dose should not exceed 50 mg of protamine. The main risks with protamine infusion are systemic hypotension and bradycardia, which can be mitigated via slow

INCIDENT 1 : PRESCRIBING ERRORS

- IV Heparin 5000 IU/ml was wrongly prescribed 5ml instead of 1ml for the treatment polycythaemia with pulmonary embolism. T wrong dose was administered to the patient.
  - Intended dose : 5,000 units
  - Error dose : 25,000 units
- SC heparin was wrongly prescribed as 500,0 units bd instead of 5,000 units bd. Error detecte before dispensing.
  - Intended dose : 5,000 units
  - Error dose : 500,000 units

INCIDENT 2 : DISPENSING ERRORS

- IV heparin 5000 IU/ml bd was wrongly filled with heparin 1000 IU/ml bd. Error detected befo dispensing.
  - Intended strength : 5,000 IU/ml
  - Error strength : 1,000 IU/ml
- SC heparin 7,500 units bd was labelled as 5,0 units bd.
  - Intended dose : 7,500 units
  - Error dose : 5,000 units
- Heparin sodium injection 50 units in sodiu chloride was wrongly filled as heparin injecti 5,000 units.
  - Intended drug : Heparin in sodium chloride
  - Error drug : Heparin 5,000 IU/ml

INCIDENT 3 : ADMINISTRATION ERRORS

- IV Heparin 9,000 units (9ml of 1000 IU/ml) w administered to the patient instead of 1,800 uni The strength of heparin was thought as 10 IU/5ml instead of 1000 IU/ml.
  - Intended dose : 1,800 units
  - Error dose : 9,000 units
- IV Heparin 15,000 units was administered to t patient instead of 5,000 units. The patient ha nose bleeding and haematuria.
  - Intended dose : 5,000 units
  - Error dose : 15,000 units
- Wrong dose of heparin (25,000 unit=5ml) w injected to the patient instead of 5,000 un (1ml) bd.
  - Intended dose : 5,000 units
  - Error dose : 125,000 units
- IV heparin infusion was given at a rate 10ml instead of 1ml/h
  - Intended rate : 1 ml/hour
  - Error rate : 10 ml/hour

THANK YOU

Acknowledgement:

1. Cawangan Penjagaan Farmaseutikal, BAPF
2. JK Induk Keselamatan Pengubatan 2023/24

External Reviewers

1. Dr. Norkasihan Ibrahim (Deputy Dean, Faculty of Pharmacy, UiTM)