Focus on

# When nutrition becomes artificial: a bioethical issue

*Michele Karaboue*[1], *Michele Massaro*[1], *Karidia Karaboue*[2]
[1] Department of Clinical and Experimental Medicine, University of Foggia, Foggia, Italy; [2]Department of Precision Medicine, University of Campania Luigi Vanvitelli, Naples, Italy

**Abstract.** There is an inextricable link between nutrition in its various aspects and the general well-being of human beings. It is possible to draw up a guide for reflection as a proposal of bioethics to be applied to the reality of nutrition, starting from the analysis of human behavior. The focus is on the role of food for the human being from a bioethical point of view, highlighting the ethical value of nutrition and the psychological and socio-relational aspects associated with it. These aspects were then rejected in the context of quality of life and artificial nutrition in its various aspects.

**Key words:** Nutrition, artificial nutrition, bioethics

In recent decades, scientific research has made enormous progress, raising solid ethical questions. It is a new phase in the history of research in which human beings are in danger of going from being subjects to objects and instruments of other human beings.

Emerging anxieties have troubled man's conscience and led to a call for careful reflection on questions that, if not properly directed, tend increasingly to call into question the natural relationship between human life and technological progress, especially in the area of health. What may one do, and how may one act in medical practice? Bioethics addresses this question, which deals with the legality or illegality of interventions in human life (1,2). One of the many definitions might aim to designate a field of research that pays special attention to human behavior in the life and health sciences. Bioethics can be considered a relatively young discipline if one starts from 1970 with the American oncologist V.R. Potter, archaic if one considers that the Hippocratic Oath contains references to the primary duties of a good doctor.

Since the beginnings of this discipline, which identified itself with medical ethics, things have changed a great deal, while today, it directs its gaze to such a broad horizon that it shares the global expression of bioethics, i.e., applied to the entire biological field. Bioethics thus focuses its considerations on the behavior of the human person in the life and health sciences (3). A human being is a being who, in today's reality, is constantly in search of good health in everyday life, which enables him or her to achieve ever better goals to realize ever more ambitious life projects with a better quality of life (4).

The aim is to reflect on people plagued by illness and suffering or chronic diseases, especially in nutrition (5,6). It is not easy to bridge the gap between bioethics and nutrition (7). Nutrition is fundamental to maintaining health and well-being and preventing disease: poor or inadequate nutrition can lead to significant weight loss, generalized weakness, sarcopenia with changes in lung function, functional abilities, ability to exercise, increased disability, decreased immunocompetence and increased susceptibility to infection, skin changes and complicated wound healing, prolonged hospitalization (8,9). There are certain situations in which natural nutrition is not possible, and fundamental ethical questions arise when this is the case in the terminal stage of life (10,11). Is artificial nutrition special treatment or regular care? Should nutrition and hydration be conditional on patient consent? Is it possible to suspend treatment with artificial nutrition? Given the risk to the patient's life, does the

patient have the right to refuse treatment? Can health professionals decide to force-feed the sick person even if he or she explicitly refuses? An answer might emerge from deontological and legal references. Indeed, from an ethical point of view, any self-harming or neglectful attitude towards the sick person, to whom all attention must be given, is unacceptable.

Does the right to life always take precedence over individual autonomy and freedom? For believers, life is sacred as a gift from God and, as such, is not subject to human choices. According to this religious reference, life is not available to oneself or others.

Consequently, life must always be defended in all circumstances and conditions and in every form it manifests. This orientation toward the inviolability of life contrasts with the current tendency to grant the sick person, the subject and protagonist of his condition, freedom of choice in care that goes so far as to ask him even to dispose of his own life, especially when he is affected by illness and suffering. This principle of autonomy is strongly supported by utilitarian theories, which reserve judgement about the quality of life based on objective and measurable evaluation standards to decide whether a life is worth living and to act accordingly. There is still no single definition for the concept of quality of life. We are far from the self-perception from which the subjective and personal assessment of one's quality of life emerges (12). When we move from self-feeding to self-nutrition, we make a significant transition that is not only physiological but also psychosocial. Eating behavior activates emotional, relational, and affective situations related to eating. Under artificial feeding therapy, these behaviors become deprivations, both sensory (taste and smell) and social and affective. In our time, food intake, eating behaviors, and the act of eating have complex and multiple meanings and constantly intersect with the biological and affective and social spheres of a person's life. Eating is a dynamic behavior, a complex behavior, a set of variables. Thus, the type of food shared, the characteristics of the meal, or the frequency of consumption are robust indicators of affective bonds and are directly related to the establishment and reproduction of emotional relationships, which are fundamental elements of the characteristics of a person's life. We energize our bodies and our being as a person through the non-nutritive components. A person's first contact with food is through an affective relationship. Through breastfeeding, emotions and food are mixed, and this dimension of the connection between food and affectivity remains throughout our lives (13). It is a reality that we constantly mix, moving from physical needs to affective needs (14). To nourish is not only to give food for the needs of the body but also to give friendship to establish a relationship. When a patient can never eat again due to an illness and has to be tube fed, it is easy to imagine the profound life changes that result from the diagnosis of a chronic illness and the intervention of artificial feeding as a therapy (15,16).

The therapeutic intervention that alters diet does not necessarily prevent the patient from engaging in normal daily activities (17). Some patients can still work and travel and maintain their normal productive activities, but this therapy produces new biological, emotional and relational variables. Medical knowledge has undergone a profound restructuring in the past and recent history. Not only has there been a fragmentation of expertise, but some of this knowledge has been transferred to other professionals. Today, the physician is no longer the only interlocutor; he is often not even the interlocutor himself. Machines have become increasingly crucial between the medical professional and the sick person, weakening any human and humanizing approach (18). From an ethical point of view, we have moved from the time of medical paternalism, in which the doctor made decisions according to the principle of beneficence without the slightest participation of the sick person, to the time of self-determination, in which the autonomy of the sick person exercises a strict control over the decision-making process of the doctor and the medical act according to the principle of autonomy can end in the simple execution of the wishes of the sick person. With this principle, the medical act becomes positive not so much because it achieves the person's good but because it comes from the free decision of the sick person (19).

From this arises the need to establish an interpersonal relationship, that is, a therapeutic relationship between two subjectivities, two consciences, two free existences, whose action, however, is directed to the enhancement and realization of the human person and not to its limitation or destruction. Given the extensive

debate about artificial nutrition, intravenous or nasogastric feeding, while not a natural form of nutrition, is nonetheless a form of nutrition, and many believe that refusing or abstaining from it is an unacceptable decision (20). An autonomous decision contrary to the welfare of the sick person cannot support the principle of abstention of the physician, who is obliged to protect health and save a life. Another equally controversial issue is whether artificial nutrition should be considered an immediate human need, like personal hygiene. Today, artificial nutrition and hydration are well-established practices. However, caring for these people raises several complex and often emotionally sensitive issues. In addition to the medical aspects, ethical and legal concerns weigh heavily on family members, caregivers, nurses, and physicians. For certain diseases, artificial nutrition may be a practical decision to improve the quality and life expectancy of the patient. However, for terminally ill patients or those in the advanced stages of chronic disease, artificial nutrition offers no benefit to the patient and prolongs their suffering (21,22). People facing this decision are often plagued by fears and uncertainties, partly because they do not consider that death is a natural process in which the body requires fewer and fewer nutrients and fluids (23-25). Many even wonders if depriving a sick person of artificial nutrition and hydration will cause them to starve and die of thirst.

Artificial nutrition is a therapeutic intervention that should be performed only when medically indicated. At the same time, however, it is a decision that must be made with due regard for the general ethical principles recognized in medicine. Essentially, the question must be asked whether artificial nutrition therapy serves an achievable goal in the specific case and whether the foreseeable benefits outweigh the possible disadvantages or harm to the patient (26-28). Finally, after being informed of the advantages and disadvantages, one must ask whether the patient consents or could consent to this medical treatment. Such a decision is much more unambiguous if the patient is well-informed and capable of judgement and insight (29). The decision becomes more complicated when the patient is in critical condition, suffers from multiple diseases, has limited cognitive abilities, and may be very old and in the last stage of life. In any case, even a patient who has expressed refusal of nutrition always presents his or her caregivers with a dilemma (30).

**Conflict of Interest:** Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

## References

1. Szyma ski P. Discontinuation of hydration and nutrition in vegetative or minimally conscious state: No straightforward answer. Pol Arch Intern Med 2021;131(2):210-211.
2. Contaldo F, Alfonsi L, Santarpia L, Pasanisi F. Artificial nutrition at the bioethic cross-road between treatment and basic health care. Clin Nutr 2006;25(1):171-172.
3. Mazzariol B, Karaboue M, Di Luca A, Di Luca NM. Guidelines, good practices and best clinical health practices: Valuable guidance for physicians and judges?. Clin Ter 2018;169(6):E292-E296.
4. Borbón D, Borbón L. A Critical Perspective on NeuroRights: Comments Regarding Ethics and Law. Front Hum Neurosci 2021;15:703121.
5. Russo A, Reginelli A, Lacasella GV et al. Clinical Application of Ultra-High-Frequency Ultrasound. J Pers Med 2022;12(10):1733.
6. Cardenas D. Ethical issues and dilemmas in artificial nutrition and hydration. Clin Nutr ESPEN 2021;41:23-29.
7. Karaboue MAA, Lacasella GV, Cecannecchia C et al. End-of-Life in Italy: Critical and Bioethical Aspects of the Bill on Physician-Assisted Suicide. Med Histor 2022;6(1):e2022026.
8. Lacasella GV, Karaboue K. A short history of human nutrition from prehistory to ancient civilisations. Progress in Nutrition 2022;24(2): e2022135.
9. De Luca L, Veneziano FA, Karaboue M. Late Presenters with ST-Elevation Myocardial Infarction: A Call to Action. J Clin Med 2022;11(17):5169.
10. Sánchez-Sánchez E, Ruano-álvarez MA, Díaz-Jiménez J, Díaz AJ, Ordonez FJ. Enteral nutrition by nasogastric tube in adult patients under palliative care: A systematic review. Nutrients 2021;13(5):1562.
11. Cappabianca P, Russo GM, Atripaldi U et al. Universal Access to Advanced Imaging and Healthcare Protection: UHC and Diagnostic Imaging. Med Sci (Basel) 2021;9(4):61.
12. Pawlikowski J, Muszala A, Gajewski P, Krajnik M. Discontinuation of hydration and nutrition in vegetative or minimally conscious state: No straightforward answer authors' reply. Pol Arch Intern Med 2021;131(2):211-212.
13. Karaboue MAA, Milone V, Lacasella GV et al. What will our children do when we are gone? Italian legislature does not tackle the worries of parents of disabled children. Reflections on disability. Med Histor 2022;6(1):e2022013
14. Palaia G, Bossù M, Pranno N et al. Oral Pathologies in Migrants: The Experience of the "PROTECT" Project in 3023

Patients. Applied Sciences 2022;12(24):12621.
15. Karaboue MAA, Ferrara M, Bertozzi G et al. To vaccinate or not: literacy against hesitancy. Med Histor 2022;6(1):e2022014
16. Rochford A. Ethics of providing clinically assisted nutrition and hydration: Current issues. Frontline Gastroenterol 2021;12(2):128-132.
17. Bernetti A, La Russa R, De Sire A et al. Cervical Spine Manipulations: Role of Diagnostic Procedures, Effectiveness, and Safety from a Rehabilitation and Forensic Medicine Perspective: A Systematic Review. Diagnostics 2022;12(5):1056
18. Hochwald IH, Yakov G, Radomyslsky Z, Danon Y, Nissanholtz-Gannot R. Ethical challenges in end-stage dementia: Perspectives of professionals and family care-givers. Nurs Ethics 2021;28(7-8):1228-1243.
19. Cantisani V, Iannetti G, Miele V et al. Addendum to the sonographic medical act. J Ultrasound 2021;24(3):229-230
20. Allen W. Medical Ethics Issues in Dementia and End of Life. Curr Psychiatry Rep 2020;22(6):31.
21. Fiorini F, Granata A, Battaglia Y, Karaboue MAA. Talking about medicine through mass media. G Ital Nefrol 2019;36(1):2019-vol1
22. Newcomer KF, Fine RL, Newman AF. Food as Love: Ethical and Moral Dilemmas in Withdrawal of Artificial Nutrition and Hydration in the Minimally Conscious State. J Palliat Care 2021;8258597211014359.
23. Giaconi C, Manetti AC, Turco S, et al. Post-mortem computer tomography in ten cases of death while diving: a retrospective evaluation. Radiol Med 2022;127(3):318-329.
24. Cheon E, Kazandjian M, Jones T, Henry B. Session 5: End of life feeding. Physiol Behav 2020;224:113049.
25. Pastorini A, Karaboue M, Di Luca A, Mario di Luca NM, Ciallella C. Medico-legal aspects of tort law patient safeguards within the Gelli-Bianco piece of legislation. Clin Ter 2018;169(4):e170-e177.
26. Tuesen LD, Bülow HH, Ågård AS et al. Patient-physician conversations about life-sustaining treatment: Treatment preferences and participant assessments. Palliat Support Care 2023;21(1):20-26.
27. Zanza C, Tornatore G, Naturale C et al.Cervical spine injury: clinical and medico-legal overview. Radiol Med 2023;128(1):103-112
28. Morena D, Delogu G, Volonnino G, Alessandrini S, Karaboue MAA, Arcangeli M. COVID-19 Risk Management: a Survey among Italian physicians. Clin Ter 2023;174(2):167-179.
29. Cioffi A, Cecannecchia C, Baldari B, Karaboue MAA. Informal caregivers in Italy: the 'phantom zone' of welfare. Acta Biomed 2023;94(1):e2023018.
30. Lacasella GV, Karaboue K. Nutrition and hydration of patients in a persistent vegetative state. Progress in Nutrition 2022;24(2):e2022136.

**Correspondence:**
Karidia Karaboue
University of Campania Luigi Vanvitelli,
Piazza Luigi Miraglia
Naples - Italy
E-mail: info@karaboue.it