

## Pharmacovigilance during the COVID-19 Pandemic Era in Morocco

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### Abstract

### Review Article

The COVID-19 pandemic has underscored the importance of pharmacovigilance in monitoring the safety of drugs and vaccines used for the treatment and prevention of the disease. In Morocco, the pharmacovigilance system has been strengthened to ensure effective surveillance and management of adverse effects of COVID-19 drugs and vaccines. This article examines the changes and actions that have been undertaken by Morocco to enhance pharmacovigilance during the COVID-19 pandemic.

**Keywords:** Pharmacovigilance - COVID-19 - adverse effects - drugs – vaccines.

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## INTRODUCTION

The COVID-19 pandemic triggered an unprecedented health crisis, particularly regarding the use of drugs and vaccines. With the initial absence of effective treatments against COVID-19, several medication options were explored, followed by the use of multiple vaccines to fight the disease. However, the administration of these healthcare products carries potential risks of adverse effects. Therefore, it was imperative to enhance the monitoring and management of these adverse effects to protect patient health. Pharmacovigilance (PV) played a crucial role in managing this pandemic [1]. To meet this requirement, Morocco took several measures, led by the Ministry of Health and the Moroccan Poison Control and Pharmacovigilance Center (CAPM), in collaboration with the World Health Organization (WHO) and other countries, to strengthen its PV system [2].

Since the beginning of the pandemic, the Moroccan Ministry of Health has organized several online continuous training sessions for health care professionals, in collaboration with the WHO, arranged by the CAPM [3]. These training sessions covered a wide range of topics related to pharmacovigilance, including basic principles of pharmacovigilance, reporting adverse effects, data collection methods, risk assessment, and safety signal management. Webinars [4-6] have also been organized in collaboration with pharmacovigilance experts to enable healthcare professionals to acquire

practical skills for the prompt detection and reporting of suspected adverse effects of COVID-19 medications.

Morocco has also undertaken specific actions to enhance the surveillance of adverse drug reactions (ADR) related to COVID-19 medications. During the COVID-19 pandemic, the CAPM, under the direction of the Ministry of Health, recruited new pharmacovigilance correspondents who bolstered the capacities of regional pharmacovigilance centers [7]. These correspondents are healthcare professionals who have been trained in data collection and reporting methods, ADR classification, as well as procedures for notifying ADRs to the CAPM. Their recruitment was carried out in collaboration with regional health directorates and health care facilities from different regions of Morocco. Selection criteria for these positions included experience in pharmacovigilance. Equipped with technical tools, these correspondents closely collaborated with health care professionals to gather data on ADRs and promptly transmit them to the CAPM through daily reports detailing various drug-related adverse events reported in each region of the country. This close surveillance facilitated the rapid implementation of measures aimed at protecting patient health.

During the COVID-19 pandemic, expert committees were established in various regions of Morocco to address cases of ADRs reported by pharmacovigilance correspondents and health care professionals. These committees worked closely with

pharmacovigilance correspondents and were tasked with analyzing data on ADRs reported in their region, determining possible causes of these adverse effects, and formulating recommendations to prevent the recurrence of such effects. The expert committees consisted of health care professionals specialized in pharmacovigilance and drug safety.

In Morocco, several actions have been taken to strengthen the vaccine vigilance of anti-COVID 19 vaccines. Awareness campaigns on television, radio, and social media have been conducted to encourage the general public to report post-vaccination adverse effects (MAPI) with the implementation of an electronic reporting system: the YakadaLikah Platform [8]; which is a mobile application launched by the Moroccan Ministry of Health in June 2020. The application was developed to allow users to report MAPI, receive advice for managing these adverse effects in each region, ensuring the safety of vaccinated individuals. The application has been downloaded by millions of people in Morocco, thus contributing to raising awareness and engaging the population in the fight against the pandemic. This system has enabled faster and more efficient data collection, thereby enhancing vaccine safety monitoring and detecting any safety signals.

## CONCLUSION

The COVID-19 pandemic has led to an increase in pharmacovigilance and vaccine vigilance in Morocco, while public awareness and engagement have contributed to reducing the spread of the disease. However, it is important to continue strengthening the pharmacovigilance system in Morocco to ensure drug safety in the future.

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