

Administrative Staff and Ethical Commitment

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ABSTRACT

The article's main objective is to explore the need for an ethical administrative commitment, considering the importance of empathic behavior in care and building trust with patients and their relatives. In the context of the Emergency Center, the value of maintaining continuous training in human care skills is highlighted, especially in situations of high demand and limited resources, considering the purposes and meanings in decision-making and management of administrative activities, as well as the need to include their companions as an integral part of patient care. In addition, we recognize the contribution of ethical clinical practice and equity in health care with a conscious and flexible commitment to administrative management to promote an authentic relationship with the patient and a greater awareness of ethical values.

Key words: administrative ethical commitment, empathy, equity, comprehensive ethics.

El personal administrativo y el compromiso ético

RESUMEN

El objetivo principal del artículo es explorar la necesidad de un compromiso ético-administrativo, considerando la importancia del comportamiento empático en la atención y la construcción de confianza con los pacientes y sus allegados. En el contexto de la Central de Emergencias se destaca el valor de mantener una formación continua en las habilidades del cuidado humano, especialmente en situaciones de alta demanda y recursos limitados, considerándose los fines y significados en la toma de decisiones y en la gestión de las actividades administrativas, así como la necesidad de incluir a sus acompañantes como parte integral del cuidado del paciente. Además, se reconoce el aporte tanto de la ética clínica como la equidad en la atención médica con el compromiso consciente y flexible en la gestión administrativa para promover una relación auténtica con el paciente y una mayor conciencia de los valores éticos.

Palabras clave: compromiso ético-administrativo, empatía, equidad, ética integral.

λύειν δ' οὐκ ἔστιν ἀγνοοῦντας τὸν δεσμόν

"Moreover, he who does not know a knot cannot possibly untie it." Aristotles

This article explores the need for an ethical commitment from administrative staff in the Emergency

Center (EC), analogous to the Hippocratic oath and the ethics codes of the healthcare team. The analysis involves various scenarios and suggests considering the preeminence of empathic behavior, building trust with patients and their families, and the relevance of maintaining ongoing training in the arts of human care.

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INTERCONNECTION AND PRINCIPLES FOR INTEGRATED CARE

The requirement for a unified ethical commitment in medicine has been a recurring theme. For example, Smith, Hiatt, and Berwick² discuss the complexity and interconnection of different disciplines within the healthcare system and propose a common foundation of ethical principles to guide all involved. The mention of the evolution of medicine from an individual service to a more complex system reflects the changes and challenges in healthcare delivery.

On the other hand, Limentani³ addresses the relevance and limitations of a universal ethical code in healthcare, emphasizing that - while these codes are crucial - they cannot solve all specific ethical problems, thus underscoring individual moral responsibility. Even though these studies provide a solid foundation, it's important to recognize that they primarily focus on healthcare personnel and do not specifically address the administrative field.

We need to understand that ethics guides not only the direct actions of patient care but also permeates administrative decisions and policies. In this sense, before delving deeper into the crux of the matter, it's pertinent to establish some preliminary definitions. We can infer that deontology has a practical applicability that seeks to provide a tool for determining, under specific rules, when an act is close to good or bad. According to Kropotkin⁴, mutual aid, justice, and the spirit of sacrifice are the three elements of morality forming the basis of human ethics.

Introducing the moral aspects that guide rules of conduct, it's necessary to highlight that ethics primarily aims to establish values, norms underlying responsibilities, and the practice of a profession.

Marciano Vidal⁵ emphasizes that free and responsible decisions of individuals are fundamental in human actions and in shaping reality, reaffirming the individual as the source and content of the ethical dimension rather than the tangible value of an institution. There exists a tension between individual action and institutional structures in ethics. The individualistic approach relies on personal responsibility, while the collective approach places responsibility on the collective and institutions. Real ethics integrates individual and collective responsibility along with the impact of decisions on both the present, institutional, and structural levels. Vidal emphasizes the consideration of the pursuit of "ends" and "meanings."

We argue that in the Emergency Center (EC), "ends" refer here not only to treating medical conditions effectively but also to delivering care that respects the dignity and emotional well-being of the patient and their caregivers. "Meanings," on the other hand, would relate to the interpretation and value that patients and administrative staff assign to these interactions and decisions, highlighting the significance of adopting a more compassionate and responsible approach. In the field of the Emergency Center, operational efficiency is often the primary goal in patient care, which can lead to overlooking compassionate, responsible principles.

This trend towards 'instrumental reasoning' prioritizes quick solutions but may neglect crucial aspects of care. Thus, we should foster a balance that appreciates efficacy, responsible purposes, and values in decision-making. In doing so, a patient-centered approach to EC management begins where the quality of human relationships and empathetic care are as important as the efficient resolution of tasks.

Fernando Ulloa⁶ challenges with his description of what an institutional organization means: an entity with a geography and scheduling of time and responsibilities with objectives to achieve and the means suitable for this purpose, all regulated by a code and explicit and implicit norms.

It is worth clarifying that Ulloa articulates these guidelines with the caveat that tenderness is the ethical basis of the individual. In this regard, Ana María Fernández⁷ rightly opines that discussing tenderness at these times is not a minor issue, nor does it touch on naivety, but it is a form of resistance to the persistent cruelty of social bonds.

In the same vein, Morgan⁸ writes about the concept of a cultural metaphor a while after publishing his study on organizational metaphors as generators of rationality in the everyday life of an organization. The author concludes that the metaphors of machine and organization were insufficient for fully accounting for their structure; they could not be limited solely to the tangible realm since actors, as social agents, bring their culture and jointly create an institutional culture. Thus, the organization breathes its unique culture through its values, symbols, and stories.

Similarly, weaving together preliminary aspects to delve into development and shed light on the issue, Pichon-Rivière⁹ paves the way with the concept of ECRO, which he called Conceptual Referential and Operational Scheme (Esquema Conceptual Referencial y Operativo), the model that - through the instrumentation of three subjective elements: feeling, thinking, acting - allows for an appropriate representation of reality. That is, subjects construct their history and, based on their learned successes and errors, evolve, which enables them to understand the world to avoid chaos; if they lose this condition, they may not perceive reality as it is. With this method, the subject is found in their environment to understand their behavior. As ECRO proposes a comprehensive view of the individual in their context, considering the companion in medical care expands the understanding of the patient's experience. That aligns with the idea that care in the Emergency Center (EC) should not only focus on the clinical aspect but also consider the emotional and social context of the patient. Thus, a comprehensive ethical conception of the patient's journey in EC should not underestimate the value of companions, as they play a fundamental role in the hospital environment. The structure and process of care often separate the patient, which frequently results in a lack of information because - even if they are receiving optimal medical care - the process can become

complicated if the companion remains unconsidered.

Consequently, emergency management adopts a horizontal and dialogical perspective, placing the patient and their context at the center of all actions. This approach defines the code of conduct for the team, comprised of medical, nursing, technical, office staff, and those in supporting roles such as hospitality, cleaning, and security. It is paramount that each team member reflects these values in their performance. Thus, emergency care fosters an approach that respects and values the diverse contributions of all team members, emphasizing the importance of effective collaboration and mutual respect in emergencies.

HISTORICAL AND INSTITUTIONAL ASPECTS

Zimmerl¹⁰, starting in the 1950s, assumes that each civilization has to produce its specific symbols according to its historical moment, as a truth from the 5th century may not have the same effect these days. In ancient India, at the dawn of safeguarding human freedom, there was the idea that our mind had the will to choose between the dispositions that lead us towards good and those that incline us towards evil and that it is in our hands to make that conscious act, and then start the inexorable cause-effect relationship.

In this context, if we delve into history, the first commitment regarding the care of the sick dates back to a past in which the figure of the physician as known today did not exist, as the practice was often in the hands of priests, healers, and other untrained experts. Karchmer¹¹ states that the Hippocratic Oath became an adapted guide for the medical practice. However, it is not exclusive to the medical field, as other healthcare professionals also adhere to ethical codes and professional standards.

Hippocrates established a series of behavioral parameters in medicine that, although modified over time, retain a relevant spirit today. Lain Entralgo¹² commented: "Alcmaeon was the initiator of physiological medicine; Hippocrates, its true founder." This idea highlights the lasting influence of Hippocrates on medical ethics, emphasizing that his legacy goes beyond a set of rules, encompassing a comprehensive philosophy of care and responsibility towards patients.

The ancient ethical principles remain relevant and apply to modern methods such as traceability. This link between the historical and the contemporary can provide a richer and more complete perspective on the evolution of ethics in the healthcare system. Patient traceability, meaning tracking and documenting their journey through the whole care process, plays a central role in the quality of care and decision-making.

However, in all healthcare facilities, a normative guide is shared by all stakeholders that contributes to the organizational culture. Nevertheless, the nature of the responsibilities of an administrator differs from those of healthcare personnel and, therefore, does not adhere to the same ethical code.

However, Smith, Hyatt, and Berwick¹³ stated, some years ago, that the unification of a code for the healthcare

setting would be beneficial to bring together all the actors involved in the patient care process interested in healthcare in a cooperative and mutually respectful scenario.

The Chinese Ministry of Health¹⁴ also advocated for a "Code of Conduct" applicable to professionals at all levels, including managers, physicians, nurses, pharmacists, doctors, and other personnel involved in the traceability of a patient's care.

On the other hand, we can briefly explore different institutions and authors that define the ethical limits of healthcare; for example, Kraus et al.¹⁵ states that the "Code of Ethics for Emergency Physicians" of the American College of Emergency Physicians (ACEP) establishes general principles akin to the Hippocratic Oath, relating to responsibility, integrity, respect, confidentiality, teamwork, patient safety, indispensable attributes as valuable as the duty to allocate resources with expertise and to act as responsible health administrators.

The World Medical Association's oldest policy is the Declaration of Geneva, essentially the modern Hippocratic Oath, a rite of passage for many physicians worldwide. From the earliest traces of care, through shamans to modern medicine, it has been demonstrated how healthcare professionals have gradually been attributed a distinct moral demand compared to other areas of knowledge³.

In this regard, to link the administrative issue, Diego Gracia¹⁶ distinguished between an ethical discipline in this field and the invaluable fact that health administrators must be aware of their role in decision-making and in implementing policies that benefit the quality of patient service. In addition to fulfilling their technical task, the administrator has an ethical responsibility towards the patient and society.

While it is usual to normalize behavior under an ethical code, it is preferred to analyze, for this specific case, the acceptance of ethical commitment because the word "code" is perceived as inflexible and prescriptive.

The word "code" comes from the Latin "codex," which originally referred to a wooden tablet covered in wax on which laws were written, which over the years became norms written in a systematic format. Although its connotation is rigid, it does not imply an absolute limitation as long as the possibility of adaptation to new situations is allowed. Ethics is in continual evolution and reflection; its tools must be flexible enough to address the ethical challenges and dilemmas that may arise.

Conscious commitment provides flexibility and emphasizes individual responsibility. Administrative staff assume responsibility for self-interest and establishing a more authentic relationship with the patient, thus promoting a greater awareness of ethical values.

An ethical commitment in administrative management esteems both clinical ethics and equity in healthcare, recognizing that both are important to ensure the quality and safety of healthcare. According to

Reddy and Mythri¹⁷, clinical ethics refers to the ethical standards and principles governing medical practice in the patient-health professional relationship. On the other hand, equity in healthcare refers to the fair distribution of healthcare resources and services, regardless of the patient's socioeconomic, cultural, or any other condition. Administrators must ensure that resources and services get distributed fairly and justly, ensuring that access to health care for all patients, especially those in vulnerable situations, is considered.

Rivas Flores and Rivas Gayo¹⁸ state that "the interpersonal relationship constitutes the ethical basis of the healthcare relationship, in which the values of each of the parties are at stake, and different ways of understanding the situation come into play." In light of this reference, CE administrators often encounter situations where they make decisions that directly or indirectly affect the quality and safety of patient healthcare, such as resource allocation and the organization of medical services.

ADVANTAGES AND DISADVANTAGES OF AN ETHICAL ADMINISTRATIVE COMMITMENT

It is opportune to cite Ortega y Gasset¹⁹, who criticizes and suggests that in history, there exists a singular pre-established harmony that relates the periods in which freedom of thought became restricted with the periods in which intellectuals did not raise their voices on humanistic issues. In our days, already marked by the COVID-19 pandemic, this reasoning unfolds as a criticism of the disconnection between theory and practice.

Based on the above, although there is ample dialogue and writing about the benefits of developing soft skills and ethics in today's society, there is often a gap between words and deeds. In other words, there is a lack of consistency in how ethical standards translate into the practice of empathy in daily life. We are coexisting in an era where politics and restrictive ideology are impairing our ability to think and act accordingly.

According to the United Nations Office on Drugs and Crime²⁰, one of the most thorny issues arising here is whether there is a conflict between the role's morality and the administrator's ethics. Administrators carry out their tasks in adherence to standardized norms, and this responsibility towards the patient does not provoke much controversy. To some extent, the duties in different professions may involve behaviors that conflict with personal ethics. The issue of ethical codes runs through the vast majority of professionals: irrespective of academic degree, they will face the obligatory nature of the practice.

An example of an ethical conflict in which an administrator gets involved arises when a patient with a specific pathology is admitted to the CE but lacks the necessary financial resources for diagnosis and requires transfer to a public hospital for continued care. This action is justified in the private sphere as long as the patient is not at risk of life (nor would the transfer jeopardize their health conditions). This regulation may undermine the

individual ethics of the administrator and likely that of a significant portion of society, but within the hospital framework, the norm justifies the transfer action. The administrator is mindful that the Institution is committed to providing the best possible care to the patient, ensuring their well-being until transfer is possible; consequently, it is the responsibility of the staff member to facilitate the transfer swiftly for the benefit of the patient and the Institution.

Therefore, one of the arguments in favor of the administrative staff accepting this specific commitment is that their actions contribute to improving the quality of care, and this act promotes an ethical culture that could increase patients' trust in the organization.

However, there are arguments against administrative staff signing an additional ethical commitment. It is paramount to distinguish between existing codes of conduct and this proposed ethical commitment. While current regulations provide a framework for general conduct, the ethics commitment seeks to deepen individual responsibility and dedication to moral values in patient care.

While the proposed ethical commitment aims to complement rather than replace existing regulations, its implementation could raise some concerns. For example, it could create confusion regarding the responsibilities and role of the administrative staff, especially if they already have a hospital ethical code with clear conduct standards.

Perhaps this new commitment could complicate the ethical-legal landscape. It is possible that some form of requirement could raise questions of a union nature, and the administrative staff might consider this requirement unfair and discriminatory.

For this reason, addressing any change in ethical expectations should be done in the context of an open discussion between the hospital and the employee. Should the hospital wish for the administrator to assume greater ethical responsibility, it is necessary to communicate the reasons behind this expectation, provide appropriate training, and note that any changes must be consistent with current legal regulations and standards. If this commitment is required to be accepted, there must legally be a basis for it and the necessary resources for the manager to comply with it. There should be an agreement addressing the hospital's needs and the employee's expectations and ensuring that any changes introduced are fair and transparent.

While the administrative staff of the CE has a distinct task from that of any other sector of the hospital in terms of the demand and requirement for speed in attention and the intervention of multiple processes, emphasis is placed on the fact that all employees have a significant role in patient care and maintaining the hospital's reputation.

Achieving a goal of this magnitude may be a tall order to pursue. Yet, a collaborative and dialogic approach might be helpful to assess the acceptance of such a commitment to ensure a more humane quality

of service for the patient and their loved ones. It would allow all stakeholders in the decision to express their opinions and concerns on the matter and contribute to identifying potential benefits and challenges associated with implementation.

THE RICHEST FIELD: TOWARDS TRANSDISCIPLINARITY

Funtowicz and Ravetz²¹ conducted a comprehensive analysis of the value of dialogue and collaboration in addressing social issues, emphasizing the participation of experts and all stakeholders. They highlighted the need to foster a transdisciplinary understanding of health matters, proposing the expansion of disciplinary boundaries to encompass a diversity of aspects: biological, psychological, social, cultural, and environmental.

In a new study, Funtowicz²² examines the benefits of knowledge exchange and knowledge coproduction, focusing on increasing citizen participation that “could be ethically fair or politically correct,” thus improving the quality of decision-making processes.

The concept of participatory dialogue mentioned by the authors promotes the development of methods to achieve dialogue between science and society. Transdisciplinary management is an approach that seeks to address complex and interdisciplinary problems collaboratively, involving different disciplines, actors, and perspectives¹⁹.

In the case of knowledge management, transdisciplinarity is essential to ensure that the knowledge and skills from different disciplines are shared and effectively utilized in patient care.

In a way, administrative bureaucracy hinders this management. According to Farfán Buitrago and Garzón Castrillón, bureaucratic policies and procedures limit the ability of actors from different disciplines to collaborate effectively and share knowledge and experiences.

The COVID-19 pandemic has intensified these challenges, increasing the workload and stress of the staff overall. This situation has highlighted the need to focus not only on the patient but also on the well-being of the staff. In this context, it becomes essential to promote interdisciplinary collaboration and the reduction of bureaucratic barriers to strengthen a more resilient and human-centered health system.

Administrative staff should strengthen aspects related to the development of empathy, together with the health care personnel, to solve problems collaboratively, sharing knowledge and skills to secure more humanized patient care. Ensuring that sufficient support and resources are provided to the administrative staff so they carry out their functions is very important. It entails the provision of additional resources, such as conducting psychological support activities and establishing a healthy work environment.

The active participation of staff and the organization depends on various factors. On the one hand, accepting a commitment could ensure that the administrative staff will be involved in the quality of the service and

patient-centered well-being. On the other hand, some administrative staff members may not be at ease with the trade-off that comes with it. Although there are evident benefits, there are counter-arguments to this measure, such as the possible difficulty of applying it to all functions and responsibilities of a diverse staff and the likelihood that its implementation may divert attention from other critical organizational needs. Therefore, this evaluation must integrate the criteria and collaboration of all stakeholders and needs an effective and sustainable implementation.

This work contributes to the field of bioethics, emphasizing the importance of administrative staff in emergency care, an aspect that has been little explored in the literature until now. Such a perspective broadens the traditional understanding in this domain by integrating essential non-clinical roles in healthcare. Claude Bernard showed medicine as an indissoluble whole. He argued that the body should be considered in unity, not in isolation, where each organ and system is interrelated and contributes to the overall functioning. This idea resonates strongly in this discussion because, at the same time, it is essential in emergency care to integrate ethical practices that include all emergency personnel, ensuring that each team member promotes a patient-centered environment where cohesion and interdependence are the keys to effective and compassionate care. This assertion takes on an additional dimension. Bernard recognized that the body is a ‘microcosm’ reflecting the ‘macrocosm,’ a concept that underlines the fundamental unity between the organism and the universe and emphasizes the complexity and interrelation of its parts.

This idea resonates strongly in this debate, as similarly, in emergency care, it is essential to integrate ethical practices that involve all emergency personnel, ensuring that each team member promotes a patient-centered environment where cohesion and interdependence are key to effective and compassionate care. This statement takes on an additional dimension. Bernard²⁵ acknowledged that the body is a ‘microcosm’ that reflects the ‘macrocosm,’ a concept that stresses the fundamental unity between body and universe and the complexity and interrelation of all its parts.

In conclusion, and linked to the above, it is pertinent to cite Hermes Trismegistus, founder of the hermetic tradition born from the integration of the Greco-Roman and Egyptian worlds, who, in his Emerald Tablet centuries ago, established that what is above is like what is below, and what is below is like what is above. Because all things originate from the wondrous unity of the whole. This idea underscores the importance of relationships and interconnectedness in understanding the institutional microcosm and how different levels of reality influence each other. Understanding the perspectives of patients, their families, the healthcare team, administrators, and the whole organization is essential for appreciating the complexity of the healthcare fabric. This perspective leads us to recognize that each component in emergencies, regardless of its scope, is part of a broader fabric

and is affected by it, emphasizing the importance of comprehensive care.

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REFERENCES

1. Aristóteles. Metafísica. Trad. T. Calvo Martínez. Barcelona: Gredos; 2003.). Libro III, I [995a].
2. Kropotkin P. El apoyo mutuo: un factor de la evolución. Madrid: Nossajara; 1989.
3. Vidal M. Diccionario de ética teológica. Navarra: Verbo Divino; 1991.
4. Smith R, Hiatt H, Berwick D. A shared statement of ethical principles for those who shape and give health care: a working draft from the Tavistock group. *Ann Intern Med.* 1999;130(2):143-147. <https://doi.org/10.7326/0003-4819-130-2-199901190-00009>.
5. Limentani AE. An ethical code for everybody in health care: the role and limitations of such a code need to be recognised. *BMJ.* 1998;316(7142):1458. <https://doi.org/10.1136/bmj.316.7142.1458a>.
6. Ulloa F. Psicología de las instituciones: una aproximación psicoanalítica. *Rev Psicoanál.* 1969;26(1):5-37.
7. Fernández A. Las lógicas sexuales: amor, política y violencias. Buenos Aires: Nueva Visión; 2009.
8. Morgan G. Paradigms, metaphors, and puzzle solving in organization theory. *Admin Sci Q.* 1980;25(4):605-622. <https://doi.org/10.2307/2392283>.
9. Rivière EP. Esquema conceptual referencial y operativo: clase no. 2 de primer año, curso 1970 dictada el 29/4 por el Dr. Enrique Pichon Rivière en la Primera Escuela Privada de Psicología Social [Internet]. Buenos Aires: Primera Escuela de Psicología Social; 1970 [citado 2023 mar 15]. Disponible en: <https://www.escuelapichonriviere.com.ar/psicologiasocial/2019/esquema-conceptual-referencial-y-operativo/>.
10. Zimmer H. Filosofías de la India. Madrid: Sexto Piso; 2011.
11. Karchmer S. Códigos y juramentos en medicina. *Acta Méd.* 2012;10(4):224-234.
12. Lain Entralgo P. La medicina hipocrática. Madrid: Ediciones de la Revista de Occidente; 1970.
13. Smith R, Hiatt H, Berwick D. Shared ethical principles for everybody in health care: a working draft from the Tavistock group. *BMJ.* 1999;318(7178):248-251. <https://doi.org/10.1136/bmj.318.7178.248>.
14. [República Popular China. Gobierno Popular Central. Ministerio de Salud. Acta de la conferencia de prensa del "Código de Conducta para Profesionales en Instituciones Médicas" del Ministerio de Salud. Gobierno Popular Central; 2012] [citado 2023 mar 15]. Disponible en: http://www.gov.cn/gzdt/2012-07/18/content_2186007.htm.
15. Kraus CK, Moskop JC, Marshall KD, et al. Ethical issues in access to and delivery of emergency department care in an era of changing reimbursement and novel payment models. *J Am Coll Emerg Physicians Open.* 2020;1(3):276-280. <https://doi.org/10.1002/emp2.12067>.
16. Gracia D. Fundamentos de bioética. Madrid: Triacastela; 2007.
17. Reddy MS, Mythri SV. Health-care ethics and the free market value system. *Indian J Psychol Med.* 2016;38(5):371-375. <https://doi.org/10.4103/0253-7176.191387>.
18. Rivas Flores FJ, Rivas Gayo B. Bioética y asistencia sanitaria. *Rev Iberoam Bioética.* 2016;(2):1-15. <https://doi.org/10.14422/rib.i02.y2016.008>.
19. Ortega y Gasset J. Apuntes sobre el pensamiento. Madrid: Revista de Occidente; 1975.
20. Oficina de las Naciones Unidas Contra la Droga y el Delito. Educación para la justicia: serie de módulos universitarios. Integridad y ética. Módulo 14. Ética profesional. Viena: Naciones Unidas; 2019.
21. Funtowicz S, Ravetz J. La ciencia postnormal: la ciencia en el contexto de la complejidad. *Ética Política.* 1996;(12):7-8.
22. Funtowicz S. Why knowledge assessment? En: Pereira AG, Guedes Vaz S, Tognetti S, eds. Interfaces between science and society. London: Routledge; 2006. Cap. 8.
23. Farfán Buitrago D, Garzón Castrillón M. (2006). La gestión del conocimiento [Internet]. Bogotá: Universidad del Rosario; 2006 [citado 2023 ene 15]. (Documentos de Investigación; no. 29). Disponible en: <https://repository.urosario.edu.co/server/api/core/bitstreams/4b06177a-8e80-4aed-99e3-17562925e668/content>.
24. Bernard C. Introducción al estudio de la medicina experimental. Barcelona: Crítica; 2005.
25. Bernard C. El pensamiento vivo. Buenos Aires: Losada; 1965.
26. Trimegisto H. La tabla Esmeralda. Madrid: Mestas; 2011.