

# Non-face pharmaceutical care through web dialogue

BARRERAS RUIZ N<sup>1</sup>, ARDIZONE JIMÉNEZ B<sup>2</sup>, FORTE PEREZMINAYO M<sup>1</sup>, GARCÍA JIMÉNEZ L<sup>1</sup>, HERNÁNDEZ SEGURADO M<sup>1</sup>, BÉCARES MARTÍNEZ FJ<sup>1</sup>

1. Hospital Fundación Jiménez Díaz, Madrid, España

2. Hospital Rey Juan Carlos. Madrid, España

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## SUMMARY:

The Web Dialogue (DW) is a tool that has been developed within the Patient Portal platform of the Fundación Jiménez Díaz Hospital, in order to establish a contact path between the pharmacist and the patient that would allow doubts about the treatment to be resolved, guaranteeing protection of data. The objective of our study is to quantify and classify the consultations made by patients through the DW during and after the period of the state of alarm caused by SARS-COV-2. It is also intended to evaluate the impact of this tool on the quality perceived by the patient.

A retrospective observational study of the consultations made by the patients during and after the period of the state of alarm caused by SARS-COV-2 was carried out, classifying the consultations into four categories: doubts about the treatment, adverse effects, interactions with other medications and access to medication (change appointments and delivery of medication by courier). The quality perceived by the patient was evaluated through the Net Promoter Score (NPS) index.

Keywords: **Web Dialogue, Application, Quality, Pharmaceutical Care**

## Atención farmacéutica no presencial a través del diálogo web

### RESUMEN

El Diálogo Web (DW) es una herramienta que se ha desarrollado dentro de la plataforma Portal del Paciente del Hospital Fundación Jiménez Díaz, con el fin de establecer una vía de contacto entre farmacéutico y paciente que permitiera resolver las dudas sobre el tratamiento garantizando la

protección de datos. El objetivo de nuestro estudio es cuantificar y clasificar las consultas realizadas por los pacientes a través del DW durante y después del periodo del estado de alarma provocado por SARS-COV-2. Asimismo se pretende evaluar el impacto de esta herramienta en la calidad percibida por el paciente. Se realizó un

estudio observacional retrospectivo de las consultas realizadas por los pacientes durante y después del periodo del estado de alarma provocado por SARS-COV-2, clasificando las consultas en cuatro categorías: dudas sobre el tratamiento, efectos adversos, interacciones con otros medicamentos y acceso al medicamento (cambio de citas y envío de medicación por mensajería). La calidad percibida por el paciente se evaluó a través del índice Net Promoter Score (NPS).

Palabras clave: **Diálogo Web, Aplicación, Calidad, Atención Farmacéutica**

### INTRODUCTION

Health care has evolved enormously in recent years with the incorporation of information technologies in the field of "telecare"<sup>1</sup>. "Telecare" or "telemedicine" is understood to be the provision of remote medical services, understanding that it does not it is not a technology but a process<sup>2</sup>. At the same time, patients have evolved towards more proactive profiles, demanding greater access to information and participation in an environment of digital transformation of healthcare.<sup>3</sup> "Telemedicine" facilitates the multidisciplinary care and increases accessibility and contact with health professionals.<sup>4,5</sup> This assistance has

allowed the progressive evolution of the national health model, thus placing the patient at the center of it, facilitating access to information.

Since 2016, the Web Dialogue (WD) began operating in the Medical Services of the Fundación Jiménez Díaz University Hospital (HUFJD). The WD is a tool designed for direct communication between patient and health professional that is available in the Patient Portal, an application made by the hospital and allows patients to manage appointments and consult their clinical reports, among other functions.

✉ Natalia Barreras Ruiz · Hospital Fundación Jiménez Díaz (Madrid, España) Avda. Reyes Católicos 2, 28040 (Madrid)

✉ Natalia.barreras@quironsalud.es

In 2018, the Hospital Pharmacy Service (SFH) of the HUFJD provided pharmaceutical care to just over 8,000 outpatients, what raised the need to have its own and exclusive response from the service was raised. The main reasons that led to the implementation of the WD in the Pharmacy service were the increase in telephone and email consultations, as well as the need to guarantee the protection of patient data while making these consultations. The consultations made by the patients, by telephone or by e-mail, and their respective resolution, were not reflected in the clinical history, so they could not be adequately followed up.

In October 2019, the option of the Pharmaceutical Council was implemented in the Patient Portal, this being a variant of the exclusive Web Dialogue service of the hospital Pharmacy service.

The performance of the WD in the Pharmacy service is as follows: once the patient has been prescribed a hospital dispensing medication, a notification will be sent to them through their mobile, notifying them that they can now access the Pharmaceutical Council. The Dialogue can also be accessed through a web browser.

Once inside, the patient only has to start a new conversation to ask questions about the medication, like dosage, possible interactions with other drugs or side effects that may appear during treatment etc. This communication tool is not designed to request administrative procedures such as changes to the appointment at the Pharmacy or to request that the medication be sent by courier, however, patients sometimes use it for this purpose.

Through the WD, the Pharmacy service undertakes to answer the queries of the patients related to the treatment within a 24-hour interval on working days, thus requiring an adequate response in the shortest time possible.

The main objective of this study is to quantify and classify the consultations made by patients to the Pharmacy service through the WD during and after the state of alarm caused by SARS-COV-2. It is intended to evaluate if the implementation of this service has improved the quality perceived by the patient through the Net Promoter Score (NPS) index, which we calculate annually for the Pharmacy service.

## METHODS

A retrospective observational study of the consultations made to the Pharmacy service through the WD was carried out during two different periods: from 03/13/2020 to 06/18/2020 (state of alarm) and from 06/23/2020 to 15/06/2020. /09/2020 (post alarm state). These consultations were classified into four groups according to their main theme: doubts about the treatment (dosage, method of administration, forgotten doses, etc.), adverse effects, interactions with other drugs, and consultations about access to the medication.

To measure the quality perceived by the patient, the Net Promoter Score was used. This index is calculated through a question that is asked to the patient after pharmaceutical care and that he answers anonymously: What is the probability that you will recommend our service to a friend or family member? Response options are on a scale of 0 to 10, where 0 is not at all likely and 10 is very likely. Patients with responses of 9 or 10 are considered promoters, patients with responses of 7 or 8 are called passives, and patients with responses between 0 and 6 are detractors. The NPS is calculated as the difference between the percentage of promoters and detractors of patients.

## RESULTS

A total of 158 consultations were made to the Pharmacy service through the WD, of which 102 took place during the period from 03/13/2020 to 06/18/2020 (alarm state) and 56 from 06/23 /2020 to 09/15/2020 (post alarm status) ( Table 1)

Consultations were made by a total of 117 patients, of whom 57.26% were women and 38.46% men.

The median age of the patients was 56 years, (23-91 years). The treatment time of these patients was from the first day to those who had been treated for more than 10 years, with a median of 16 months. Finally, the type of treatment was very varied, including biological drugs for migraine prophylaxis, oral cytostatics, drugs for multiple sclerosis, neutropenia, or anemia, among others.

The evolution about the number of queries made through the WD shows that, during the state of alarm (Table 1), there was a rebound in the use of this service. In this

**Tabla 1. Table 1. Type of inquiries made through the Web Dialogue during the State of Alarm and in the period after it.**

Query type	First period: State of alarm			Second period: Post-state of alarm		
	N° queries	% First Period	% Total	N° queries	% Second period	% Total
Access to medication	96	94	61	36	64	23
Doubts about the treatment	4	4	3	9	16	6
Adverse effect	0	0	0	7	13	4
Interactions	2	2	1	4	7	2
Total	102		65	56		35

period, 94% of the queries were about how to access the medicine, mainly requests for the delivery of medication at home. During the second period, consultations about adverse effects (13%), doubts about treatment (16%), and interactions (7%) increased, however consultations about access to medication still represent 64% of the total. This would constitute an improvement area, due to the main objective of the development of the tool was to offer Pharmaceutical Advice to the patient, while administrative doubts about access to the medication can be resolved through other channels of which the patient is informed.

Regarding the quality perceived by the patient, in 2020, the NPS of the Pharmacy service experienced an increase of 14.5 points, a growth rate higher than that of previous years, reaching a value of 66.19 points. (Table 1). An NPS greater than 60% is associated with service excellence, since it implies a low number of detractors and a high number of promoters.

## DISCUSSION

Even the number of consultations related to access to medication is still high, we can see how consultations about adverse effects, interactions, and doubts about treatment are increasing over time, getting closer to the objective with which this tool was designed, communication between patient and pharmacist, as well as support for other clinical services, distance education, and medication management(6). It should also be noted that this tool can allow early detection of an adverse effect to treatment, which has a positive impact on patient safety.

On the other hand, there is no doubt that WD has improved the quality perceived by the patient, since the indicator we use to measure it (NPS) has experienced a significant increase since its implementation.

The continuous growth of the WD in Pharmacy poses new unknowns and challenges for the future. Some of the improvement proposals that we want to implement in this new service are the following:

- The possibility of selecting the type of consultation and the interlocutor by the patient, in order to expedite the resolution of consultations.
- Apply artificial intelligence (AI) for the automatic response of certain queries, especially of an administrative nature.
- Carrying out research studies and Big Data for a better understanding of the doubts or needs of patients.
- Offer pharmaceutical advice to all hospital patients, even if they do not have hospital-dispensed medication.

The improvement is evident, however, there is still a long way to go and a wide range of improvements to be made, in order to optimize and provide the best possible care to the patients who come to the HUFJD Pharmacy Service.

In conclusion, the WD is a very useful tool for non-face-to-face pharmaceutical care, thanks to which patients can make any type of query about interactions, adverse effects and, in general, doubts about the treatment without having to wait. for hospital pharmacy appointment.

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