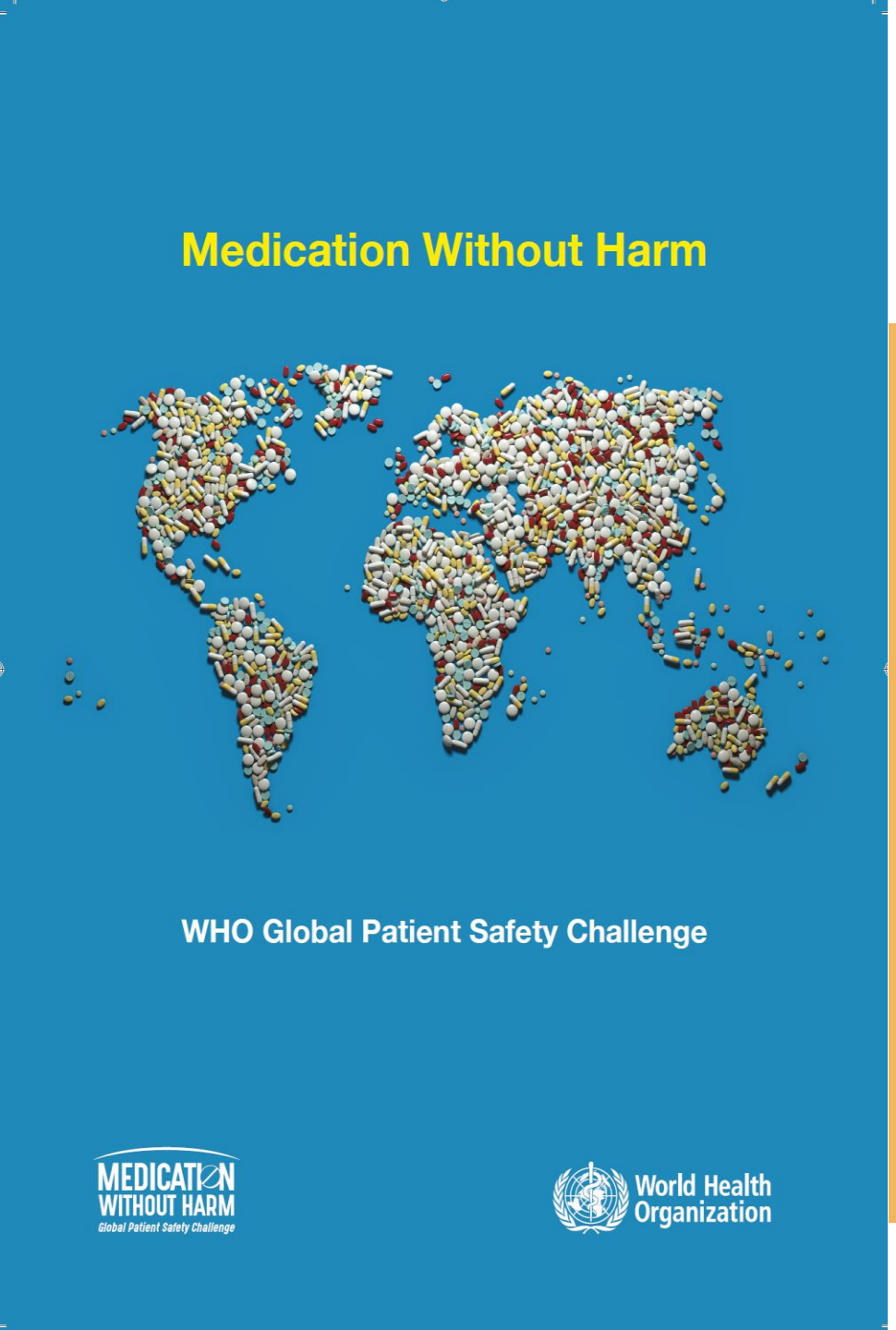

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

World Health Organization

Practical examples - Addressing medication safety in high-risk situations at the national level

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17 May 2022

Practical examples - Addressing medication safety in high-risk situations at the national level

Medication Safety Webinar Series (Virtual)
WHO Global Patient Safety Challenge: *Medication Without Harm*
Webinar 4: Medication Safety in High-risk Situations
17th May 2022

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Overview

How to address high risk situations at national level

- High risk/high alert medications
- High risk situations for errors
- High risk healthcare systems
- High risk patients

With practical examples from a LMIC - Sri Lanka

High risk/alert medicines

- High-risk (high-alert) medications are medicines that bear a heightened risk of causing significant patient harm when they are used in error.
- Although mistakes may or may not be more common with these medications, the consequences of an error are clearly more devastating to patients
    - *High-Alert Medications In Community/Ambulatory Settings. In: Institute for Safe Medication Practices [website]. Horsham (PA): Institute for Safe Medication Practices; 2011*

Actions at national level

- Identify/update list of key high risk/high alert medicines for the country involving all stake holders
- lists for different settings – as medications differ
  - Government hospital settings
    - Identify common medicines involved in serious harm
  - Private sector hospital settings
    - availability of some medicines may be different
  - Community settings – dispensaries/pharmacies
    - Availability of different brands to be considered

Actions at national level

To be taken by

- The regulatory Authority
  - e.g., during registration of medicines – LASA names
- The Ministry of Health
  - circulars on prescribing, dispensing, reporting and key recommendations etc
- The procurement agencies of medicines
  - State Pharmaceuticals corporation, medicines importers for the private sector can request revisions of labelling
- The Directorate Healthcare quality and safety (HQS)
  - focal point for implementation and monitoring of national action plan on medication safety

Identify reasons for serious errors

- For each setting
  - hospital, community, government and private sector
- Method to identify serious errors
  - medication incident reporting system to be established/strengthened to improve reporting
- Address illegible/Unclear handwriting
  - Electronic prescriptions being introduced
  - Seal to identify prescriber in government hospitals
- Look alike sound alike read alike (LASARA) medicines
  - For each setting
- Error prone abbreviations
- HCP factors
  - e.g., lack of clinical pharmacists, inadequate training of pharmacists in the private sector

Develop/update list of high risk/high alert medicines

- Identify for the country for the different settings
- From incident and learning systems reporting
  - if a system exists and update regularly
- Medicines responsible for the serious errors
  - from patient complains
  - from hospital inquiry processes
  - From research studies – survey among pharmacists
  - From student assignments –
    - serious medication error heard, and preventive actions taken for the Diploma HQS in SL – identified >50 serious errors
    - medicines mostly similar to ISMP list but other drugs too

Medications frequently classified as high-risk medications - APINCH

Therapeutic Group	Some classes of medications/ examples from therapeutic group
Anti-infectives	○ Aminoglycosides (e.g. gentamicin, streptomycin) ○ Glycopeptides (e.g. vancomycin) ○ Amphotericin ○ Allergy to antibiotics
Potassium & other salts/ electrolytes for injection	○ Potassium, magnesium & calcium salts & hypertonic sodium chloride
Insulins	○ All insulins
Narcotics (e.g. opioids) & sedatives	○ All opioids (e.g. morphine, diamorphine) ○ Benzodiazepines (e.g. diazepam) ○ Propofol
Chemotherapeutic agents & immunosuppressive agents	○ Etoposide ○ Vincristine ○ Methotrexate
Heparin & oral anticoagulants	○ Heparins (unfractionated & low molecular weight) ○ Vitamin K antagonists (e.g. warfarin) ○ Newer Oral Anticoagulants [NOACs] (e.g., apixaban, dabigatran, edoxaban & rivaroxaban)

Institute for Safe Medication Practices (ISMP)

ISMP List of *High-Alert* Medications in Acute Care Settings

Classes/Categories of Medications
adrenergic agonists, IV (e.g., **EPINEPH**rine, phenylephrine, norepinephrine)
adrenergic antagonists, IV (e.g., propranolol, metoprolol, labetalol)
anesthetic agents, general, inhaled and IV (e.g., propofol, ketamine)
antiarrhythmics, IV (e.g., lidocaine, amiodarone)
antithrombotic agents, including: ■ anticoagulants (e.g., warfarin, low molecular weight heparin, IV unfractionated heparin) ■ Factor Xa inhibitors (e.g., fondaparinux, apixaban, rivaroxaban) ■ direct thrombin inhibitors (e.g., argatroban, bivalirudin, dabigatran etexilate) ■ thrombolytics (e.g., alteplase, reteplase, tenecteplase) ■ glycoprotein IIb/IIIa inhibitors (e.g., eptifibatide)
cardioplegic solutions
chemotherapeutic agents, parenteral and oral
dextrose, hypertonic, 20% or greater

Specific Medications
EPINEPHrine, subcutaneous
epoprostenol (Flolan), IV
insulin U-500 (special emphasis)*
magnesium sulfate injection
methotrexate, oral, non-oncologic use
opium tincture
oxytocin, IV
nitroprusside sodium for injection
potassium chloride for injection concentrate
potassium phosphates injection
promethazine, IV
vasopressin, IV or intraosseous

High risk/alert medicines identified from an assignment on medication incidents in SL

- Antibiotics – anaphylaxis with amoxicillin, cloxacillin, co-amoxiclav
- Insulin – hypoxic brain damage and death
- Narcotics - pethidine for obstetric analgesia and hypoxic brain damage in baby
- Chemotherapeutic and Immunosuppressants – Azathioprine, methotrexate, vincristine and patient deaths
- Heparin and Anticoagulants – warfarin, enoxaparin causing bleeding
- Narrow therapeutic index medicines – lithium, carbamazepine toxicity
- Anti-arrhythmics – amiodarone, dofetilide casing serious arrhythmias
- NSAIDs – diclofenac sodium given in dengue fever causing bleeding
- Surgical spirit for cleaning - injection to a patient in the theatre
- Antipsychotics – clozapine, thiothixene
- Ergometrine – given to a neonate thinking it was vitamin K – baby died
- Muscle relaxant – atracurium causing respiratory arrest
- Antihypertensive – prazosin instead of piriton and severe hypotension
- Syntocinon – wrong dose causing severe hypertension

Labelling high risk/alert medicines for identification

Reasons - Illegible prescriptions

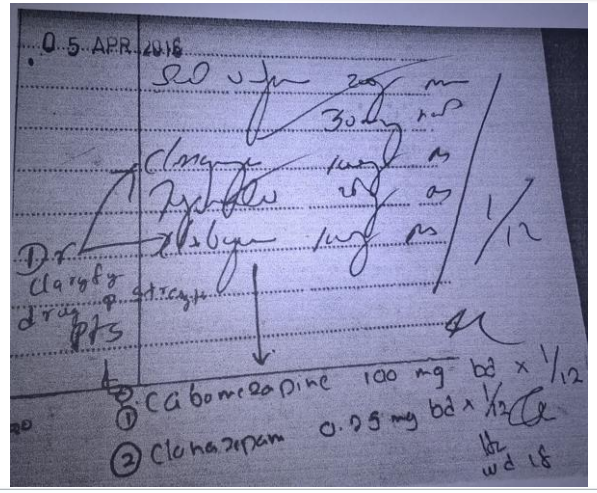
Investigation of Medication Errors: A Prescription Survey from Sri Lanka

Table 1: Percentage occurrence of components of the prescriptions and *p* values obtained from chi square test for two study locations

nie B

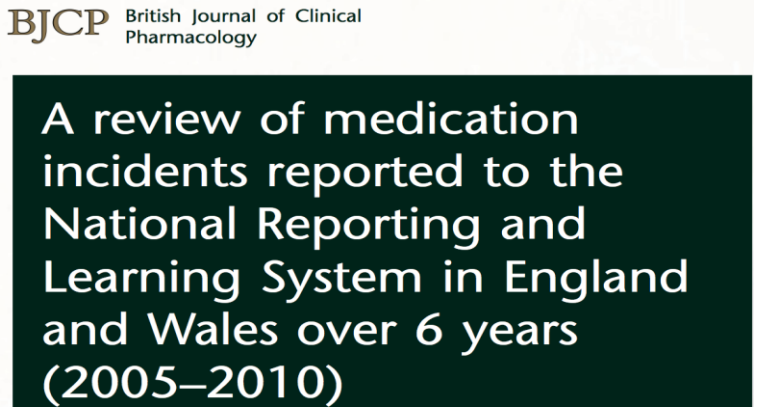
Attribute	Frequency (%)	Aluthgama	Kandy	*P*-value
Presence of name of the patient	75 (37.5%)	36	39	0.661
Presence of age	92 (46%)	49	43	0.395
Presence of gender	155 (77.5%)	70	85	0.011*
Presence of name of the prescriber	181 (90.5%)	84	97	0.002*
Presence of contact details	148 (74%)	64	84	0.001*
Presence of qualification	170 (85%)	73	97	0.000*
Presence of registration number	32 (16%)	24	8	0.002*
Presence of signature	150 (75%)	62	88	0.000*
Presence of date of consultation	163 (81.5%)	75	88	0.018*
Presence of non-standard abbreviations	73 (36.5%)	35	38	0.659
Presence of incomplete units	102 (51%)	53	49	0.572
Presence of avoidable decimal points	0 (0%)	0	0	
Legible prescriptions	99 (49.5%)	48	51	0.671

*P < 0.05 is considered statistically significant



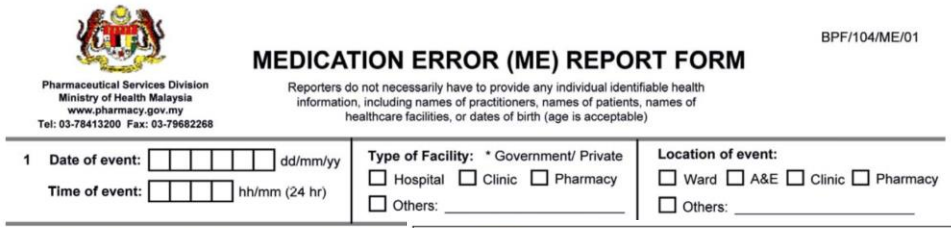
Electronic prescriptions being introduced

Identify serious medication errors



- Best way – incident reporting
- Effective reporting and learning systems are lacking in most LMIC
- In SL – did not have a reporting system
- Developed a dedicated form and discussed at a consultative meeting of stakeholders
- Decided to have two step process with two forms
  - one a short form giving only basic information by reporter
  - Healthcare quality and safety (HQS) unit of the hospital to fill the detailed form
- Reluctance for reporting – a problem
- Included medication incident reporting as one of the clinical indicators of quality of hospitals by Directorate HQS

HCP/Consumer reporting and learning from errors



Pharmaceutical Services Division
Ministry of Health Malaysia
www.pharmacy.gov.my
Tel: 03-78413200 Fax: 03-79682268

MEDICATION ERROR (ME) REPORT FORM

BPF/104/ME/01

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
Time of event: ☐☐☐☐ hh/mm (24 hr)

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

Location of event:
☐ Ward ☐ A&E ☐ Clinic ☐ Pharmacy
☐ Others: _____

2 Please describe the error. Include description/ sequence (e.g. change of shift, short staffing, during peak hours). If attach a separate page.

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

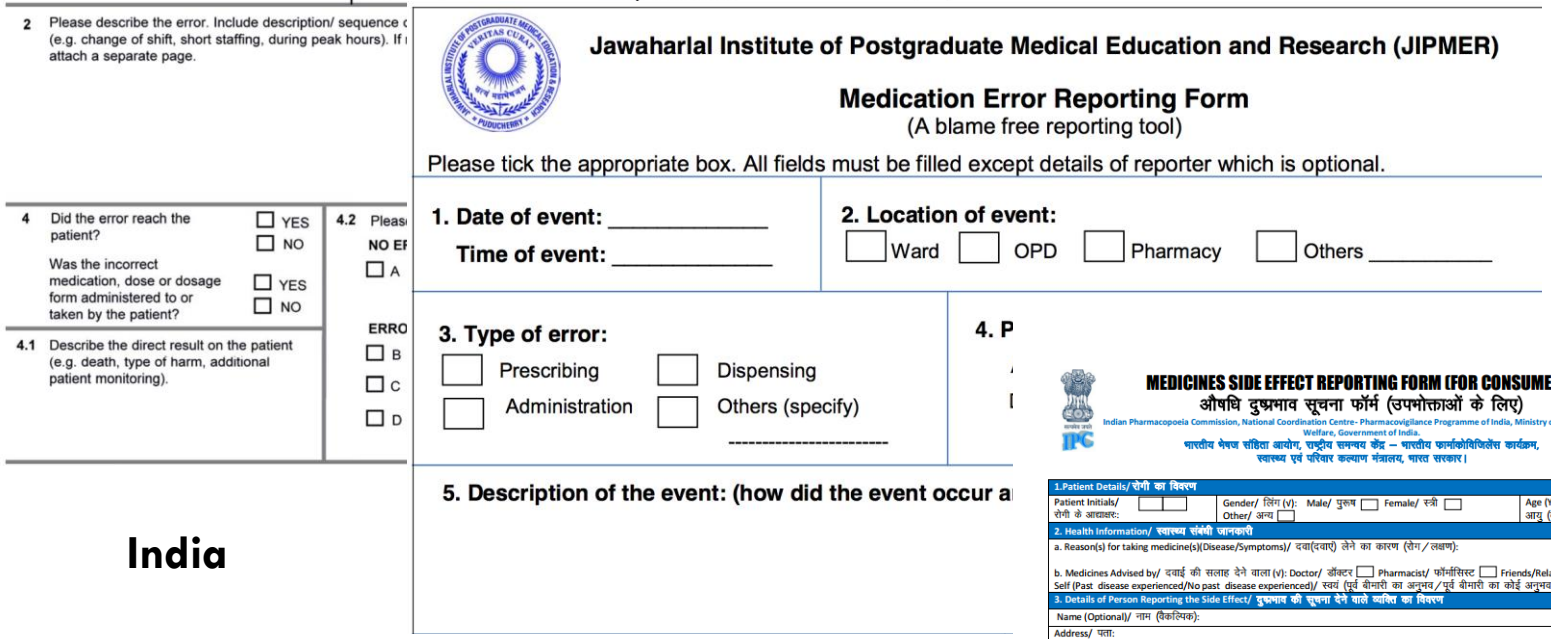
Was the incorrect medication, dose or dosage form administered to or taken by the patient? ☐ YES ☐ NO

4.1 Describe the direct result on the patient (e.g. death, type of harm, additional patient monitoring).

4.2 Pleas
NO EF
☐ A

ERRO
☐ B
☐ C
☐ D

Malaysia



Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER)

Medication Error Reporting Form
(A blame free reporting tool)

Please tick the appropriate box. All fields must be filled except details of reporter which is optional.

1. Date of event: _____
Time of event: _____

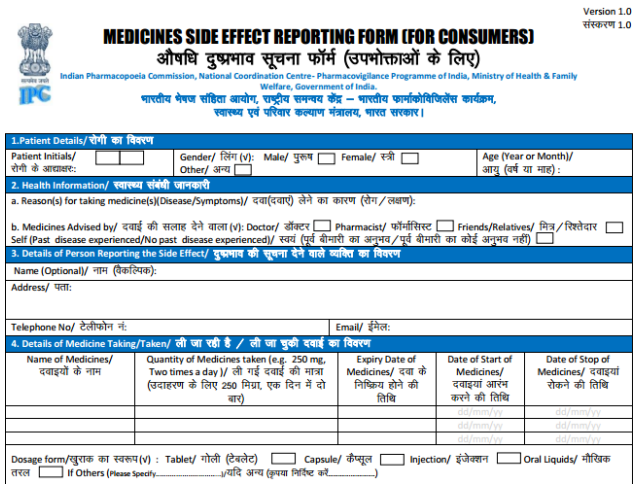
2. Location of event:
☐ Ward ☐ OPD ☐ Pharmacy ☐ Others _____

3. Type of error:
☐ Prescribing ☐ Dispensing
☐ Administration ☐ Others (specify)
---

4. P

5. Description of the event: (how did the event occur a

India



Version 1.0
संस्करण 1.0

MEDICINES SIDE EFFECT REPORTING FORM (FOR CONSUMERS)
औषधि दुष्प्रभाव सूचना फॉर्म (उपभोक्ताओं के लिए)

Indian Pharmacopoeia Commission, National Coordination Centre- Pharmacovigilance Programme of India, Ministry of Health & Family Welfare, Government of India.
भारतीय भेषज संहिता आयोग, राष्ट्रीय समन्वय केंद्र – भारतीय फार्माकोविजिलेंस कार्यक्रम,
स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार।

1.Patient Details/ रोगी का विवरण
Patient Initials/ रोगी के आद्याक्षर: ☐☐
Gender/ लिंग (√): Male/ पुरुष ☐ Female/ स्त्री ☐ Other/ अन्य ☐
Age (Year or Month)/ आयु (वर्ष या माह) :

2. Health Information/ स्वास्थ्य संबंधी जानकारी
a. Reason(s) for taking medicine(s)(Disease/Symptoms)/ दवा(दवाएं) लेने का कारण (रोग / लक्षण):
b. Medicines Advised by/ दवाई की सलाह देने वाला (√): Doctor/ डॉक्टर ☐ Pharmacist/ फॉर्मासिस्ट ☐ Friends/Relatives/ मित्र / रिश्तेदार ☐ Self (Past disease experienced/No past disease experienced)/ स्वयं (पूर्व बीमारी का अनुभव / पूर्व बीमारी का कोई अनुभव नहीं) ☐

3. Details of Person Reporting the Side Effect/ दुष्प्रभाव की सूचना देने वाले व्यक्ति का विवरण
Name (Optional)/ नाम (वैकल्पिक):
Address/ पता:
Telephone No/ टेलीफोन नं: Email/ ईमेल:

4. Details of Medicine Taking/Taken/ ली जा रही है / ली जा चुकी दवाई का विवरण

Name of Medicines/ दवाइयों के नाम	Quantity of Medicines taken (e.g. 250 mg, Two times a day)/ ली गई दवाई की मात्रा (उदाहरण के लिए 250 मिग्रा, एक दिन में दो बार)	Expiry Date of Medicines/ दवा के निष्क्रिय होने की तिथि	Date of Start of Medicines/ दवाइयां आरंभ करने की तिथि	Date of Stop of Medicines/ दवाइयां रोकने की तिथि
			dd/mm/yy	dd/mm/yy
			dd/mm/yy	dd/mm/yy
			dd/mm/yy	dd/mm/yy

Dosage form/खुराक का स्वरूप(√) : Tablet/ गोली (टेबलेट) ☐ Capsule/ कैप्सूल ☐ Injection/ इंजेक्शन ☐ Oral Liquids/ मौखिक तरल ☐ If Others (Please Specify.....)/यदि अन्य (कृपया निर्दिष्ट करें.....)

Thailand

Medication Incident Reporting Form

Report Date:-……..

Report Time:-……..

1.Patient details and setting of error s

Hospital Ward: - BHT No: - Private hospital Pharmacy Home	Sex: - ☐ Male ☐ Female Age: ……..	Diagnosis

2. Did the error reach the patient? Yes ☐ No ☐

3.Description of the event (How did the event occur and how was it detected)

4.Location of event occurred

☐ Ward ☐ Theatre ☐ Dispensary ☐ Clinic ☐ ICU ☐ Other

5.Details of medicines involved in the event

Dosage form	Generic name	Strength	Frequency	Dates of therapy	Diagnosis

6.The error and possible contributing factors for medication errors (You may tick more than one box)

- ☐ Medication given to wrong person
- ☐ Wrong medicine given
- ☐ Look-Alike, Sound-Alike medication
- ☐ Wrong frequency of medication
- ☐ Wrong route of administration
- ☐ Wrong labeling instructions
- ☐ Other ……
- ☐ Wrong strength of medication
- ☐ Wrong rate of administration
- ☐ Wrong dose of medication
- ☐ Poor quality of medicine
- ☐ Expired medicine
- ☐ Poor handwriting
- ☐ Dose omitted

7.Patient Outcome

Actual	Where No harm
Tick the appropriate patient outcome ☐ Fatal ☐ No harm ☐ Severe (permanent harm) ☐ Moderate harm (requiring active treatment) ☐ Mild harm (requiring monitoring)	**Tick the appropriate patient outcome** ☐ Potentially fatal ☐ Potentially severe (permanent harm) ☐ Potentially moderate harm (requiring active treatment) ☐ Potentially mild harm (requiring monitoring)

Stage of ME in the medication use system

☐ Prescribing ☐ Transcription ☐ Dispensing ☐ Administration ☐ Monitoring

☐ Other (specify):

……

8.Description of immediate action/intervention

9.Patient outcome

☐ Fatal ☐ Sever (Permanent harm) ☐ Moderate harm (Requiring active treatment) ☐ Mild harm (Requiring monitoring) ☐ No harm

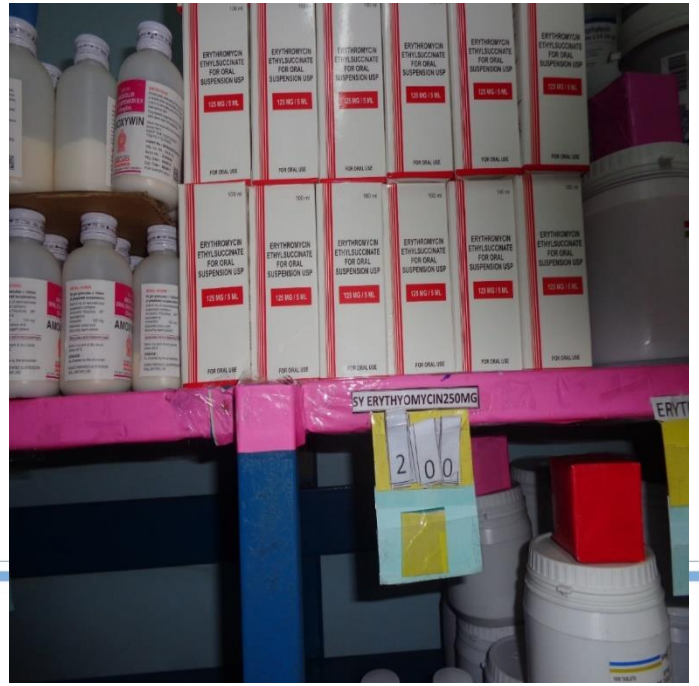
10.Reporter

☐ Medical officer ☐ Pharmacist ☐ Nurse ☐ Patient or Family ☐ any other ……

❖ Send the medication errors reporting form to Healthcare Quality and safety Unit of the hospital after filling the details mentioned above.

Identify LASARA medicines for the country- especially for high risk/alert medicines

- For the different settings
- Educate the HCP on these
- Tall man/different coloured lettering in labelling and writing
- Separate storage for LASARA medicines especially high risk medicines
  - e.g., atracurium causing respiratory arrest in ICU (Ranitidine vial and Atracurium vial looked similar appearance)

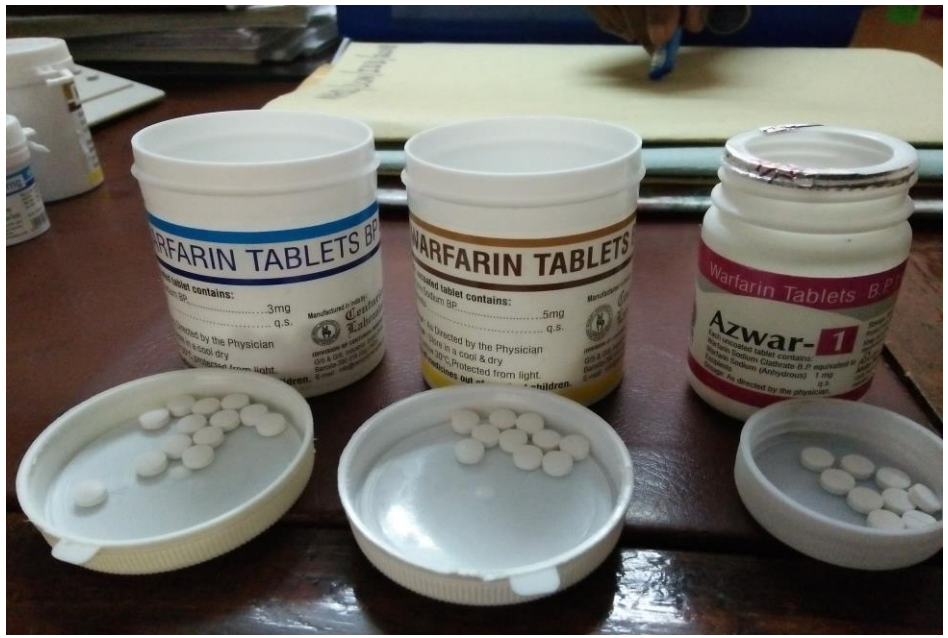


Some LASARA drugs identified from hospital settings Sri Lanka

Clonazepam	Clobazam (5)
Carbamazepine	Carbimazole (4)
Glibenclamide	Gliclazide (3)
Flunnarazine	Fluoxetine (2)
Phenobarbitone	Phenytoin (2)
Atorvastatin	Atenolol (2)
Clonazepam	Clozapine (2)
Cyclophosphamide	Cyclosporine (2)
Amlodipine	Amitriptyline (2)
Chlorpromazine	Clomipramine (2)
Olanzapine	Omeprazole (2)
Theophylline	Thyroxine (2)
Chlorpheniramine	Chlorpromazine (1)
Paracetamol	Penicillin (1)
Mefenamic acid	Metformin (1)
Atenolol	Aldactone (1)
Hydrocortisone	Hydroxyurea (1)
Atenolol	Atorvastatin (1)

Diltiazem	Dilantin (1)
Atorvastatin	Amitriptyline (1)
Diltiazem	Dipyridamole (1)
Clonazepam	Clopidogrel (1)
Amiodarone	Amlodipine (1)
Digoxin	Thyroxine (1)
Diltiazem	Diazepam (1)
Calcium carbonate	Lithium carbonate (1)
Clonazepam	Olanzapine (1)
Metoprolol	Metformin (1)
Thyroxine	Thiamine (1)
Losartan	Lactulose (1)
Cetirizine	Cetrimide (1)
Lactulose	Lasix (1)
Aspirin	Atorvastatin (1)
Bisoprolol	Bisacodyl (1)
Cetirizine	Cetrimide (1)
Warfarin 1 mg	warfarin 5 mg (1)

Regulatory authorities to take steps to prevent mix ups at registration of LASARA medicines

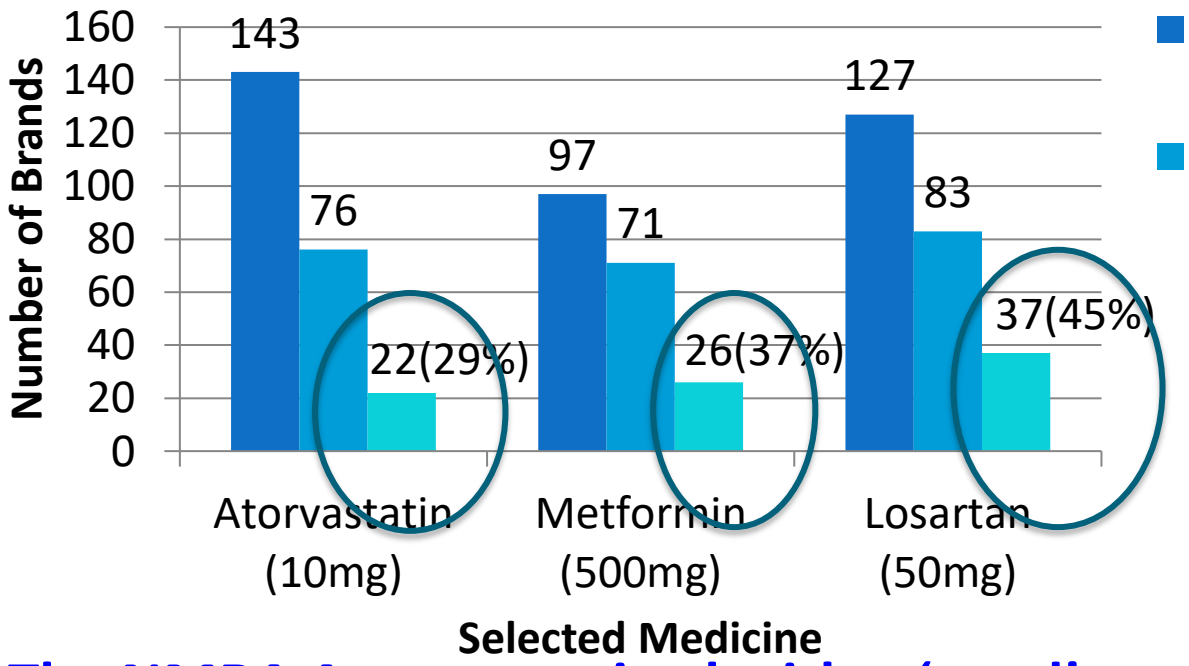


Warfarin 1mg, 3mg and 5mg tablets of same color was available in government pharmacies

Patient admitted with bleeding and INR of 14

Changed to blister packs on recommendation by NMRA but again similar packaging for 1mg and 5mg!

Registration status and availability of the most commonly prescribed 3 medicines in private sector in Sri Lanka -2015



- Generic prescribing – 36 % in private sector
- With several brands - more prone to errors due to high-risk LASARA medicines
  - e.g., Navane (thiothixene, an antipsychotic) dispensed for Norvasc (amlodipine)

- **The NMRA Act was revised with a 'need' clause added.**
- **Now, if > 20 products are registered not granted registration unless justified showing a benefit**

Identify error prone abbreviations for errors in the country

Unapproved abbreviations identified from hospital prescriptions in SL – some are High risk/high alert medicines

Drug name	Abbreviation
Paracetamol	PCM
Diclofenac sodium	DFS, DN, DS
Norethisterone	NE , NET
Trifluoperazine	TFP
Azathioprine	AZT
Carbamazepine	CBZ
Hydroxychloroquine	HCQ
Hydrocortisone	HCS
Nifedipine sustained release	NSR
Prednisolone	PD
Silver sulfur diazine	SSD
Topiramate	TPM

The Pattern of Abbreviation Use in Prescriptions: A Way Forward in Eliminating Error-Prone Abbreviations and Standardisation of Prescriptions

N.R. Samaranayake[*,1,2], P.R.L. Dabare[2], C.A. Wanigatunge[3] and B.M.Y. Cheung[1]

Table 3. Error-Prone and Some Other Unapproved Abbreviations Used in the Study Hospital

Abbreviation	Percentage of Usage*
Error-Prone Abbreviations	
d (days/daily)	23.5
µg (microgram)	17.4
n (night)	15.8
m (morning)	4.4
@ sign	4.9
u (units)	1.9
cc (cubic centimeter)	0.2
OD (once a day)	0.2
mcg (microgram)	0.1

- **Approximately 69 error-prone abbreviations are used per every 100 drug items prescribed.**

Some Frequently Used Unapproved Abbreviations	
pcm/PCM (paracetamol)	5.2
LA (local application)	2.2
MS (methyl salicylate)	1.9
o (oral)	1.5
syr/sy (syrup)	1.3
BCo (vitamin B complex)	0.8
DFS (diclofenac sodium)	0.7
HCT (hydorchlorothizide)	0.7
ISMN (isosorbide mononitrate)	0.7

Reasons for errors in dose of high risk medicines

Reason	Frequency	Percentage
Inappropriate Strength	51	28.7
Additional or less '0'	41	23.0
Mix-up of adult and paediatric doses	27	15.2
Prescription mix-up	26	14.6
Poor handwriting	10	5.6
Dose not written	10	5.6
Look-alike digits	5	2.8
Extra numbers	5	2.8
Oral and IV dose mix up	3	1.7

- Azathioprine 250mg bd prescribed for 25mg bd and same dose dispensed. Patient died of agranulocytosis and sepsis 2 weeks later

A Medication safety practice package for implementation

Started as a PhD project

- Develop a List of High risk/alert medicines
- SOPs for labelling, storage and dispensing of those
- LASA medicines list and tall man lettering for labelling and storage
- Accepted abbreviation list to be identified
- Properly labelled medicines to be dispensed
- Not dispense medicines for unclear prescriptions without double checking

High risk settings for errors

Develop SOPs for handling high risk/alert medicines Identified from incidents

- ICUs
  - muscle relaxants, potassium solutions to be clearly labelled
- Emergency rooms
  - checking for allergies prior to antibiotics
- Operating theatres
  - not to keep unlabeled syringes – surgical spirit kept in a syringe injected
- Obstetric delivery units
  - not to mix mothers and baby's medicines – ergometrine injected to baby and died (Vitamin K vial and ergometrine vial was similar)
- Oncology units
  - not to mix routes eg. oral, IV and intrathecal administration
- Radiology departments
  - check pregnancy, type of contrast medium, sedatives used

High risk health systems
A risk for high risk/alert medicines/situations

- Countries with poor systems for patient safety
- Establishment of Directorate of HQS in Sri Lanka in 2012 – A major step for improvement
- Lack an effective incident reporting and learning system
- Lack of electronic prescribing in most settings – now improving
- Lack of clinical pharmacists for medication reconciliation
- Overcrowding of clinics and hospital dispensaries
- Unqualified pharmacists manning private pharmacies

High risk patients

- Patients with poor medication literacy
  - need to improve knowledge of patients taking high risk medicines
- Oncology patients
  - have SOPs for safe administration of chemotherapeutics
- Patients undergoing surgery
  - have SOPs for safe administration of all anesthetic agents
- Patients with organ dysfunction – Renal, hepatic, Cardiac and respiratory
  - To identify and modify drug doses
- Patients with multi morbidity and poly pharmacy
  - Need national guidance on addressing polypharmacy

Improve patient's knowledge on medicines

Percentage of patients attending a medical clinic knowing

1.Name of drugs prescribed - 42.4%

2.Indication - 41.1%

3.Dose – 22%

4. Frequency - 57.8%

5. Additional details (special instructions/ adverse effects/storage) – only 6.8%

- All patients given high risk/alert medicines need to be educated about the medicines

Need to address High risk medicines/situation in National action plans

NATIONAL ACTION PLAN ON MEDICATION SAFETY FOR SRI LANKA

Ministry of Health
Sri Lanka

Strand	Proposed activity	Time frame	Sub activities	Key Performance Indicators (KPIs)	Stakeholders/ Persons/Institutions /Organizations responsible	Responsibility for implementation
1. Systems and practices	1.1 Introduce medication incident reporting system into hospitals and implement action plans to prevent occurrence of similar events.	2021 – 2023	1. Introduce a separate medication incident reporting form. 2. Integrate the medication incident reporting in to adverse event reporting process in hospitals. 3. Issue a circular from DGHS introducing the medication incident reporting form to all hospitals including private hospitals and encourage reporting with reporting guidelines, which would indicate assessment of reports in a no blame culture. 4. Use MSMIS electronic system to report in hospitals where these facilities are available. 5. Reinforce establishment and function of Drugs and therapeutic committee in all hospitals where reported incidents are	1. Percentage of hospitals having a functional Incident reporting system. 2. Number of medication safety incidents reported 3. Number of sentinel events reported 4. Number of near misses reported	Director General of Health Services (DGHS), Deputy Director General / Medical Services -1 (DDG/MS -1), DDG/MS - 11, DDG/Dental Services, Director - Medical Supplies Division (MSD), Directorate of Healthcare Quality and Safety (DHQS), Quality Management Units (QMU) in hospitals, Government Pharmacists, Sri Lanka Medical Association (SLMA), Sri Lanka Dental Association (SLDA), Ceylon College of Physicians (CCP), Sri Lanka College of Pediatricians (SLCP), Sri Lanka College of General Practitioners (SLGP),	Director- DHQS Heads of Institutions Medical Officer - Quality Management Units in hospitals The Society of Government Pharmacists All Island Private Pharmacy Owners Association (AIPPOA) State Pharmaceutical Cooperation

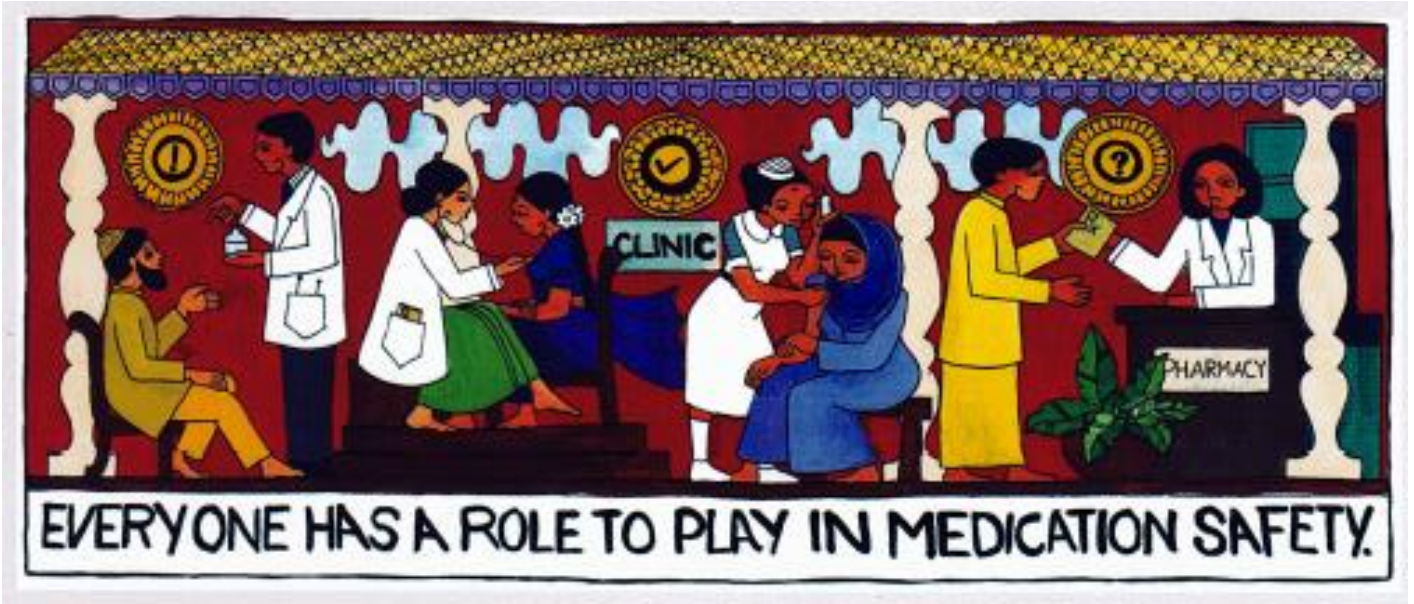
Strand	Proposed activity	Time frame	Sub activities	Key Performance Indicators (KPIs)	Stakeholders/ Persons/Institutions /Organizations responsible	Responsibility for implementation
2. **Medicines**	2.4 Prepare a list of "high risk medicines" for serious errors. i. Identify through incident reporting. ii. From published literature on high-risk medicines. iii.Educate Health Care Personnel on "high risk medicines" and take preventive actions. (Eg. Individual packaging, Colour cording whenever possible)	2021 - 2024	1. Preparing a List of "high-risk medicines". 2. Preventing use of; same color code for different strengths of products, which can be confusing during registration by NMRA. 3. Develop specifications when calling for tenders; such as color cording, limiting strengths, individual packages etc. whenever possible.	1. Availability of "List of high-risk medicines" at the relevant institutions. 2. No. of Institutions that have been informed about serios errors due to high-risk medicines (to prevent similar errors in the future) 3. Number of medication incidents reported regarding high – risk medicines.	Through medication error reporting system – D/HQS CCP, SLCP, SLGP, PSSL, SLDA, University academics, NMRA, MSD, AIPPOA.	Academics, researchers and other healthcare workers involved in work in this area

Take home messages
A ‘practice package’ for High risk/alert medicines

- Develop/update High risk/alert medicines
- SOPs for labelling, storage and dispensing
- LASARA medicines list and tall man lettering for labelling and storage of high alert medicines
- Accepted abbreviation list to be identified
- Properly labelled medicines to be dispensed
- Preventive actions when serious errors occur
- Training of HCP on high risk/alert medicines

Include all above into national action plan on medication safety


High ALERT
MEDICATION
MV04FR5294


CLINIC
PHARMACY
EVERYONE HAS A ROLE TO PLAY IN MEDICATION SAFETY.

Thank you