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ORIGINALS

Assessment of the anticholinergic burden in the elderly: a viable concern?

Salguero Olid A, González Suárez S, Rueda Naharro A, Martínez Camacho M, Rodríguez Jiménez E, García Marco D

Comparison of the effectiveness between abiraterone and enzalutamide in metastatic castration-resistant prostate cancer

Del Rosario García B, Gutiérrez Nicolás F, Morales Barrios JA, Ramos Díaz R, Nazco Casariego GJ, Plata Bello A, García Marrero R

Effectiveness of nivolumab as second-line treatment of locally advanced or metastatic non-small cell lung cancer

Alcaraz Sánchez JJ, del Río Valencia JC, Mora Rodríguez B, Muñoz Castillo I

Clinical and epidemiological features of COVID-19 in a long-term care facility in Spain

Cantudo Cuenca M^ªR, Martínez de la Plata JE

Biological treatments in psoriasis before and after the reversion of a hospital in administrative concession to direct public management

Valcuende Rosique A, Mari JI, Sánchez Alcaraz A

Switching to guselkumab in moderate-to-severe psoriasis: role of patient-reported outcomes and hospital pharmacists

Mercadal Orfila G, Escrivá Sancho E, Blasco Mascaró I, Liñana Granell C, Romero Del Barco R

SPECIAL ARTICLES

An analysis of depressive symptoms among post percutaneous coronary intervention patients with acute coronary syndrome

Dhanushree, Theresa Babu A, Thamban A, Mateti UV, Kodangala S, Rawal KB

Daratumumab/lenalidomide/dexamethasone for the treatment of newly diagnosed multiple myeloma patients who are ineligible for autologous stem cell transplantation

Claramunt García R, Soria Martín A, Sánchez Ruiz A

SHORT REPORTS

Cefotaxime dosing regimen for the treatment of neonatal sepsis: Dosing guideline variation evaluation and consequences

Ahmer Raza M, Aziz S, Shahzad S, Masood Raza S

Secukinumab and alithiasic pancreatitis in a patient with psoriatic arthritis

De la Fuente D, Ruiz JM, Ros S, Figueras A, Diaz-Munio E, Carrasco N, Casasin T

LETTERS TO THE EDITOR

Pharmaceutical social responsibility regarding health literacy

Ferreira Alfaya FJ, Enrique Mirón C, Molina M^ªJ

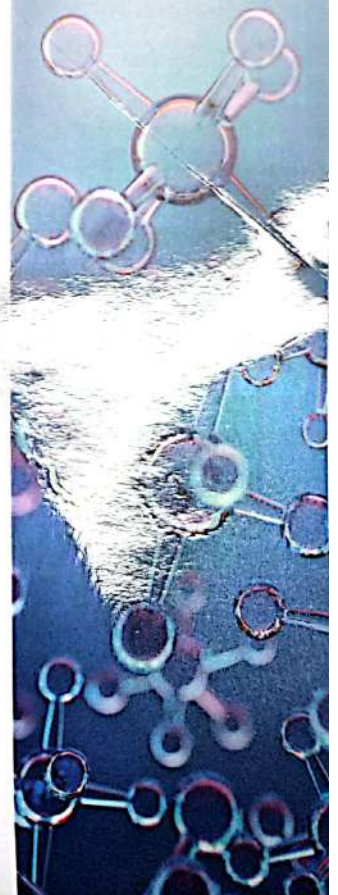
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EDITORIAL

Vaccination against COVID-19. The clinical pharmacist's overview

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EDITORIAL**VACCINATION AGAINST COVID-19.
THE CLINICAL PHARMACIST'S OVERVIEW**

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BARREDA HERNÁNDEZ DOLORES

PANDEMIC AND BIOETHICS

An ethical perspective is fundamental to address the magnitude of the pandemic. Bioethics helps to integrate human rights into the fields of healthcare, public health, health research and social-health policies.¹ Such integration becomes even more significant in times of pandemic. Prestigious bioethicists, such as Joseph Fins, have recognized the importance of adopting a social perspective in bioethics that protects the individual's autonomy, equity, and dignified living conditions of the people.

From the very beginning of the pandemic, the conflict between safeguarding the health of the population and the necessary restriction of human rights was raised. This has always been perceived as disjunctive when it should be approached as a reflection among the healthcare experts, ethicists and politicians.²

The Spanish pharmacist has as a reference code the Spanish Code of Pharmaceutical Ethics, which defines 25 principles. Emphasizing the patient's right to the pharmacist's intervention, as an expert in pharmacotherapy in any of the processes involving medication; the promotion of the patient's right to avail of safe, effective treatments; and respect for the patient's dignity, promoting the bioethical principle for autonomy so that he /she may take part in the decisions that may affect their health.

FROM THE VACCINE TO VACCINATION

From the vaccine to vaccination is not usually a single step; it generally takes two decades. However, COVID-19 has challenged us with the rapid development of vaccines, which has allowed us to go from the vaccine to vaccination in just one year. This was possible because the first human coronavirus was discovered in 1965, and SARS-CoV was discovered in 2000, followed by the recent SARS-CoV-2, 19 years later.

The vaccine is not the panacea. Dr. Anthony Fauci,³ director of the National Institute of Infectious Diseases in the United States, declares that by the end of 2021, the situation will have reverted to a fairly normal state without eradicating the virus. On the other hand, vaccination should achieve community immunity, reduce mortality rates and the burden on the health system, and thus make it possible to recover pre-pandemic life: mobility, social life and large-scale mass events.⁴ What saves lives is not the existence of vaccines it is vaccination.

Prioritizing vaccination, one should not forget to uphold the ethical standards with the four principles of bioethics (justice, non-maleficence, beneficence and autonomy), which entails maximizing the benefits and minimizing the associated risks.

THE ROLE OF THE PHARMACIST IN VACCINATION

The first challenge that the pharmacists faced in the early days of the pandemic was to guarantee the availability of medicines by exhaustive stock control, especially those for use in Intensive Care Units. In fact, it was necessary to resort to foreign presentations to meet the requirements, with different presentations of the same drug coexisting, and increasing the risk of administration errors. The Pharmacy Service (PS) contributed to reducing these potential errors through

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outreach, staff training and relabeling of medications. Besides, it elaborated hydroalcoholic gel to supply the hospital with disinfectant solutions because of the high demand and shortage of such solutions.

Goff, Debra A,⁵ a pharmacist from Ohio, shows the real day-to-day contributions of the primary care pharmacists throughout the pandemic, including during vaccination. Goff, Debra A. emphasizes the role of the pharmacist in validating treatments, reconciling medication, managing stock-outs, and critically reading the changing scientific evidence available.

As a collective, Hospital Pharmacy has been involved in the generation of knowledge, playing an active role in the contribution of clinical trials and in the development of therapeutic protocols. It is worth mentioning the Rerfar-COVID study (Spanish Registry of Pharmacotherapy Results against COVID-19), which included more than 13,500 patients, and made it possible to analyze the results of the different treatments used in the approach of COVID-19. The data have been used to identify potential treatments to reduce mortality that should be confirmed in clinical trials designed for this purpose.

In view of the vaccination campaign, the PSs have focused their efforts on ensuring the traceability, effectiveness and safety of the vaccines, always from a legal and ethical point of view.⁶ The hospital pharmacists have assumed, as mandatory, the technical responsibility for the acquisition of vaccines, managing the transportation that guarantees the maintenance of the cold chain. They have assumed the maintenance, custody and management of the distribution, dispensing, and safe administration of vaccines. They have also been actively involved in reporting the healthcare professionals on practical issues and side effects, as well as offering pharmaceutical recommendations to the public by providing information on the contraindications and precautions in certain patient groups, creating a trust framework.

The limited number of vaccines has forced the pharmacist to optimize their use by controlling the dosing times and stocks, maximizing the doses extracted from the vials by preparing single-dose prefilled syringes centrally, and in aseptic conditions, with the added difficulty of their short stability.

In the vaccination strategy, the information source should be scientific. The scientist must look for errors consciously and deliberately rather than waiting for them to appear. Science is about the constant search for truth and knowledge.

Another role of the pharmacists is pharmacovigilance, where they have participated in the reporting of suspected adverse reactions to vaccines, such as the cases of thrombosis that have emerged in vaccinated persons highlighting the importance of detecting and recording these undesirable reactions. The PS have provided vaccination points with the stock of medicines to treat possible allergic reactions that vaccines may trigger, and have even elaborated diluted sterile preparations of the different vaccine components to confirm their safety before administering to potentially allergic patients.

EXPERIENCE FROM THIS PANDEMIC

The vaccine is a support, but it is necessary to continue a critical reading of safety and effectiveness outcomes, upholding the ethical standards at all times.

We must learn from what we have experienced. Health actions must go hand-in-hand with economy and universal rights. They must complement each other and never challenge each other.

It is necessary to evaluate the work done and strengthen the weaknesses: Public Health, supporting the health system, reconsidering assistance to the third and fourth age, improving Spain's positioning to get and obtain vaccines, and enhancing the importance of the task of the clinical pharmacists.

CONCLUSIONS

In the midst of every crisis, lies great opportunity.

The clinical pharmacists add value during the vaccination strategies against COVID-19. Pharmacists have demonstrated, and continue to demonstrate their contribution as skilled and highly specialized healthcare professionals, accepting challenges and helping to respond effectively to the crisis. It is necessary to change their role in official health structures because of their added value as in other countries around the world.

To conclude, we should bear in mind that when a pandemic progresses rapidly, none of us will be safe until everyone is safe. Collaboration for equitable global access to vaccines against COVID-19 is imperative. CP

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