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#### **UPDATE**

# Justice, care and recognition: the moral fabric of therapeutic bonds

Pablo Dias Fortes<sup>1</sup>, Sergio Rego<sup>1</sup>

1. Departamento de Ciências Sociais, Escola Nacional de Saúde Pública, Fundação Oswaldo Cruz, Rio de Janeiro/RJ, Brasil.

#### **Abstract**

This article investigates the general structure of the therapeutic bond in two parts: a pragmatic description of social agents as subjects morally challenged by the fundamental norm of justice ("to each one what is due"), which in healthcare may also have potential intersubjective conflicts; and a representation of the therapeutic relationship based on Paul Ricœur's "three levels of medical judgment" (prudential, deontological and reflexive), giving the prescriptions in this scope the status of a moral relationship.

**Keywords:** Ethics, medical. Moral status. Social justice. Physician-patient relations.

#### Resumo

## Justiça, cuidado e reconhecimento: trama moral do vínculo terapêutico

O objetivo deste ensaio, dividido em duas partes, é investigar a estrutura geral do vínculo terapêutico. A primeira parte descreve agentes sociais como sujeitos moralmente interpelados pela norma fundamental da justiça ("a cada qual o que lhe é devido"), que na cena particular do cuidado se desdobra em potenciais conflitos intersubjetivos. A segunda representa a relação terapêutica articulada com os "três níveis do juízo médico" apontados por Paul Ricoeur — prudencial, deontológico e reflexivo —, conferindo às prescrições desse âmbito o estatuto de relação francamente moral.

Palavras-chave: Ética médica. Status moral. Justiça social. Relações médico-paciente.

## Resumen

# Justicia, cuidado y reconocimiento: trama moral del vínculo terapéutico

El objetivo de este ensayo, que se divide en dos partes, es investigar la estructura general del vínculo terapéutico. La primera parte describe a los agentes sociales como sujetos a los que la norma fundamental de la justicia ("a cada uno lo suyo") interpela moralmente, lo que, en la escena particular de la atención médica, se desdobla en posibles conflictos intersubjetivos. La segunda parte muestra la relación terapéutica que se articula mediante lo que el filósofo Paul Ricoeur denomina "los tres niveles de juicio médico" –prudencial, deontológico y reflexivo–, confiriendo a las prescripciones de este ámbito el estatuto de una relación francamente moral.

Palabras clave: Ética médica. Condición moral. Justicia social. Relaciones médico-paciente.

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The relations between justice and health are usually interpreted as a distributive problem concerning the extension and regulation of the right to medical care. Thus, issues such as "access to services," "resource allocation," and "equity promotion policies" gain visibility as they mobilize ideas and concepts of what is known as "theories of justice," with their focus on the normative foundations of society. Although without ignoring these approaches, in this essay we intend to highlight another dimension of this relationship, investigating the structure of the therapeutic bond.

First, we propose a pragmatic description of social agents as subjects morally challenged by the fundamental norm of justice ("to each one what is due"), which in healthcare unfolds in potential intersubjective conflicts. Then, we depict the therapeutic relationship articulated with the "three levels of medical judgment" identified by Ricœur¹ – prudential, deontological, and reflective –, imparting to the prescriptions in this scope the status of a truthfully moral relationship.

# Social agent as a moral subject

Many theories have already been used to elucidate the meaning of social action in accordance with the reciprocal coordination of actions, which, from a pragmatic perspective, defines life in society <sup>2-5</sup>. The individual who acts "socially" is, therefore, one who already recognizes himself in the symbolic condition of a subject – from the Latin subjectum: "thrown down," "what is submitted" <sup>6</sup>. He is compelled to establish with himself a practical causal relationship that defines the experience of oneself (self-awareness) as a primary function of interactive activities.

In this sense, the notion that the success of interactions (the reciprocal coordination of actions) depends on the tacit understanding between individuals about what is due to each arises as an inevitable corollary of self-awareness <sup>7</sup>. Hence, the meaning of actions also involves the experience of subjective integrity itself.

The idea that relationships (with others and with oneself) imply the dynamics morally centered on expectations of reciprocal recognition has been the basis of analysis models that decode interactive processes in different circumstances and spaces of life in society. Thus, the notion that the value attributed to our identity stems from the intersubjective structure – from which it unfolds as an assimilated

social experience <sup>8-10</sup> — is an important axis to understand the nature of the interpersonal bond, the motivations that lead us to act in different ways, and the intersubjective conflicts that result from it.

Considering this, the nexus between "justice" and "recognition" indicates an inevitable analytical perspective to analyze social practices, especially in the case of conflicts generated by relations of profound heteronomy among agents <sup>11</sup>. In such circumstances, the expectation that interactions will develop based on reciprocal recognition usually leads to insoluble impasses, condemning relationships to a type of violence that strikes the promise of self-realization that characterizes the individual as a social agent.

Based on this argument, it is assumed that the structure of therapeutic relationships, established under a treatment pact 12, is also founded on demand for reciprocity: both parties (patients and health professionals) expect to be recognized beyond the purely technical and objective dimension of care management. It is a relationship whose constitutive asymmetry (lay discourse versus technical discourse) imposes a set of challenges, starting with how the most vulnerable part - the patient - ends up representing himself in the hope of avoiding even more suffering due to care protocols (anamneses, inquiries, records, notifications, etc.), converted into condemnatory judgments of his life history. Such judgments ruin the possibility of a bond of trust that generates an authentic commitment around the therapeutic options available.

In this context, we highlight the thesis developed by Judith Butler <sup>10</sup>, which states that obligations and duties that bind us socially are not always reducible to acts of judgment. Thus, establishing a common field of responsibilities often requires the suspension of judgment. This idea implies, once again, the structure of a relationship in which the problem of knowing what "is due to each one" is mutually implicative. Multiple expectations end up resulting in the need to radically readjust the ethical terms of the relationship. As Butler observes:

It may be that only through an experience of the other under conditions of suspended judgment do we finally become capable of an ethical reflection on the humanity of the other, even when that other has sought to annihilate humanity. Although I am certainly not arguing that we ought never to make judgments – they are urgently necessary for political, legal, and personal life alike –, I think that it is important, in rethinking the cultural terms of ethics, to remember that not all

ethical relationships are reducible to acts of judgment and that the very capacity to judge presupposes a prior relationship between the judge and those who are judged. The capacity to make and justify moral judgments does not exhaust the sphere of ethics and is coextensive with ethical obligation or ethical relationality. Moreover, judgment, as important as it is, cannot qualify as a theory of recognition; indeed, we may well judge another without recognizing him or her at all<sup>13</sup>.

Based on these considerations, the circumstances that enable therapeutic bonds are deeply influenced by the ethical injunction of social relations of recognition. It is then a question of examining the extent to which the moral implications of care contradict the expectations of health professionals, whose "competence" is also measured by the ability to render the patient's report the testimony of a life that can finally be judged for prescriptive purposes. Next, we follow the reasoning aimed at elucidating the medical judgment, according to Paul Ricœur. Although admittedly conceived in relation to "medical practice," it is accepted, by analogy, the relevance of its unveiling in relation to health professionals in general.

# Three levels of medical judgment

The previous section addressed the relationship between "justice" and "recognition" in the context of a general inquiry about the structure of social relations, referring to the problem of the therapeutic bond as an experience determined by the expectation of mutual self-realization of patients and health professionals. This hypothesis of articulation among phenomena suggests a common interpretation framework to understand how different normative domains are marked by reciprocity, from which the fundamental norm of justice ("to each one what is due") is effectively applied.

The thesis that medical judgment is also normative should not be surprising. The "Hippocratic code," despite the influence of empiricism still subordinated to speculative nosological categories, already warned about the importance of acting only in the name of the patient's "good". However distant this idea may be from its origin today – that the medical vocabulary lacks direct relationship with moral discourse –, it is supported by a cynical view that disregards the real purposes of acting. For its history has been none other than the progressive transformation of techniques and procedures

around what remains – or should remain – as an unmistakable nucleus of "authority".

However, although inseparable from moral discourse, one must not assume that medicine makes its prescriptions a set of abstract universal maxims. Even if limited to the statements of practical discourse, medical judgment is not separated from the concrete subjects who enunciate it. It can only be comprehended based on the investigation of what makes its discursive order specific, particularly when considering the horizon of the therapeutic relationship, which usually reveals its normative character.

Unveiling this specificity, Paul Ricœur<sup>1</sup> distinguishes three levels of medical judgment that define the practical requirements of the therapeutic relationship. In the first level, "prudential judgment," the power to judge is applied to singular situations in which an individual patient is situated in an interpersonal relationship with an individual physician 14. In the second, the "deontological judgment," the judgments function as norms that transcend in different ways the singularity of the relationship between such patient and such physician 15. Finally, the third level, called "reflective judgment," refers to the attempt to legitimize the prudential and deontological judgments of the first and second levels 16. These different instances, together, build the representation of medicine aimed at elucidating its intrinsic morality, implying reciprocally physicians and patients before their expectations.

The prudential level, Ricœur's¹ starting point, refers to what is usually called a "treatment pact". According to the author, this is where the structure of the physician-patient relationship is originally inscribed. This origin is none other than human suffering itself, whose singular nature (no one is capable of experiencing the suffering of the other) would explain why judgments at the prudential level represents the first contact with what morally defines such a relationship.

A request for solicitude is addressed to the physician, which conditions him to consider the particularities of the case in question as it is being outlined in the subjective account of the one suffering. As the author himself warns, this does not mean ignoring the importance of technical and scientific knowledge, but giving them a *sense* capable of guiding the medical act in the search for an answer – which is inevitable and decisive – for the experience of suffering. As Ricœur points out:

At the base of prudential judgments is the relational structure of the medical act: the desire to be released

from the burden of suffering and the hope of being cured are the main motivation of the social relationship that makes medicine a practice of the particular type whose institution is lost in the night of time <sup>12</sup>.

However, recognizing the "treatment pact" as determined by the circumstances of the specific case is still insufficient to fully distinguish its dynamics as an interactive process. According to the author, there would be no element capable of characterizing it precisely as an interpersonal agreement exercise, so that there would be no more significant distance, in anthropological terms, between patient and agent of the treatment. But what element can that be? And to what extent should it also be understood as a specific chapter of the circumstances that constitute the particularity of the case?

Before answering these questions, it is useful to recall some core concepts of Axel Honneth's social theory. We mention here, specifically, the tripartition proposed by the author between spheres of recognition, outlining the intersubjective conditions of self-realization of individuals: trust (affective relationships), respect (legal relationships), and social esteem (solidary relationships).

The first sphere refers to people's ability to establish ties with each other. It is in this sphere that, as in the therapeutic relationship, we have the establishment of relationships that involve the parties reciprocally in a regime of affective recognition whose success is expressed in mutual trust. This is why we easily agree with Ricœur's words:

It is the confidentiality pact that mutually commits a patient to a physician. At this prudential level, we will not yet speak of a contract and medical confidentiality, but a treatment pact based on trust. This pact concludes an original process. In the beginning, a gap and even a remarkable dissymmetry separate the two protagonists: on the one hand, the one who knows and knows how to do, on the other, the one who suffers. This gap is covered, and the initial conditions become more uniform through a series of measures that start from the two poles of the relationship. The patient (...) "brings to the language" his suffering, pronouncing it as a complaint, which includes a descriptive component (such symptom...) and a narrative component (an individual in such and such stories); in turn, the complaint is specified in a request: a request for... (cure and – who knows? – health and – why not? – in the background, immortality) addressed as an appeal to the physician. On this request, provided that it is admitted, the promise to observe the proposed treatment protocol is included <sup>17</sup>.

Here, we do not advocate that the physician should be seen as part of the patient's primary affective circle (friends, relatives, and lovers): however, as someone professionally involved (being committed is something else) with the hope that moves the individuals who seek them, physicians end up occupying a place of immense relevance. In other words, it is a phenomenon inherent to the practical exercise of medicine, placing the professional in a relation without which it would be impossible to determine, between the formulation of the diagnosis and the statement of the prescription, the prudence of the judgment. From a clinical point of view, it is only by the treatment pact that the physician knows what should or should not be done, sharing with the patient – at the same time unique and singular in his suffering – the responsibility to weigh the risks and benefits of following a certain treatment or not.

Indeed, we can question to what extent this first hermeneutic framework of the medical act does not idealize the physician-patient relationship, especially when considering the predominance of the biomedical paradigm, in which the body, taken as universal, reducible to physical-chemical materiality, presents itself as a complex machinery whose physiology is found in its interior 18. In such circumstances, the effectiveness of the medical act would no longer be subject to joint assessment with the patient, but subordinated to external parameters, reduced to anatomo-physiological properties that render the practice more and more objectifiable. It is, likewise, a tension between medicine as art (practical discourse) and medicine as science (theoretical discourse), in which risk is the absolute primacy of technical-scientific rationality.

Although it is not the purpose of this study to establish a critique of modern medical rationality, this is a systematic concern among those who challenge medicine as currently practiced. In this context, even if alternative models are underway, it is important to clearly envision the size of the challenges, in the scope of a specific power relationship <sup>19</sup>. The constitutive asymmetry between physician (the one who knows) and patient (the one who suffers) often leads to heteronomous communication, whose logic leads, if not to the most common paternalism, to justifications capable of sanctioning, in the eyes of the medical community, abusive and authoritarian measures.

It is against potential abuses or excesses that one must move from the prudential level to the deontological level of medical judgment. In ricœurian terms, this passage is defined by three reasons that, despite their articulation, each gives a particular meaning to ethics regarding both the patient's individual rights and the physician's public commitments.

The first, and the most obvious, concerns the professional's duty not to act with negligence or indifference, as this would damage the relationship based on mutual trust. The second reason, on the other hand, stems from the already mentioned influence of biomedicine, which tends to objectify and reify the human body 20. As stated, this is a fundamental concern with the exercise of medical power, which raises the need to think about ethically appropriate ways of limiting it. Finally, the third reason concerns public health, whose interests demand to create a specific sphere of protection that, without neglecting the defense of the patient's individual rights, guides the State in the process of formulating and implementing actions to prevent damages to the well-being of the population.

Considering all these reasons, the medical judgment must also incorporate a set of norms linked, ultimately, to the multiple functions performed by modern medicine, tied to technical and scientific knowledge and at the same time as destined to end individual suffering and to be publicly justified. Thus, the deontological level is not devoted to the cult of "duty for duty"; it deals with a fundamental instance of medical ethics by which it is hoped to enable a relationship based on the balance between means and ends that may interfere - or even overlap - in the physician-patient interaction. Here, too, and more systematically, Ricœur speaks of three distinct functions, each rooted in different moral aspects that make medical practice an equally pragmatic exercise in coordinating conflicting interests.

The following excerpt accurately portrays the nature of the first of these functions, which would aim to universalize precepts pertinent to the treatment pact that links the patient and the physician (...). While the pact of trust and the promise to honor that pact constitute the ethical core of the relationship that links a physician to a patient, the deontological moment of judgment is constituted by the elevation of this pact of trust to the status of a norm. What is stated is essentially the universal character of the norm: it links every physician to every patient, therefore anyone who enters the treatment relationship. Even more profoundly, it is not by chance that the norm takes the form of interdiction, that of violating medical confidentiality. At the prudential level, what was just a precept of confidentiality retained the characteristics of an

affinity to connect two people in an elective way; in that sense, the precept could still be attributed to the virtue of friendship. As an interdict, the norm excludes third parties, placing the singular commitment within the scope of the rule of justice, and no longer of the precepts of friendship. The treatment pact, of which we speak on a prudential level, can now be expressed in the vocabulary of contractual relations. There are certainly exceptions to consider (...), but they themselves must follow a rule: there is no exception without a rule for the exception to the rule<sup>21</sup>.

The second function of deontological judgment is linked to the necessary connection between medical ethics and other requirements that make up the practical discourse, to make the universalization of precepts a single normative body of rules that are hierarchical and coherent with each other. Besides, it also refers to the requirement to regulate the physician-patient interaction in the face of a greater set of professional relationships and obligations that situate it, politically and legally, within a given social order. In another significant section on the subject, we can see how Ricœur approaches this function:

Once the rule governing medical confidentiality is part of a professional code, (...) it must be correlated with all other rules governing the medical profession within a given political body. Such deontological code functions as a subsystem within the broader field of medical ethics (...). Thus, the rules that define medical confidentiality correspond to rules that govern patients' rights to be informed about their health status. The issue of shared truth thus balances the issue of medical confidentiality, which only implicates the physician. A secret on the one hand, truth on the other (...). Thus, the two norms that constitute the unit of the contract located at the center of ethics are put into parallel, in the same way that mutual trust was the main prudential assumption of the treatment pact. Here it was also necessary to incorporate restrictions to the code, given the patient's ability to understand, accept, internalize, and, if we may say, share the information with the physician who treats him. The discovery of the truth, especially if it means a death sentence, is equivalent to an initiatory test, whose traumatic episodes affect one's understanding of oneself and the set of relationships with others. It is the vital horizon in its integrity that is affected. This link demonstrated by the code between professional secrecy and the right to the truth makes it possible to attribute to the codes of ethics a very peculiar

function in the architecture of deontological judgment, namely, its role as a bridge between the deontological and prudential levels of medical judgment and its ethics<sup>22</sup>.

Finally, it is in this same architecture that the third function of the deontological level attributed to the medical judgment is suggested. According to the author, this is the indispensable role of arbitrating conflicts arising at the frontier of medical practice with a "humanistic" orientation 23. In this case, Ricœur speaks of two main fronts where such conflicts occur. The first consists of the encounter between clinical-oriented medical ethics (curing the disease and caring for the patient) and researchoriented medical ethics (producing scientific evidence). As stated, the problem here refers to the tension between the so-called "medical art" and biomedical sciences, whose cause seems to be the increased pressure of objectifying techniques on medicine practiced as art <sup>24</sup>.

The second front involves the most direct concern with public health. Here, in particular, there is another type of tension, between the duty to respect the patient's dignity and facing health as a social phenomenon. In Ricœur's words:

Now, a latent conflict tends to oppose the concern with the person and his dignity and the concern with health as a social phenomenon. This is the kind of conflict that a code like the French Code of Medical Ethics, if it does not tend to hide, at least tends to minimize. Thus, its second article states that "the physician, at the service of the individual and public health, exercises his mission in the respect of human life, the person and his dignity". This article is a compromise model. The emphasis is placed on the person and his dignity; but human life can also be understood in the sense of greater extension of populations and even of the human race as a whole. This consideration of public health affects all the rules mentioned before, starting with medical confidentiality. It is important to know, for example, if a physician must require the patient to inform his sexual partner of his HIV status, or even if there is no need for systematic screening, which cannot fail to affect the practice of medical confidentiality. (...) It depends on the legislative bodies of a society (parliament in some countries, higher judicial institutions in others) to prescribe the duties of each and define the exceptions to the rule. But the duty of truth to the patient is also affected since there are numerous third parties involved in the treatment. (...) This administrative burden assumed by public health does not affect less the third pillar of normative ethics, which, along with medical secrecy and the right to the truth, is constituted by informed consent <sup>25</sup>.

Up to this point, we may have left the impression that the different levels of medical judgment reflect stagnant moments in the therapeutic relationship, resembling instructions from a "step by step guide" for physicians to follow in each stage of their encounter with the patient. However, these levels are not related in this way. In Ricœur's 1 approach, the transition from one to the other occurs (or should occur) in an articulated way.

It is at the first level, not by chance referred to as "prudential," that all the norms of the deontological level converge (as long as they are properly known and respected), distinguishing themselves from the former precisely because of the transcendence that such norms must assume in relation to singular situations that mutually imply physician and patient. In this sense, medical judgment resembles a normative structure like any other. However, as it only takes place as a situated act, it presupposes a source of judgment capable of considering the rules no longer just as to their internal coherence or legal adequacy, but also in the name of their *legitimacy*.

It is this level of judgment that Ricœur¹ will call precisely "reflexive". The author considers this the moment when the medical judgment finds its true dialectical vertex, confronting itself decisively with the purpose (telos) that puts it in permanent movement, from the first contacts made with a certain patient to the definition of the treatment pact. At this point, everything seems to depend on the extent to which the concept of health is linked to moral beliefs that make up the totality of judgment, including those aimed at expanding relations of mutual recognition that, through mutual trust, culminate in respect and solidarity.

According to Ricœur, what is at stake, ultimately, is the very notion of health, be it private or public. Now, this is not separable from what we think – or try not to think – about the relationship between life and death, birth and suffering, sexuality and identity, ourselves, and others. Here, a threshold is crossed, in which deontology is inserted in philosophical anthropology, which could not escape the pluralism of convictions in democratic societies <sup>26</sup>.

Given its borderline character with the very social order in which the moral experience of the therapeutic bond is inscribed, the reflexive level is the point of contact between the first two levels of judgment and the type of physician-patient interaction we desire. In democratic societies, the question is to know how far medical practice must go beyond mere clinical anamnesis, recognizing, in each patient's body, the individual that has dreams, rights, and desires inseparable from the therapeutic process. Hence the importance of an ethical perspective that, attentive to the demands for recognition, resumes, in the case of conflicts, the fundamental meaning of the search for justice, which is the basic motivation of social agents.

# **Final considerations**

The relationship between "justice" and "health," concerning the structure of the therapeutic bond, corroborates the perception that we are immersed in a moral fabric that irrevocably links us to one another, in particular looking for "fair treatment." Thus, reflecting on care as a sphere of "technical competence" also means thinking about professional ethics to welcome and amplify struggles for the affirmation of populations historically excluded from public consideration by the State. It is at this point in particular that we can glimpse the true axis of articulation between the political dimension of the therapeutic bond and the commitment to individual and collective well-being.

## References

- 1. Ricoeur P. O justo: justica e verdade e outros estudos. São Paulo: WMF Martins Fontes; 2009. v. 2.
- Blumer H. A sociedade como interação simbólica. In: Coelho MC, organizadora. Estudos sobre interação: textos escolhidos. Rio de Janeiro: EdUERJ; 2013. p. 75-90.
- 3. Piaget J. O juízo moral na criança. São Paulo: Summus; 1994.
- 4. Habermas J. Obras escolhidas: ética do discurso. Lisboa: Edições 70; 2014. v. 3.
- Werneck A. Sociologia da moral, agência social e criatividade. In: Werneck A, Oliveira LRC, organizadores. Pensando bem: estudos de sociologia e antropologia da moral. Rio de Janeiro: Casa da Palavra; 2014. p. 25-48.
- Supiot A. Homo juridicus: ensaio sobre a função antropológica do direito. São Paulo: WMF Martins Fontes; 2007. p. VIII.
- Fortes PD. A origem do problema da justiça: breve esboço fenomenológico. Pablo Dias Fortes [blog] [Internet]. 27 nov. 2017 [acesso 8 jun 2109]. Disponível: https://bit.ly/3baKv2B
- 8. Goffman E. A representação do eu na vida cotidiana. 20ª ed. Petrópolis: Vozes; 2014.
- 9. Honneth A. Luta por reconhecimento: a gramática moral dos conflitos sociais. 2ª ed. São Paulo: Editora 34; 2011.
- 10. Butler J. Relatar a si mesmo: crítica da violência ética. Belo Horizonte: Autêntica; 2015.
- 11. Mendonça RF. Reconhecimento. In: Avritzer L, Bignotto N, Filgueiras F, Guimarães J, Starling H, organizadores. Dimensões políticas da justiça. Rio de Janeiro: Civilização Brasileira; 2013. p. 117-131.
- 12. Ricoeur P. Op cit. p. 223.
- 13. Butler J. Op. cit. p. 64-5.
- 14. Ricoeur P. Op. cit. p. 221.
- 15. Ricoeur P. Op. cit. p. 221-2.
- 16. Ricoeur P. Op. cit. p. 222.
- 17. Ricoeur P. Op. cit. p. 223-4.
- 18. Bastos LAM. Corpo e subjetividade na medicina: impasses e paradoxos. Rio de Janeiro: Editora UFRJ; 2006. p. 37.
- 19. Bastos LAM. Op. cit.
- 20. Ricoeur P. Op. cit. p. 225.
- 21. Ricoeur P. Op. cit. p. 227-8.
- 22. Ricoeur P. Op. cit. p. 228-9.
- 23. Ricoeur P. Op. cit. p. 229.
- 24. Ricoeur P. Op. cit. p. 230.
- 25. Ricoeur P. Op. cit. p. 231-2.
- 26. Ricoeur P. Op. cit. p. 234-5.

#### Participation of the authors

Pablo Dias Fortes prepared the first version of the article based on a chapter of his doctoral thesis. Subsequently, the two authors alternated in revising the text until reaching this final version.

## Correspondence

Pablo Dias Fortes – Estrada de Curicica, 2.000, Jacarepaguá CEP 22780-194. Rio de Janeiro/RJ, Brasil.

Pablo Dias Fortes – PhD – pdiasfortes@gmail.com

(D) 0000-0002-2022-2626

Sergio Rego - PhD - rego@ensp.fiocruz.br

(D) 0000-0002-0584-3707

