

THE OBLIGATION TO PROVIDE INFORMATION AND ADVICE IN THE ONLINE ENVIRONMENT. LIMITS AND CHALLENGES IN TELEPHARMACY

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ABSTRACT: *The concept of "telepharmacy" is no longer an innovation. Currently, there are a number of technological applications that enable the transfer of data and information between professionals, as well as between them and patients. Thus, the variety of pharmaceutical services emerging in the digital landscape includes, among other things, the obligation to inform and advise patients through various applications, verify medical prescriptions, choose the appropriate medication, and monitor patients afterwards.*

However, in addition to the benefits, there are certain challenges related to legal and ethical issues that may arise in the digital practice of pharmacists, such as confidentiality of information, data protection and security, professional integrity, or misuse of personal data. Furthermore, telepharmacy has generated mixed reactions from healthcare professionals.

The study analyses the emergence and development of telepharmacy, its implications and challenges, how professional standards should be assessed, and compliance with the obligation to inform and advise patients.

KEYWORDS: *digitization, information, obligation, telepharmacy, pharmacist responsibilities.*

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1. THE CONTEXT OF THE DIGITIZATION OF PHARMACEUTICAL SERVICES AND THE DEVELOPMENT OF TELEPHARMACY

The traditional view of direct interaction between pharmacists and patients has been reconfigured with the emergence and development of information technology. We are currently witnessing a new way of communication between healthcare professionals and patients, which has the potential to gradually become common practice.

Seen as an effective alternative for providing pharmaceutical services, telepharmacy supports patients in disadvantaged areas, who can use it to access specialist care. In addition to this, the advantages offered by telepharmacy also result from the perspective of costs or time spent in the pharmacy, strengthening collaboration between professionals, and reducing the shortage of pharmacists. (Sari, Setiati, Kusumawardani, Huri, & Elnaem, 2025)

However, this digital approach to pharmaceutical care is not without risks or challenges. From this perspective, the common element that can be gleaned from the specialized studies published in the field is the existence of a regulatory gap, but also the lack of clear and well-defined professional standards.

In addition, the implementation of telepharmacy at the international level has been limited by issues related to feasibility or the educational level of patients, which has made it difficult to apply in practice. (Fathorrahman, et al., 2025)

At the national level, the concept of telepharmacy is not defined by the Romanian legislator, nor is it subject to the provisions of Law No. 95/2006¹ on health reform. The only references in this context are those relating to telemedicine services, which were the subject of Government Emergency Ordinance No. 196/2020², amending Law No. 95/2006. The adoption of this ordinance resulted from the need to have a legal framework that would respond to the Romanian state's desire to ensure the right to health and measures to protect patients (in the context of the SARS-CoV-2 virus pandemic). The aforementioned normative act makes no reference to telepharmacy, but one of the regulated telemedicine services is teleconsultation³, which can be applied by analogy to pharmaceutical practice. However, the emergence and use of the term "telepharmacy" is relatively recent, being interdependent with that of telemedicine.

Currently, within the national legal system, a proposal has been put forward to amend Law No. 95/2006 on healthcare reform with regard to the introduction of a legislative framework on telepharmacy, which has led to conflicting positions⁴ among pharmacists and professional associations. The aspect of the amendment raised by pharmacists concerned the introduction of a model of operation in the absence of the pharmacist, which

¹ Republished in the Official Gazette no. 652 of 28.08.2015

² Published in the Official Gazette no. 1108 of 19.11.2020

³ According to Article 30(2) of Government Emergency Ordinance No. 196/2020 "Teleconsultation is a medical service provided to patients who communicate remotely with their doctor and can be carried out by any means of communication in order to establish a diagnosis, treatment, and/or the measures necessary to prevent diseases and their complications, all in the interest of promoting the patient's health."

⁴ See in this regard: <https://www.adrfr.ro/2025/09/25/comunicat-de-presa-25092025/>

would lead to the pharmacist's vulnerability to legal liability and could affect patients' health.

In an attempt to explain this concept, various definitions have been put forward at European level by professional associations in the field.

In this regard, by way of example, in Spain, the Sociedad Española de Farmacia Hospitalaria has stated that telepharmacy is "remote pharmaceutical practice based on new technologies."⁵ Similarly, in the US, the concept has been defined by the National Association of Boards of Pharmacy as "the provision of pharmaceutical care through the use of telecommunications and information technology to patients at a distance."⁶ However, the United States was among the first to attempt to regulate this new type of remote pharmaceutical service, as early as 2001, when a set of rules was developed to support the pilot study "North Dakota Telepharmacy Project" (A. Romagnoli, 2025), which was created for rural communities lacking care.

Furthermore, a specialist study noted that telepharmacy is a "method used in pharmaceutical practice whereby a pharmacist uses information technology (...) to provide patient care services (El Ansari W, 2024)."

Internationally, the use of digital applications in telepharmacy has been observed in various countries, such as Canada and Vietnam, and in countries such as Brazil and China, there are legislative acts and specialized guidelines in this field (Unni EJ, 2021). At the same time, in the United States, different states have implemented various rules and laws applicable to community telepharmacy (Tzanetakis G, 2017). Certain virtual pharmacy programs have also been developed. For example, the US has implemented an automated system for managing hospital medication orders called DocuScripts⁷. Other states, such as Canada and China, use certain virtual platforms to provide remote consultation, "collect medical history, and resolve medication-related issues." (Karattuthodi, și alții, 2023)

In the European Union, however, there is a regulatory gap, as there is no legislation addressing the issue of telepharmacy, nor are there any specialized guidelines. Regulation 2017/745/EU⁸ on medical devices contains no reference to this.

Nevertheless, some European countries, including Germany, Scotland, France, and Spain, have implemented various telemedicine applications, consisting of remote pharmaceutical counseling, medicine delivery services in rural areas, and online consultations via chat (A. Romagnoli, 2025). Furthermore, Spain has developed guidelines on telemedicine and its scope of application (Morillo-Verdugo R, 2020). It was considered that a standardized procedure is necessary to make telepharmacy more efficient and, in the case of closed-circuit pharmacies, that this should be authorized by the hospital manager (Ramón Morillo-Verdugo, 2020). At the same time, it was noted that the same quality standards must be met as for traditional services.

In general, telepharmacy services can consist of remote patient counseling, prescription management, and dispensing of medicines to specific delivery points (home, medical center, nursing home), as well as subsequent therapeutic monitoring. This allows

⁵ See in this regard: <https://www.revistafarmaciahospitalaria.es/es-implementation-pharmaceutical-care-through-telepharmacy-articulo-S1130634323001836>

⁶ <https://www.medznat.ru/en/education/practice-management/telepharmacy-and-its-role-in-healthcare-system>

⁷ See in this regard: <https://docuscripts.com/>

⁸ Published in the Official Journal of the European Union L117/1 on 05.05.2017

pharmacists to remotely monitor patients' self-medication and provide the necessary assistance in this regard.

We have noted that one of the pharmaceutical activities that can be carried out in the digital environment and that involves certain risks is the online sale of medicines. This is a separate activity from "telepharmacy," but related in that it is digitally mediated. A reference in this regard is the judgment C-606/21 handed down by the Court of Justice of the European Union⁹, in which it was asked about the conditions under which a Member State may prohibit a service connecting pharmacists and customers for the online sale of medicines. In its judgment, the Court ruled that "Where it is considered that a provider who is not a pharmacist is itself selling non-prescription medicines, the Member State in which it is established may prohibit the provision of that service. However, where the provider in question merely connects sellers and customers through a service that is separate from the sale itself, Member States may not prohibit that service on the grounds that the company in question is participating in the electronic sale of medicines without being a pharmacist."

The decision is also based on the interpretation of the two directives in this field, namely Directive 2001/83/EC¹⁰ establishing a Community code relating to medicinal products for human use and Directive 2000/31/EC¹¹ on electronic commerce. Essentially, it is recognised that the online sale of medicines is permitted, but only for those that can be dispensed without a prescription (OTC). However, the subject of the referral is the fact that certain online platforms may be prohibited if they operate without a pharmacy licence. Thus, national legislation may impose certain restrictions, as is the case in Romania, which allows the online sale of medicines only by authorized pharmaceutical establishments. Furthermore, Law No. 288/2008¹² on pharmacies stipulates that information regarding pharmaceutical establishments authorized to sell medicines online must be displayed on the Ministry of Health's website (Art. 2(2)).

Also in the context of online delivery of medicines, it should be noted that this must ensure the confidentiality and traceability of the entire procedure, including shipping, storage, delivery, and receipt.

2. THE OBLIGATION TO INFORM THE PATIENT. THE STANDARD OF CARE FOR PHARMACISTS IN THE DIGITAL ENVIRONMENT

Used in various countries, remote counseling has contributed to improving access to specialized care, including from the perspective of self-medication, but also to increasing patient satisfaction. Unequivocally, the pharmacist's obligation to inform, whether done in person or online, is a fundamental aspect of the medical act.

⁹ CJEU judgment in Case C-606/21 Doctipharma of 29 February 2024, available online at: https://infocuria.curia.europa.eu/tabs/jurisprudence?sort=DOC_DATE-DESC&searchTerm=%22C-606%2F21%22&publishedId=C-606%2F21

¹⁰ Published in the Official Journal of the European Union L311/67 of 06.11.2001

¹¹ Published in the Official Journal of the European Union L178/1 of 08.06.2000

¹² Published in the Official Gazette no. 85 of February 2, 2015

If this obligation is not fulfilled or is fulfilled improperly, the pharmacist may be held civilly liable for any damage caused to the patient, in accordance with the provisions of Article 1349 of the Civil Code, which represents the common law in this matter.

Without providing an exhaustive presentation of what the obligation to inform means, as this is not the subject of this study, we will limit ourselves to presenting some of its particularities when it is carried out in the digital environment.

As we have pointed out, Romanian legislation does not contain provisions relating to the various telepharmacy services, and therefore does not establish certain responsibilities or professional standards regarding the obligation to provide information and advice online.

However, the traditional regulatory model establishes, both at European level through the Charter of Fundamental Rights of the European Union (Article 3) and in the national legal order (Article 6 of Law No. 46/2003¹³ on patient rights), the professional's obligation to provide information. This is closely linked to obtaining the patient's informed consent.

Another legal provision relating to the pharmacist's obligation to provide advice can be found in Article 2 of Order No. 75/2010¹⁴ on the rules of good pharmaceutical practice.¹⁵ Section 4.1 of this order regulates patient information. From the perspective of the content of this obligation and how it can be fulfilled by the pharmacist, the law provides for the possibility that, in addition to verbal information, the pharmacist may also provide written information or information through other appropriate means of communication (online provision being of interest in this regard), so that it can be correctly understood by the patient (section 4.4.5.). Pharmacists must pay particular attention to contraindications and drug interactions that must be brought to the patient's attention, even if they are mentioned in the drug's package insert.

The issue of the obligation to provide advice and information, as well as the expression of informed consent by the patient, raises questions about how this should be done in the online environment and the standard to which it must be met. If we refer to the content of this obligation, we can see that things are not very different from the information provided through direct interaction between the pharmacist and the patient, so we consider that the above can be applied by analogy, the aim being to ensure the patient's protection in terms of the risks that may arise in drug therapy.

Thus, in the online environment, the obligation to provide information (which must be accurate, complete, and understandable to the patient) is one of result, namely to provide the patient with all the data they need to choose the medicine (Boilă, 2013). Essentially, the pharmacist must provide information about the safety of the medicine, how to administer and store it, certain side effects, and drug interactions that may occur.

If we consider the legal nature of the obligation to provide information, we can see that, despite the fact that it is related to other obligations incumbent on the pharmacist, it is nevertheless a separate obligation, which may trigger legal liability in the event of non-compliance.

¹³ Published in the Official Gazette no. 51 of January 29, 2003

¹⁴ Published in the Official Gazette no. 91 of February 10, 2010

¹⁵ Article 2 of Order No. 75/2010 stipulates that "pharmaceutical activity must focus on dispensing medicines and other health products of guaranteed quality, accompanied by adequate information and advice for the patient."

On the other hand, given that tele-pharmacy is a system based on telecommunications, the effective fulfillment of this obligation to provide advice and information may sometimes be limited or hampered, which may pose certain risks to the patient.

In this context, there is also a lack of professional standards for pharmacists to refer to in the digital environment, but, by analogy, those used in traditional practice can be applied (Sari, Setiati, Kusumawardani, Huri, & Elnaem, 2025). Consequently, this standard requires the pharmacist to carry out a complete examination of the prescription in addition to taking the patient's medical history. Thus, in concrete terms, the pharmacist would be required, before dispensing the medicine, to talk to the patient via an audio-video call, check the content of the prescription, whether there are any drug interactions or other potential adverse reactions, and ensure that the patient has correctly understood how to administer the medicine.

A specialist study (Ramón Morillo-Verdugo, 2020) has found that, in order to provide telemedicine services correctly, pharmacists must ensure that the treatment is appropriate for the patient, that the patient understands the recommended treatment, collaborate with the prescribing physician in choosing the optimal therapy to be followed, and review the treatment profile to achieve results.

Certain information related to medicines can also be provided by making notes on the medicine label. On the other hand, we believe that this does not replace verbal information, as resorting to the written form in this case would limit the pharmacist's ability to provide complete information to the patient and would not allow them to verify whether the patient has understood the explanations provided. In some situations, this could lead to misinterpretation or even ignorance of the information.

3. LIMITATIONS AND CHALLENGES

Remote monitoring of drug therapy faces certain obstacles and is not without challenges. However, the benefits it offers are undeniable, especially in the context of technological progress.

In any case, since 2016, the World Health Organization (WHO) (Juliana Salomão Rocha de Oliveira, 2025) has raised the issue of inconveniences that may arise in the telemedicine process, deficiencies that can also be found in telepharmacy.

At a glance, a first barrier that can be identified is the lack of nonverbal communication between the pharmacist and the patient, which is specific to direct interaction. This aspect can make it difficult to take an adequate medical history. Consequently, it was considered that audio-video calls could be a more suitable solution than audio-only calls, as the absence of eye contact could limit the assessment of the patient and increase the risks of inappropriate treatment (Rush KL, 2018).

Also related to this issue is the problem of losing certain information during a virtual consultation, which can lead to an incorrect medical history and the choice of the wrong treatment, with potential harm to the patient. The risks become even more evident in the context of correctly identifying the patient (with particular reference to telephone calls), which can also lead to errors in diagnosis and treatment (Garber K, 2022).

Another concern facing telepharmacy is related to confidentiality, as problems may arise with the technologies used, such as system errors, inadequate user interfaces,

unauthorized access to certain data or information, etc. (Juliana Salomão Rocha de Oliveira, 2025) Furthermore, the provision of quality pharmaceutical services could be limited due to difficulties in connecting with patients, their lack of knowledge in the field, and poor sound quality.

Establishing the legal validity of a prescription is a key issue in the online environment (Solimini R, 2021). Often, patients only provide photographs of their prescriptions, which makes it difficult to verify them correctly (doctor's signature, date of issue, confirmation of dosage, duration of treatment, etc.). It is well known that even in the case of prescriptions presented physically to the pharmacist, certain errors may occur due to misunderstanding of the name of the medicine or the dosage, illegible writing, and even more so in the case of photographs, which may be unclear and thus misinterpreted (Sari, Setiati, Kusumawardani, Huri, & Elnaem, 2025).

On the other hand, the online delivery of medicines without a prescription poses risks to patient health, as counterfeit products may be supplied that can cause certain allergic reactions or other medical problems (Milda, 2024).

Last but not least, one aspect that should be mentioned is that telepharmacy may also involve certain risks related to confirming the pharmacist's identity via video conference. In this regard, Deepfake technologies can be used to simulate a real pharmacist by creating images or sounds using artificial intelligence, or false documents regarding the pharmacist's qualifications can be presented. Consequently, adopting measures to prevent such situations is essential to avoid the incorrect dispensing of medicines.

4. INSTEAD OF CONCLUSIONS...

Telepharmacy is a complex process involving several parties and factors that can lead to errors in its proper use. As we have pointed out, the national and European legislative landscape is incomplete in this area, regardless of the fact that there is no international legislative harmonization.

It is widely acknowledged that patient safety is the primary common goal of all countries, and the initiative to implement telepharmacy services was driven precisely by the desire to ensure that patients, especially those in disadvantaged areas, have access to specialist care. However, the current state of the field reveals certain critical aspects of telepharmacy compared to traditional practice. From this point of view, the responsibilities of the pharmacist in the virtual environment must be clearly defined, but at the same time, certain protocols need to be adopted to ensure patient safety and data protection.

REFERENCES

- A. Romagnoli, F.Ferrara, R.Langella, A. Zovi, Telepharmacy and telemedicine: New challenges in the international regulatory framework of the healthcare landscape, *Ethics, Medicine and Public Health*, Volume 33, 2025, 101183, ISSN 2352-5525, <https://doi.org/10.1016/j.jemep.2025.101183>, (<https://www.sciencedirect.com/science/article/pii/S2352552525001422>)
- El Ansari W, Saad MO. Virtual Care? Telepharmacy in Critical Care Settings for Patient-Centered Care and Multidisciplinary Collaboration: A Scoping Review of Activities,

- Benefits, Economic Impact, Challenges, and Knowledge Gaps. *Telemedicine and e-Health*. 2024;30(1):21-35. doi:10.1089/tmj.2023.0067
- Fathorrahman, Imam; Athiyah, Umi; Rahem, Abdul; Ming, Long Chiau; Renganathan, Elil; Al-Worafi, Yaser Mohammed; Hermansyah, Andi, Investigating Community Pharmacist Experiences with Telepharmacy in the Absence of Regulatory Support in Indonesia, *Journal of epidemiology and global health*, 2025 May 15;15(1):71. doi: 10.1007/s44197-025-00368-z.
- Garber K, Gustin T. Telehealth Education: Impact on Provider Experience and Adoption. *Nurse Educ*. 2022;47(2):75–80. pmid:34628435
- Juliana Salomão Rocha de Oliveira, Rafael Saad Fernandez, Mônica Rossatti Molina, Ana Carolina P.N. Pinto, César Ramos Rocha-Filho, Tiago M. Ferreira, Stela Verzinhasse Peres, Patient safety risk associated with synchronous telehealth: A scoping review, *Plos One*, Published: December 16, 2025, <https://doi.org/10.1371/journal.pone.0336992>
- Karattuthodi, Mohammed Salim; Krishnan, Gopika; Aiswarya, A. V.; Chandran, C. Sarath; Nair, Sujith S.; Thorakkatil, Shabeer Ali; Arain, Savera, A systematic review on pharmacist-led pharmaceutical care optimization through virtual platforms, *Journal of pharmaceutical health services research*, vol. 14, issue 1, 01.03.2023
- L.R. Boilă, Discuții privitoare la răspunderea civilă pentru încălcarea obligației medicului de informare a pacientului, în *Revista Dreptul* 2/2013, <https://sintact.ro/#/publication/151023956?keyword=obligatia%20de%20informare%20a%20medicului%20Boil%C4%83>
- Milda, Nofi & Bakhtiar, Handar & Prasetyo, Handoyo. (2024). Legal Responsibilities of Telepharmacy In Sales of Prescription Drugs In Indonesia. *International Journal Of Humanities Education and Social Sciences (IJHES)*. 4. 10.55227/ijhess.v4i1.1147.
- Morillo-Verdugo R, Margusino-Framiñán L, Monte-Boquet E, et al. Spanish society of hospital pharmacy position statement on telepharmacy: Recommendations for its implementation and development. *Farm Hosp*, 2020; 44(4):174–181;
- Ramón Morillo-Verdugo, Luis Margusino-Framiñán, Emilio Monte-Boquet, Alberto Morell-Baladrón, Dolores Barreda-Hernández, Xosé Manuel Rey-Piñeiro, Eva Negro-Vega, Olga Delgado-Sánchez, Spanish Society of Hospital Pharmacy Position Statement on Telepharmacy: Recommendations for its implementation and development, *Farmacia Hospitalaria*, Volume 44, Issue 4, 2020, Pages 174-181, ISSN 1130-6343, <https://doi.org/10.7399/fh.11515>, (<https://www.sciencedirect.com/science/article/pii/S1130634323003665>)
- Rush KL, Howlett L, Munro A, Burton L. Videoconference compared to telephone in healthcare delivery: A systematic review. *Int J Med Inform*. 2018;118:44–53. pmid:30153920
- Sari, Kartika Citra Dewi Permata; Setiati, Adelia Nathifa Rachma Nur; Kusumawardani, Larasati Arrum; Huri, Hasniza Zaman; Elnaem, Mohamed Hassan, The urge for specific standards of telepharmacy services: Lessons learned from qualitative study in Indonesian community pharmacies, *Digital health*, March 2025
- Solimini R, Busardò FP, Gibelli F, et al. Ethical and legal challenges of telemedicine in the era of the COVID-19 pandemic. *Medicina* 2021; 57: 1314

- Tzanetakos G, Ullrich F, Meuller K. Telepharmacy rules and statutes: A 50-state survey. Rural Policy Brief, 2017; 2017(4):1–4
- Unni EJ, Patel K, Beazer IR, Hung M. Telepharmacy during COVID-19: a scoping review. Pharmacy. 2021;9(4):183. 10.3390/pharmacy9040183

