Overview of safety monitoring for COVID-19 vaccines

EudraVigilance data, signal detection and evaluation – including PRAC evaluation of reports of deaths

EU-EEA NITAG COLLABORATION Webinar on COVID-19 safety

Presented 5.1.2e 5.1.2e on 4 February 2021

An agency of the European Union

Lessons Learned H1N1

Lessons learned from A/H1N1 pandemic adapted to current emergency situation

Signal Detection Methods

- Rapid **detection**, **exchange**, **prioritisation** and **assessment** of safety **signals**
- Testing of additional **methodologies** specific for COVID-19

PhV Plan of the EU Regulatory Network for COVID-19 Vaccines

Enhanced monitoring activities to be carried out in the EU for COVID-19 vaccines, including **roles**, **responsibilities** and **interactions** of stakeholders involved

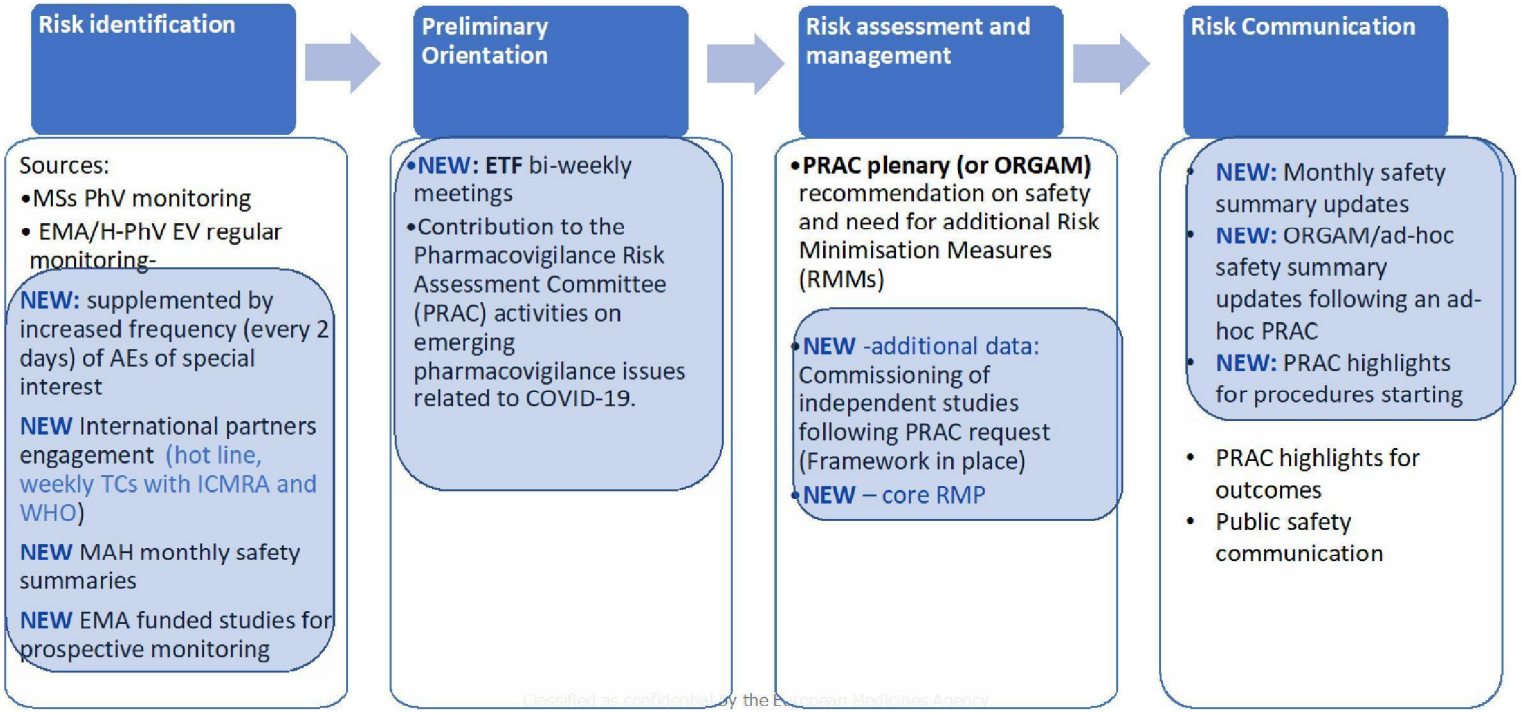
- Active surveillance of **vulnerable populations**
- Active data collection on **rare** and **severe** risks
- **ACCESS**, **ICMRA**, **pregnancy studies**, **int. cohorts**

International And Research Centres Collaboration

- **Engage** and **communicate** with public, patients and HCP.
- **Enhanced communication** and **transparency** measures

Transparency & Communication

New elements introduced to strengthen PhV safety monitoring and risk communication



Safety update published by EMA

https://www.ema.europa.eu/documents/covid-19-vaccine-safety-update/covid-19-vaccine-safety-update-comirnaty-january-2020_en.pdf

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

28 January 2021

COVID-19 vaccine safety update

COMIRNATY

BioNTech Manufacturing GmbH

Reuters

BRIEF-EMA Says Safety Data Collected On Comirnaty Use Consistent With Known Safety Profile Of Vaccine

Jan 29 (Reuters) - European Medicines Agency (EMA):. * SAYS FIRST COVID-19 VACCINE SAFETY UPDATE PUBLISHED. * HAS RELEASED ITS FIRST ...

2 hours ago

REUTERS

Bloomberg

Pfizer, BioNTech Covid Vaccine Safe for the Elderly, EMA Says

The European Medicines Agency's safety panel analyzed deaths in light of other medical conditions the people had, as well as the fatality rate ...

1 hour ago

Prioritisation – MedDRA Mapping

AESIs

MedDRA

227 vTMEs: ascertainment of serious events that can be characterised via ICSRs

vaccine Targeted Medical Events (vTMEs): Dedicated list of MedDRA PTs mapped from AESIs proposed for Covid-19 vaccines

Objective: Facilitate assessment of events that warrant analysis irrespective of statistical criteria routinely used to prioritise signal review. Events will be subject to intensive monitoring

Internal tool → not intended as a comprehensive list

Dynamic subject to continual review

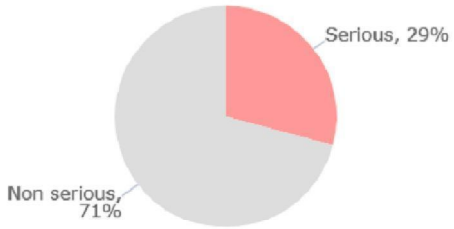
Prioritisation

- AESIs combination of seriousness criteria, likelihood to be related/listed for vaccines, immuno-mediated etc.
  - ✓ **intensive manual review of case narratives (every other day).**
- Remaining events: non-vTMEs, DMEs, IMEs, fatal, events with high background incidence rate etc.
  - ✓ **Weekly screening – eRMRs produced for each vaccine and implemented with additional methods for prioritisation**
- COVID19 vaccine dashboard with descriptive analyses (serious, fatal, country, age-group, batch, fatal etc.)
- OE analysis: to support both detection and strengthening of signals
  - ✓ **weekly updates: observed (EV) vs Expected (coverage data)**

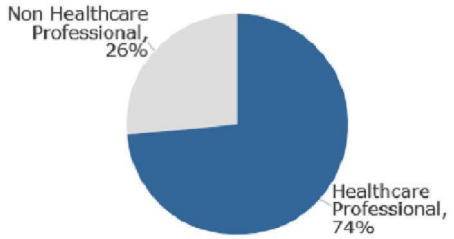
COMIRNATY (tozinameran) – Timeline

COMIRNATY - EV case reports as of 3 Feb

	# Cases
Serious	**9,914**
Non serious	**24,097**



	# Case
Healthcare Professional	**25,001**
Non Healthcare Professional	**9,010**



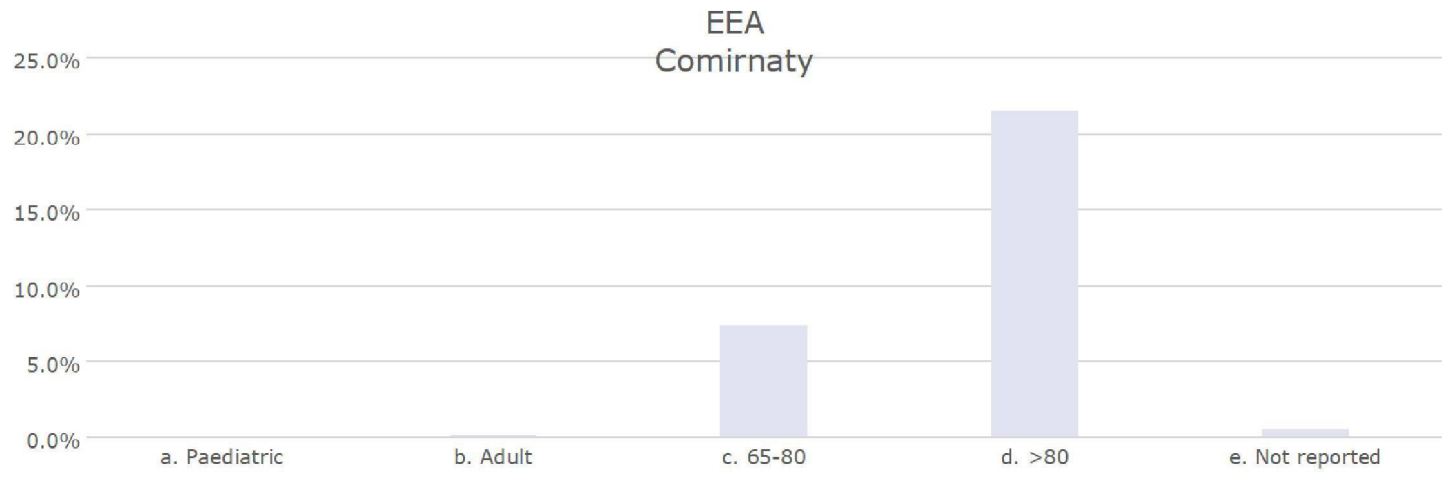
Fatal cases in Norway (14 Jan 2021)

- Notification from the Norwegian Medicines Agency (NOMA), informing on 23 deaths in elderly people who received the Comirnaty
- NOMA published first weekly report, concluding that some of the fatal reports associated with Covid-19 vaccination suggest that common adverse reactions of mRNA vaccines, such as fever and nausea, may have contributed to fatal outcome in some frail patients.
  - Approximately 42000 people have been vaccinated in Norway to 14/01/2021.
  - Elderly and people in nursing homes with severe underlying medical conditions are being vaccinated.

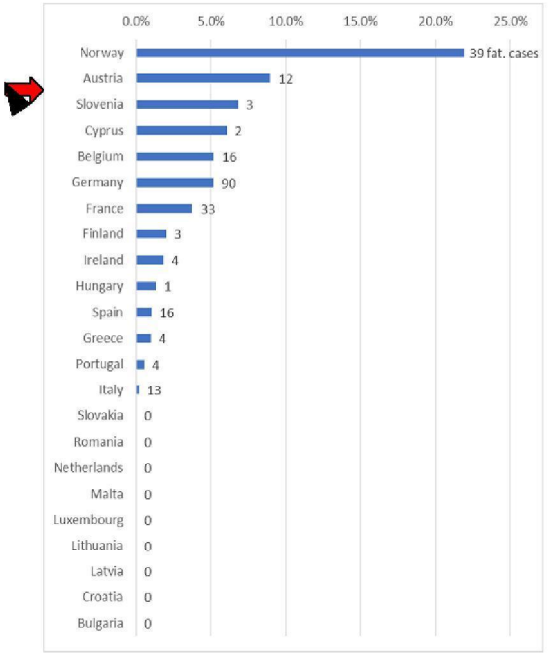
EMA actions

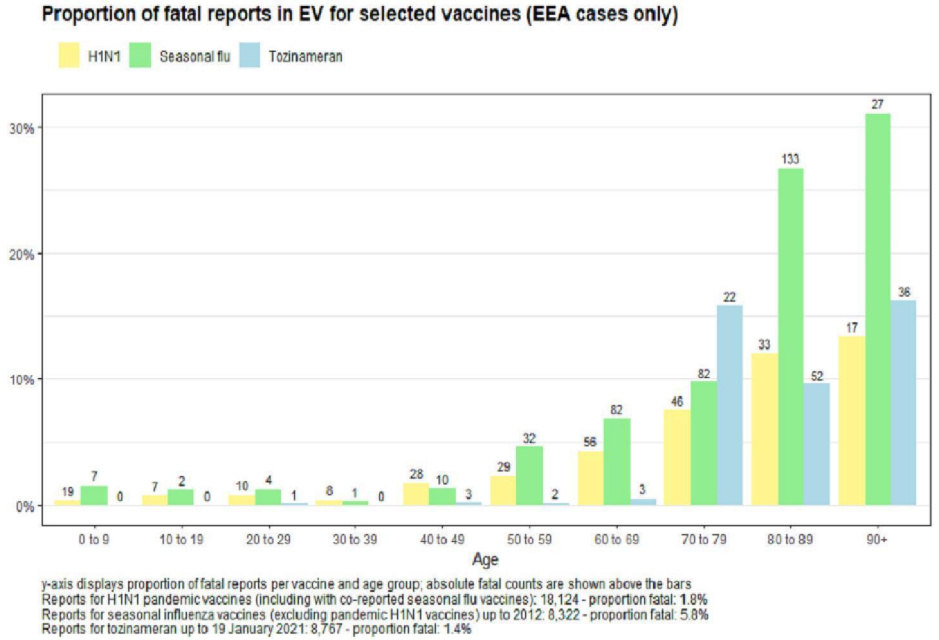
- Information to IRN, PRAC, EMA international partners
- Communication with PRAC Rapp and NO colleagues
- LTT updated
- Info to management and PRAC Rapporteur:
  - EudraVigilance review of NO fatal cases;
  - Norway mortality data;
  - Member states exposure data.

NO cases fatal cases stratified by age



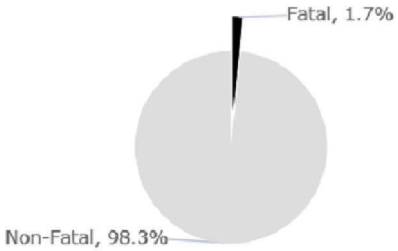
Data into context: comparison in EV





COMIRNATY - Number of fatal case reports as of 3 Feb

	# Cases
Fatal	**566**
Non-Fatal	**33,445**



Distribution by patient age group

0-9	
10-19	
20-29	1
30-39	
40-49	8
50-59	20
60-69	26
70-79	67
80-89	231
>90	191
Not reported	22

COMIRNATY – Fatal cases (as of 03/02/2021) (1)

- Fatal cases: 566 spontaneous case reports (majority in elderly patients, polymedicated, with multiple comorbidities).

28 Jan - PRAC assessment of all fatal cases (following NO notification):

- **Overall, having assessed the data submitted by the MAH as well as the EudraVigilance overview of fatal cases provided by EMA, the PRAC Rapporteur concluded that the fatal case reports in persons ≤65 years of age and in persons > 65 years of age does not raise a safety concern.**
- **The MAH will report on the fatal cases in the MSSRs.**

COMIRNATY (as of 03/02/2021) (2)

- Identified risks/Labelled events:
  - Anaphylaxis: anaphylactic reaction (317 spontaneous cases), anaphylactic shock (51 spontaneous cases);
  - Facial paralysis (195 spontaneous cases)

These events are closely followed in the MSSRs (Monthly Safety Summary Reports) from the MAH.

COMIRNATY – Other AESIs

- EV close monitoring of AESIs (Adverse Events of Special Interest);
- Informing the PRAC Rapporteur (NL) of relevant cases as they arise;
- Liaising with other regulators as needed.
- Timely exchange of information, transparency and communication.

Overall, no issues have been identified to date for which additional action beyond close monitoring is deemed necessary based on the information provided in the EV case reports.

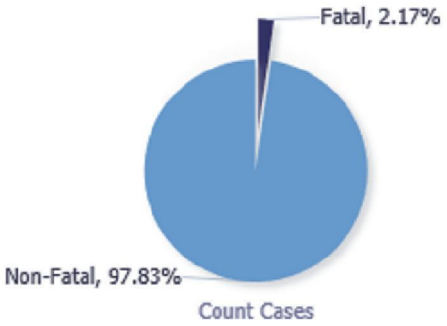
COVID-19 Vaccine Moderna

	# Cases
Healthcare Professional	420
Non Healthcare Professional	178
	598

	# Cases
Serious	225
Non-Serious	373
	598

COVID-19 Vaccine Moderna

	# Cases
Fatal	13
Non-Fatal	585
	598



Fatal by Age Group

Age Group	Fatal	Non-Fatal	
11-20		5	**5**
21-30		96	**96**
31-40		102	**102**
41-50		104	**104**
51-60		87	**87**
61-70	1	38	**39**
71-80	3	33	**36**
81 and over	8	36	**44**
Unknown	1	84	**85**
Grand Total	**13**	**585**	**598**

Moderna

Number of cases by Reaction PT & Seriousness

Reaction PT	Serious	Non-Serious	
Pyrexia	30	137	**167**
Headache	29	100	**129**
Myalgia	14	63	**77**
Fatigue	22	51	**73**
Chills	21	50	**71**
Injection site pain	14	46	**60**
Nausea	17	40	**57**
Asthenia	12	37	**49**
Vaccination site pain	3	43	**46**
Pain in extremity	17	28	**45**
Dizziness	22	22	**44**
Arthralgia	6	32	**38**
Malaise	4	34	**38**
Injection site erythema	13	18	**31**
Lymphadenopathy	8	23	**31**
Pain	15	14	**29**
Erythema	8	19	**27**
Anaphylactic reaction	23	1	**24**
Dyspnoea	19	5	**24**
Vomiting	6	15	**21**

- On 28 January 2021, PRAC assessed a review submitted by the MAH of reports of suspected anaphylaxis after administration of COVID-19 Vaccine Moderna at a single vaccination site in the United States (US).
- Based on the current information, no new safety concern regarding anaphylaxis was identified for COVID-19 Vaccine Moderna.

Any questions?

Further information

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