

Disciplinary Management: Organization Of Medical Memory And Operational Procedures

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Abstract

The article shows that the schemes in practical medicine, in particular in general surgery, over a given period of time, are suitable for managerial applications. The case study in the article shows that from a managerial point of view, in fact, surgery can become limiting when it is dependent on a single person (surgeon, specialist) or mixes excessively with other specialties, which become dominant. Due to the pre-established and assumed surgical procedures (protocols, schemes) a quasi-infinite number of surgical interventions of the "medical work" type can be applied. As such, there is a need to organize the surgical memory, the operational procedures considered good practices. The paper, as a case study, presents managerial aspects related to surgery and the characterization of its disciplinary power. At the same time, the issue of medical trans-information is addressed and it is stated that in the field the identification of systemic inequalities in the development of pathophysiological dysfunctions would be extremely relevant, thus outlining the area of "health" versus "disease". It is essential to conclude that the notion of competitiveness in surgery should not exist, as it is redundant, - everything in the field should be competitive.

Keywords: management, disciplinary management, surgical trans-information, medical discipline, medical specialty, surgical memory

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I. Introduction

General technologies, including medical and especially surgical ones, based on artificial intelligence contribute to the restoration of scientific and practical managerial order in various fields. On this basis, there are competitions between the subsystems/specialties of general medicine.

The fear or reluctance towards the autonomy that artificial intelligence would generate in surgery is that it could escape from the control of surgeons, the consequences in such a situation being unpredictable, incalculable.

Radical innovative achievements in medical management could allow surgical robotic systems to eliminate surgeons from their moments of medical service.

Artificial intelligence could thus generate the reconfiguration of the medical world.

Discussing the technological changes in modern surgery, conclusions are also obtained from a disciplinary/specialized perspective, from a managerial point of view.

Consequently, it is estimated that "surgery is an ideal field for observing the process of technological change in medicine (...) regarding the dynamics of available therapeutic options - newer or older, surgical or non-surgical." (Thomas Schlich, Christopher Crenner, 2017), [7]

Artificial Intelligence allows for disciplinary medical control, as well as preventive control over potential patients, using metadata as an advanced management formula.

II. Literature Review

The issue researched in this paper is suggestively approached by D.L. Păun (ed.) [3], (2025) but, by extension/analogy, operational management in economics can also be found in fields/sectors such as medical-sanitary, public health.

Korb W., Geißler N. and Strauß G., [5], (2015) deals with issues related to solving challenges in inter- and trans-disciplinary working teams, respectively lessons from the surgical technology field.

They state that "the scientific field of human factors is important to ensure that a surgical technology is indeed functional, process-oriented, effective, efficient as well as user- and patient-oriented. Working in such trans- and inter-disciplinary teams can be challenging due to different working cultures."

In context, Ankur Aggarwal, [1], (2010) studies the evolving relationship between surgery and medicine, and considers that: "medicine's two branches - the less invasive medical methods and the more invasive surgical methods - have been around since before the existence of written language. Surgery, however, was not viewed as belonging to the same sphere as medical treatments until relatively recently, and, even now, a sharp distinction exists between surgeons and other medical doctors. Analyzing the history of surgery can help explain the separation between medical and surgical treatments and why the two fields, although viewed quite differently, fit under the umbrella of medicine."

On the other hand, emphasizing its disciplinary role, Debas H.T., [2], (2002) states that in relation to other medical specialties the surgery is a noble profession in a changing world.

The author says that "at the beginning of the 21st century, however, profound changes are taking place at all levels and at a dizzying pace, providing both challenges and opportunities to the surgical profession.

These changes are occurring on a global level, on the national level, in science and technology, in healthcare, and in surgical education and practice."

Of particular interest is the assertion related by Sachdeva A.K., [6], (2005) in a framework that delimits the new paradigm of continuing education in surgery and emphasizes that, in fact, "colossal changes in health that continue to influence the professional activities of all physicians.

The recent intense focus on accountability and patient safety has led to close scrutiny of physicians "competence and performance" from a managerial point of view.

III. Research Method. Data Collection And Preparation

Surgery and characterization of its disciplinary power

The classic, generic observation in the medical sciences is that "anatomy means more than the sum of its parts."

However, the parts do not resemble each other, but are functionally connected, help or counteract each other when the quasi-balance of their conventional normality is affected.

The common existence of the anatomical parts formalizes the physio pathological functional spatial-temporality of the organism.

Surgery is found in this n-dimensional, multi-part, multi-role and multi-functional matrix.

In fact, it is about managerial similarities, trans-disciplinary organization and leadership, applicable in multi-fields (for example, in industry, production, economics, medicine, etc.).

In the present case study the surgical truth, once established, in a common, ordinary sense, is assumable, assumed, even immutable.

In fact, surgical discoveries represent, no more and no less, the generic-compound identification of what has not yet been found or is omitted, escaped in the field.

The uneven development of diseases distorts the perception and conceals pathophysiological realities still undisclosed, escaped, omitted, undiscovered.

As such, it can be argued that in surgery it would be extremely relevant to identify systemic inequalities in the development of pathophysiological dysfunctions, thus outlining the area of "health" versus "disease".

On this basis, at the same time, surgery can be "reformed", but not necessarily "revolutionized".

An optimal surgical system is one that has the capacity to provide and operationalize the maximum of what is needed to remedy the medical situations of dysfunction in which, at the limit, the patient is.

On this occasion, surgery "procures" a certain image of medicine as a science and practice, even if it (surgery) can be described as a reflection of general medicine (in general).

This "denial" of "scientific and practical power", in fact, brings strategic potential for disciplinary exercise of its specific power in relation to other medical specialties.

The contribution of surgery to the exercise of the scientific power of medicine among the sciences, in general, comes from its instrumentalized role of serving the purposes over which it has dominance and practice within the general system of knowledge and human action.

Of course, part of the instrumental function of surgery is the result derived from its history, from its reactive evolution, continuously enriched procedurally (protocols) and conceptually (the new interrelated pathophysiological knowledge).

Our observation, preliminarily conclusive, is that, in fact, surgery has developed and is developing quasi-unitary, globally.

Surgical knowledge, as a rule, is not secreted, isolated, autarchic but, on the contrary, being human (including the man who has advanced knowledge), in the spirit of the need for "salvation" manifests the collective humanism of dissemination, theoretical and practical discipline, even globally.

Unlike, for example, economics in which results are not obtained if it is viewed as a "unit", in surgery the approach as a "unit" is a theoretical and action gain for the "man" as an "individualized self", complex and trans-generational.

In fact, in surgery the goal is not to find ready-made answers to a pathophysiological dysfunction of the patient, but to know / learn how to solve one disease or another by resorting to surgery, avoiding erroneous, unsolvable ways. Such an interpretation in the field is already neoclassical.

The patient's will to be healthy, to regain his health, is individual, transmitted to the surgeon through surgery.

We note that, in many cases, the conventional theory related to the above thesis is not closely perceived by the fact that the health requirement comes from the patient.

By extension, the hospital, the operating room, the post-operative room, the intensive care room, etc. they are conceptual, relatively primitive formalizers of the theory that substantiates the existence and role of surgery.

Because the struggle for the systematization of protocols, methods, methodologies, surgical procedures is unitary, in a common format of the world of surgeons, the notion of competitiveness in surgery should not exist - everything in the field should be competitive.

It is interesting to note that there is no need for the general management of surgery, which does not exclude, however, its general organization. [4]

Thus, the performed surgical act can be found on the specific infrastructure, on multi-different coordinates, starting from the need for personalized intervention by the surgeon, motivated by the individual "self" of each patient.

Multiple statistical subtleties, ultimately theoretically vectorized, contribute to the decisional substantiation of surgical acts, based on conventionally relevant casuistry over time.

At the same time, we can talk about a medical virtue - convenient surgery.

The moral appreciation on the part of the patient in front of the surgeon or his team, resides from the convenient, therefore virtuous, behavior of the medical staff, of his surgeon / team, which fulfills the function of substitute of the general compensation in this disciplinary field.

The medical virtue - convenient has charitable properties, however incompletely satisfactory in the general matrix of the responsibility denoted by the surgeon through the surgical act of exceptional responsibility. The patient and diligent surgical service enjoys consecration in general medicine.

The fundamental authority regarding the surgical act performed by the surgeon is related to the result of the surgery. Then, the administration of the result of the surgical procedure is still largely the responsibility of the patient.

In fact, it is about the "consumption" of the results of the surgical act, found in the regained, "repaired", restored health.

In a broader perspective, we are dealing with an impressive tribute paid by surgeons to people, by virtue of their highly specialized, honorable and different profession in society.

In the operating room are twinned: surgical medical knowledge, technique / technology and organization.

We consider that, in a disciplinary vision, surgery does not necessarily have to go through dimensional development but, rather, qualitative development, meaning the recognition and assimilation of procedural / medical protocol stimuli (inputs), validated, conclusive, effective.

As the surgery develops qualitatively, it becomes "more elaborate" and free from external eclectic interference.

The qualitative increase of surgery amplifies the positive operational effects, raises the power to overcome pathophysiological dysfunctions.

A certain tendency of expansion only means the multiplication of the same procedural formulas of intervention, not always adding medical disciplinary value.

In fact, a hospital, a surgery department, are excluded from the system if their objectives are not standardized and register dispersion (spatial, temporal, geographical, professional, etc.).

At the same time, the surgery can become limiting when it is dependent on a single person (surgeon, specialist, etc.) or it is intertwined until dilution with other specialties, which become dominant.

It is well known that surgical innovation is tempered by such a picture.

However, the qualitative development of surgery must benefit from the abandonment of common, stereotypical or ordinary medical thinking.

Trans-surgical information

In surgery, communication goes through the whole action / operational process.

In fact, for a given time of disciplinary knowledge (measured in years) the set of surgical signals is relatively invariable.

During that assumed interval, the coding and decoding formulas are also invariant over time.

On the other hand, there is a biunivocal opening relationship between "encoding-decoding", respectively between "decoding-encoding".

In all / everywhere this picture can plan errors that are mastered by the surgeon / his team, until they are categorized as "negligible", uninfluential and unaffected.

The surgical group, consisting of the surgeon / surgical team and the patient, ultimately benefits from a certain medical trans information.

The senses can capture a number of units of information, and hard drives (artificial systems in information technology) can, in turn, complete this capture, achieving a more secure storage ("not forgetting").

We find that, so far, the perception found in the surgical disciplinary sphere does not ensure an assumed increase in the clarity of the information, which has become control signals in medicine..

General surgical schemes, over a given period of time, are suitable for finished applications. However, due to the finished surgical procedures (protocols, schemes), a quasi-infinite number of surgical operations (interventions) can be carried out (of the "medical work" type).

Already, we are now dealing with the need to organize the surgical memory of surgical procedures. (Figure 1)

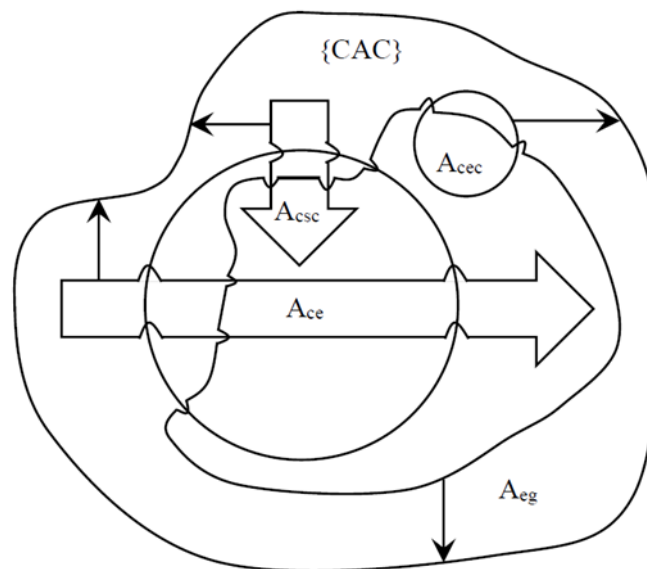


Fig. 1. Management of surgical acts in the general medical-surgical context

A_{cec} = surgical procedures outside the context; A_{ce} = linear surgical procedures; A_{csc} = surgical acts noticeable in context; A_{cg} = general surgical procedures; $\{CAC\}$ = the context of the surgical acts.

(Source: Authors, [3], 2025)

Of course, the general classification of the surgical intervention rules would be important, but they depend fundamentally on technologies, equipment, experience, etc.

Finally, there is a permanent contextual rewriting of the rules in question, from the operating room to the operating room.

The extra-contextual rules have innovative potential, the results of their application being found in positive feedback.

In surgery, there is no unlimited procedural mobility, as the exercise of the surgical act is permanently dominated by compensatory reactions regulated by feedback processes.

It is true, however, that there are no unlimited constraints.

Reversible movements are the predictive ones for the fluency of the surgical act.

A failure or a positive result is regulated by a generic professional activity, returning, finally, to a satisfactory equilibrium point.

Therefore, disciplinary surgery benefits from its own, endogenous behavioral model, based on anticipatory faculties with a relevant degree of probability.

However, a system such as surgery does not create its own medical information or pathophysiological management procedures; rather, he is the depository, which preserves the specialized disciplinary information. However, any surgical activity aims to solve a pathophysiological problem.

A dynamic approach for surgical procedures must methodically investigate the lines of minimum medical resistance, the possible instabilities in which the smallest operational elements are in succession, in relation to the large solved elements.

So, surgery is engaged by its practitioners (surgeons and surgical teams) in a sufficiently indefinite process of progress and development.

The synthesis of invariability (what we "know" in the discipline of surgery) meets in parallel with the synthesis of variability (what "we do not know", what we expect to find out during variability).

We are now close to the alignment of approximations, with which we gain step by step for new surgical solutions. Another observation confirms that there is no reversibility of any surgical act.

The surgery is consumed, exhausted as it takes place, and its instruments, physical components, action constituents do not require and can no longer be reconstituted.

Surgery is the discipline that allows the restoration of the balance of the human body disturbed for pathophysiological reasons.

In the present tense (a conventional present t_0 , whatever it may be) in surgery, the distinction is made between different types of intervention acts, being chosen a complex act (unique in its constitution), not being called into question the development of that act, but the application that through its potential it leads to the "rescue" of the patient.

Between the equilibrium state and the stability state of a modeled fund, the actions of the clinical action co-groups meet, being followed the progressively increasing approach of the solution of the patient's disease.

Usually, "learning theory" is applied in surgery, especially when the procedures, protocols, algorithms of operational intervention, etc. they are not clear, or they suffer from incompleteness.

Therefore, frequently, given the struggle with time, it is sought to reduce the knowledge of one surgical act to another surgical act and to maintain the discipline of the surgery itself.

IV. Conclusions

- In medicine there is no reversibility of any surgical procedure. Any surgical activity aims to solve a pathophysiological problem. Surgery is the discipline that allows the restoration of the balance of the human body disturbed for pathophysiological reasons.
- The surgical group, consisting of the surgeon and the surgical team with the patient benefit from medical trans-information.
- In the present case study, from a managerial point of view, surgery can become limiting when it is dependent on a single person (surgeon, specialist) or overly intermingles with other specialties, which become dominant.
- Artificial intelligence allows disciplinary medical control as well as preventive control over potential patients, using metadata from a managerial point of view.
- The notion of competitiveness in surgery should not exist - everything in the field should be competitive.

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