

Familiarity, Attitudes and Ethical Concerns of Romanians Towards Targeted Drug Delivery Therapies Based on Wireless-Guided Nanocarriers. Research Based on ANGIE Project

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Abstract:

Unlike classical medicine, nanotechnology in clinical settings can significantly improve the possibilities of medical intervention. The ANGIE project is focused on developing Targeted Drug Delivery Therapies Based on Wireless-guided Nanocarriers to be implemented in cases where the classical medical therapies – surgeries and medications – cannot be used successfully or may cause other health risks: in oncology, in case of strokes, and neurology. However, due to the complexity and transdisciplinarity required in approaching the clinical implementation of the mentioned nanotherapies and the uncertainties related to their medical use, their marketing release may encounter numerous ethical issues, controversies, and population resistance. Therefore, the analysis of the ethical implications and the public understanding, perception, and attitude is the first stage for improving the acceptability of these therapies. In the first part of our study, we will analyse the main ethical issues debated in the literature regarding the clinical use of wireless-based targeted drug delivery therapies, also trying to catch a glimpse of what the literature may mention about the population's familiarity, perception and attitude towards the development of this new medical branch: nanomedicine. Furthermore, we will briefly expose the responses and tendencies of the participants in the study conducted at the Cardiology I Clinic, Cluj-Napoca, between April and June 2024, regarding the future extensive clinical implementation of the therapies based on wireless targeted drug delivery. The impact of the poor knowledge and understanding of possibilities offered by nanotherapies, uncertainties in the field, and the lack of ethical guidelines in this specific medical field could be observed through a mixed-method analysis of the participants' responses. In the discussion section, we will explore the hypothesis evidenced by the data correlation regarding the participants' familiarity and perception of nanotechnology with their attitude regarding science, religion, public figures and authority. Moreover, we'll have a better understanding of their tendencies by considering their ethical concerns regarding wireless targeted drug delivery therapies and the attitudes towards public campaigns for COVID-19 vaccination in Romania, compared with statistical data at the European level.

Keywords:

wireless targeted drug delivery therapy, nanoethics, survey, patient perception, Romania.