

# Assessment & Reporting of Adverse Event

---

**Dr. Atul Mohan Kochhar**

MD,DNB,MNAMS,FAAD

**CEO, NABH**



# Background

- Safety monitoring and reporting of adverse events is the key component of patient safety across the globe.
- Many regulatory agencies transposed GCP requirements into law and set out the legal requirements for safety reporting in during adverse event
- Each of us has an ethical and scientific obligation to ensure optimum safety reporting





# Key Definitions



## Adverse Event (AE)

- Any untoward medical occurrence in a patient or clinical trial subject administered a medicinal product and which does not necessarily have a causal relationship with this treatment.
- An adverse event can therefore be any **unfavorable and unintended sign** (e.g. an abnormal laboratory finding), symptom, or disease temporally associated with the use of a medicinal product, whether or not considered related to the medicinal product.

## Adverse drug reaction (ADR)

- A noxious and unintended response to a medicine that occurs *at normal therapeutic doses* used in humans for prophylaxis, diagnosis, or therapy of disease, or for the modification of physiologic function
- The word “effect” is used interchangeably with “reaction.”

# Key Definitions

---

## Side effect

- Any unintended effect of a pharmaceutical product occurring at normal therapeutic doses and is related to its pharmacological properties. Such effects may be well-known and even expected and require little or no change in patient management.

## Serious adverse effect

- Any untoward medical occurrence that occurs at any dose and results in death, requires hospital admission or prolonged hospital stay, results in persistent or significant disability, or is life threatening



# Key Definitions

---

## Unexpected Adverse Reaction (UAR)

- An adverse reaction, the nature or severity of which is not consistent with the applicable product information (e.g. summary of product characteristics for an authorised product)





# Serious Adverse Event (SAE) or Serious Adverse Reaction (SAR) or Suspected Unexpected Serious Adverse Reaction (SUSAR)

- An adverse event or suspected adverse reaction is considered "serious" if, in the view of all, it results in any of the following outcomes:
  - Death
  - Life-threatening adverse event
  - Inpatient hospitalization or prolongation of existing hospitalization
  - Persistent or significant **incapacity** or **substantial disruption** of the ability to conduct normal life functions
  - Congenital anomaly/birth defect
  - Patient or subject may require **medical or surgical intervention** to prevent one of the outcomes listed in this definition



# Individual Occurrences

Certain serious adverse events are informative as single cases because they are uncommon and are known to be strongly associated with drug exposure

(e.g., angioedema, blood dyscrasias, rhabdomyolysis, hepatic injury, anaphylaxis, and Stevens-Johnson Syndrome)



# One or More Occurrences

- One or more occurrences of an event that is **not commonly associated** with drug exposure, but is otherwise **uncommon in the population** exposed to the drug
- If the event occurs in association with other factors strongly suggesting causation (e.g., strong temporal association, event recurs on rechallenge), a single case may be sufficiently persuasive to report in an IND safety report
- Examples: tendon rupture or heart valve lesions in young adults, or intussusception in healthy infants





# REPORTING OF AN ADVERSE EVENT



# Reporting

## Responsibilities of HCPs

- Report all Suspected ADRs **immediately**. The immediate reports should be followed promptly by **detailed written reports**
- They should also **comply with the applicable regulatory requirements** related to the reporting of unexpected serious adverse drug reaction to **regulatory authority**



**SUSPECTED ADVERSE DRUG REACTION REPORTING FORM**

For VOLUNTARY reporting of Adverse Drug Reactions by Healthcare Professionals

INDIAN PHARMACOPOEIA COMMISSION (National Coordination Centre-Pharmacovigilance Programme of India) Ministry of Health & Family Welfare, Government of India Sector-23, Raj Nagar, Ghaziabad-201002										FOR AMC/NCC USE ONLY			
Report Type <input type="checkbox"/> Initial <input type="checkbox"/> Follow up										AMC Report No. :			
<b>A. PATIENT INFORMATION</b>										Worldwide Unique No. :			
1. Patient Initials		2. Age at time of Event or Date of Birth		3. M <input type="checkbox"/> F <input type="checkbox"/> Other <input type="checkbox"/>		4. Weight _____ Kgs		12. Relevant tests/ laboratory data with dates					
<b>B. SUSPECTED ADVERSE REACTION</b>										13. Relevant medical/ medication history (e.g. allergies, race, pregnancy, smoking, alcohol use, hepatic/renal dysfunction etc.)			
5. Date of reaction started (dd/mm/yyyy)										14. Seriousness of the reaction: No <input type="checkbox"/> If Yes <input type="checkbox"/> (please tick anyone) <input type="checkbox"/> Death (dd/mm/yyyy) <input type="checkbox"/> Congenital-anomaly <input type="checkbox"/> Life threatening <input type="checkbox"/> Required intervention to Prevent permanent impairment/damage <input type="checkbox"/> Hospitalization/Prolonged <input type="checkbox"/> Disability <input type="checkbox"/> Other (specify) 15. Outcomes <input type="checkbox"/> Recovered <input type="checkbox"/> Recovering <input type="checkbox"/> Not recovered <input type="checkbox"/> Fatal <input type="checkbox"/> Recovered with sequelae <input type="checkbox"/> Unknown			
6. Date of recovery (dd/mm/yyyy)													
7. Describe reaction or problem													
<b>C. SUSPECTED MEDICATION(S)</b>													
S.No	8. Name (Brand/Generic)	Manufacturer (If known)	Batch No. / Lot No.	Exp. Date (If known)	Dose used	Route used	Frequency (OD, BD, etc.)	Therapy dates		Indication	Causality Assessment		
								Date started	Date stopped				
I													
II													
III													
IV													
S.No as per C	9. Action Taken (please tick)						10. Reaction reappeared after reintroduction (please tick)						
	Drug withdrawn	Dose increased	Dose reduced	Dose not changed	Not applicable	Unknown	Yes	No	Effect unknown	Dose (if reintroduced)			
I													
II													
III													
IV													
11. Concomitant medical product including self-medication and herbal remedies with therapy dates (Exclude those used to treat reaction)													
S.No	Name (Brand/Generic)	Dose used	Route used	Frequency (OD, BD, etc.)	Therapy dates		Indication						
					Date started	Date stopped							
I													
II													
III													
Additional Information:										<b>D. REPORTER DETAILS</b>			
										16. Name and Professional Address: _____			
										Pin: _____ E-mail: _____			
										Tel. No. (with STD code): _____ Occupation: _____ Signature: _____			
										17. Date of this report (dd/mm/yyyy): _____			
Confidentiality: The patient's identity is held in strict confidence and protected to the fullest extent. Programme staff is not expected to and will not disclose the reporter's identity in response to a request from the public. Submission of a report does not constitute an admission that medical personnel or manufacturer or the product caused or contributed to the reaction.													

**National Coordination Centre  
Pharmacovigilance Programme of India**  
Ministry of Health & Family Welfare,  
Government of India  
Sector-23, Raj Nagar, Ghaziabad-201002  
Tel.: 0120-2783400, 2783401, 2783392  
Fax: 0120-2783311  
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](mailto:pvpi@ipcindia.net) or [pvpi.ipcindia@gmail.com](mailto: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](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)

# Reporting

## Responsibilities of HCPs

- Report all Suspected ADRs **immediately**. The immediate reports should be followed promptly by **detailed written reports**
- They should also **comply with the applicable regulatory requirements** related to the reporting of unexpected serious adverse drug reaction to **regulatory authority**





# 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.



# Reporting

## **B. Who can report**

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



# Reporting

## 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](mailto:pvpi@ipcindia.net) or [pvpi.ipcindia@gmail.com](mailto: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](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 (World Health Organization – Uppsala Monitoring Centre scale). The analyzed forms are forwarded to the NCC (National Coordination Centre) through ADR database.
- Finally the data is analyzed and forwarded to the Global Pharmacovigilance Database managed by WHO
- Uppsala Monitoring Centre in Sweden.





# Reporting

- The reports are periodically reviewed by the NCC-PvPI (National Coordination Centre – Pharmacovigilance Programme of India) . 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 (Pharmacovigilance Programme of India) 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.



# Reporting

## **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.



# ASSESSMENT OF ADVERSE EVENT



# Assessment

## Potential Risks:

- Risks deemed to be most likely based on **prior experience**
- Based upon the available **non-clinical and clinical safety data**
- **Additional considerations** relevant for the **target population** will be mentioned in **protocol**
- Safety data will be reviewed by **independent Data Monitoring Committee (DMC)** throughout the study

## Potential Benefits:

- List out all the **benefits** to patients

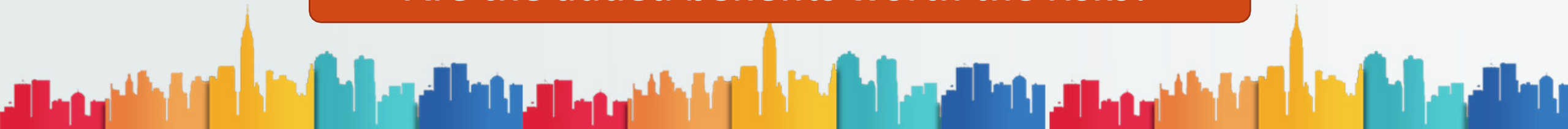




# Benefit-Risk Assessment in Decision Making

Drug Therapy	Potential Benefits	Potential Risks
Aspirin / Anti-thrombotics	Reduction in vascular events	Bleeding
Statins	Reduction in vascular events	New onset of diabetes
Gliptins	Improved glycemic control	Pancreatitis
ACE inhibitors	Reduced CHF morbidity	Hyperkalemia

**Are the added benefits worth the risks?**



# Definitions and Objectives

## Benefits

Benefits are the favourable effects of the medicinal product

## Risks

Risks include adverse events and other unfavourable effects associated with the medicinal product

## Benefit-Risk Assessment

Succinct explanation of the reasoning and judgment used in  
**assessing and weighing the key benefits and key risks**

ICH M4E(R2) Guideline - Efficacy

*“Risk analysis seeks to **rigorously and systematically compare benefits and risks** in order to produce predictable and transparent decisions that are consistent with public values”*



# THANK YOU



**QUALITY COUNCIL<sup>®</sup>  
OF INDIA**  
Creating an Ecosystem for Quality



**National Accreditation  
Board for Hospitals and  
Healthcare Providers**