Drug Safety

Pharmacovigilance ("PV")

Pharmacovigilance-CSL

Pharmacovigilance

- Collection
- Detection
- Assessment
- Monitoring
- Prevention

of adverse effects with pharmaceutical products.

Goal

minimize the risk of any harm that may come to patients

ADR

(old definition)

adverse drug reactions, which are defined as any response to a drug which is noxious and unintended

New Definition of Adverse Reaction

(broader in scope)

Noxious and unintended effects resulting not only from the authorised use of a medicinal product in normal doses, but also from medicinal errors and uses outside the terms of the marketing authorisation (off-label use), as well as the misuse and abuse of the medicinal product.

http://www.pmlive.com/pharma_intelligence/changes_to_pharmacovigilance_legislation_in_europe_426142

Misuse: Fehlgebrauch = absichtliche Verwendung außerhalb der GI,
Beispiel Erythropoetin bei Doping
Abuse: Exzessive Verwendung außerhalb der GI

Sources of information

- healthcare providers
- patients
- medical literature
- clinical trials
- other, e.g. Social Media

AE

Adverse event (AE)
is a side effect occurring with a drug. By definition, the causal relationship between the AE and the drug is unknown.

ADR

Adverse drug reaction is a side effect (non intended reaction to the drug) occurring with a drug where a positive (direct) **causal** relationship between the event and the drug is thought, or has been proven, to exist.

Responsible

Authorities
In Europe: EMA (European Medicines Agency)
In Germany: Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM) / Paul-Ehrlich-Institut (PEI)

In the companies
QPPV: Qualified Person for Pharmacovigilance
In Germany: Stufenplanbeauftragter der Firma laut § 63a Arzneimittelgesetz (AMG)

ADR

Known = labelled

Unknown =
Unexpected =
Unlabelled =

Not in the Summary of Product Characteristics or the Investigator's Brochure (in clinical trials)

Serious adverse drug reactions

Patient outcome is one of the following:

- Death
- Life-threatening
- Hospitalization (initial or prolonged)
- Disability
- Congenital anomaly
- Requires intervention to prevent permanent impairment or damage

"Severe" vs "Serious"

Schwerwiegend

A common headache may be severe, if it causes intense pain, but it is not usually serious.

A subarachnoid hemorrhage leading to a headache is a serious condition.

Reporting ADRs to Authorities

Non-serious
PSUR = Periodic Safety Update Report /
PBRER = Periodic benefit-risk evaluation report

Serious
15 days (Expedited Report)
In clinical studies: **7 days**

For details, see European and national legislation

Note: Many drug companies require internal reporting within 24 hours

Tolerability vs Safety

Metamizol = Novaminsulfon (Novalgin®)

Efficacious and well tolerated analgesic drug

In rare cases: Agranulocytosis
Serious side effect

⇨

Not approved in Sweden and other countries

Non-opioid pyrazolone derivative

Reality: "Underreporting"

Formblatt im
Deutschen Ärzteblatt

Bericht über unerwünschte
Arzneimittelwirkungen

Hinweis: Weiteres Formular
"for Suspect Reaction" vom
Council for International
Organisations of Medical
Science (CIOMS) Guidelines


Bericht über unerwünschte Arzneimittelwirkungen