

# Nutrology: a specialty in the light of Aristotle's theory of virtues

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## Abstract

This essay defends nutrology from Aristotle's theory of virtues, focusing on the concept of *prudence* (*phrónesis*). It is argued that medicine, and, by extension, nutrology, is a form of practical prudence, crucial for the integral treatment of patients. The text explores how rational action in medicine is informed by a goal, which has prudence as a vital element to apply general principles in specific actions. Medical diagnosis, perfectible and discursive, is examined as a process that aligns the physician's mental representations with the patient's context. Therapy is presented as a series of actions that induce desired organic responses, with medical prudence directing the choice of treatments. It is concluded that medicine, including nutrology, represents a specific prudence, justified by the need for specialized approaches to nutritional disorders and diseases.

**Keywords:** Nutrology. Clinical diagnosis. Clinical medicine. Nutrition therapy.

## Resumo

### Nutrologia: especialidade à luz da doutrina aristotélica das virtudes

Este ensaio defende a nutrologia por meio da doutrina das virtudes de Aristóteles, com foco no conceito de *prudência* (*phrónesis*). Argumenta-se que a medicina, e por extensão a nutrologia, é uma forma de prudência prática, crucial para o tratamento integral do paciente. O texto explora como a ação racional em medicina é orientada por um objetivo, o qual tem a prudência como elemento vital para aplicar os princípios gerais em ações específicas. O diagnóstico médico, perfectível e discursivo, é examinado como um processo que alinha as representações mentais do médico à realidade do paciente. A terapia é apresentada como uma série de ações que induzem respostas orgânicas desejadas, com a prudência médica direcionando a escolha de tratamentos. Conclui-se que a medicina, incluindo a nutrologia, representa uma prudência específica, justificada pela necessidade de abordagens especializadas para os distúrbios e as doenças nutricionais.

**Palavras-chave:** Nutrologia. Diagnóstico clínico. Medicina clínica. Terapia nutricional.

## Resumen

### Nutrología: una especialidad a la luz de la doctrina aristotélica de las virtudes

Este ensayo defiende la nutrología a través de la doctrina aristotélica de las virtudes, centrándose en el concepto de *prudencia* (*phrónesis*). Sostiene que la medicina, y por extensión la nutrología, es una forma de prudencia práctica, crucial para el tratamiento integral del paciente. El texto explora cómo la acción racional en medicina está guiada por una meta, que tiene a la prudencia como elemento vital en la aplicación de principios generales a acciones específicas. El diagnóstico médico, perfectible y discursivo, se examina como un proceso que alinea las representaciones mentales del médico con la realidad del paciente. La terapia se presenta como una serie de acciones que inducen respuestas orgánicas deseadas, siendo la prudencia médica la que dirige la elección de los tratamientos. Se concluye que la medicina, incluida la nutrología, representa una prudencia específica, justificada por la necesidad de enfoques especializados de los trastornos y enfermedades nutricionales.

**Palabras clave:** Nutrología. Diagnóstico Clínico. Medicina clínica. Terapia nutricional.

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Nutrology, according to the Brazilian Association of Nutrology (ABRAN), is a *medical specialty that comprises all aspects of nutrition, from normal to pathological and therapeutic aspects. Nutrologists are medical practitioners responsible for diagnosing, preventing, and treating nutrition-related diseases. This specialty studies the negative effects caused by inadequate nutrient intake and uses this knowledge to assess the needs of our body, aiming to preserve health and reduce the risk of diseases*<sup>1</sup>. Despite being official, the definition did not end debates about the area of activity of nutrologists in relation to other health care professionals, with legal opinions being frequently issued by the Regional Councils of Medicine regarding doubts related to the area of activity of nutrologists<sup>2-6</sup>.

A difference in the status of nutrology as a formally constituted specialty in the Americas and Europe further intensifies the controversy. Latin American schools—especially Brazilian and Mexican ones—recognize nutrology as a specialty of medicine<sup>7,8</sup>. In Anglo-Saxon countries, nutrology has its equivalent in *clinical nutrition*, which, according to Butterworth, is *the branch of health sciences that deals with the diagnosis, treatment and prevention of human diseases caused by metabolic deficiency, excess or imbalance of dietary nutrients*<sup>9</sup>. Although anglophone authors advocate the need for basic knowledge in nutrition in medical training, including certifications by expert societies, they do not presuppose the requirement of a constituted medical specialty.

The main objective of this essay is to defend the legitimacy and necessity of nutrology as a distinct medical specialty, emphasizing the perspective of Latin American schools, especially the Brazilian and Mexican schools. To this end, Aristotle's theory of virtues—in particular the concept of *prudence (phrónesis)*—is used to substantiate the importance of nutrology.

It is argued that, just as medicine in general can be considered as a form of practical prudence, nutrology, with a specific focus on endogenous and exogenous caloric and functional substrates, represents a specialized form of this prudence, being necessary for the integral treatment of patients. In discussing these points, the essay affirms the position of nutrology as a vital medical specialty and emphasizes the integration

of Aristotelian wisdom into medical practice, promoting a more ethical and holistic approach to patient care.

## Development: medicine as prudence

Whoever acts does so for some reason or purpose, and the rational action of a rational agent indicates a determined goal, which specifies the action of the agent—that is, the action is specifiable by its end. For example, when the action is the rational activity directed to the drafting of texts, we have writing; when the action has as objective the construction of buildings, we have engineering; and when the objective is the restoration of health, we have health sciences, such as medicine and veterinary medicine.

The purposes of a given action are achieved according to the excellence of the agent. According to Aristotle<sup>10</sup>, the exercise of virtues perfects the rational agent. In *Nicomachean Ethics*, the philosopher addresses the four main practical virtues: temperance, fortitude, justice and prudence.

The virtue of temperance consists in the habit of making choices in the light of reason, with a view to the ultimate end of the agent: that which is good for the body. Guided by reason, temperance seeks a middle ground between deprivation and excess, which enables the person to have control over impulses and desires, without compromising their goals. By means of temperance, one avoids excessive pleasures, such as eating or drinking too much; therefore, this virtue is crucial in a world with easy access to excesses.

The virtue of fortitude, or courage, consists in the repeated habit of choosing, in the light of reason, what is necessary, even if arduous. It enables one to face dangerous situations without renouncing ethical and moral principles, being essential in situations of crisis or challenge, as it enables one to overcome obstacles and maintain resolution in the face of adversity.

Justice guides us to give each one what is due, respecting the rights of equality and dignity of others, and recognizes rights and laws, in a way that is fundamental in all social interactions, since it promotes harmony and mutual respect in the community. It is important to note that,

from the Aristotelian perspective, man is a political animal (*zoon politikon*), and justice is essential for society.

Finally, prudence, or phronesis, is the intellectual virtue that judges specific and concrete situations based on the agent's common sense, general principles, and specific knowledge. It is founded on the Aristotelian concept of phronesis, or practical wisdom—that is, knowing what to do and understanding why to do it, considering general principles, circumstances and moral ends<sup>11</sup>. It is a deliberative skill that seeks the good, especially human good.

Guided by reason, phronesis is the virtue that perfects decision-making supported by the other virtues, being vital in a complex and rapidly changing world where decisions must be made with care and discernment. It is through phronesis that principles such as those of general sciences and of specific sciences—medical knowledge, for example—are properly applied to a particular case, which, in the medical case, is the patient.

Each of these virtues, when practiced, contributes to the development of a balanced and ethical character, enabling individuals to navigate successfully and with integrity in their personal and professional lives. The application of these virtues is not limited to a specific field, but permeates every aspect of human existence, providing a guide to living a full and meaningful life.

Among the virtues above, prudence is of special interest to medical specialties, since, despite a given action having a unique objective, it can be achieved in several manners, depending on the circumstances. The rational agent must choose the best course of action according to the occasion, means, and resources. It should be noted that the rational agent may not act rationally when affected by passions of the soul, as in cases of lack of temperance, or when subjugated by fear—a case of lack of fortitude.

In the best possible scenario, the rational agent is in full possession of prudence, guided by the reason of an end, and, in the choices they make, they will be limited by their knowledge and historical context. Knowledge may have been accumulated by inductive means, deductive means, direct experience, or by faith in the accounts of

others. All the time, this rational agent is prompted to carry out the complex operation of translating general principles into specific and individual actions, delimited by the circumstances of their historical period. This operation, which occurs in all fields of human action, is profoundly influenced by prudence.

Prudence is not only an intellectual virtue, but also a practical skill involving the wise application of knowledge. It enables the rational agent to evaluate and integrate different types of knowledge, adapting them to the needs and limitations of the moment. Therefore, it is essential to navigate the ever-changing sea of information and contexts.

Prudence is also the key to translating general principles into specific actions, as it involves discernment to understand how principles apply in concrete situations, considering circumstances and moral ends. As a practical judgment skill, it is crucial in making decisions that are ethical, effective and adapted to reality; in the face of complex challenges, it empowers the agent to make well-considered and well-informed decisions. It involves careful assessment of all variables, leading to choices that balance the ideal and the possible, the theoretical and the practical.

While this approach is applicable in all fields of human action, it is especially relevant in fields where decisions have profound implications, such as medicine. However, the same principle is applicable in other fields such as education, justice, politics and trade. In each of these fields, the rational agent faces the ongoing challenge of applying universal principles to specific situations, always within the context of their limitations and possibilities.

Thus, prudence stands out as a central virtue in human experience, shaping not only individual actions but also influencing the course of history and the development of societies. It is the compass that guides the rational agent through the complex process of making wise and adapted decisions, which are essential for human progress and well-being.

Since prudent action takes into consideration prior knowledge and a specific action, medicine is a type of prudence that takes into consideration its own knowledge and actions. Thus, it is the

organization of human knowledge and ingenuity applied to the restoration of the clinical condition to a state of health, being, therefore, a practical science. The application of this theoretical and practical knowledge to the ultimate reality, which is the patient, is unique, since their clinical conditions are specific, temporally determined and resulting from several factors, such as historical, socio-cultural, economic, and psychological determinants, among others.

Knowledge for a medical action is a type of judgment regarding a clinical condition that originates from a representation of the clinical condition in the physician's mind. This representation is built on the principles learned during their training and enhanced by practice, experience, mistakes and successes lived and witnessed. The final judgment directed to a clinical problem is the "diagnosis," whose veracity occurs when the physician's mental representation is consistent with the patient's objective context<sup>12</sup>.

The diagnosis may be true without being complete, as in the case where "sepsis" is stated, but without defining the etiology; or when "heart failure" is defined without knowing the etiology. It is not born perfect, but it is perfectible and can gradually apprehend reality. In addition to being generic, the diagnosis is not always successful immediately, as it is discursive, deduced from premises—historical data, physical examinations and complementary methods. Less often, the diagnosis is intuitive.

Just as judgment relates to diagnosis, action relates to therapy, understood as the set of procedures that, applied in a certain way, induce sufficient stimulation to trigger an organic response and a desired clinical effect, aligned with the recovery of health. Therapies can be based on different types of stimuli. Examples of stimuli are: electrical cardioversion, surgical procedures, antibiotic cycle, chemotherapy session, and psychoanalysis session.

The idea of stimulus presupposes the notion of threshold: the stimulus must have a certain intensity to be perceived by the organism—for example, subliminal doses may not have the desired effect, while excessive doses may have undesired effects. In order to reach the threshold of effect, stimuli are regulated as to intensity,

frequency, duration and composition, according to the type of patient and clinical condition to be treated.

Accordingly, medical specialties are justified because general medical prudence can be specified into forms of prudence specified as per knowledge objects or actions. According to Oliveira and Marchini<sup>8</sup>, nutrology is this medical specialty in which nutrients act throughout the human organism, such as infectious diseases or immunology. And nutrology is different from specialties that deal with organs or systems, such as cardiology or hematology. Nutritional disorders are those that have nutrients as direct or indirect agents.

Specific prudences are also subject to the consequences of more general prudences. Medical agents—including specialists—can act in a virtuous or vicious manner with regard to the knowledge-diagnosis and action-therapy binomials. It will be virtuous when they: a) advise in the best possible way, considering the different aspects related to the same objective context; b) judge taking into consideration the best information available at the time, even if the diagnostic judgment is not clear or certain; and c) direct the action, which, in the medical field, means ordering the treatment.

Action can also be corrupted by repeating the bad habits of prudence: a) negligence, when there is insufficient care or diligence/vigilance necessary to meet the objectives; b) imprudence, when the risk is disproportionately estimated, issuing or acting according to an imprudent judgment; and c) malpractice, when there is deficient theoretical and practical knowledge. Therefore, the main medical errors are precisely negligence, malpractice and imprudence, and, according to the Code of Medical Ethics, chapter 3, art. 1, physicians are prohibited from *causing damage to patients, by action or omission, characterizable as malpractice, imprudence or negligence*<sup>13</sup>.

## Final considerations


In light of the Aristotelian theory of virtues, medicine can be understood as a kind of prudence, in which the objective is the recovery of patient health and, as such, admits specific

prudences, according to their corresponding objects. The specific prudence of medicine that deals with the individual's relations with food, especially when they involve health disorders, constitutes and justifies the existence of the nutrology speciality.

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