Extraordinary Meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization

Dr Shanthi Pal
Team Lead (a.i), Pharmacovigilance (PVG), WHO
5 January 2021
Vaccine Safety

From data to decision: a high level overview of the PV process

Adverse Event/Data → Share, Assess, Analyse, Validate Signal, Communicate

Clinical Practice, Immunization Policies, Regulatory Measures

Data → Knowledge → Action
Data transformation

Global Database (WHO PIDM)

1. Hard copies directly submitted to districts
2. EDI (electronic data interchange eg DHIS2 & Medsafety APP for AEFI)

eTools eg DHIS2, Vigiflow for vaccines or country developed tools supported by email

Transformation to E2B (R3) format
- Ready for Vigiflow
- Under development for DHIS2 for AEFI & Medsafety APP for AEFI
Simplifying the approach

Objective
- Unknown (and long-term) Events
- Events of Special Interest
- Missing information (safety in pregnancy)

Methods
- Spontaneous Reporting
- Active surveillance
- Studies

Tools
- Paper forms
- E-Reporting
- App-based
- Databases
- Data-Bridges
- Communication platforms
Optimal use of resources through reliance: Smart PV

Low resource NRAs
- Min PV
- Reliance
- Infrastructure and Capacity

Medium resource NRAs
- Core Competence (self development)
- Collaboration & Cooperation
- Targeted investigations

High resource NRAs
- Technical support to other NRAs
- Sentinel sites
- Host multi-country platforms
WHO safety surveillance strategy for COVID-19 vaccines

Elements of the strategy:
• Guidance (data-knowledge-decision; targeted; function-based)
• Tools & enablers (to collect, manage AE data; protocols; Signal Review Committees; Communicate/VSN)
• Training: (competency based; function-driven)

Scope
• COVID work serving as catalyst for broader safety surveillance innovations
• Scope broader than COVAX – must address/support all countries and vaccines
• RMP and role of industry (addressing the ‘delta’)
• First wave rollout: opportunity to rapidly collect quality data from HCW cohort and apply lessons to subsequent waves

Principles of the strategy
• reliance/work-sharing (smart PV approach): NRA, EPI, Developer
• collaboration with leading regulators/networks
• proactive (CTs to post-introduction), etc.
• builds on solid foundation of existing guidance, tools and platforms
# COVID-19 Vaccine Safety: progress update

<table>
<thead>
<tr>
<th>Area of work</th>
<th>Update</th>
</tr>
</thead>
</table>
| **Country and Regional Support**    | • WHO COVID-19 Vaccine Safety Manual and Training Tools, launched 15 Dec 2020  
• DHIS2 AEFI tracker* developed and rolled out in Africa, Nov 2020  
• African Advisory Committee on Vaccine Safety launched, Dec 2020  
• AESI Study protocol by mid-Jan  
• Guidance on Safety in Pregnancy, expected by Q1 2021 |
| **Information Exchange**            | • ICMRA PV sub-group bi-weekly meetings  
• EMA PV bi-weekly meetings  
• Vaccine Safety Network        |
| **Global Safety Review and Signal Detection** | • GACVS COVID19 sub-committee: first meeting 23 Dec, weekly starting Jan 2021  
• US CBER and CDC to submit weekly safety reports into WHO VigiBase, 18 Dec |

*AEFI package launch, 09 Dec: [https://www.youtube.com/watch?v=bep50f2F1lE&feature=youtu.be](https://www.youtube.com/watch?v=bep50f2F1lE&feature=youtu.be)
Data-driven deployment of COVID-19 vaccines, 03 Dec: [https://www.youtube.com/watch?v=xmifLCuZy50](https://www.youtube.com/watch?v=xmifLCuZy50)
AFRO Implementation

**DEC 2020**
- Sensitization of regional and national stakeholders on regulatory and safety preparedness through webinars on National Deployment and Vaccination Plan
- Inaugural meeting of Regional African Advisory Committee on Vaccine Safety – 14th Dec
- Regional and National Stakeholders invited to Orientation session on Global Webinar on 15th Dec 2020

**JAN-FEB 2021**
- IST level virtual trainings of trainers (ToT) of key country stakeholders conducted on each module in two separate sessions
- This to be followed by country level in-person trainings of national and provincial level stakeholders
- Training the national AEFI committees to review COVID-19 Vaccine safety data (e.g., causality assessment of serious AEFI, clusters of AEFI, AESI, signals, emerging safety concerns etc.)
- Capacity building on active surveillance of specific COVID-19 vaccine related adverse events in select countries
- National stakeholders meetings to discuss and approve on intensified roles and responsibilities as per Global manual
- Preparations to introduce DHIS 2 AEFI tracker tool to capture & share case-based safety data from district to national level

Plans for implementation of the Manual
EURO Implementation

- Mapping out support needs & developing TA plans for MICs – 15 Jan’20
  - Updating the Regional plan

- AVSS and AESI surveillance:
  - Régional webinar – 30 Jan’20
  - TA for in-country support Jan-Jun’20

- Enhancing passive AEFI surveillance (Feb):
  - AEFI reporting & Signal detection webinar
  - Rapid response/case investigation webinar
  - Causality assessment webinar

- TA to support development of vaccine safety chapters of NDVPs – end Feb’20

- Country specific TA to facilitate case management and global reporting (Mar’20)
PAHO Implementation plans

- For launching the Global Manual for COVID-19 Vaccines Introduction, a joint Launch along with the Regional Manual for AEFI Surveillance launching is planned.

- This will be conducted the **last week of February 2021** and following activities planned:
  - Regional meeting with all member states
  - Interactive Webinar with WHO experts

- **March – June 2021**
  - Sub-regional workshops to launch the following tools:
  - Release of new WHO tools (investigation and causality assessment)
  - PAHO’s online course for AEFI surveillance

- **February – June 2021**
  - Media Plan to promote the launch of PAHO Social Communication Strategy.
  - Specific Social Communication strategy for Health Care Workers
SEARO implementation

- **Global safety guidelines manual will be the technical basis**
  - Presentations are being developed for the regional webinars

- **Regional workshop on safety surveillance for COVID-19 vaccines 22-23 December 2020 (Virtual)**
  - Objectives
    - Identifying key activities for safety surveillance that need to be accomplished before, during and after COVID-19 vaccine deployment
    - Guidance on inclusion of comprehensive vaccine safety surveillance in national vaccine deployment and vaccination plans for COVID-19 vaccines
  - Fine tune the training materials based on inputs from the participants and 5-6 country workshops will be conducted
Timeline: COVID-19 Vaccines Operational Plan in WPR

- December 2020: RO-CO preparedness engagements with Governments
- January 2021: Regulatory mechanisms & PV in all countries / areas
- February: Cold chain / supply chain setup
- March: Communication and Community Engagement
- April: Service delivery organized
- April: Vaccines available in countries / areas

Note: Some countries may start vaccine introduction as early as in January –February 2021
Pfizer/BioNTech COVID-19 vaccination doses administered, Jan 3, 2021

<table>
<thead>
<tr>
<th>Country</th>
<th>Doses administered*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>4,225,756</td>
</tr>
<tr>
<td>Israel</td>
<td>1,090,000</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>944,539</td>
</tr>
<tr>
<td>Germany</td>
<td>188,553</td>
</tr>
<tr>
<td>Canada</td>
<td>112,246</td>
</tr>
<tr>
<td>Italy</td>
<td>72,397</td>
</tr>
<tr>
<td>Poland</td>
<td>47,600</td>
</tr>
<tr>
<td>Denmark</td>
<td>32,368</td>
</tr>
<tr>
<td>Mexico</td>
<td>24,998</td>
</tr>
<tr>
<td>Portugal</td>
<td>16,701</td>
</tr>
<tr>
<td>Romania</td>
<td>13,242</td>
</tr>
<tr>
<td>Chile</td>
<td>8,648</td>
</tr>
<tr>
<td>Croatia</td>
<td>7,864</td>
</tr>
<tr>
<td>Oman</td>
<td>7,231</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Doses administered*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>6,000</td>
</tr>
<tr>
<td>Hungary</td>
<td>5,110</td>
</tr>
<tr>
<td>Iceland</td>
<td>4,875</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>4,739</td>
</tr>
<tr>
<td>Greece</td>
<td>3,001</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2,500</td>
</tr>
<tr>
<td>Estonia</td>
<td>2,487</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2,270</td>
</tr>
<tr>
<td>Ireland</td>
<td>1,800</td>
</tr>
<tr>
<td>Finland</td>
<td>1,767</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1,200</td>
</tr>
<tr>
<td>Latvia</td>
<td>573</td>
</tr>
<tr>
<td>France</td>
<td>352</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>55</td>
</tr>
<tr>
<td>World total</td>
<td>6,828,872</td>
</tr>
</tbody>
</table>

(* For the United State and Canada, the number is shown as a total of Pfizer/BioNTech vaccine and Moderna vaccine.)

(Source https://ourworldindata.org/covid-vaccinations)
Anaphylaxis reports

US CDC (18 Dec): 6 confirmed cases of anaphylaxis reported; one had a history

EMA database: (3 Jan)
• 39 reports of MedDRA PT ‘anaphylactic reaction’
• 3 reports of ‘anaphylactoid reaction’
• 4 reports of ‘anaphylactic shock’

Other unconfirmed reports

Approximately 1 case per 100 000 dose
4.3 Contraindications
Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

4.4 Special warnings and precautions for use
Hypersensitivity and anaphylaxis Events of anaphylaxis have been reported. Appropriate medical treatment and supervision should always be readily available in case of an anaphylactic reaction following the administration of the vaccine.

Close observation for at least 15 minutes is recommended following vaccination.

A second dose of the vaccine should not be given to those who have experienced anaphylaxis to the first dose of Comirnaty.

# Algorithm for the triage of persons presenting for Pfizer-COVID-19 vaccine

https://www.cdc.gov/vaccines/acip/meetings/index.html

<table>
<thead>
<tr>
<th>CONDITIONS</th>
<th>CONDITIONS</th>
<th>CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Immunocompromising conditions</td>
<td>• Moderate/severe acute illness</td>
<td>• None</td>
</tr>
<tr>
<td>• Pregnancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lactation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTIONS</td>
<td>ACTIONS</td>
<td>ACTIONS</td>
</tr>
<tr>
<td>• Additional counseling*</td>
<td>• Risk assessment</td>
<td>• N/A</td>
</tr>
<tr>
<td>• 15-minute observation period</td>
<td>• Potential deferral of vaccination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 15-minute observation period if vaccinated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALLERGIES</th>
<th>ALLERGIES</th>
<th>ALLERGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• History of food, pet, insect, venom, environmental, latex, etc., allergies</td>
<td>• History of severe allergic reaction (e.g., anaphylaxis) to another vaccine (not including Pfizer-BioNTech vaccine)</td>
<td>• History of severe allergic reaction (e.g., anaphylaxis) to any component of the Pfizer-BioNTech vaccine</td>
</tr>
<tr>
<td>• History of allergy to oral medications (including the oral equivalent of an injectable medication)</td>
<td>• History of severe allergic reaction (e.g., anaphylaxis) to an injectable medication</td>
<td></td>
</tr>
<tr>
<td>• Non-serious allergy to vaccines or other injectables (e.g., no anaphylaxis)</td>
<td>ACTIONS:</td>
<td>ACTIONS</td>
</tr>
<tr>
<td>• Family history of anaphylaxis</td>
<td>• Risk assessment</td>
<td>• Do not vaccinate</td>
</tr>
<tr>
<td>ACTIONS</td>
<td>• Potential deferral of vaccination</td>
<td></td>
</tr>
<tr>
<td>• 15-minute observation period</td>
<td>• 30-minute observation period if vaccinated</td>
<td></td>
</tr>
</tbody>
</table>
Some additional considerations

- GACVS sub-committee, 23 Dec 2020
- Rates of anaphylaxis high compared with what is ‘expected’
- Duration of observation period would be critical
- An allergy specialist may have to be co-opted to GACVS-sub committee, for more clear/definitive advice
- Identification of event only the first step
- Risk minimization and management plan would be paramount and need to be tailored for the setting (LMIC)
- Effectiveness of RMM should be monitored
Acknowledgement

• ICMRA
• WHO Regional Offices
• PVG Team, WHO HQ
• Petra Doerr, Unit Head, Regulation and Safety, WHO