

Editorial

Mariagrazia Marisei, Felice Crocetto, Enrico Sicignano*, Giovanni Pagano and Luigi Napolitano

Doctor patient relationship in AI era: trying to decipher the problem

<https://doi.org/10.1515/jbcpp-2024-0075>

The Physician must be the primary caretaker of his patients. This special relationship is called “therapeutic relationship” and, due to the specific objective to pursue, also “therapeutic alliance” [1]. It is characterized by the union and interaction of self-determination of the patient and the autonomy and responsibility of the health professional. Overtime, due to the increased possibility for patients to access more information, the asymmetrical and paternalistic relationship began to equalize. The new relational paradigm is that of the therapeutic alliance, in which the patient is aware of every aspect of his or her clinical condition and has the complete right to choose whatever is best for him. The Medical act is no longer a paternalistic imposition but a service functional to an individual self-determination, through the expression of informed consent. There has been a shift from an asymmetrical relationship, unbalanced toward the patient’s total reliance on the physician’s decisions, to a more balanced and equal one, which resulted from the growing relevance of informed consent [2]. Meanwhile, artificial intelligence tools have burst in, posing as new players in the care relationship. Whereas it is recent in the Italian regulatory scenario [3] that relationship time constitutes care time, new technological tools of care delivery or new modalities break in, for example, ChatBots and telemedicine [4–8]. For patients having urological surgery, telemedicine provides a range of options for patient–doctor engagement in the pre-, peri-, and postoperative contexts [9]. Outside of the pandemic scenario [10], however, telemedicine fits into a proximity paradigm

that can contribute especially to lower costs and easier access to health care services. Artificial intelligence (AI) could improve and broaden telemedicine’s capabilities in meeting many healthcare requirements, including intelligent diagnosis, patient monitoring, healthcare IT, and support. Technical and scientific aspects such as reliability, repeatability, usefulness, accessibility, and consistency should also be taken into account [11]. The synergy between artificial intelligence and telemedicine justifies the fact that the complex of technological evolutions impacting the health care world and, consequently, in the urological scenario [12, 13], cannot be treated separately and are accompanied by the same macrocategories of challenges and problems: accountability, privacy, accessibility. Although with some adjustments and delays, the European Data Protection Regulation [14] and the very recent AI Act, together with the proposed Artificial Intelligence Liability Directive [15] seem to offer, at least in Europe, an adequate regulatory framework. However, while it is true that most outpatient activity related to benign conditions or routine follow-ups can find in telemedicine an alternative source of access to health care delivery (not to mention that when the conditions are met, the health care provider is required to convert a televisit to an in-person consultation), it is also true that there are circumstances that require a *in-person* visit. So, a number of issues related to the use of telemedicine and artificial intelligence often outside the original core of the doctor–patient relationship have been addressed, identifying only external authorizing elements (overcoming distance, limit contagion, cost effectiveness) or barriers (accessibility, need for a thorough medical examination) to telemedicine performance. In other words, the proper integration of telemedicine and artificial intelligence cannot be answered except within the legitimate perimeter of the doctor–patient relationship especially in sensitive areas such as oncological urology. This is not to suggest that telemedicine cannot be used in that particular field; rather, it is to say that legal, regulatory, organizational, and financial legitimacy cannot guarantee the feasibility of using it. Distance, fair resource distribution, pandemic occurrences, the introduction of cutting-edge technology, and the need for a legal framework have all forced changes in the doctor–patient interaction. In a non-emergency phase,

***Corresponding author: Enrico Sicignano**, Department of Neurosciences, Science of Reproduction and Odontostomatology, University of Naples Federico II, Naples, Italy, E-mail: enrisici90@gmail.com

Mariagrazia Marisei, Department of Advanced Biomedical Sciences, University of Naples Federico II, Naples, Italy, E-mail: mariagrazia.marisei@unina.it

Felice Crocetto and Giovanni Pagano, Department of Neurosciences, Science of Reproduction and Odontostomatology, University of Naples Federico II, Naples, Italy, E-mail: giovanni.pagano1@outlook.it (G. Pagano). <https://orcid.org/0000-0003-2725-8530> (G. Pagano)

Luigi Napolitano, ASL Salerno, Salerno, Italy, E-mail: dr.luiginapolitano@gmail.com

it is believed that it is imperative to return to the relationship of care's central function, including its unquestionable importance as a determining factor in the method of care delivery option.

References

1. Marchetti D, Sgarbi I, Feola A, Marsella LT, Caricato M, La Monaca G. The breach of the informed consent and its compensation in the jurisprudence of the civil court of Rome (years 2012–2016) IL RISARCIMENTO DELLA VIOLAZIONE DEL CONSENSO INFORMATO NELLA GIURISPRUDENZA DEL TRIBUNALE CIVILE DI ROMA (ANNI 2012–2016). *Riv Ital Med Leg Dirit Campo Sanit* 2019;35:601–19.
2. Di Lorenzo P, Casella C, Marisei M, Sarno L, Aquino CI, Osuna E, et al. A COVID dilemma: how to manage pregnancies in case of severe respiratory failure? *Healthcare* 2023;11:486.
3. Law n. 219/2017. “Norme in materia di consenso informato e di disposizioni anticipate di trattamento” [Provisions for informed consent and advance directives]. *Gazzetta Ufficiale della Repubblica Italiana* S.G. n. 12. <https://www.gazzettaufficiale.it/eli/id/2018/1/16/18G00006/sg> [Accessed 27 Apr 2024].
4. Talyshinskii A, Naik N, Hameed BMZ, Juliebø-Jones P, Somani BK. Potential of AI-driven chatbots in urology: revolutionizing patient care through artificial intelligence. *Curr Urol Rep* 2024;25:9–18.
5. Naik N, Hameed BMZ, Nayak SG, Gera A, Nandyal SR, Shetty DK, et al. Telemedicine and telehealth in urology-what do the ‘patients’ think about it? *Front Surg* 2022;9:863576.
6. Haleem A, Javaid M, Singh RP, Suman R. Telemedicine for healthcare: capabilities, features, barriers, and applications. *Sens Int* 2021;2:100117.
7. Palanica A, Flaschner P, Thommandram A, Li M, Fossat Y. Physicians’ perceptions of chatbots in health care: cross-sectional web-based survey. *J Med Internet Res* 2019;21:e12887.
8. Gabrielson AT, Odisho AY, Canes D. Harnessing generative artificial intelligence to improve efficiency among urologists: welcome ChatGPT. *J Urol* 2023;209:827–9.
9. Symeonidis EN, Veneziano D, Borgmann H, Zapala Ł, Zachariou A, Brenneis H, et al. Telemedicine in urology: where have we been and where are we heading? *Eur Urol Open Sci* 2023;50:106–12.
10. Gadzinski AJ, Gore JL, Ellimoottil C, Odisho AY, Watts KL. Implementing telemedicine in response to the COVID-19 pandemic. *J Urol* 2020;204:14–16.
11. Sharma S, Rawal R, Shah D. Addressing the challenges of AI-based telemedicine: best practices and lessons learned. *J Educ Health Promot* 2023;12:338.
12. Fusco GM, Cirillo L, Abate M, Morra S, Morgera V, Barone B, et al. Male infertility, what mobile health applications “know”: quality analysis and adherence to European Association of Urology Guidelines. *Arch Ital Urol Androl* 2022;94:470–5.
13. Napolitano L, Cirillo L, Fusco GM, Abate M, Falcone A, Morgera V, et al. Premature ejaculation in the era of mobile health application: a current analysis and evaluation of adherence to EAU guidelines. *Arch Ital Urol Androl* 2022;94:328–33.
14. General Data Protection Regulation (EU GDPR) (2016). General Data Protection Regulation (EU GDPR) Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation); 2016. Available from: <https://eur-lex.europa.eu/eli/reg/2016/679/oj>.
15. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the adaptation of the rules on non-contractual civil liability to artificial intelligence.