Prevention of Medication Errors

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Target group

- Doctors
- Nurses
- Pharmacist

Where Do Med Errors Occur?

Prescribing
39% of Errors

38% Wrong Dose
19% Wrong Choice
12% Known Allergy
6% Wrong Frequency
4% Drug-Drug Interaction
2% Wrong Drug

Transcribing
12% of Errors

78% Illegible Signature
58% Time Missing
24% Order Incomplete
20% Order Illegible

Dispensing
11% of Errors

37% Decimal point error
23% Calculation error
19% Dosage misdivided
12% Dosage Not divided

Administering
38% of Errors

6,561 combinations
of drug compatibilities

Learning Objectives

Central objective

- **To Ensure *medication administration practices* in Health care organisation**

Specific objectives

- Medication error
- Understand the *different types* of medication errors
- Know the concept of *ADE /ADR*
- Learn the *best practices to prevent drug errors*
- Know how to prevent errors *using HIMS*

Few Terminologies

- Adverse events
- Adverse drug reactions
- Medication error
- Prescription error
- Transcription error
- Dispensing error
- Administration error

Adverse Drug event

Any injury resulting from medical intervention related to a drug

- ✓**Medication errors**
- ✓ **adverse drug reactions**

ADVERSE DRUG REACTION:

Any *undesirable experience* that has happened to the patient *while taking a drug* that is suspected to *be caused by drug or drugs*

MEDICATION ERRORS: 'a *failure in the treatment process* that leads to, or has the potential to lead to, *harm to the patient'*.

A medication error is *any preventable event* that may cause or lead to *inappropriate medication use or patient harm* while the medication is in the control of the health care professional.

Medication Errors

Such events may be related

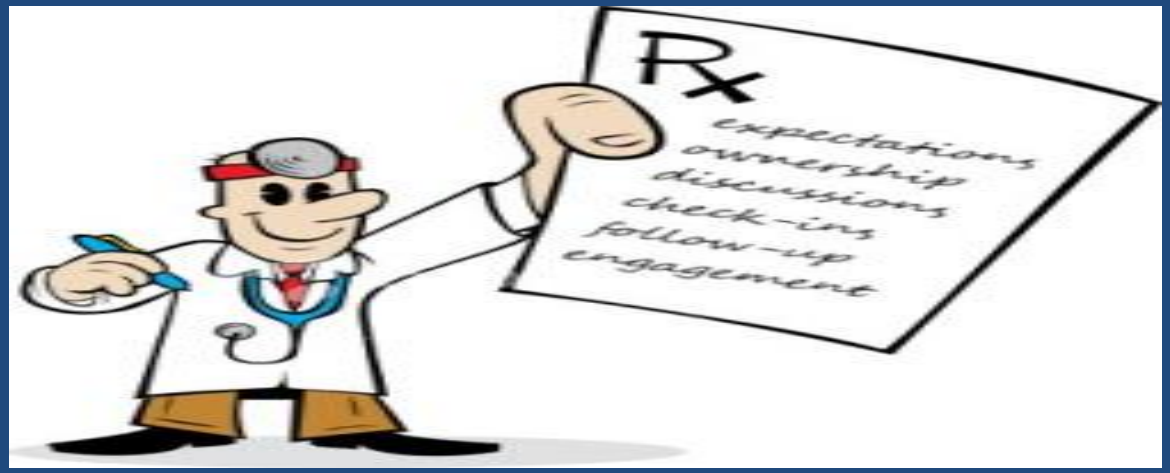
- Professional practice
- Procedures, and systems,
- Including prescribing; communication;
- Labeling, packaging, and
- Nomenclature;
- Dispensing;
- Distribution;
- Administration; education; monitoring

Mishaps that occur during

- **Prescribing**
- **Transcribing**
- **Dispensing**
- **Administering**

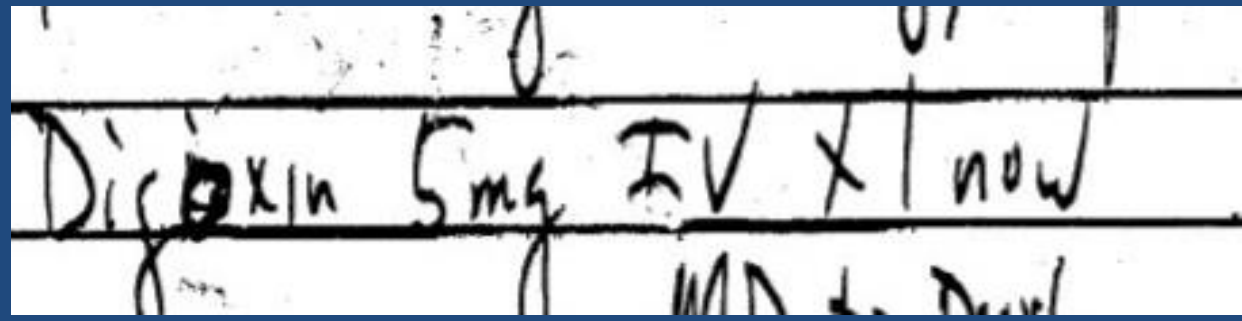
Prescription Error

- Inappropriate medication selected
- Inappropriate dose
- Duplicate order
- Order not dated/timed
- Wrong patient/chart selected
- Wrong frequency



Prescription error

- Wrong route,
- Wrong therapy duration,
- Illegible writing
- Alert information bypassed or
- Use of nonstandard nomenclature or abbreviations.



- Verbal order misunderstood
- Verbal order not written in the drug chart

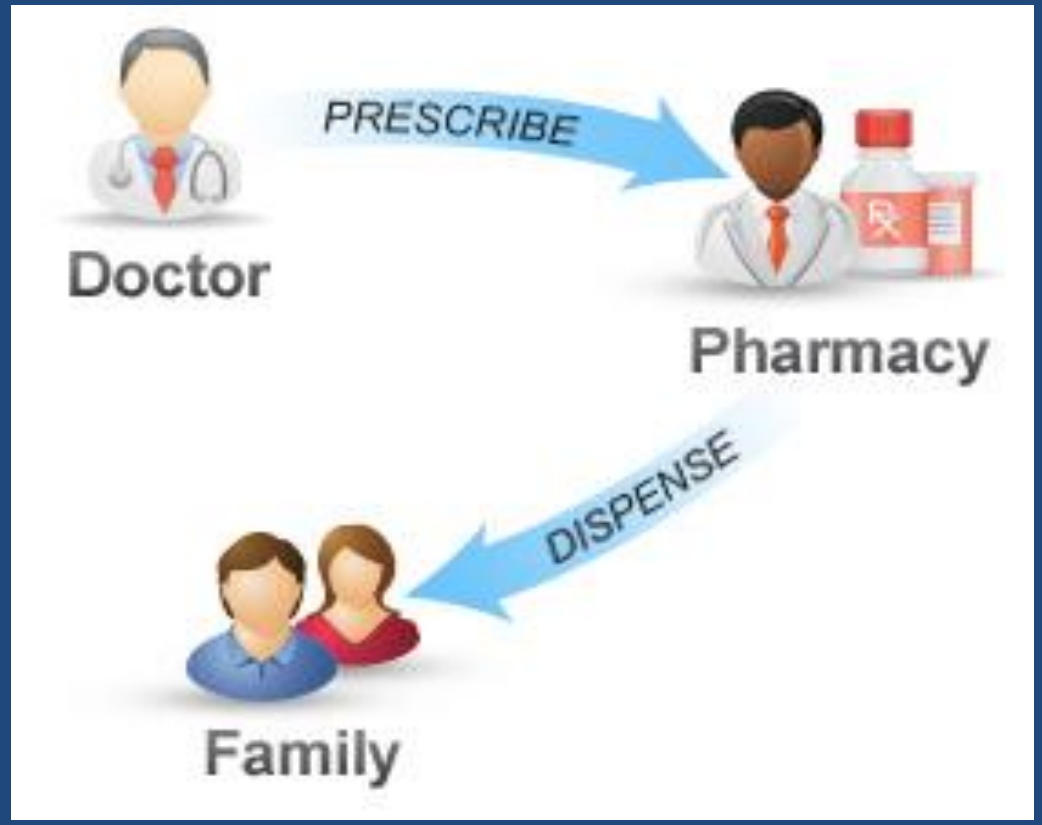
Transcription error

Transcription involves orders that are manually transcribed from drug chart to administration record.

(drug chart to indenting order in HIMS)

Dispensing Error

- Wrong dispatch of medicine including
- Expired medication
- Refill error
- Delay in medication delivery



Administration Error

Types of administration errors include:

- **Wrong patient**
- **Wrong dose**
- **Wrong time**
- **Wrong Medication**
- **Wrong route**
- **Wrong rate**

How to avoid a Prescription error

- Authorization -**registered/credentialed physician only.**
- Use only **standard prescription format –OPD**
- Contain **name date and signature registration number** of the medical practitioner in the prescription.
- Stamp of the medical practitioner.

How to Avoid a Prescription Error

- Separate prescription shall be written for every patient.
- **Medical practitioner** doctors' order sheet in the patient file.
- **Legibility to read.**

How to avoid a Prescription Error

Prescription shall include the

- Drugs in CAPITAL LETTER
- Route,
- Dosage,
- Strength,
- Time and frequency of administration of the drug.

DAILY SIGNATURE

How to avoid a Prescription error

- To avoid errors in interpretation **abbreviations must not be used**
- **Verbal orders** shall be utilized only in situations where the ordering doctor is not available to write the order and delay will result in a compromise in patient care
- VERBAL ORDER POLICY – MANGEMENT
- **Read Back Policy** shall be followed by the concerned Staff.
- followed by a written order and verification by the consultant within 12 hours.

DO NOT

- CST
- Continue all
- Repeat all
- Repeat 3 4 5
- **Acronyms** (asa – aspirin) x
- Only standardized abbreviations

www.jointcommission .org

Official "Do Not Use" List[1]

Do Not Use	Potential Problem	Use Instead
U, u (unit)	Mistaken for "0" (zero), the number "4" (four) or "cc"	Write "unit"
IU (International Unit)	Mistaken for IV (intravenous) or the number 10 (ten)	Write "International Unit"
Q.D., QD, q.d., qd (daily) Q.O.D., QOD, q.o.d, qod(every other day)	Mistaken for each other Period after the Q mistaken for "I" and the "O" mistaken for "I"	Write "daily" Write "every other day"
Trailing zero (X.0 mg)* Lack of leading zero (.X mg)	Decimal point is missed	Write X mg Write 0.X mg
MS MSO_4 and $MgSO_4$	Can mean morphine sulfate or magnesium sulfate Confused for one another	Write "morphine sulfate" Write "magnesium sulfate"

How to avoid Transcription Error

- Use same **sheet as drug chart and administration chart**
- Transcribe with the drug chart in the vicinity not by memory

How to avoid ADMINISTRATION ERROR

- Qualified doctor / nurse
- Self administration – policy framed
- Id of patients – 2 identifiers
- Administer with drug chart
- Within 1 hour of permissible time

ADMINISTRATION ERROR

- Thrice Reading (Talking, preparing, administering)
- More than one drug administered – one after another preparation labelling
- Label should contain drug, Dilution , dose, rate, Route , time & date
- Unidentified medication – Discarded

(Safetyquality.gov)

ADMINISTRATION ERROR
HIGH RISK MEDICATION

- List formulated by HCO
- Independent DOUBLE CHECK POLICY before dispensing
- Coloured labels
- Automated alerts
- Separate storage /segregation

(Ismp.org)

How to avoid Documentation error

- Immediately
- Never before administering
- Same person only
- **Document Only Original time** and
- not the planned time x

Reducing Dispensing Errors

- Expiry dates shall be checked prior to dispensing.
- Qualified personnel –pharmacist
- Double check in HRM/HAM
- CUT STRIP WITHOUT DRUG NAME
- PUT IN A COVER WITH NAME DRUG BATCH EXPIRY DATE N PT DETAILS
- Any aleration of physical /chemical characteristics of the drug (infusions, antibiotics,...) & contamination
- Checked and filtered before dispensing
- If the damaged drug reaches the ward its informed to the pharmacy
- Medical recall of the whole batch is done

Decrease Errors in HIMS

- Check the correct drug is typed
- Check the correct dosage is typed
- Software to detect drug interaction
- Drug repetition
- Highlight LASA DRUGS

Reporting

- ADR reporting form
- All adverse drug events are reported
- Near miss
- No harm
- Sentinel events

Thank you.....