Pharmacovigilance
new challenges for WHO

• Vision, partners and roles
• Collaborative activities and challenges
Pharmaco...what?

Φάρμακο
• Greek, “medicine, drug”

Vigilia
• Latin, “vigilance”

PHARMACO VIGILANCE
All medicines carry some risk or harm.
PHARMACOVIGILANCE

is the science and activities relating to the:

DETECTION ASSESSMENT UNDERSTANDING PREVENTION

of adverse effects or any other medicine related problem
Adverse event

An untoward medical occurrence that may present during treatment with a pharmaceutical product but which does not necessarily have a causal relationship with this treatment.
Adverse (drug) reaction (ADR)

A response to a medicinal product which is noxious and unintended.

A causal relationship between a medicinal product and an adverse event is at least a reasonable possibility.
BURDEN OF ADRs IN TODAY’S PHARMACOTHERAPY

01
5% (2.5-12%) HOSPITALIZATIONS in EU are caused by ADRs

02
At least 5% of all HOSPITALISED PATIENTS develop ADRs which cause prolongation of hospitalisation

03
About 200 000 people in EU die as a result of ADRs

04
79 billion Euro for ADR treatment per year in the EU

05
5th cause of death in Europe
Prevalence and characteristics of adverse drug reactions at admission to hospital: a prospective observational study
The average monthly cost of illness of respondents based on reported adverse drug event status and healthcare attendance, divided into direct and indirect costs.

Abbreviations: ADE = adverse drug events; Int$ = international dollars.

Direct cost related to ADRs in one Department of Internal Medicine in Germany


3,25% incidence of hospitalisation caused by ADRs

71 Median age of the 1834 hospitalised patients

336 patients from 1834 admitted to hospital because of GI bleeding

270 Patients from 1834 admitted to hospital because of hypoglycaemia

€2,250 Average cost of patients hospitalised because of ADRs

€87mil Annual cost of treatment of preventable ADRs
The WHO Programme for International Drug Monitoring is a network of more than 150 countries that share the vision of safer and more effective use of medicines. They work nationally and collaborate internationally to monitor and identify the harm caused by medicines, to reduce the risks to patients and to establish worldwide pharmacovigilance standards and systems.
Invite Member States to arrange for a systematic collection of information on serious adverse drug reactions observed during the development of a drug and, in particular, after its release for general use.

The foundation of the programme

After the thalidomide disaster

World Health Assembly

Resolution 16.36 (1963)

Invite Member States to arrange for a systematic collection of information on serious adverse drug reactions observed during the development of a drug and, in particular, after its release for general use.
WHO Programme for International Drug Monitoring

From an Additive to a Synergistic Concept

The ten founder members:

Australia, Canada, Czechoslovakia, Federal Republic of Germany, Ireland, the Netherlands, New Zealand, Sweden, United Kingdom, USA.

1968

2000

2018

1. WHO
2. Uppsala Monitoring Centre (UMC)
3. Other WHO Collaborative Centres
4. Regional platforms coming together (AMRO, ASEAN, EU, …)
5. Network experts (ACSoMP)
6. Regulators (Croatia, Japan, Singapore, Swiss, UK, US, …)

Additive

Synergistic

10

131 + 26
50 years of the Programme

Major Milestones in Global Health and Pharmacovigilance

5 – 8 November 2018
Geneva, Switzerland
Uppsala Monitoring Centre (UMC) as a WHO Collaborating Centre has been responsible for the technical and operational aspects of the programme since 1978. These activities are carried out following WHO policy and in close liaison with headquarters in Geneva.
Members of PIDM
Annual Meeting of Representatives of National Pharmacovigilance Centres participating in the WHO Programme for International Drug Monitoring

The Annual National Pharmacovigilance Centres (NPVC) meeting is hosted by one of the Member States and provides a platform for countries to discuss current issues and concerns in pharmacovigilance in a confidential and collegial atmosphere.
WHO Collaborating Centres

There are four other WHO Collaborating Centres working in pharmacovigilance. In addition to UMC in Sweden, there are Collaborating Centres in India, Morocco, the Netherlands, and Norway.

https://www.who-umc.org/global-pharmacovigilance/specialist-centres/
The four pillars of pharmacovigilance

1. Collecting key information about medicines
   - RMP
   - PSUR
   - PASS
   - PAES
   - ADR reporting (HCP and patients)

2. Analysis and understanding the data and information
   - Strengthening signal detection
   - ADR databases
   - Medicines under additional monitoring
   - Better IT systems

3. Communication with all stakeholders
   - Drug information
   - Coordination of safety data
   - Public hearing

4. Regulatory action for public health protection
   - Change in the work of scientific committees and decision making
   - Safety referrals
OVERVIEW OF CONCEPT OF AN END TO END SAFETY SURVEILLANCE SYSTEM

Stakeholders
- National Regulatory Authorities
- Health Care System
- Sponsor / Manufacturer
- Regional Centers (e.g. WHO, African RECs)
- Global Facility (e.g. WHO, Sub-Continental, Continental)

Main challenges
- A. Limited reporting
- B. Limited local analysis
- C. Limited action on signals impacting patients

Action?

Data review

Local / national database

Push

Data review

Regional Database

Push

Data review

Global Database

Pull

REGULATORY ACTION

“Pre Registration Safety Baseline” Database

Push

Pull

Data review

(need still TBD)
Challenge

• Access to health products has increased steadily in LMICs - but the growth in PV has been sporadic, disjointed and not sustained.

• Most of LMICs systems are non-functional and do not yet contribute significantly to the WHO global ADR database (VigiBase).
Challenge

- Priority disease programmes which account for the majority of pharmaceuticals used in these settings either do not collect any PV information or operate in vertical silos, with little or no collaboration with the national PV centre.
Challenge

- The silo mentality in public health programmes is problematic because many products in the pipeline target neglected diseases and diseases of poverty and will be launched exclusively in LMICs, without the benefit of experience of use in HICs that could have provided useful guidance in terms of monitoring for, and managing potential adverse effects.
Challenge

- Equally, other **new products** for diseases that affect both HIC and LMIC will be **launched simultaneously**, in both settings, on compassionate grounds:
  - **HIC** will have **sufficient** PV infrastructure to monitor and manage any adverse events associated with use of these new products.
  - But this will **not be the case for LMIC**. Even when AE reports are collected in LMIC, the capacity to analyse and/or take decisions based on local PV data is generally lacking.
Key PUBLIC HEALTH Safety Challenges in LMICs

- Registration introduces the product into the market
- Safety keeps the product in the market throughout its life-cycle

Safety as the key enabler of ACCESS of new medicines for PATIENTS
Short term

Medium term

Long term

Low resource NRAs

Reliance (on other NRA for pre-approval Clinical Assessment)

- Min PV (Spontaneous) systems

Medium resource NRAs

Min PV (Spontaneous) systems Plus Joint (RMP) Reviews

- Targeted investigations
  - Vigilance System Strengthening: all core functions

High resource NRAs

Min PV (Spontaneous) systems Plus Joint assessment; Technical support to other NRAs

Sentinel sites/safety studies/signal validation

Host multi-country platforms (PV and risk assessment committee)

When?

< 2 y

< 5 y

> 5 y

Capacity

Competence

Legislations

Networks
Medicines SAV activities

WHO Programme for International Drug Monitoring

WHO – PREQUALIFICATION OF MEDICINES programme

Who Advisory Committee on Safety of Medicinal products

Medicines Safety and Vigilance

Working with MS and CCs – PV trainings

Building PV capacities in MSs

WHO Regulatory System Strengthening (RSS)

Public Health Programmes

WHO Advisory Committee on Safety of Medicinal products

10/12/2018
WHO Advisory Committee on Safety of Medicinal Products

ACSoMP

- Established in 2003
- It provides advice to WHO, including the UMC, and through it to the Member States of WHO, on safety issues relating to medicinal products.
- It guides WHO on general and specific issues related to Pharmacovigilance (PV).
- It is composed of members drawn from the WHO Expert Advisory Panels for Drug Evaluation and for Drug Policies and Management.
- Meets once a year in the WHO HQ, Geneva to discuss ongoing and new pharmacovigilance topics, with particular focus on issues related to public health programmes.

Additional information on:
The **aim** of this Newsletter is to disseminate information on the safety and efficacy of pharmaceutical products, based on information received from our network of "drug information officers" and other sources such as specialized bulletins and journals.

The information is produced in the form of résumés in English.

To automatically receive the electronic version of every new issue of the WHO Pharmaceuticals Newsletter, please send a message to listserv@who.int containing the following message text: "subscribe WHO-PHN."
Trainings
Medicines Safety and vigilance team (SAV)

Safety and Vigilance team from the Department of essential medicines organizes and supports training in PIDM Member states together with UMC, other WHO Collaborating Centres, National regulators, ISOP, national disease (health) programmes and through projects.
Collaboration

Medicines Safety and vigilance team (SAV)

SAV works together with the WHO Regulatory System Strengthening (RSS) team helping the NRAs to fulfil their mandate of providing regulatory oversight of all medical products such as medicines, vaccines, blood products, traditional or herbal medicines and medical devices in an effective, efficient, predictable and transparent manner. It is therefore of critical importance in ensuring the quality, safety and efficacy of health products in an increasingly complex global environment.

Joint assessment ASEAN
Smart safety surveillance
Medicines Safety and vigilance team (SAV)

Armenia

India
Collaboration with health programmes

Medicines Safety and vigilance team (SAV)

Botswana, HIV programme

Kyrgyzstan, TB programme
Safety and vigilance team in
Thank you