

## ADVERSE DRUG REACTIONS





Dr. Lallu Joseph

Dr. Swati Makeshir

Dr. Shweta Prabakar

### Presented by:

Dr. Hiteshi Chauhan

Dr. Salma Sayyad

Dr. Triveni Shalla



## INTRODUCTION

Adverse Drug Event (ADE): An injury resulting from medical intervention related to drug.

- → Adverse Drug Reactions [ADR]
- → Medication errors
- → Overdoses
- → Allergic Reactions

#### **Adverse Drug Reaction (ADR):**

- WHO defines ADR as "A response to a drug which is noxious, unintended and occurs at doses used in man for prophylaxis, diagnosis or therapy."
- "ADR is any undesirable experience that has happened to the patient while taking a drug that is suspected to be caused by the drug or drugs."
- In conclusion, ADR is harm directly caused by the drug at normal doses, during normal use.
- Example: Patient experiencing anaphylaxis shortly after taking the drug.



### Types of ADR's in Brief:

Mnemonic	Example
Augmented	Diarrohea due to antibiotics
Bizzare	Hypersensitivity due to penicillin
Chronic	Steroid decrease HPA axis
Delayed	Teratogenicity, carcinogenesis
End of use	Precipitation of MI by β blocker withdrawl
Failure	OCP failure
	Augmented Bizzare Chronic Delayed End of use





MILD: No need of Rx, antidote or hospitalization



**MODERATE:** Requires drug change specific Rx & hospitalization



**SEVERE:** Potentially life threatening; permanent damage & prolonged hospitalization



**LETHAL:** Directly or indirectly leads to death

## ADR GRADING



# ADR

It is necessary to detect as well as evaluate ADR, and further develop mechanisms to prevent ADRs and their associated morbidity and mortality, hence it needs to be reported.

There should be a reporting structure.

It should be reported within the defined time frame. Preferably within 24 hours.

The relevant staff should be aware of the ADRs, how to detect them and further how to report them to the concerned authorities.

Proper corrective and preventive actions should be taken based on analysis after ADR is been reported.

## WHO CAN REPORT?

### **HEALTH CARE PROFESSIONALS:**

**DOCTORS** 

**DENTISTS** 

**NURSES** 

**PHARMACISTS** 

**OTHERS**:

**PATIENTS** 

**RELATIVES** 





Version-1.2

#### SUSPECTED ADVERSE DRUG REACTION REPORTING FORM

For VOLUNTARY reporting of Adverse Drug Reactions by Healthcare Professionals

INDIAN PHARMACOPOEIA COMMISSION											FOR AMC/NCC USE ONLY								
(National Coordination Centre-Pharmacovigilance Programme of India) Ministry of Health & Family Welfare, Government of India Sector-23, Ray Inagar, Ghazisback-201002										AM	AMC Report No. :								
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4. Weight						/eightKgs													
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											☐ Hospitalization/Prolonged impairment/damage								
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National Coordination Centre
Pharmacovigilance Programme of India

Ministry of Health & Family Welfare, Government of India Sector-23, Raj Nagar, Ghaziabad-201002 Tel.: 0120-2783400, 2783491, 2783392 Fax: 0120-2783311

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www.ipc.nic.in

Pharmacovigilance
Programme of India for
Assuring Drug Safety

#### ADVICE ABOUT REPORTING

#### A. What to report

- > Report serious adverse drug reactions. A reaction is serious when the patient outcome is:
  - Death
  - Life-threatening
  - · Hospitalization (initial or prolonged)
  - · Disability (significant, persistent or permanent)
  - Congenital anomaly
  - · Required intervention to prevent permanent impairment or damage
- Report non-serious, known or unknown, frequent or rare adverse drug reactions due to Medicines, Vaccines and Herbal products.

#### B. Who can report

All healthcare professionals (Clinicians, Dentists, Pharmacists and Nurses) can report adverse drug reactions

#### C. Where to report

- Duly filled Suspected Adverse Drug Reaction Reporting Form can be send to the nearest Adverse Drug Reaction Monitoring Centre (AMC) or directly to the National Coordination Centre (NCC).
- > Call on Helpline (Toll Free) 1800 180 3024 to report ADRs.
- > Or can directly mail this filled form to pvpi@ipcindia.net or pvpi.ipcindia@gmail.com
- A list of nationwide AMCs is available at:

http://www.ipc.gov.in, http://www.ipc.gov.in/PvPI/pv\_home.html

#### D. What happens to the submitted information

- Information provided in this form is handled in strict confidence. The causality assessment is carried out at AMCs by using WHO-UMC scale. The analyzed forms are forwarded to the NCC through ADR database. Finally the data is analyzed and forwarded to the Global Pharmacovigilance Database managed by WHO Uppsala Monitoring Centre in Sweden.
- The reports are periodically reviewed by the NCC-PvPI. The information generated on the basis of these reports helps in continuous assessment of the benefit-risk ratio of medicines.
- The information is submitted to the Steering committee of PvPI constituted by the Ministry of Health & Family Welfare. The Committee is entrusted with the responsibility to review the data and suggest any interventions that may be required.

#### E. Mandatory field for suspected ADR reporting form

Patient initials, age at onset of reaction, reaction term(s), date of onset of reaction, suspected medication(s) and reporter information.

For ADRs Reporting Call on PvPI Helpline (Toll Free)

1800 180 3024

(9:00 AM to 5:30 PM, Working Days)



# PREVENTION OF ADR

Some ADRs are unavoidable and cannot be prevented. However, most ADRs can be prevented by:

- 1) Rational use of drugs. Avoid any inappropriate use.
- 2) Pay attention to patient's past medical history & medication history. Elicit and take into consideration previous history of drug reactions.
- 3) Take extra care while prescribing drugs known to exhibit interactions and adverse reactions with careful monitoring of patients with such reactions.
- 4) Beware of interaction of drugs with certain food, alcohol etc.
- 5) Be particularly careful while prescribing to children, elderly, pregnant and nursing women, seriously ill and patients with hepatic and renal diseases.
- 6) Use of appropriate dose, route and frequency of drug administration.
- 7) Think of ADR, when patient shows signs or symptoms not clearly explained by course of their illness and immediately consider stopping the drug or reducing the dosage.

thank you